

Table A.2.2-Alt3-6. Definition of Peak Daily PM10 Emissions - POLB - MHTP - Alternative 3

Activity	2014		2015		2015		2015		2015		2015		2015		2015		2015		2015		2015		2015		2015		2015	
	Dec		Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec		2015	
	1st	2nd																										
Rock Revetment																												
Rock Placement, Push Off & Tub & Orange Peels																												
Hydraulic or Clamshell Dredge to -55 ft																												
Clamshell Dredging																												
Ground Improvements Pier D																												
Stone Column Installation Eq																												
Marine Rock Delivery Eq																												
Demo - E12-13 Wharf																												
Wharf Demolition Landside																												
Wharf Demolition Marine																												
Lift #1 (- -30)																												
Rock Placement, Push Off & Tub & Orange Peels																												
Lift #2 (- -15)																												
Rock Placement, Push Off & Tub & Orange Peels																												
Lift #3 (- 0)																												
Rock Placement, Push Off & Tub & Orange Peels																												
Lift #4 (- +15)																												
Rock Placement, Push Off & Tub & Orange Peels																												
Initial Surcharge and Wick Drains																												
Wick Drains																												
Roll Surcharge																												
2nd Surcharge and Wick Drains																												
Wick Drains																												
Roll Surcharge																												
3rd Surcharge and Wick Drains																												
Wick Drains																												
Roll Surcharge																												
4th Surcharge and Wick Drains																												
Wick Drains																												
Roll Surcharge																												
Remove Surcharge																												
Roll Surcharge																												
Container Yard Development																												
New Container Yard Utilities																												
New Container Yard Construction - Paving																												
New Container Yard Construction - Electrical																												
POLB Ocean Blvd Track Reconfiguration																												
Triple Track Installation Demo Eq																												
Triple Track Utility Relocation Eq																												
Triple Track Grading Eq																												
Triple Track Retaining Wall Eq																												
Triple Track Trackwork Eq																												
Triple Track Miscellaneous Eq																												
Demolish Existing Facilities																												
Sheet Pile Bulkhead Demolition																												
Wharf Demolition Landside																												
Wharf Demolition Marine																												
Construct New Bulkhead (Install Transition Bulkhead)																												
Retaining Bulkhead Construction																												
Excavation Fronting E25 and Dispose Slip 1																												
Clamshell Dredging																												
Construct New Armor Slope																												
Rock Placement, Push Off & Tub & Orange Peels																												
Wharf Construction																												
Drive 24-In Octagonal Piles - Land																												
Drive 24-In Octagonal Piles - Water																												
Drive Piles - Misc Activities																												
Reinforced Concrete Wharf																												
CY Development																												
New Container Yard Construction - Paving																												

Ph 1-1

Ph 1-2

Table A.2.2-Alt3-6. Definition of Peak Daily PM10 Emissions - POLB - MHTP - Alternative 3

Activity	2015	2016		2016		2016		2016		2016		2016		2016		2016		2016		2016		2016		2016	
	pc	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec	
	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd
Rock Revetment																									
Rock Placement, Push Off & Tub & Orange Peels																									
Hydraulic or Clamshell Dredge to -55 ft																									
Clamshell Dredging																									
Ground Improvements Pier D																									
Stone Column Installation Eq																									
Marine Rock Delivery Eq																									
Demo - E12-13 Wharf																									
Wharf Demolition Landside																									
Wharf Demolition Marine																									
Lift #1 (- -30)																									
Rock Placement, Push Off & Tub & Orange Peels																									
Lift #2 (- -15)																									
Rock Placement, Push Off & Tub & Orange Peels																									
Lift #3 (- 0)																									
Rock Placement, Push Off & Tub & Orange Peels																									
Lift #4 (- +15)																									
Rock Placement, Push Off & Tub & Orange Peels																									
Initial Surcharge and Wick Drains																									
Wick Drains																									
Roll Surcharge																									
2nd Surcharge and Wick Drains																									
Wick Drains																									
Roll Surcharge																									
3rd Surcharge and Wick Drains																									
Wick Drains																									
Roll Surcharge																									
4th Surcharge and Wick Drains																									
Wick Drains																									
Roll Surcharge																									
Remove Surcharge																									
Roll Surcharge																									
Container Yard Development																									
New Container Yard Utilities																									
New Container Yard Construction - Paving																									
New Container Yard Construction - Electrical																									
POLB Ocean Blvd Track Reconfiguration																									
Triple Track Installation Demo Eq																									
Triple Track Utility Relocation Eq																									
Triple Track Grading Eq																									
Triple Track Retaining Wall Eq																									
Triple Track Trackwork Eq																									
Triple Track Miscellaneous Eq																									
Demolish Existing Facilities																									
Sheet Pile Bulkhead Demolition																									
Wharf Demolition Landside																									
Wharf Demolition Marine																									
Construct New Bulkhead (Install Transition Bulkhead)																									
Retaining Bulkhead Construction																									
Excavation Fronting E25 and Dispose Slip 1																									
Clamshell Dredging																									
Construct New Armor Slope																									
Rock Placement, Push Off & Tub & Orange Peels																									
Wharf Construction																									
Drive 24-In Octagonal Piles - Land																									
Drive 24-In Octagonal Piles - Water																									
Drive Piles - Misc Activities																									
Reinforced Concrete Wharf																									
CY Development																									
New Container Yard Construction - Paving																									

Ph 1-1

Ph 1-2

Table A.2.2-Alt3-6. Definition of Peak Daily PM10 Emissions - POLB - MHTP - Alternative 3

Activity	2019		2019		2019		2019	
	pp	Oct		Nov		Dec		
		2nd	1st	2nd	1st	2nd	1st	2nd
Ph 1-1 Demolish Existing Facilities								
Wharf Demolition Landside								
Wharf Demolition Marine								
Sheet Pile Bulkhead Demolition								
Construct New Bulkhead								
Retaining Bulkhead Construction								
Excavation Fronting E24								
Clamshell Dredging								
Land Ex								
Construct New Armor Slope								
Rock Placement, Push Off & Tub & Orange Peels								
Wharf Construction								
Drive 24-In Octagonal Piles - Land								
Drive 24-In Octagonal Piles - Water								
Drive Piles - Misc Activities								
Reinforced Concrete Wharf								
Retaining Bulkhead Construction								
Utility Construction								
New Container Yard Utilities								
Paving								
New Container Yard Construction - Paving								
Lighting, Striping, Crane Power								
New Container Yard Construction - Electrical								
Prepare for Toe Dike / Construct Dike (1st Lift)								
Rock Placement, Push Off & Tub & Orange Peels								
Fill within Dike								
Clamshell Dredging								
Remaining Dike Lifts								
Rock Placement, Push Off & Tub & Orange Peels								
Remaining Fill Lifts								
Clamshell Dredging								
Wharf Construction								
Drive 24-In Octagonal Piles - Land								
Drive 24-In Octagonal Piles - Water								
Drive Piles - Misc Activities								
Reinforced Concrete Wharf								
Retaining Bulkhead Construction								
Construct South Mooring Dolphin								
Drive 24-In Octagonal Piles - Water								
Wick Drains								
Wick Drains								
Surcharge (Initial Pump, Plus Clamshell or Truck)								
Roll Surcharge								
Remove Surcharge to Slip 1 Fill Site								
Roll Surcharge								
Utility Construction								
New Container Yard Utilities								
Paving								
New Container Yard Construction - Paving								
Lighting, Fence, Striping, Crane Power								
New Container Yard Construction - Electrical								
Construct Retaining Structure at Pier D Oil Area								
Retaining Bulkhead Construction								
Excavate & Truck Material in Cell Bulkhead								
Land Ex								
Excavate Material Fronting Pier D								
Land Ex								
Clamshell Dredging								
Remove Cellular Sheetpile								
Sheet Pile Bulkhead Demolition								

Table A.2.2-Alt3-6. Definition of Peak Daily PM10 Emissions - POLB - MHTP - Alternative 3

Activity	2019		2019		2019		2019	
	pp	Oct		Nov		Dec		
		2nd	1st	2nd	1st	2nd	1st	2nd
Rock Revetment								
Rock Placement, Push Off & Tub & Orange Peels								
Hydraulic or Clamshell Dredge to -55 ft								
Clamshell Dredging								
Ground Improvements Pier D								
Stone Column Installation Eq								
Marine Rock Delivery Eq								
Demo - E12-13 Wharf								
Wharf Demolition Landside								
Wharf Demolition Marine								
Lift #1 (- -30)								
Rock Placement, Push Off & Tub & Orange Peels								
Lift #2 (- -15)								
Rock Placement, Push Off & Tub & Orange Peels								
Lift #3 (- 0)								
Rock Placement, Push Off & Tub & Orange Peels								
Lift #4 (- +15)								
Rock Placement, Push Off & Tub & Orange Peels								
Initial Surcharge and Wick Drains								
Wick Drains								
Roll Surcharge								
2nd Surcharge and Wick Drains								
Wick Drains								
Roll Surcharge								
3rd Surcharge and Wick Drains								
Wick Drains								
Roll Surcharge								
4th Surcharge and Wick Drains								
Wick Drains								
Roll Surcharge								
Remove Surcharge								
Roll Surcharge								
Container Yard Development								
New Container Yard Utilities								
New Container Yard Construction - Paving								
New Container Yard Construction - Electrical								
POLB Ocean Blvd Track Reconfiguration								
Triple Track Installation Demo Eq								
Triple Track Utility Relocation Eq								
Triple Track Grading Eq								
Triple Track Retaining Wall Eq								
Triple Track Trackwork Eq								
Triple Track Miscellaneous Eq								
Demolish Existing Facilities								
Sheet Pile Bulkhead Demolition								
Wharf Demolition Landside								
Wharf Demolition Marine								
Construct New Bulkhead (Install Transition Bulkhead)								
Retaining Bulkhead Construction								
Excavation Fronting E25 and Dispose Slip 1								
Clamshell Dredging								
Construct New Armor Slope								
Rock Placement, Push Off & Tub & Orange Peels								
Wharf Construction								
Drive 24-In Octagonal Piles - Land								
Drive 24-In Octagonal Piles - Water								
Drive Piles - Misc Activities								
Reinforced Concrete Wharf								
CY Development								
New Container Yard Construction - Paving								

Ph 1-1

Ph 1-2

Table A.2.2-Alt3-6. Definition of Peak Daily PM10 Emissions - POLB - MHTP - Alternative 3

Activity	2019		2019		2019		2019	
	2019		2019		2019		2019	
	2nd	1st	2nd	1st	2nd	1st	2nd	
Construct Wharf, Armor, Fill	0	0	0	0	0	0	0	
Land Ex	0	0	0	0	0	0	0	
Rock Placement, Push Off & Tub & Orange Peels	0	0	0	0	0	0	0	
Retaining Bulkhead Construction	0	0	0	0	0	0	0	
Drive 24-In Octagonal Piles - Land	0	0	0	0	0	0	0	
Drive 24-In Octagonal Piles - Water	0	0	0	0	0	0	0	
Drive Piles - Misc Activities	0	0	0	0	0	0	0	
Reinforced Concrete Wharf	0	0	0	0	0	0	0	
Basin Fill and Surcharge West	0	0	0	0	0	0	0	
Cutter Suction Dredging- Spill Barge (No Booster)	0	0	0	0	0	0	0	
Cutter Suction Dredging- Land Disposal (No Booster)	0	0	0	0	0	0	0	
Wick Drains	0	0	0	0	0	0	0	
Settlement Period	0	0	0	0	0	0	0	
Ph 2-2 Roll Surcharge	0	0	0	0	0	0	0	
Ph 2-3 Remove Surcharge	0	0	0	0	0	0	0	
Roll Surcharge	0	0	0	0	0	0	0	
CY Development	0	0	0	0	0	0	0	
New Container Yard Utilities	0	0	0	0	0	0	0	
New Container Yard Construction - Paving	0	0	0	0	0	0	0	
Ph 2-3 New Container Yard Construction - Electrical	0	0	0	0	0	0	0	
All Fugitive Dust from Ground Disturbance	619	619	619	619	619	619	619	
Daily Total	619	619	619	619	619	619	619	
Peak Daily Total								

Table A.2.2-A13-7. Definition of Peak Hourly PM10 Emissions - POLB - MHTP - Alternative 3.

Activity	2008		2008		2008		2008		2008		2008		2009		2009		2009		2009	
	Aug		Sep		Oct		Nov		Dec		Jan		Feb		Mar		Apr			
	1st	2nd																		
Water Construction - Not part of modelling analysis																				
Construct Berth 23 Wharf , Armor, Fill																				
Land Ex																				
Rock Placement, Push Off & Tub & Orange Peels																				
Retaining Bulkhead Construction																				
Drive 24-In Octagonal Piles - Land																				
Drive 24-In Octagonal Piles - Water																				
Drive Piles - Misc Activities																				
Reinforced Concrete Wharf																				
Basin Fill and Surcharge West																				
Cutter Suction Dredging- Spill Barge (No Booster)																				
Cutter Suction Dredging- Land Disposal (No Booster)																				
Wick Drains																				
Settlement Period																				
Ph 2-2 Roll Surcharge																				
Ph 2-3 Remove Surcharge																				
Roll Surcharge																				
CY Development																				
New Container Yard Utilities																				
New Container Yard Construction - Paving																				
Ph 2-3 New Container Yard Construction - Electrical																				
All Fugitive Dust from Ground Disturbance	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	55	55	55	55	55
Hourly Total	18	18	18	19	56	56	56	57	56											

Table A.2.2-A13-7. Definition of Peak Hourly PM10 Emissions - POLB - MHTP - Alternative 3.

		2010		2010		2010		2010		2010		2010		2010		2010		2010	
<i>Water Construction - Not part of modelling analysis</i>		<i>Feb</i>		<i>Mar</i>		<i>Apr</i>		<i>May</i>		<i>Jun</i>		<i>Jul</i>		<i>Aug</i>		<i>Sep</i>		<i>Oct</i>	
<i>Activity</i>		<i>1st</i>	<i>2nd</i>																
Construct Berth 23 Wharf , Armor, Fill																			
Land Ex																			
Rock Placement, Push Off & Tub & Orange Peels																			
Retaining Bulkhead Construction																			
Drive 24-In Octagonal Piles - Land																			
Drive 24-In Octagonal Piles - Water																			
Drive Piles - Misc Activities																			
Reinforced Concrete Wharf																			
Basin Fill and Surcharge West																			
Cutter Suction Dredging- Spill Barge (No Booster)																			
Cutter Suction Dredging- Land Disposal (No Booster)																			
Wick Drains																			
Settlement Period																			
Ph 2-2	Roll Surcharge																		
Ph 2-3	Remove Surcharge																		
	Roll Surcharge																		
	CY Development																		
	New Container Yard Utilities																		
	New Container Yard Construction - Paving																		
Ph 2-3	New Container Yard Construction - Electrical																		
All	Fugitive Dust from Ground Disturbance	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
	Hourly Total	37	38	38	38	38	39												

Table A.2.2-A13-7. Definition of Peak Hourly PM10 Emissions - POLB - MHTP - Alternative 3.

Activity	2010				2011		2011		2011		2011		2011		2011		2011		2011	
	Nov		Dec		Jan		Feb		Mar		Apr		May		Jun		Jul			
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd
<i>Water Construction - Not part of modeling analysis</i>																				
Ph 1-2 Dredge to -55 ft	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 1-2 Clamshell Dredging	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 1-3 Demolish Existing Facilities																				
Wharf Demolition Landside					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Marine					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheet Pile Bulkhead Demolition					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct New Bulkhead					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retaining Bulkhead Construction					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Excavation Fronting E26 and Dispose Slip 1					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Clamshell Dredging					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct New Armor Slope					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock Placement, Push Off & Tub & Orange Peels					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Construction					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drive 24-In Octagonal Piles - Land					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drive 24-In Octagonal Piles - Water					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drive Piles - Misc Activities					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinforced Concrete Wharf					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct E27 Bulkhead					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retaining Bulkhead Construction					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CY Development					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vibratory Hammer & Power Pack					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flatbed Truck					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Welding Machine					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hydraulic Dredge to -55ft					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 1-3 Clamshell Dredging					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 1-4 Seaside Railyard Area Redevelopment																				
New Container Yard Utilities																				
New Container Yard Construction - Paving																				
Ph 1-4 New Container Yard Construction - Electrical																				
Ph 1-5 Develop Terminal North of Ocean Blvd.																				
New Container Yard Utilities																				
New Container Yard Construction - Paving																				
Ph 1-5 New Container Yard Construction - Electrical																				
Ph 2-1 Demolition					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Landside					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Railyard					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intermodal Yard Construction					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Container Yard Development (F1 - F4)					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Container Yard Utilities					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Container Yard Construction - Paving					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Container Yard Construction - Electrical					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demo Existing F1-4, F6 Wharf					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Landside					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Marine					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct East Basin Retaining Dike					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock Placement, Push Off & Tub & Orange Peels					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Slip/Basin Fill & Surcharge East					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cutter Suction Dredging- Spill Barge (No Booster)					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cutter Suction Dredging- Land Disposal (No Booster)					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wick Drains					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roll Surcharge					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 2-1 Roll Surcharge					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 2-2 Construction - New Terminal Buildings																				
Building Construction																				
Dredge and Excavate at Quay Wall																				
Clamshell Dredging																				
Demo Existing F8-10 Wharf																				
Wharf Demolition Landside																				
Wharf Demolition Marine																				

Table A.2.2-A13-7. Definition of Peak Hourly PM10 Emissions - POLB - MHTP - Alternative 3.

Water Construction - Not part of modelling analysis Activity	2012		2012		2012		2012		2012		2012		2012		2012		2012		2013	
	May		Jun		Jul		Aug		Sep		Oct		Nov		Dec		Jan			
	1st	2nd																		
Rock Revetment																				
Rock Placement, Push Off & Tub & Orange Peels																				
Hydraulic or Clamshell Dredge to -55 ft																				
Clamshell Dredging																				
Ground Improvements Pier D																				
Stone Column Installation Eq																				
Marine Rock Delivery Eq																				
Demo - E12-13 Wharf																				
Wharf Demolition Landside																				
Wharf Demolition Marine																				
Lift #1 (- -30)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #2 (- -15)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #3 (- 0)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #4 (- +15)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Initial Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
2nd Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
3rd Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
4th Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
Remove Surcharge																				
Roll Surcharge																				
Container Yard Development																				
New Container Yard Utilities																				
New Container Yard Construction - Paving																				
New Container Yard Construction - Electrical																				
POLB Ocean Blvd Track Reconfiguration																				
Triple Track Installation Demo Eq																				
Triple Track Utility Relocation Eq																				
Triple Track Grading Eq																				
Triple Track Retaining Wall Eq																				
Triple Track Trackwork Eq																				
Triple Track Miscellaneous Eq																				
Demolish Existing Facilities																				
Sheet Pile Bulkhead Demolition																				
Wharf Demolition Landside																				
Wharf Demolition Marine																				
Construct New Bulkhead (Install Transition Bulkhead)																				
Retaining Bulkhead Construction																				
Excavation Fronting E25 and Dispose Slip 1																				
Clamshell Dredging																				
Construct New Armor Slope																				
Rock Placement, Push Off & Tub & Orange Peels																				
Wharf Construction																				
Drive 24-In Octagonal Piles - Land																				
Drive 24-In Octagonal Piles - Water																				
Drive Piles - Misc Activities																				
Reinforced Concrete Wharf																				
CY Development																				
New Container Yard Construction - Paving																				

Ph 1-1

Ph 1-2

Table A.2.2-A13-7. Definition of Peak Hourly PM10 Emissions - POLB - MHTP - Alternative 3.

Activity	2012		2012		2012		2012		2012		2012		2012		2012		2012		2013	
	May		Jun		Jul		Aug		Sep		Oct		Nov		Dec		Jan		2013	2013
	1st	2nd																		
<i>Water Construction - Not part of modeling analysis</i>																				
<i>Activity</i>																				
Dredge to -55 ft																				
Ph 1-2 Clamshell Dredging																				
Ph 1-3 Demolish Existing Facilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Landside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Marine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheet Pile Bulkhead Demolition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct New Bulkhead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retaining Bulkhead Construction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Excavation Fronting E26 and Dispose Slip 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Clamshell Dredging																				
Construct New Armor Slope																				
Rock Placement, Push Off & Tub & Orange Peels																				
Wharf Construction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drive 24-In Octagonal Piles - Land	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drive 24-In Octagonal Piles - Water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drive Piles - Misc Activities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinforced Concrete Wharf	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct E27 Bulkhead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retaining Bulkhead Construction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CY Development	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vibratory Hammer & Power Pack	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flatbed Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Welding Machine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hydraulic Dredge to -55ft	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 1-3 Clamshell Dredging	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 1-4 Seaside Railyard Area Redevelopment																				
New Container Yard Utilities																				
New Container Yard Construction - Paving																				
Ph 1-4 New Container Yard Construction - Electrical																				
Ph 1-5 Develop Terminal North of Ocean Blvd.																				
New Container Yard Utilities																				
New Container Yard Construction - Paving																				
Ph 1-5 New Container Yard Construction - Electrical																				
Ph 2-1 Demolition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Landside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Railyard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intermodal Yard Construction	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
Container Yard Development (F1 - F4)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Container Yard Utilities	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1
New Container Yard Construction - Paving	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Container Yard Construction - Electrical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demo Existing F1-4, F6 Wharf	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Landside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Marine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct East Basin Retaining Dike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock Placement, Push Off & Tub & Orange Peels	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Slip/Basin Fill & Surcharge East	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cutter Suction Dredging- Spill Barge (No Booster)																				
Cutter Suction Dredging- Land Disposal (No Booster)																				
Wick Drains	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roll Surcharge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 2-1 Roll Surcharge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 2-2 Construction - New Terminal Buildings																				
Building Construction																				
Dredge and Excavate at Quay Wall																				
Clamshell Dredging																				
Demo Existing F8-10 Wharf																				
Wharf Demolition Landside																				
Wharf Demolition Marine																				

Table A.2.2-A13-7. Definition of Peak Hourly PM10 Emissions - POLB - MHTP - Alternative 3.

Water Construction - Not part of modelling analysis Activity	2013		2013		2013		2013		2013		2013		2013		2013		2013		2013	
	Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct			
	1st	2nd																		
Rock Revetment																				
Rock Placement, Push Off & Tub & Orange Peels																				
Hydraulic or Clamshell Dredge to -55 ft																				
Clamshell Dredging																				
Ground Improvements Pier D																				
Stone Column Installation Eq																				
Marine Rock Delivery Eq																				
Demo - E12-13 Wharf																				
Wharf Demolition Landside																				
Wharf Demolition Marine																				
Lift #1 (- -30)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #2 (- -15)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #3 (- 0)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #4 (- +15)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Initial Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
2nd Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
3rd Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
4th Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
Remove Surcharge																				
Roll Surcharge																				
Container Yard Development																				
New Container Yard Utilities																				
New Container Yard Construction - Paving																				
New Container Yard Construction - Electrical																				
POLB Ocean Blvd Track Reconfiguration																				
Triple Track Installation Demo Eq																				
Triple Track Utility Relocation Eq																				
Triple Track Grading Eq																				
Triple Track Retaining Wall Eq																				
Triple Track Trackwork Eq																				
Triple Track Miscellaneous Eq																				
Demolish Existing Facilities																				
Sheet Pile Bulkhead Demolition																				
Wharf Demolition Landside																				
Wharf Demolition Marine																				
Construct New Bulkhead (Install Transition Bulkhead)																				
Retaining Bulkhead Construction																				
Excavation Fronting E25 and Dispose Slip 1																				
Clamshell Dredging																				
Construct New Armor Slope																				
Rock Placement, Push Off & Tub & Orange Peels																				
Wharf Construction																				
Drive 24-In Octagonal Piles - Land																				
Drive 24-In Octagonal Piles - Water																				
Drive Piles - Misc Activities																				
Reinforced Concrete Wharf																				
CY Development																				
New Container Yard Construction - Paving																				

Ph 1-1

Ph 1-2

Table A.2.2-A13-7. Definition of Peak Hourly PM10 Emissions - POLB - MHTP - Alternative 3.

Activity	2013		2013		2013		2013		2013		2013		2013		2013		2013		2013	
	Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct			
	1st	2nd																		
<i>Water Construction - Not part of modeling analysis</i>																				
<i>Activity</i>																				
Dredge to -55 ft																				
Ph 1-2 Clamshell Dredging																				
Ph 1-3 Demolish Existing Facilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Landside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Marine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheet Pile Bulkhead Demolition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct New Bulkhead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retaining Bulkhead Construction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Excavation Fronting E26 and Dispose Slip 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Clamshell Dredging	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct New Armor Slope	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock Placement, Push Off & Tub & Orange Peels	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Construction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drive 24-In Octagonal Piles - Land	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drive 24-In Octagonal Piles - Water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drive Piles - Misc Activities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinforced Concrete Wharf	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct E27 Bulkhead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retaining Bulkhead Construction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CY Development	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vibratory Hammer & Power Pack	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Flatbed Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Welding Machine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hydraulic Dredge to -55ft	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 1-3 Clamshell Dredging	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 1-4 Seaside Railyard Area Redevelopment																				
New Container Yard Utilities																				
New Container Yard Construction - Paving																				
Ph 1-4 New Container Yard Construction - Electrical																				
Ph 1-5 Develop Terminal North of Ocean Blvd.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Container Yard Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
New Container Yard Construction - Paving	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 1-5 New Container Yard Construction - Electrical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 2-1 Demolition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Landside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Railyard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intermodal Yard Construction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Container Yard Development (F1 - F4)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Container Yard Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Container Yard Construction - Paving	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Container Yard Construction - Electrical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demo Existing F1-4, F6 Wharf	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Landside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Marine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct East Basin Retaining Dike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock Placement, Push Off & Tub & Orange Peels	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Slip/Basin Fill & Surcharge East	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cutter Suction Dredging- Spill Barge (No Booster)																				
Cutter Suction Dredging- Land Disposal (No Booster)																				
Wick Drains	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roll Surcharge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 2-1 Roll Surcharge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 2-2 Construction - New Terminal Buildings																				
Building Construction																				
Dredge and Excavate at Quay Wall																				
Clamshell Dredging																				
Demo Existing F8-10 Wharf																				
Wharf Demolition Landside																				
Wharf Demolition Marine																				

Table A.2.2-A13-7. Definition of Peak Hourly PM10 Emissions - POLB - MHTP - Alternative 3.

Activity	2013		2013		2013		2013		2013		2013		2013		2013		2013		2013		
	Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct				
	1st	2nd																			
Water Construction - Not part of modelling analysis																					
Construct Berth 23 Wharf , Armor, Fill																					
Land Ex																					
Rock Placement, Push Off & Tub & Orange Peels																					
Retaining Bulkhead Construction																					
Drive 24-In Octagonal Piles - Land																					
Drive 24-In Octagonal Piles - Water																					
Drive Piles - Misc Activities																					
Reinforced Concrete Wharf																					
Basin Fill and Surcharge West																					
Cutter Suction Dredging- Spill Barge (No Booster)																					
Cutter Suction Dredging- Land Disposal (No Booster)																					
Wick Drains																					
Settlement Period																					
Ph 2-2 Roll Surcharge																					
Ph 2-3 Remove Surcharge																					
Roll Surcharge																					
CY Development																					
New Container Yard Utilities																					
New Container Yard Construction - Paving																					
Ph 2-3 New Container Yard Construction - Electrical																					
All Fugitive Dust from Ground Disturbance	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96
Hourly Total	96	96	96	96	96	96	96	97	97	97	97	97	97	97	97	98	98	98	98	98	98

Table A.2.2-A13-7. Definition of Peak Hourly PM10 Emissions - POLB - MHTP - Alternative 3.

Water Construction - Not part of modelling analysis Activity	2013		2013		2014		2014		2014		2014		2014		2014		2014	
	Nov		Dec		Jan		Feb		Mar		Apr		May		Jun		Jul	
	1st	2nd																
Rock Revetment																		
Rock Placement, Push Off & Tub & Orange Peels																		
Hydraulic or Clamshell Dredge to -55 ft																		
Clamshell Dredging																		
Ground Improvements Pier D																		
Stone Column Installation Eq																		
Marine Rock Delivery Eq																		
Demo - E12-13 Wharf																		
Wharf Demolition Landside																		
Wharf Demolition Marine																		
Lift #1 (- -30)																		
Rock Placement, Push Off & Tub & Orange Peels																		
Lift #2 (- -15)																		
Rock Placement, Push Off & Tub & Orange Peels																		
Lift #3 (- 0)																		
Rock Placement, Push Off & Tub & Orange Peels																		
Lift #4 (- +15)																		
Rock Placement, Push Off & Tub & Orange Peels																		
Initial Surcharge and Wick Drains																		
Wick Drains																		
Roll Surcharge																		
2nd Surcharge and Wick Drains																		
Wick Drains																		
Roll Surcharge																		
3rd Surcharge and Wick Drains																		
Wick Drains																		
Roll Surcharge																		
4th Surcharge and Wick Drains																		
Wick Drains																		
Roll Surcharge																		
Remove Surcharge																		
Roll Surcharge																		
Container Yard Development																		
New Container Yard Utilities																		
New Container Yard Construction - Paving																		
New Container Yard Construction - Electrical																		
POLB Ocean Blvd Track Reconfiguration																		
Triple Track Installation Demo Eq																		
Triple Track Utility Relocation Eq																		
Triple Track Grading Eq																		
Triple Track Retaining Wall Eq																		
Triple Track Trackwork Eq																		
Triple Track Miscellaneous Eq																		
Demolish Existing Facilities																		
Sheet Pile Bulkhead Demolition																		
Wharf Demolition Landside																		
Wharf Demolition Marine																		
Construct New Bulkhead (Install Transition Bulkhead)																		
Retaining Bulkhead Construction																		
Excavation Fronting E25 and Dispose Slip 1																		
Clamshell Dredging																		
Construct New Armor Slope																		
Rock Placement, Push Off & Tub & Orange Peels																		
Wharf Construction																		
Drive 24-In Octagonal Piles - Land																		
Drive 24-In Octagonal Piles - Water																		
Drive Piles - Misc Activities																		
Reinforced Concrete Wharf																		
CY Development																		
New Container Yard Construction - Paving																		

Ph 1-1

Ph 1-2

Table A.2.2-A13-7. Definition of Peak Hourly PM10 Emissions - POLB - MHTP - Alternative 3.

Water Construction - Not part of modelling analysis Activity	2014		2014		2014		2014		2014		2014		2015		2015		2015		2015	
	Aug		Sep		Oct		Nov		Dec		Jan		Feb		Mar		Apr			
	1st	2nd																		
Rock Revetment																				
Rock Placement, Push Off & Tub & Orange Peels																				
Hydraulic or Clamshell Dredge to -55 ft																				
Clamshell Dredging																				
Ground Improvements Pier D																				
Stone Column Installation Eq																				
Marine Rock Delivery Eq																				
Demo - E12-13 Wharf																				
Wharf Demolition Landside																				
Wharf Demolition Marine																				
Lift #1 (- -30)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #2 (- -15)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #3 (- 0)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #4 (- +15)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Initial Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
2nd Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
3rd Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
4th Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
Remove Surcharge																				
Roll Surcharge																				
Container Yard Development																				
New Container Yard Utilities																				
New Container Yard Construction - Paving																				
New Container Yard Construction - Electrical																				
POLB Ocean Blvd Track Reconfiguration																				
Triple Track Installation Demo Eq																				
Triple Track Utility Relocation Eq																				
Triple Track Grading Eq																				
Triple Track Retaining Wall Eq																				
Triple Track Trackwork Eq																				
Triple Track Miscellaneous Eq																				
Demolish Existing Facilities																				
Sheet Pile Bulkhead Demolition																				
Wharf Demolition Landside																				
Wharf Demolition Marine																				
Construct New Bulkhead (Install Transition Bulkhead)																				
Retaining Bulkhead Construction																				
Excavation Fronting E25 and Dispose Slip 1																				
Clamshell Dredging																				
Construct New Armor Slope																				
Rock Placement, Push Off & Tub & Orange Peels																				
Wharf Construction																				
Drive 24-In Octagonal Piles - Land																				
Drive 24-In Octagonal Piles - Water																				
Drive Piles - Misc Activities																				
Reinforced Concrete Wharf																				
CY Development																				
New Container Yard Construction - Paving																				

Ph 1-1

Ph 1-2

Table A.2.2-A13-7. Definition of Peak Hourly PM10 Emissions - POLB - MHTP - Alternative 3.

Water Construction - Not part of modelling analysis Activity	2015		2015		2015		2015		2015		2015		2015		2015		2015		2016	
	May		Jun		Jul		Aug		Sep		Oct		Nov		Dec		Jan			
	1st	2nd																		
Rock Revetment																				
Rock Placement, Push Off & Tub & Orange Peels																				
Hydraulic or Clamshell Dredge to -55 ft																				
Clamshell Dredging																				
Ground Improvements Pier D																				
Stone Column Installation Eq																				
Marine Rock Delivery Eq																				
Demo - E12-13 Wharf																				
Wharf Demolition Landside																				
Wharf Demolition Marine																				
Lift #1 (- -30)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #2 (- -15)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #3 (- 0)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #4 (- +15)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Initial Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
2nd Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
3rd Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
4th Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
Remove Surcharge																				
Roll Surcharge																				
Container Yard Development																				
New Container Yard Utilities																				
New Container Yard Construction - Paving																				
New Container Yard Construction - Electrical																				
POLB Ocean Blvd Track Reconfiguration																				
Triple Track Installation Demo Eq																				
Triple Track Utility Relocation Eq																				
Triple Track Grading Eq																				
Triple Track Retaining Wall Eq																				
Triple Track Trackwork Eq																				
Triple Track Miscellaneous Eq																				
Demolish Existing Facilities																				
Sheet Pile Bulkhead Demolition																				
Wharf Demolition Landside																				
Wharf Demolition Marine																				
Construct New Bulkhead (Install Transition Bulkhead)																				
Retaining Bulkhead Construction																				
Excavation Fronting E25 and Dispose Slip 1																				
Clamshell Dredging																				
Construct New Armor Slope																				
Rock Placement, Push Off & Tub & Orange Peels																				
Wharf Construction																				
Drive 24-In Octagonal Piles - Land																				
Drive 24-In Octagonal Piles - Water																				
Drive Piles - Misc Activities																				
Reinforced Concrete Wharf																				
CY Development																				
New Container Yard Construction - Paving																				

Ph 1-1

Ph 1-2

Table A.2.2-A13-7. Definition of Peak Hourly PM10 Emissions - POLB - MHTP - Alternative 3.

Water Construction - Not part of modelling analysis Activity	2016		2016		2016		2016		2016		2016		2016		2016		2016		2016	
	Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct			
	1st	2nd																		
Rock Revetment																				
Rock Placement, Push Off & Tub & Orange Peels																				
Hydraulic or Clamshell Dredge to -55 ft																				
Clamshell Dredging																				
Ground Improvements Pier D																				
Stone Column Installation Eq																				
Marine Rock Delivery Eq																				
Demo - E12-13 Wharf																				
Wharf Demolition Landside																				
Wharf Demolition Marine																				
Lift #1 (- -30)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #2 (- -15)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #3 (- 0)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #4 (- +15)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Initial Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
2nd Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
3rd Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
4th Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
Remove Surcharge																				
Roll Surcharge																				
Container Yard Development																				
New Container Yard Utilities																				
New Container Yard Construction - Paving																				
New Container Yard Construction - Electrical																				
POLB Ocean Blvd Track Reconfiguration																				
Triple Track Installation Demo Eq																				
Triple Track Utility Relocation Eq																				
Triple Track Grading Eq																				
Triple Track Retaining Wall Eq																				
Triple Track Trackwork Eq																				
Triple Track Miscellaneous Eq																				
Demolish Existing Facilities																				
Sheet Pile Bulkhead Demolition																				
Wharf Demolition Landside																				
Wharf Demolition Marine																				
Construct New Bulkhead (Install Transition Bulkhead)																				
Retaining Bulkhead Construction																				
Excavation Fronting E25 and Dispose Slip 1																				
Clamshell Dredging																				
Construct New Armor Slope																				
Rock Placement, Push Off & Tub & Orange Peels																				
Wharf Construction																				
Drive 24-In Octagonal Piles - Land																				
Drive 24-In Octagonal Piles - Water																				
Drive Piles - Misc Activities																				
Reinforced Concrete Wharf																				
CY Development																				
New Container Yard Construction - Paving																				

Ph 1-1

Ph 1-2

Table A.2.2-A13-7. Definition of Peak Hourly PM10 Emissions - POLB - MHTP - Alternative 3.

Water Construction - Not part of modelling analysis Activity	2016		2016		2017		2017		2017		2017		2017		2017		2017	
	Nov		Dec		Jan		Feb		Mar		Apr		May		Jun		Jul	
	1st	2nd																
Rock Revetment																		
Rock Placement, Push Off & Tub & Orange Peels																		
Hydraulic or Clamshell Dredge to -55 ft																		
Clamshell Dredging																		
Ground Improvements Pier D																		
Stone Column Installation Eq																		
Marine Rock Delivery Eq																		
Demo - E12-13 Wharf																		
Wharf Demolition Landside																		
Wharf Demolition Marine																		
Lift #1 (- -30)																		
Rock Placement, Push Off & Tub & Orange Peels																		
Lift #2 (- -15)																		
Rock Placement, Push Off & Tub & Orange Peels																		
Lift #3 (- 0)																		
Rock Placement, Push Off & Tub & Orange Peels																		
Lift #4 (- +15)																		
Rock Placement, Push Off & Tub & Orange Peels																		
Initial Surcharge and Wick Drains																		
Wick Drains																		
Roll Surcharge																		
2nd Surcharge and Wick Drains																		
Wick Drains																		
Roll Surcharge																		
3rd Surcharge and Wick Drains																		
Wick Drains																		
Roll Surcharge																		
4th Surcharge and Wick Drains																		
Wick Drains																		
Roll Surcharge																		
Remove Surcharge																		
Roll Surcharge																		
Container Yard Development																		
New Container Yard Utilities																		
New Container Yard Construction - Paving																		
New Container Yard Construction - Electrical																		
POLB Ocean Blvd Track Reconfiguration																		
Triple Track Installation Demo Eq																		
Triple Track Utility Relocation Eq																		
Triple Track Grading Eq																		
Triple Track Retaining Wall Eq																		
Triple Track Trackwork Eq																		
Triple Track Miscellaneous Eq																		
Demolish Existing Facilities																		
Sheet Pile Bulkhead Demolition																		
Wharf Demolition Landside																		
Wharf Demolition Marine																		
Construct New Bulkhead (Install Transition Bulkhead)																		
Retaining Bulkhead Construction																		
Excavation Fronting E25 and Dispose Slip 1																		
Clamshell Dredging																		
Construct New Armor Slope																		
Rock Placement, Push Off & Tub & Orange Peels																		
Wharf Construction																		
Drive 24-In Octagonal Piles - Land																		
Drive 24-In Octagonal Piles - Water																		
Drive Piles - Misc Activities																		
Reinforced Concrete Wharf																		
CY Development																		
New Container Yard Construction - Paving																		

Ph 1-1

Ph 1-2

Table A.2.2-A13-7. Definition of Peak Hourly PM10 Emissions - POLB - MHTP - Alternative 3.

Water Construction - Not part of modelling analysis Activity	2017		2017		2017		2017		2017		2017	
	Aug		Sep		Oct		Nov		Dec			
	1st	2nd										
Rock Revetment												
Rock Placement, Push Off & Tub & Orange Peels												
Hydraulic or Clamshell Dredge to -55 ft												
Clamshell Dredging												
Ground Improvements Pier D												
Stone Column Installation Eq												
Marine Rock Delivery Eq												
Demo - E12-13 Wharf												
Wharf Demolition Landside												
Wharf Demolition Marine												
Lift #1 (- -30)												
Rock Placement, Push Off & Tub & Orange Peels												
Lift #2 (- -15)												
Rock Placement, Push Off & Tub & Orange Peels												
Lift #3 (- 0)												
Rock Placement, Push Off & Tub & Orange Peels												
Lift #4 (- +15)												
Rock Placement, Push Off & Tub & Orange Peels												
Initial Surcharge and Wick Drains												
Wick Drains												
Roll Surcharge												
2nd Surcharge and Wick Drains												
Wick Drains												
Roll Surcharge												
3rd Surcharge and Wick Drains												
Wick Drains												
Roll Surcharge												
4th Surcharge and Wick Drains												
Wick Drains												
Roll Surcharge												
Remove Surcharge												
Roll Surcharge												
Container Yard Development												
New Container Yard Utilities												
New Container Yard Construction - Paving												
New Container Yard Construction - Electrical												
POLB Ocean Blvd Track Reconfiguration												
Triple Track Installation Demo Eq												
Triple Track Utility Relocation Eq												
Triple Track Grading Eq												
Triple Track Retaining Wall Eq												
Triple Track Trackwork Eq												
Triple Track Miscellaneous Eq												
Demolish Existing Facilities												
Sheet Pile Bulkhead Demolition												
Wharf Demolition Landside												
Wharf Demolition Marine												
Construct New Bulkhead (Install Transition Bulkhead)												
Retaining Bulkhead Construction												
Excavation Fronting E25 and Dispose Slip 1												
Clamshell Dredging												
Construct New Armor Slope												
Rock Placement, Push Off & Tub & Orange Peels												
Wharf Construction												
Drive 24-In Octagonal Piles - Land												
Drive 24-In Octagonal Piles - Water												
Drive Piles - Misc Activities												
Reinforced Concrete Wharf												
CY Development												
New Container Yard Construction - Paving												

Ph 1-1

Ph 1-2

Table A.2.2-A13-8. Definition of Peak Hourly PM2.5 Emissions - POLB - MHTP - Alternative 3

Activity	2008		2008		2008		2008		2008		2008		2009		2009		2009		2009	
	Aug		Sep		Oct		Nov		Dec		Jan		Feb		Mar		Apr			
	1st	2nd	1st	2nd																
Water Construction - Not part of modelling analysis																				
Construct Wharf, Armor, Fill																				
Land Ex																				
Rock Placement, Push Off & Tub & Orange Peels																				
Retaining Bulkhead Construction																				
Drive 24-In Octagonal Piles - Land																				
Drive 24-In Octagonal Piles - Water																				
Drive Piles - Misc Activities																				
Reinforced Concrete Wharf																				
Basin Fill and Surcharge West																				
Cutter Suction Dredging- Spill Barge (No Booster)																				
Cutter Suction Dredging- Land Disposal (No Booster)																				
Wick Drains																				
Settlement Period																				
Ph 2-2 Roll Surcharge																				
Ph 2-3 Remove Surcharge																				
Roll Surcharge																				
CY Development																				
New Container Yard Utilities																				
New Container Yard Construction - Paving																				
Ph 2-3 New Container Yard Construction - Electrical																				
All Fugitive Dust from Ground Disturbance	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	12	12	12	12	12
Hourly Total	4	12	12	12	12	12														

Table A.2.2-A13-8. Definition of Peak Hourly PM2.5 Emissions - POLB - MHTP - Alternative 3

Activity	2009		2009		2009		2009		2009		2009		2009		2009		2009		2010	2010
	May		Jun		Jul		Aug		Sep		Oct		Nov		Dec		Jan			
	1st	2nd																		
<i>Water Construction - Not part of modelling analysis</i>																				
Rock Revetment																				
Rock Placement, Push Off & Tub & Orange Peels																				
Hydraulic or Clamshell Dredge to -55 ft																				
Clamshell Dredging																				
Ground Improvements Pier D																				
Stone Column Installation Eq	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Marine Rock Delivery Eq																				
Demo - E12-13 Wharf																				
Wharf Demolition Landside	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wharf Demolition Marine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lift #1 (- -30)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #2 (- -15)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #3 (- 0)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #4 (- +15)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Initial Surcharge and Wick Drains																				
Wick Drains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roll Surcharge	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2nd Surcharge and Wick Drains																				
Wick Drains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roll Surcharge	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3rd Surcharge and Wick Drains																				
Wick Drains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roll Surcharge	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4th Surcharge and Wick Drains																				
Wick Drains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roll Surcharge	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Remove Surcharge																				
Roll Surcharge	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Container Yard Development																				
New Container Yard Utilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Container Yard Construction - Paving	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
New Container Yard Construction - Electrical	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
POLB Ocean Blvd Track Reconfiguration																				
Triple Track Installation Demo Eq	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Triple Track Utility Relocation Eq	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Triple Track Grading Eq	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Triple Track Retaining Wall Eq	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Triple Track Trackwork Eq	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Triple Track Miscellaneous Eq	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Demolish Existing Facilities																				
Sheet Pile Bulkhead Demolition	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wharf Demolition Landside	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wharf Demolition Marine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Construct New Bulkhead (Install Transition Bulkhead)																				
Retaining Bulkhead Construction	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Excavation Fronting E25 and Dispose Slip 1																				
Clamshell Dredging																				
Construct New Armor Slope																				
Rock Placement, Push Off & Tub & Orange Peels																				
Wharf Construction																				
Drive 24-In Octagonal Piles - Land	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Drive 24-In Octagonal Piles - Water	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Drive Piles - Misc Activities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reinforced Concrete Wharf	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CY Development																				
New Container Yard Construction - Paving	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Ph 1-1

Ph 1-2

Table A.2.2-A13-8. Definition of Peak Hourly PM2.5 Emissions - POLB - MHTP - Alternative 3

	2009		2009		2009		2009		2009		2009		2009		2009		2009		2010	2010
	May		Jun		Jul		Aug		Sep		Oct		Nov		Dec		Jan			
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd
	<i>Water Construction - Not part of modelling analysis</i>																			
	<i>Activity</i>																			
	Dredge to -55 ft																			
Ph 1-2	Clamshell Dredging																			
Ph 1-3	Demolish Existing Facilities																			
	Wharf Demolition Landside																			
	Wharf Demolition Marine																			
	Sheet Pile Bulkhead Demolition																			
	Construct New Bulkhead																			
	Retaining Bulkhead Construction																			
	Excavation Fronting E26 and Dispose Slip 1																			
	Clamshell Dredging																			
	Construct New Armor Slope																			
	Rock Placement, Push Off & Tub & Orange Peels																			
	Wharf Construction																			
	Drive 24-In Octagonal Piles - Land																			
	Drive 24-In Octagonal Piles - Water																			
	Drive Piles - Misc Activities																			
	Reinforced Concrete Wharf																			
	Construct E27 Bulkhead																			
	Retaining Bulkhead Construction																			
	CY Development																			
	Vibratory Hammer & Power Pack																			
	Flatbed Truck																			
	Welding Machine																			
	Hydraulic Dredge to -55ft																			
Ph 1-3	Clamshell Dredging																			
Ph 1-4	Seaside Railyard Area Redevelopment																			
	New Container Yard Utilities																			
	New Container Yard Construction - Paving																			
Ph 1-4	New Container Yard Construction - Electrical																			
Ph 1-5	Construction																			
	New Container Yard Utilities																			
	New Container Yard Construction - Paving																			
Ph 1-5	New Container Yard Construction - Electrical																			
Ph 2-1	Demolition																			
	Wharf Demolition Landside																			
	Railyard																			
	Intermodal Yard Construction																			
	Container Yard Development (F1 - F4)																			
	New Container Yard Utilities																			
	New Container Yard Construction - Paving																			
	New Container Yard Construction - Electrical																			
	Demo Existing F1-4, F6 Wharf																			
	Wharf Demolition Landside																			
	Wharf Demolition Marine																			
	Construct East Basin Retaining Dike																			
	Rock Placement, Push Off & Tub & Orange Peels																			
	Slip/Basin Fill & Surcharge East																			
	Cutter Suction Dredging- Spill Barge (No Booster)																			
	Cutter Suction Dredging- Land Disposal (No Booster)																			
	Wick Drains																			
	Roll Surcharge																			
Ph 2-1	Roll Surcharge																			
Ph 2-2	Construction - New Terminal Buildings																			
	Building Construction																			
	Dredge and Excavate at Quay Wall																			
	Clamshell Dredging																			
	Demo Existing F8-10 Wharf																			
	Wharf Demolition Landside																			
	Wharf Demolition Marine																			

Table A.2.2-A13-8. Definition of Peak Hourly PM2.5 Emissions - POLB - MHTP - Alternative 3

Activity	2010		2010		2011		2011		2011		2011		2011		2011		2011		2011	
	Nov		Dec		Jan		Feb		Mar		Apr		May		Jun		Jul			
	1st	2nd																		
Water Construction - Not part of modelling analysis																				
Rock Revetment																				
Rock Placement, Push Off & Tub & Orange Peels																				
Hydraulic or Clamshell Dredge to -55 ft																				
Clamshell Dredging																				
Ground Improvements Pier D																				
Stone Column Installation Eq	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Marine Rock Delivery Eq																				
Demo - E12-13 Wharf																				
Wharf Demolition Landside	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wharf Demolition Marine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lift #1 (- -30)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #2 (- -15)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #3 (- 0)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #4 (- +15)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Initial Surcharge and Wick Drains																				
Wick Drains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roll Surcharge	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2nd Surcharge and Wick Drains																				
Wick Drains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roll Surcharge	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3rd Surcharge and Wick Drains																				
Wick Drains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roll Surcharge	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4th Surcharge and Wick Drains																				
Wick Drains	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Roll Surcharge	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Remove Surcharge																				
Roll Surcharge	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Container Yard Development																				
New Container Yard Utilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7	0.7	0.7	0.7
New Container Yard Construction - Paving	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	0.3	0.3	0.3
New Container Yard Construction - Electrical	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	0.1	0.1
POLB Ocean Blvd Track Reconfiguration																				
Triple Track Installation Demo Eq	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Triple Track Utility Relocation Eq	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Triple Track Grading Eq	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Triple Track Retaining Wall Eq	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Triple Track Trackwork Eq	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Triple Track Miscellaneous Eq	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Demolish Existing Facilities																				
Sheet Pile Bulkhead Demolition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Landside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Marine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct New Bulkhead (Install Transition Bulkhead)																				
Retaining Bulkhead Construction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Excavation Fronting E25 and Dispose Slip 1																				
Clamshell Dredging																				
Construct New Armor Slope																				
Rock Placement, Push Off & Tub & Orange Peels																				
Wharf Construction																				
Drive 24-In Octagonal Piles - Land	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Drive 24-In Octagonal Piles - Water	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Drive Piles - Misc Activities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reinforced Concrete Wharf	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CY Development																				
New Container Yard Construction - Paving	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ph 1-1

Ph 1-2

Table A.2.2-Alt3-8. Definition of Peak Hourly PM2.5 Emissions - POLB - MHTP - Alternative 3

Activity	2010		2010		2011		2011		2011		2011		2011		2011		2011		2011		
	Nov		Dec		Jan		Feb		Mar		Apr		May		Jun		Jul		2011		
	1st	2nd																			
Water Construction - Not part of modelling analysis																					
Construct Wharf, Armor, Fill																					
Land Ex																					
Rock Placement, Push Off & Tub & Orange Peels																					
Retaining Bulkhead Construction																					
Drive 24-In Octagonal Piles - Land																					
Drive 24-In Octagonal Piles - Water																					
Drive Piles - Misc Activities																					
Reinforced Concrete Wharf																					
Basin Fill and Surcharge West																					
Cutter Suction Dredging- Spill Barge (No Booster)																					
Cutter Suction Dredging- Land Disposal (No Booster)																					
Wick Drains																					
Settlement Period																					
Ph 2-2 Roll Surcharge																					
Ph 2-3 Remove Surcharge																					
Roll Surcharge																					
CY Development																					
New Container Yard Utilities																					
New Container Yard Construction - Paving																					
Ph 2-3 New Container Yard Construction - Electrical																					
All Fugitive Dust from Ground Disturbance	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Hourly Total	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9

Table A.2.2-Alt3-8. Definition of Peak Hourly PM2.5 Emissions - POLB - MHTP - Alternative 3

Activity	2011		2011		2011		2011		2011		2011		2012		2012		2012		2012	
	Aug		Sep		Oct		Nov		Dec		Jan		Feb		Mar		Apr			
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd
<i>Water Construction - Not part of modeling analysis</i>																				
<i>Activity</i>																				
Dredge to -55 ft																				
Ph 1-2 Clamshell Dredging																				
Ph 1-3 Demolish Existing Facilities	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Landside	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Marine	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheet Pile Bulkhead Demolition	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct New Bulkhead	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retaining Bulkhead Construction	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Excavation Fronting E26 and Dispose Slip 1	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Clamshell Dredging																				
Construct New Armor Slope	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock Placement, Push Off & Tub & Orange Peels																				
Wharf Construction	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drive 24-In Octagonal Piles - Land	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drive 24-In Octagonal Piles - Water	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drive Piles - Misc Activities	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinforced Concrete Wharf	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct E27 Bulkhead	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retaining Bulkhead Construction	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CY Development	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vibratory Hammer & Power Pack	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flatbed Truck	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Welding Machine	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hydraulic Dredge to -55ft	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 1-3 Clamshell Dredging																				
Ph 1-4 Seaside Railyard Area Redevelopment																				
New Container Yard Utilities																				
New Container Yard Construction - Paving																				
Ph 1-4 New Container Yard Construction - Electrical																				
Ph 1-5 Construction																				
New Container Yard Utilities																				
New Container Yard Construction - Paving																				
Ph 1-5 New Container Yard Construction - Electrical																				
Ph 2-1 Demolition	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Landside	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Railyard	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intermodal Yard Construction	0	0	0	0	-	0.55	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Container Yard Development (F1 - F4)	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Container Yard Utilities	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Container Yard Construction - Paving	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Container Yard Construction - Electrical	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demo Existing F1-4, F6 Wharf	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Landside	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Marine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct East Basin Retaining Dike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock Placement, Push Off & Tub & Orange Peels																				
Slip/Basin Fill & Surcharge East																				
Cutter Suction Dredging- Spill Barge (No Booster)																				
Cutter Suction Dredging- Land Disposal (No Booster)																				
Wick Drains	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roll Surcharge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 2-1 Roll Surcharge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 2-2 Construction - New Terminal Buildings																				
Building Construction																				
Dredge and Excavate at Quay Wall																				
Clamshell Dredging																				
Demo Existing F8-10 Wharf																				
Wharf Demolition Landside																				
Wharf Demolition Marine																				

Table A.2.2-Alt3-8. Definition of Peak Hourly PM2.5 Emissions - POLB - MHTP - Alternative 3

Activity	2011		2011		2011		2011		2011		2011		2012		2012		2012		2012	
	Aug		Sep		Oct		Nov		Dec		Jan		Feb		Mar		Apr			
	1st	2nd																		
Water Construction - Not part of modelling analysis																				
Construct Wharf, Armor, Fill																				
Land Ex																				
Rock Placement, Push Off & Tub & Orange Peels																				
Retaining Bulkhead Construction																				
Drive 24-In Octagonal Piles - Land																				
Drive 24-In Octagonal Piles - Water																				
Drive Piles - Misc Activities																				
Reinforced Concrete Wharf																				
Basin Fill and Surcharge West																				
Cutter Suction Dredging- Spill Barge (No Booster)																				
Cutter Suction Dredging- Land Disposal (No Booster)																				
Wick Drains																				
Settlement Period																				
Ph 2-2 Roll Surcharge																				
Ph 2-3 Remove Surcharge																				
Roll Surcharge																				
CY Development																				
New Container Yard Utilities																				
New Container Yard Construction - Paving																				
Ph 2-3 New Container Yard Construction - Electrical																				
All Fugitive Dust from Ground Disturbance	8	8	8	20	20	14	14	14	20	20	20	20	20	20	20	20	20	20	20	20
Hourly Total	9	9	9	21	21	16	16	16	22	22	22	22	22	22	22	22	22	21	21	21

Table A.2.2-Alt3-8. Definition of Peak Hourly PM2.5 Emissions - POLB - MHTP - Alternative 3

Activity	2012		2012		2012		2012		2012		2012		2012		2012		2012		2013		
	May		Jun		Jul		Aug		Sep		Oct		Nov		Dec		Jan		2013	2013	
	1st	2nd																			
<i>Water Construction - Not part of modeling analysis</i>																					
<i>Activity</i>																					
Dredge to -55 ft																					
Ph 1-2 Clamshell Dredging																					
Ph 1-3 Demolish Existing Facilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Wharf Demolition Landside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Wharf Demolition Marine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sheet Pile Bulkhead Demolition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Construct New Bulkhead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Retaining Bulkhead Construction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Excavation Fronting E26 and Dispose Slip 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Clamshell Dredging																					
Construct New Armor Slope	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Rock Placement, Push Off & Tub & Orange Peels																					
Wharf Construction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Drive 24-In Octagonal Piles - Land	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Drive 24-In Octagonal Piles - Water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Drive Piles - Misc Activities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Reinforced Concrete Wharf	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Construct E27 Bulkhead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Retaining Bulkhead Construction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CY Development	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Vibratory Hammer & Power Pack	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Flatbed Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Welding Machine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hydraulic Dredge to -55ft	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ph 1-3 Clamshell Dredging																					
Ph 1-4 Seaside Railyard Area Redevelopment																					
New Container Yard Utilities																					
New Container Yard Construction - Paving																					
Ph 1-4 New Container Yard Construction - Electrical																					
Ph 1-5 Construction																				0	0
New Container Yard Utilities																				0	0
New Container Yard Construction - Paving																				0	0
Ph 1-5 New Container Yard Construction - Electrical																				0	0
Ph 2-1 Demolition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Wharf Demolition Landside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railyard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Intermodal Yard Construction	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
Container Yard Development (F1 - F4)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
New Container Yard Utilities	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	
New Container Yard Construction - Paving	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
New Container Yard Construction - Electrical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Demo Existing F1-4, F6 Wharf	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Wharf Demolition Landside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Wharf Demolition Marine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Construct East Basin Retaining Dike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Rock Placement, Push Off & Tub & Orange Peels																					
Slip/Basin Fill & Surcharge East																					
Cutter Suction Dredging- Spill Barge (No Booster)																					
Cutter Suction Dredging- Land Disposal (No Booster)																					
Wick Drains	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Roll Surcharge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ph 2-1 Roll Surcharge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ph 2-2 Construction - New Terminal Buildings																					
Building Construction																					
Dredge and Excavate at Quay Wall																					
Clamshell Dredging																					
Demo Existing F8-10 Wharf																					
Wharf Demolition Landside																					
Wharf Demolition Marine																					

Table A.2.2-Alt3-8. Definition of Peak Hourly PM2.5 Emissions - POLB - MHTP - Alternative 3

Water Construction - Not part of modelling analysis Activity	2013		2013		2013		2013		2013		2013		2013		2013		2013		2013	
	Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct			
	1st	2nd																		
Rock Revetment																				
Rock Placement, Push Off & Tub & Orange Peels																				
Hydraulic or Clamshell Dredge to -55 ft																				
Clamshell Dredging																				
Ground Improvements Pier D																				
Stone Column Installation Eq																				
Marine Rock Delivery Eq																				
Demo - E12-13 Wharf																				
Wharf Demolition Landside																				
Wharf Demolition Marine																				
Lift #1 (- -30)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #2 (- -15)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #3 (- 0)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #4 (- +15)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Initial Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
2nd Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
3rd Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
4th Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
Remove Surcharge																				
Roll Surcharge																				
Container Yard Development																				
New Container Yard Utilities																				
New Container Yard Construction - Paving																				
New Container Yard Construction - Electrical																				
POLB Ocean Blvd Track Reconfiguration																				
Triple Track Installation Demo Eq																				
Triple Track Utility Relocation Eq																				
Triple Track Grading Eq																				
Triple Track Retaining Wall Eq																				
Triple Track Trackwork Eq																				
Triple Track Miscellaneous Eq																				
Demolish Existing Facilities																				
Sheet Pile Bulkhead Demolition																				
Wharf Demolition Landside																				
Wharf Demolition Marine																				
Construct New Bulkhead (Install Transition Bulkhead)																				
Retaining Bulkhead Construction																				
Excavation Fronting E25 and Dispose Slip 1																				
Clamshell Dredging																				
Construct New Armor Slope																				
Rock Placement, Push Off & Tub & Orange Peels																				
Wharf Construction																				
Drive 24-In Octagonal Piles - Land																				
Drive 24-In Octagonal Piles - Water																				
Drive Piles - Misc Activities																				
Reinforced Concrete Wharf																				
CY Development																				
New Container Yard Construction - Paving																				

Ph 1-1

Ph 1-2

Table A.2.2-Alt3-8. Definition of Peak Hourly PM2.5 Emissions - POLB - MHTP - Alternative 3

Activity	2013		2013		2013		2013		2013		2013		2013		2013		2013		2013	
	Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct			
	1st	2nd																		
<i>Water Construction - Not part of modeling analysis</i>																				
<i>Activity</i>																				
Dredge to -55 ft																				
Ph 1-2 Clamshell Dredging																				
Ph 1-3 Demolish Existing Facilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Landside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Marine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sheet Pile Bulkhead Demolition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct New Bulkhead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retaining Bulkhead Construction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Excavation Fronting E26 and Dispose Slip 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Clamshell Dredging																				
Construct New Armor Slope	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock Placement, Push Off & Tub & Orange Peels																				
Wharf Construction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drive 24-In Octagonal Piles - Land	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drive 24-In Octagonal Piles - Water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drive Piles - Misc Activities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinforced Concrete Wharf	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct E27 Bulkhead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Retaining Bulkhead Construction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CY Development	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vibratory Hammer & Power Pack	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Flatbed Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Welding Machine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hydraulic Dredge to -55ft	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 1-3 Clamshell Dredging																				
Ph 1-4 Seaside Railyard Area Redevelopment																				
New Container Yard Utilities																				
New Container Yard Construction - Paving																				
Ph 1-4 New Container Yard Construction - Electrical																				
Ph 1-5 Construction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Container Yard Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
New Container Yard Construction - Paving	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 1-5 New Container Yard Construction - Electrical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 2-1 Demolition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Landside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Railyard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intermodal Yard Construction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Container Yard Development (F1 - F4)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Container Yard Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Container Yard Construction - Paving	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Container Yard Construction - Electrical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demo Existing F1-4, F6 Wharf	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Landside	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wharf Demolition Marine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct East Basin Retaining Dike	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock Placement, Push Off & Tub & Orange Peels																				
Slip/Basin Fill & Surcharge East																				
Cutter Suction Dredging- Spill Barge (No Booster)																				
Cutter Suction Dredging- Land Disposal (No Booster)																				
Wick Drains	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roll Surcharge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 2-1 Roll Surcharge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 2-2 Construction - New Terminal Buildings																				
Building Construction																				
Dredge and Excavate at Quay Wall																				
Clamshell Dredging																				
Demo Existing F8-10 Wharf																				
Wharf Demolition Landside																				
Wharf Demolition Marine																				

Table A.2.2-Alt3-8. Definition of Peak Hourly PM2.5 Emissions - POLB - MHTP - Alternative 3

Activity	2013		2013		2013		2013		2013		2013		2013		2013		2013		2013		
	Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct				
	1st	2nd																			
Water Construction - Not part of modelling analysis																					
Construct Wharf, Armor, Fill																					
Land Ex																					
Rock Placement, Push Off & Tub & Orange Peels																					
Retaining Bulkhead Construction																					
Drive 24-In Octagonal Piles - Land																					
Drive 24-In Octagonal Piles - Water																					
Drive Piles - Misc Activities																					
Reinforced Concrete Wharf																					
Basin Fill and Surcharge West																					
Cutter Suction Dredging- Spill Barge (No Booster)																					
Cutter Suction Dredging- Land Disposal (No Booster)																					
Wick Drains																					
Settlement Period																					
Ph 2-2 Roll Surcharge																					
Ph 2-3 Remove Surcharge																					
Roll Surcharge																					
CY Development																					
New Container Yard Utilities																					
New Container Yard Construction - Paving																					
Ph 2-3 New Container Yard Construction - Electrical																					
All Fugitive Dust from Ground Disturbance	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Hourly Total	20	20	20	20	20	20	21	21	21	21	21	21	21	21	22	22	22	22	22	22	22

Table A.2.2-Alt3-8. Definition of Peak Hourly PM2.5 Emissions - POLB - MHTP - Alternative 3

Water Construction - Not part of modelling analysis Activity	2013		2013		2014		2014		2014		2014		2014		2014		2014	
	Nov		Dec		Jan		Feb		Mar		Apr		May		Jun		Jul	
	1st	2nd																
Rock Revetment																		
Rock Placement, Push Off & Tub & Orange Peels																		
Hydraulic or Clamshell Dredge to -55 ft																		
Clamshell Dredging																		
Ground Improvements Pier D																		
Stone Column Installation Eq																		
Marine Rock Delivery Eq																		
Demo - E12-13 Wharf																		
Wharf Demolition Landside																		
Wharf Demolition Marine																		
Lift #1 (- -30)																		
Rock Placement, Push Off & Tub & Orange Peels																		
Lift #2 (- -15)																		
Rock Placement, Push Off & Tub & Orange Peels																		
Lift #3 (- 0)																		
Rock Placement, Push Off & Tub & Orange Peels																		
Lift #4 (- +15)																		
Rock Placement, Push Off & Tub & Orange Peels																		
Initial Surcharge and Wick Drains																		
Wick Drains																		
Roll Surcharge																		
2nd Surcharge and Wick Drains																		
Wick Drains																		
Roll Surcharge																		
3rd Surcharge and Wick Drains																		
Wick Drains																		
Roll Surcharge																		
4th Surcharge and Wick Drains																		
Wick Drains																		
Roll Surcharge																		
Remove Surcharge																		
Roll Surcharge																		
Container Yard Development																		
New Container Yard Utilities																		
New Container Yard Construction - Paving																		
New Container Yard Construction - Electrical																		
POLB Ocean Blvd Track Reconfiguration																		
Triple Track Installation Demo Eq																		
Triple Track Utility Relocation Eq																		
Triple Track Grading Eq																		
Triple Track Retaining Wall Eq																		
Triple Track Trackwork Eq																		
Triple Track Miscellaneous Eq																		
Demolish Existing Facilities																		
Sheet Pile Bulkhead Demolition																		
Wharf Demolition Landside																		
Wharf Demolition Marine																		
Construct New Bulkhead (Install Transition Bulkhead)																		
Retaining Bulkhead Construction																		
Excavation Fronting E25 and Dispose Slip 1																		
Clamshell Dredging																		
Construct New Armor Slope																		
Rock Placement, Push Off & Tub & Orange Peels																		
Wharf Construction																		
Drive 24-In Octagonal Piles - Land																		
Drive 24-In Octagonal Piles - Water																		
Drive Piles - Misc Activities																		
Reinforced Concrete Wharf																		
CY Development																		
New Container Yard Construction - Paving																		

Ph 1-1

Ph 1-2

Table A.2.2-Alt3-8. Definition of Peak Hourly PM2.5 Emissions - POLB - MHTP - Alternative 3

Activity	2013		2013		2014		2014		2014		2014		2014		2014		2014		2014	
	Nov		Dec		Jan		Feb		Mar		Apr		May		Jun		Jul			
	1st	2nd																		
<i>Water Construction - Not part of modelling analysis</i>																				
Construct Wharf, Armor, Fill					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Land Ex					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock Placement, Push Off & Tub & Orange Peels																				
Retaining Bulkhead Construction					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drive 24-In Octagonal Piles - Land					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drive 24-In Octagonal Piles - Water					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drive Piles - Misc Activities					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reinforced Concrete Wharf					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Basin Fill and Surcharge West					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cutter Suction Dredging- Spill Barge (No Booster)																				
Cutter Suction Dredging- Land Disposal (No Booster)																				
Wick Drains					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Settlement Period					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 2-2 Roll Surcharge					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ph 2-3 Remove Surcharge																				
Roll Surcharge																				
CY Development																				
New Container Yard Utilities																				
New Container Yard Construction - Paving																				
Ph 2-3 New Container Yard Construction - Electrical																				
All Fugitive Dust from Ground Disturbance	20	20	20	19	19	19	19	19	19	19	19	19	19	19	32	32	32	32	32	32
Hourly Total	22	22	21	20	20	20	20	20	20	20	20	20	20	21	35	35	35	35	35	35

Table A.2.2-Alt3-8. Definition of Peak Hourly PM2.5 Emissions - POLB - MHTP - Alternative 3

Water Construction - Not part of modelling analysis Activity	2014		2014		2014		2014		2014		2014		2015		2015		2015		2015	
	Aug		Sep		Oct		Nov		Dec		Jan		Feb		Mar		Apr			
	1st	2nd																		
Rock Revetment																				
Rock Placement, Push Off & Tub & Orange Peels																				
Hydraulic or Clamshell Dredge to -55 ft																				
Clamshell Dredging																				
Ground Improvements Pier D																				
Stone Column Installation Eq																				
Marine Rock Delivery Eq																				
Demo - E12-13 Wharf																				
Wharf Demolition Landside																				
Wharf Demolition Marine																				
Lift #1 (- -30)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #2 (- -15)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #3 (- 0)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Lift #4 (- +15)																				
Rock Placement, Push Off & Tub & Orange Peels																				
Initial Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
2nd Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
3rd Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
4th Surcharge and Wick Drains																				
Wick Drains																				
Roll Surcharge																				
Remove Surcharge																				
Roll Surcharge																				
Container Yard Development																				
New Container Yard Utilities																				
New Container Yard Construction - Paving																				
New Container Yard Construction - Electrical																				
POLB Ocean Blvd Track Reconfiguration																				
Triple Track Installation Demo Eq																				
Triple Track Utility Relocation Eq																				
Triple Track Grading Eq																				
Triple Track Retaining Wall Eq																				
Triple Track Trackwork Eq																				
Triple Track Miscellaneous Eq																				
Demolish Existing Facilities																				
Sheet Pile Bulkhead Demolition																				
Wharf Demolition Landside																				
Wharf Demolition Marine																				
Construct New Bulkhead (Install Transition Bulkhead)																				
Retaining Bulkhead Construction																				
Excavation Fronting E25 and Dispose Slip 1																				
Clamshell Dredging																				
Construct New Armor Slope																				
Rock Placement, Push Off & Tub & Orange Peels																				
Wharf Construction																				
Drive 24-In Octagonal Piles - Land																				
Drive 24-In Octagonal Piles - Water																				
Drive Piles - Misc Activities																				
Reinforced Concrete Wharf																				
CY Development																				
New Container Yard Construction - Paving																				

Ph 1-1

Ph 1-2

Table A.2.2-Alt3-8. Definition of Peak Hourly PM2.5 Emissions - POLB - MHTP - Alternative 3

Activity	2015		2015		2015		2015	
	May		Jun		Jul		Aug	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd
Water Construction - Not part of modelling analysis								
Rock Revetment								
Rock Placement, Push Off & Tub & Orange Peels								
Hydraulic or Clamshell Dredge to -55 ft								
Clamshell Dredging								
Ground Improvements Pier D								
Stone Column Installation Eq								
Marine Rock Delivery Eq								
Demo - E12-13 Wharf								
Wharf Demolition Landside								
Wharf Demolition Marine								
Lift #1 (- -30)								
Rock Placement, Push Off & Tub & Orange Peels								
Lift #2 (- -15)								
Rock Placement, Push Off & Tub & Orange Peels								
Lift #3 (- 0)								
Rock Placement, Push Off & Tub & Orange Peels								
Lift #4 (- +15)								
Rock Placement, Push Off & Tub & Orange Peels								
Initial Surcharge and Wick Drains								
Wick Drains								
Roll Surcharge								
2nd Surcharge and Wick Drains								
Wick Drains								
Roll Surcharge								
3rd Surcharge and Wick Drains								
Wick Drains								
Roll Surcharge								
4th Surcharge and Wick Drains								
Wick Drains								
Roll Surcharge								
Remove Surcharge								
Roll Surcharge								
Container Yard Development								
New Container Yard Utilities								
New Container Yard Construction - Paving								
New Container Yard Construction - Electrical								
POLB Ocean Blvd Track Reconfiguration								
Triple Track Installation Demo Eq								
Triple Track Utility Relocation Eq								
Triple Track Grading Eq								
Triple Track Retaining Wall Eq								
Triple Track Trackwork Eq								
Triple Track Miscellaneous Eq								
Demolish Existing Facilities								
Sheet Pile Bulkhead Demolition								
Wharf Demolition Landside								
Wharf Demolition Marine								
Construct New Bulkhead (Install Transition Bulkhead)								
Retaining Bulkhead Construction								
Excavation Fronting E25 and Dispose Slip 1								
Clamshell Dredging								
Construct New Armor Slope								
Rock Placement, Push Off & Tub & Orange Peels								
Wharf Construction								
Drive 24-In Octagonal Piles - Land								
Drive 24-In Octagonal Piles - Water								
Drive Piles - Misc Activities								
Reinforced Concrete Wharf								
CY Development								
New Container Yard Construction - Paving								

Ph 1-1

Ph 1-2

Table A.2.2-Alt3-8. Definition of Peak Hourly PM2.5 Emissions - POLB - MHTP - Alternative 3

Activity	2015		2015		2015		2015		2015	
	May		Jun		Jul		Aug		2015	
	1st	2nd								
<i>Water Construction - Not part of modelling analysis</i>										
Construct Wharf, Armor, Fill	0	0	0	0	0	0	0	0	0	0
Land Ex	0	0	0	0	0	0	0	0	0	0
Rock Placement, Push Off & Tub & Orange Peels										
Retaining Bulkhead Construction	0	0	0	0	0	0	0	0	0	0
Drive 24-In Octagonal Piles - Land	0	0	0	0	0	0	0	0	0	0
Drive 24-In Octagonal Piles - Water	0	0	0	0	0	0	0	0	0	0
Drive Piles - Misc Activities	0	0	0	0	0	0	0	0	0	0
Reinforced Concrete Wharf	0	0	0	0	0	0	0	0	0	0
Basin Fill and Surcharge West	0	0	0	0	0	0	0	0	0	0
Cutter Suction Dredging- Spill Barge (No Booster)										
Cutter Suction Dredging- Land Disposal (No Booster)										
Wick Drains	0	0	0	0	0	0	0	0	0	0
Settlement Period	0	0	0	0	0	0	0	0	0	0
Ph 2-2 Roll Surcharge	0	0	0	0	0	0	0	0	0	0
Ph 2-3 Remove Surcharge										
Roll Surcharge										
CY Development										
New Container Yard Utilities										
New Container Yard Construction - Paving										
Ph 2-3 New Container Yard Construction - Electrical										
All Fugitive Dust from Ground Disturbance	32	32	32	32	32	32	32	19	19	19
Hourly Total	35	21	21	21						

Appendix A-3

Health Risk Assessment for the Port of Long Beach Middle
Harbor Redevelopment Project

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Appendix A-3

Health Risk Assessment for the Port of Long Beach Middle Harbor Redevelopment Project

1.0 INTRODUCTION

(NOTE: All tables and figures are included at the end of this appendix.)

Subsequent to release of the Draft EIS/EIR in May 2008, new regulations were adopted and several updated assumptions became available that were used to prepare an updated health Risk Assessment (HRA) analysis for the FEIS/FEIR. Refer to the introductory section of FEIS/FIER Chapter 3.2 (Air Quality and Health Risk) for a summary of the changes that were implemented in the Health Risk Assessment (HRA) analysis.

This document describes the methods and results of a HRA that evaluates potential public health effects from toxic air contaminant (TAC) emissions that would result from construction and operations of the Port of Long Beach (Port or POLB) Middle Harbor Redevelopment Project (Project). TACs are compounds that are known or suspected to cause adverse carcinogenic and/or non-carcinogenic human health effects after short-term (acute) or long-term (chronic) exposure.

The HRA evaluated individual lifetime cancer risks, cancer burden, and chronic and acute non-cancer hazard indices associated with the proposed Project. Individual lifetime cancer risk represents the chance that an individual would contract cancer after a lifetime of exposure to the TACs of concern. Cancer burden is an estimate of the number of persons that would contract cancer from exposure to Project TAC emissions within the Project's zone of impact (ZOI). For assessing non-cancer health effects, long-term chronic and short-term acute health impacts were evaluated.

This HRA was prepared in accordance with the *Air Quality and Risk Assessment Analysis Protocol for Proposed Projects at the Port of Long Beach* (Protocol) (Port 2007). The Protocol is a living document, developed by the Port in consultation with the South Coast Air Quality Management District (SCAQMD), California Air Resources Board (ARB), and Office of Environmental Health Hazard Assessment (OEHHA). In general, the Protocol follows the methods for preparing Tier 1 risk assessments described in *The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments* (OEHHA 2003); *Supplemental Guidelines for Preparing Risk*

Assessments for the Air Toxics "Hot Spots" Information and Assessment Act (AB2588) (SCAQMD 2005a); and *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions* (SCAQMD 2002). The methods in these guidance documents are incorporated into the Hotspots Analysis and Reporting Program (HARP) model released by the ARB in December 2003 (ARB 2003a). This HRA used the HARP model to perform all health risk calculations.

In November 2006, the U.S. Environmental Protection Agency (EPA) identified the AERMOD dispersion model as EPA's preferred dispersion model, replacing the Industrial Source Complex Short-Term, Version 3 model (ISCST3) (EPA 2006). AERMOD is a steady-state plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts that can handle both ground-level and elevated sources in both simple and complex terrain. Moreover, as the EPA-preferred model, AERMOD is assumed to be the model of choice for NEPA EIS dispersion modeling air quality impact analysis.

The HARP model was developed to use ISCST3 for the air dispersion modeling. Recently, there has been increased interest in using AERMOD with the HARP model to address EPA's guidance on the preferred dispersion model. Consequently, the ARB has developed a program that converts AERMOD air dispersion output files into text files that can be imported by the HARP Risk Module for performing the risk analysis (ARB 2008). Recent ARB guidance on railyard health risk modeling approved the use of AERMOD over ISCST3 (ARB 2006d). Thus, AERMOD was used for conducting the air dispersion analysis for this HRA in conjunction with risk module in HARP.

The HRA process requires four general steps to estimate health impact results: (1) quantify Project-generated emissions; (2) identify ground-level receptor locations that may be affected by the emissions (including both a regular grid of receptors and any special sensitive receptor locations such as schools, hospitals, convalescent homes, and daycare centers); (3) perform dispersion modeling analyses to estimate ambient TAC concentrations at each receptor location; and (4) use a risk characterization model (i.e., HARP)

to estimate the potential health risk at each receptor location. The following describes in detail the methods used to develop each step of the Project HRA.

2.0 DEVELOPMENT OF EMISSION SCENARIOS USED IN THE HRA

2.1 EMISSION SOURCES

The HRA evaluated all operational air emissions sources associated with each project scenario, as identified in Section 2.3, Appendix A-2 of this EIS/EIR. Additionally, for the cancer and chronic non-cancer analyses, the HRA evaluated DPM emissions that would occur from on- and offsite sources involved in construction activities for each project alternative/scenario.

2.2 TAC EMISSION CALCULATION APPROACH

The determination of health risks in this HRA required the calculation of 70-year average and maximum annual TAC emission rates. The HRA used 70-year annual average emission rates to determine individual lifetime cancer risks. The 70-year averaging period coincided with 2010 through 2079, or Project years one through 70.

The HRA conservatively used maximum annual emission rates to determine the chronic hazard index, as the chronic exposure period for non-cancer effects is assumed to be at least eight years (OEHHA 2003). In accordance with OEHHA HRA guidelines, maximum one-hour emission rates were used to determine the acute hazard index because the acute exposure period is one hour for most TACs. For assessing chronic and acute health impacts from the Project, the HRA focused on construction and operational activities for year 2010, the worst-case year, as this was determined in consideration of annual emissions and their locations to be the year with the greatest incremental impacts between the Project and baseline conditions.

Except for ship boilers, truck tire wear, and truck brake wear, all of the sources included in the HRA are diesel internal combustion engines. Therefore, the analysis of long-term (cancer and chronic) health effects focused on particulate matter (PM) less than 10 microns in diameter (PM₁₀) (modeled as DPM) emissions, as this is the only pollutant OEHHA considers in the estimation of cancer (lifetime) and chronic (annual) non-cancer effects from these sources. However, to estimate acute

health effects (less than 24 hours) from diesel internal combustion engines, the HRA evaluated a more detailed list of pollutants, including criteria pollutants and TACs in the form of volatile organic compounds (VOCs) and PM.

The cancer, chronic, and acute non-cancer toxicity factors established by OEHHA for the assessment of DPM emissions include consideration of all toxic compounds associated with diesel combustive emissions.

Because ship boilers are external combustion sources, it was necessary to speciate their PM₁₀ and VOC emissions into individual TAC components for use in the HRA. In accordance with ARB recommendations (ARB 2005a), speciation profiles developed for the *California Emission Inventory and Reporting System* (CEIDARS) were used in this study (ARB 2002b and 2003b). In this study, Total Organic Gas (TOG) emissions were derived from VOC emissions using conversion factors provided with the TOG speciation profiles. Table A-3-1 presents the speciation profiles that were used to convert VOC and PM₁₀ combustion emissions into individual TAC emissions.

PM₁₀ emissions from truck tire and brake wear were also speciated into their individual TAC components for use in the cancer, chronic, and acute HRA analysis. The CEIDARS speciation profiles used for these sources are also presented in Table A-3-1.

Project construction activities would occur between 2009 and 2015 (See Section 3.1.1 of Appendix A-2 for a detailed presentation of construction sources and dimensions). The analysis divided total DPM emissions from construction by 70 years to create 70-year annual average DPM emission rates. The analysis then added these emissions to the 70-year annual average operational DPM emissions to estimate total Project cancer effects. For chronic non-cancer effects, the HRA included construction emissions of DPM that were estimated to occur during 2010 for Alternative 1, Alternative 2, and Alternative 3 (equivalent to the NEPA Baseline) scenarios.

The extensive Project life analyzed in the HRA (up to 70 years for cancer risk) required wide-ranging predictions of the future operational characteristics of proposed emission sources. Two of the more important factors that would affect future emissions from Project sources are:

1. Reductions in emission factors due to (a) vehicle or equipment fleet turnover to cleaner standards and (b) the future phase-in of cleaner fuels as required by existing regulations; and
2. Increased vehicle or equipment activity levels due to anticipated increases in container throughput or infrastructure constraints.

Sections 2.3 and 2.4 of this Appendix discuss the approaches used to predict future emission factors and activity levels, respectively. Based on these future trends, this HRA developed annualized 70-year PM₁₀ and VOC (for ship boilers only) emission rates for each emission source category four use in the cancer analysis. ARB Speciation profiles were then applied to the PM₁₀ and VOC emissions for non-diesel internal combustion sources to identify TACs for use in the HRA.

2.3 EMISSION FACTOR TRENDS

Future operation of the Middle Harbor container terminal would include the same types of emission sources as current operations, except that it would exclude break-bulk operations and it would include an expanded Pier F intermodal railyard. Information on future operational emission sources was obtained from the POLB, the proposed Project traffic study conducted as part of this EIS/EIR (Section 3.5), the *Port of Long Beach Air Emissions Inventory – 2005* (AEI) (Starcrest Consulting Group, LLC 2007), and documents on the environmental review of proposed terminal development projects in the ports (POLA 2007). Emission factors used to estimate future operational emissions were obtained from: (1) the ARB OFFROAD2007 Emissions Model (ARB 2006f) for terminal and railyard equipment; (2) the 2005 POLB AEI for vessel sources; (3) special studies for locomotives (EPA 1997); and (4) the ARB EMFAC2007 mobile source emissions model for on-road trucks (ARB 2006g).

Emissions were estimated for the CEQA Baseline year of 2005 and for future development milestone years of 2010, 2015, 2020, and 2030. Emissions were held constant for post-2025 conditions, as the terminal is expected to reach its design capacity and there would be no increase in operational throughput after 2025. For each Project alternative, the analysis made the following comparisons to assess health impacts:

- Project alternative impacts for each health effect minus existing terminal impacts in

year 2005 were compared to the SCAQMD thresholds to determine significance under CEQA.

- Project alternative impacts for each health effects minus the NEPA Baseline impacts for the same period of analysis were compared to SCAQMD thresholds to determine significance under NEPA.

Appendix A-1, Attachment A.2.1 includes data and assumptions used to estimate operational emissions for each Project scenario and milestone year. Additional details regarding the construction and operational emission calculations are included in Appendix A-1.

Proposed Environmental Controls

This analysis assumes that each Project scenario would operate consistent with approved/applicable regulations, as identified in EIS/EIR Section 3.2.1.3 (Regulatory Section). The unmitigated project scenarios include Port-wide CAAP measures that would occur independent of terminal lease agreements. In addition, as part of the Port's commitment to promote the POLB Green Port Policy and implement the CAAP, the "mitigated" operational activities associated with Project Alternative 1 (345-Acre Alternative), Alternative 2 (315-Acre Alternative), and Alternative 3 (Landside Improvements Alternative) include all applicable CAAP control measures and additional clean air technologies. Tables A-3-2 and A-3-3 identify the regulations/CAAP measures assumed for each Project construction and Project operational scenario, respectively.

2.4 ACTIVITY LEVEL TRENDS

The second parameter needed to develop Project source emission rates is the annual source activity levels expected over the 70-year period. Examples of activity levels include the number of ship visits and associated energy usage, ship hoteling times, terminal equipment usage, the number of departing and arriving trains and truck trips, and truck travel speeds.

For all Project scenarios, the Port identified yearly activity projections for 2005 (CEQA Baseline year), 2010, 2015, 2020, and 2030. Activity levels between 2010 and 2025 were interpolated from these milestone years. Due to the difficulty of predicting activity levels beyond 2025, the analysis held activity levels after 2025 constant at 2025 levels, as the terminal is expected to reach its

design capacity in 2025 and therefore, there would be no increase in operational throughput after then. For the CEQA Baseline scenario, the activity levels were held constant at 2005 levels over the entire 70-year period of 2010 through 2079.

Attachments A.3.2 and A.3.3 of Appendix A-3 present the 70-year average and year 2010 PM₁₀ and VOC emission rates, respectively, by source type for the CEQA Baseline, NEPA Baseline, Alternative 1 (proposed Project), Alternative 2 (315-Acre Alternative), Alternative 3 (Landside Improvements Alternative), and Alternative 4 (No Project Alternative). Attachment A.3.4 of Appendix A-3 presents the 70-year average and the annual year 2010 DPM emissions for construction sources.

3.0 RECEPTOR LOCATIONS USED IN THE HRA

The HRA analyzed health impacts at a variety of locations (receptors) throughout the Project area, including locations of residents, offsite workers, and sensitive members of the public. For residents and offsite workers, the analysis utilized a regular coarse grid of 983 receptor points extending about five kilometers (km) in all directions from the Project terminal property line. The receptors were spaced 250 meters (m) apart out to a distance of about three km, and then 500 m apart for the remaining distance. To reduce AERMOD runtime, receptors over water were spaced 500 m apart regardless of their distance from the terminal. Further, 182 receptor points spaced at 100-m intervals were positioned in areas of maximum predicted residential and occupational risk values to capture the impacts to the nearest 100 m. The receptor grid used in the HRA is shown in Figure A-3-1.

According to OEHHA, sensitive receptors include schools, day care centers, convalescent homes, and hospitals. Using internet searches, state database information, and Long Beach Unified School District maps, 239 discrete sensitive receptor locations were identified in proximity to the Project terminal and were included in the regular receptor grid. Table A-3-4 summarizes the locations of these sensitive receptors.

To estimate cancer burden, 74 discrete receptors were placed at the centroids of all census blocks located partially or completely within the proposed Project's ZOI. The ZOI was defined as the area inside the isopleth representing a one-in-a-million cancer risk increment, in accordance with

SCAQMD risk assessment procedures (SCAQMD 2005). Figure A-3-2 shows the census blocks, census block centroids, and residential populations used in the HRA.

The HRA selected the maximally exposed individual (MEI) locations from the modeling receptor grids for three different receptor types: (1) residential; (2) occupational; and (3) sensitive. The locations of these receptor types assumed the following:

- Residential receptors occur within all residential or zoned residential areas, including public marinas (for possible live-aboards) located in the East Basin, Cerritos Channel, and Long Beach Marina; and
- Occupational receptors occur outside of the Project terminal property line, excluding over water or on public roadways.

Sensitive receptors occur at all schools, day care centers, convalescent homes, and hospitals in the surrounding Project area including all schools identified by the Long Beach Unified School District.

Once the MEI locations were determined for various increments (i.e., CEQA and NEPA increments), a fine receptor grid was developed around these points of high impact. The MEIs were then determined from a combination of coarse and fine grid modeling runs based on the assessed highest values by the HARP Model.

4.0 DISPERSION MODEL SELECTION AND INPUTS

This HRA used the HARP model to assess air quality impacts and health risks from the Project's operational emission sources. AERMOD was used instead of ISCST3 for conducting the air dispersion modeling in conjunction with the HARP risk module. In November 2006, AERMOD officially became the EPA's preferred model for conducting dispersion modeling, and it has been approved by ARB and SCAQMD for conducting HRA analyses. Relative to ISCST3, AERMOD contains new or improved algorithms for (1) dispersion in both the convective and stable boundary layers; (2) plume rise and buoyancy; (3) plume penetration into elevated inversions; (4) treatment of elevated, near-surface, and surface level sources; (5) computation of vertical profiles of wind, turbulence, and temperature; and (6) the treatment of receptors on all types of terrain (from

the surface up to and above the plume height). The AERMOD model was selected for this HRA for the following reasons:

- It has become the regulatory default model for dispersion modeling;
- The general acceptance by the modeling community and regulatory agencies of its ability to provide more reasonable results for large industrial complexes with multiple emission sources than ISCST3; and
- The ability of the model to handle the various physical characteristics of Project emission sources, including “point,” “area,” and “volume” source types.

The current version of HARP is not directly compatible with AERMOD, as AERMOD only recently became the official EPA guideline model. Therefore, it was necessary to use ARB’s HARP File Converter program (ARB 2008) to convert the AERMOD output into a format that could be imported and used by the HARP risk analysis module. Development of the HARP File Converter program is on-going by ARB; the most recent public beta (Beta 2) version was used for this study.

4.1 PHYSICAL SIMULATIONS OF EMISSION SOURCES

The AERMOD modeling analysis evaluated Project-related construction and operational emission sources, including marine- and land-based construction equipment, container ships, assist tugboats, terminal and railyard equipment, locomotives, and trucks. The HRA simulated emission sources by taking into consideration physical characteristics and operational locations of the sources. Emissions from the movement of vessels in the shipping lanes, trains on rail lines, and trucks on roadways are line-source emissions that were simulated and modeled as a series of discrete volume sources. Mobile source operations confined within specific geographic locations, such as the Middle Harbor terminal and expanded Pier F intermodal railyard, were modeled as a collection of volume sources covering the subject area. Volume source emissions were simulated by AERMOD as being released and mixed vertically and horizontally within a volume of air prior to being dispersed downwind. Finally, stationary emissions from hoteling ships were modeled as point (stack) sources with upward plume velocity and buoyancy. Details of the physical simulations of emission

sources evaluated in the modeling analyses are presented in Section 3.1, Appendix A-2 of this EIS/EIR.

Figures A-3-3, A-3-4, A-3-5, and A-3-5a show the on-terminal source representation in AERMOD for the CEQA Baseline (and No Project Alternative), NEPA Baseline (Landside Improvements Alternative), proposed Project, Alternative 2 (315-Acre Alternative), respectively. Figure A-3-5b shows the construction and dredging source representations used in the AERMOD modeling. Figure A-3-6 shows the AERMOD source representation for the ship Fairway and Precautionary Area transit routes. Figure A-3-7 shows the AERMOD source representation for the truck, locomotive, and ship and tugboat harbor transit routes.

The HRA positioned emission sources and receptors with the use of the Universal Transverse Mercator (UTM) coordinate system (NAD-83) referenced to topographic data obtained from the USGS.

Emission sources were modeled with the use of temporal distributions to reflect the variability of daily cargo handling activity. The diurnal emission patterns, as shown in Table A-3-5, were based on those developed by the ARB in the Diesel Particulate Matter Exposure Assessment Study for POLB and POLA (ARB 2006c).

4.2 METEOROLOGICAL DATA

As discussed in Section 3.2, Appendix A-2 of this EIS/EIR, due to varying wind conditions within the Project region, the HRA split the Project modeling domain into distinct Inner and Outer Harbor meteorological areas. The boundary between these two areas is roughly a line drawn across the Long Beach Channel from the old Navy Mole to the Jacobson Pilot Station on Pier F.

The monitoring stations that were selected to simulate meteorological conditions within the Project region include: (1) the POLA St Peter and Paul School (SPPI) station, about 3½ miles northwest of the Project site, in Wilmington (Inner Harbor); and (2) the POLA Berth 47 station, located about four miles southwest of the Project site (Outer Harbor). The modeling results for each meteorological domain were summed at each common receptor point to produce total impacts from each Project scenario.

Annual meteorological data sets were developed for both the Berth 47 and SPPI sites for the same

one-year timeframe with the use of the AERMET processing routine.

4.3 MODEL OPTIONS

The air dispersion modeling was performed using the EPA dispersion model AERMOD, version 07026, based on the Guideline on Air Quality Models (EPA 2006). The SCAQMD approves the use of AERMOD for mobile source analyses.

Technical options selected for the AERMOD model include:

- Regulatory default;
- Include stack tip downwash;
- Incorporate effects of elevated terrain;
- Include calms and missing data processing;
- Urban modeling;
- Urban area population of 535,500; and
- Default urban area roughness length of 1 m.

Use of these options follow EPA and SCAQMD modeling guidance. The urban area option, which employs a routine to account for an urban heat island effect under nighttime conditions, was applied to all model sources except Precautionary Area and Fairway ship transit. The urban area population of 535,500 represents the combined populations of Long Beach and Wilmington, the two adjacent cities to the Port. This urban area population estimate is conservative, as the entire Los Angeles metropolitan area may contribute to the urban heat island effect at the Port.

5.0 CALCULATION OF HEALTH RISKS

The results of the AERMOD dispersion modeling analysis represent an intermediate product in the HRA process. The HARP model subsequently was used to determine cancer risk and chronic and acute non-cancer hazard indices from Project emission sources by factoring pollutant concentrations by pollutant-specific cancer potency values and non-cancer RELs obtained from OEHHA (ARB 2005b). An REL is an estimate of the acceptable continuous inhalation exposure concentration for the human population (including sensitive subgroups) without appreciable risk of experiencing deleterious noncancer effects.

5.1 TOXICITY FACTORS

The inhalation cancer potency factor is the probability that a person will contract cancer from the continuous inhalation of one milligram (mg) of a chemical per kilogram (kg) of body weight per day over a period of 70 years. The inhalation potency factor is used to calculate a potential inhalation cancer risk using the new risk assessment algorithms defined in OEHHA (2003). To assess the potential for non-cancer health effects resulting from chronic and acute inhalation exposure, OEHHA has established RELs to which ambient TAC concentrations are compared.

In addition to the inhalation exposure pathway, several non-inhalation exposure pathways also were incorporated in the HRA, including dermal adsorption, soil ingestion, home-grown produce ingestion (residential and sensitive receptors only), and mother's milk ingestion (residential and sensitive receptors only). The various exposure parameters and settings used in HARP for these exposure pathways are consistent with SCAQMD guidelines (SCAQMD 2005a). The results of this study show that the contributions of the non-inhalation exposure pathways to the HRA results are negligible compared to the inhalation pathway.

Table A-3-6 presents the cancer risk, chronic and acute non-cancer toxicity factors, target organ (end points) used to assess health risks in this study, which are based on OEHHA guidance at the time of this analysis.

5.2 EXPOSURE SCENARIOS FOR INDIVIDUAL LIFETIME CANCER RISK

For the cancer risk evaluation, the frequency and duration of exposure to TACs are assumed to be directly proportional to the risk. Therefore, this HRA used specific exposure assumptions for each receptor type, as described below.

- **Residential and Sensitive Receptors.** The HRA estimated cancer risks for residential and sensitive receptors based on the use of breathing rates described in the *ARB Recommended Interim Risk Management Policy for Inhalation-Based Residential Cancer Risk (October 2003)* (ARB 2004a).

For risk assessments based on the inhalation pathway only (as appropriate for DPM), where a single cancer risk value is required for a risk management decision,

the ARB policy recommends that the potential cancer risk be based on the breathing rate representing the 80th percentile for a 70-year exposure period. The 80th percentile lifetime breathing rate is equal to 302 liters per kilogram of body weight per day (L/kg BW-day). Therefore, the HRA determined maximum residential and sensitive receptor cancer risk impacts by using HARP's built-in 80th percentile point estimate analysis method (inhalation only) and an exposure duration of 24 hours per day, 350 days per year, and 70 years (i.e., the "Derived [Adjusted]" risk calculation method).

- **Occupational impacts.** Workers generally do not spend as much time within a project region as residents of the region. The SCAQMD therefore allows an exposure adjustment for workers (SCAQMD 2005a). Lifetime occupational exposure is based on a worker presence of eight hours per day, 245 days per year, for 40 years (as recommended by OEHHA [2003]). The breathing rate for workers is equal to 447 L/kg BW-day, which equates to 149 L/kg BW-day over an eight-hour workday (OEHHA 2003). Occupational cancer risk estimates were calculated directly in HARP assuming an 18-hour-per-day Project operating schedule. The use of an 18-hour-per-day Project operating schedule could yield conservative (over-predictive) results for workers because some sources (such as locomotives and hoteling ships) would operate 24 hours per day, resulting in proportionately less exposure during the time the worker is at the job site.
- Table A-3-7 summarizes the primary exposure assumptions used to calculate individual lifetime cancer risks by receptor type.

5.3 EXPOSURE ASSUMPTIONS FOR CANCER BURDEN

Cancer burden is an estimate of the number of persons that would contract cancer from exposure to Project TAC emissions within the Project's ZOI, defined as the area inside the isopleth representing a one in one million (1×10^{-6}) residential cancer risk increment, in accordance with SCAQMD risk assessment procedures (SCAQMD 2005).

Cancer burden was determined based on the same approach used by ARB in the HARP program (ARB 2003a). To estimate cancer burden, the incremental Project cancer risk was determined, using residential exposure assumptions, for each census block located partially or completely within the Project's ZOI. The cancer risk increment for each census block was then multiplied by the census block's residential population, and the products were summed for all census blocks.

Figure A-3-2 shows the census blocks, census block centroids, and residential populations used in this HRA.

6.0 SIGNIFICANCE CRITERIA FOR PROJECT HEALTH RISKS

The significance of impacts estimated by the HRA from a CEQA and NEPA standpoint was based on the incremental increase in health effect values due to a project alternative, as calculated from the net change in health impacts between the alternative and the respective CEQA and NEPA Baseline conditions. Both of these incremental health effects values (alternative minus CEQA Baseline and alternative minus NEPA Baseline) were compared to the significance thresholds described below.

The SCAQMD has established thresholds for determining the significance of health impacts from proposed land use development projects (SCAQMD 2006). Based on these thresholds, a project would produce less than significant cancer risk impacts if the maximum CEQA or NEPA incremental cancer risk due to the project is less than 10 chances in one million (10×10^{-6}). The Port has adopted the SCAQMD's threshold as an acceptable risk level for new projects. To determine a project's significance, the HRA compared the CEQA and NEPA increments for all receptor types to the 10 in one million threshold.

The SCAQMD would consider the cancer burden associated with a proposed project to be significant if it equaled or exceeded 0.5 cancer cases.

For chronic non-cancer exposures, the HRA compared maximum predicted annual TAC concentrations to applicable RELs developed by OEHHA. For acute non-cancer exposures, the HRA compared maximum predicted hourly TAC concentrations to applicable RELs developed by OEHHA. A health hazard index [HHI] (defined as

the summation of predicted TAC concentrations divided by their respective RELs) which is less than one indicates that the exposure would present an acceptable or insignificant health risk (i.e., no adverse non-cancer health impact). Hazard indexes above one represent the potential for an unacceptable or significant health risk.

7.0 PREDICTED HEALTH IMPACTS

7.1 UNMITIGATED PROPOSED PROJECT HEALTH IMPACTS

7.1.1 Unmitigated Alternative 1 (345-Acre Alternative)

Table A-3-7 presents a summary of the maximum health impacts that would occur for each receptor type due to construction and operation of the unmitigated Alternative 1 scenario. The focus of the HRA, as summarized in Table A-3-8, is the identification of the maximum CEQA increment (unmitigated Alternative 1 minus CEQA Baseline) and NEPA increment (unmitigated Alternative 1 minus NEPA Baseline). The CEQA and NEPA increments for cancer burden are also presented. Since the data in Table A-3-8 correspond to the maximum incremental impacts predicted for each receptor type, the incremental impacts at all other receptor locations would be less than these values.

Table A-3-8 shows that the maximum CEQA increment for residential cancer risk is predicted to be negative five in a million (-5×10^{-6}). This risk value does not exceed the significance criterion of 10 in a million (10×10^{-6}) risk. This impact would occur at residences on the corner of Skyline Drive and East Panorama drive, approximately one mile south of Interstate 405. The maximum CEQA increment for occupational cancer risk is predicted to be negative two in a million (-2×10^{-6}). This risk value is below the significance criterion of 10 in a million (10×10^{-6}) risk. This impact would occur in the shipping yard in an industrial area off Miner Street, west of Terminal Island and south of East 22nd Street near Berth 47. The maximum CEQA increment for cancer risk at a sensitive receptor would be negative two in a million (-2×10^{-6}), which is less than the significance criterion of 10 in a million (10×10^{-6}) risk. This impact would occur at the Cleveland Elementary School at 4760 Hackett Avenue in Lakewood. This risk value was conservatively modeled with 70-year residential exposure assumptions.

Table A-3-8 shows that the maximum CEQA increments for non-cancer chronic and acute hazard indices would be less than one at all receptors. The chronic and acute hazard indices do not exceed the significance criterion of one. The cancer burden CEQA increment would be -3.94 cancer cases, which is less than the significance threshold of 0.5. Consequently, these impacts are below significance.

Table A-3-8 also shows that the maximum NEPA increment for residential cancer risk is predicted to be nine in a million (9×10^{-6}). This risk value does not exceed the significance criterion of 10 in a million (10×10^{-6}) risk. This impact would occur in a mixed-use area in downtown Long Beach, north of Ocean Boulevard and east of Golden Shore Street. The maximum NEPA increment for occupational cancer risk is predicted to be 16 in a million (16×10^{-6}). This risk value exceeds the significance criterion of 10 in a million (10×10^{-6}) risk. This impact would occur in the industrial area on Terminal Island at the South Eastern corner of Pier A. The maximum NEPA increment for cancer risk at a sensitive receptor is predicted to be seven in a million (7×10^{-6}). This impact would occur at a day care center located near Chavez Elementary School at 730 West Third Street in downtown Long Beach. This risk value does not exceed the significance criterion of 10 in a million (10×10^{-6}) risk.

Table A-3-8 shows that the maximum NEPA increments for the non-cancer chronic and acute hazard indices would be less than one at all receptors. The chronic and acute hazard indices do not exceed the significance criterion of 1.0. Moreover, the cancer burden NEPA increment would be 0.18 cancer cases. Consequently, these impacts are below significance.

Figures A-3-8 through A-3-12 show the distribution of predicted residential cancer risks within the modeling domain for the: (1) CEQA Baseline; (2) NEPA Baseline; (3) Unmitigated Alternative 1; (4) Unmitigated CEQA increment (unmitigated Alternative 1 minus CEQA Baseline); and (5) Unmitigated NEPA increment (unmitigated Alternative 1 minus NEPA Baseline), respectively.

As an explanation of the incremental residential cancer risks presented in these figures and summarized in Table A-3-8, the unmitigated Alternative 1 CEQA cancer risk increment shown in Figure A-3-11 is obtained by subtracting the data in Figure A-3-8 (CEQA Baseline cancer risk)

from Figure A-3-10 (unmitigated Alternative 1 cancer risk).

Correspondingly, the unmitigated Alternative 1 NEPA cancer risk increment shown in Figure A-3-12 is obtained by subtracting the data in Figure A-3-9 (NEPA Baseline cancer risk) from Figure A-3-10 (unmitigated Alternative 1 cancer risk).

The residential exposure conditions associated with these figures are 24 hours per day, 350 days per year, for 70 years and an 80th percentile breathing rate.

Table A-3-9 identifies the contribution by emission source category to the maximum residential and occupational impact locations for their respective CEQA cancer increments for the unmitigated Alternative 1 scenario. The main contributors of unmitigated Alternative 1 emissions to the maximum residential cancer risk location at the maximum residential cancer risk location at residences on the corner of Skyline Drive and East Panorama Drive, include: (1) 26 percent by ships in harbor transit; (2) 21 percent by ships transit in Fairway and Precautionary Area; (3) 15 percent by trucks; and (4) 14 percent by ships hoteling. The main contributors of unmitigated Alternative 1 emissions to the maximum occupational cancer risk location (off Miner Street), near POLA Berth 47, include: (1) 27 percent by ships transit in fairway and precautionary area; (2) 17 percent by ships in harbor transit; (3) 12 percent by ships hoteling; and (4) 10 percent by trucks.

7.1.2 Mitigated Alternative 1 (345-Acre Alternative)

Table A-3-10 presents a summary of the maximum health impacts that would occur for each receptor type due to construction and operation of the mitigated Alternative 1 scenario. Since the data in Table A-3-10 correspond to the maximum incremental impacts predicted for each receptor type, the incremental impacts at all other receptor locations would be less than these values.

Table A-3-10 shows that the maximum CEQA increment for residential cancer risk is predicted to be negative six in a million (-6×10^{-6}). This risk value does not exceed the significance criterion of 10 in a million (10×10^{-6}) risk. This impact would occur at residences on the corner of Skyline Drive and East Panorama drive, approximately one mile south of Interstate 405. The maximum CEQA increment for occupational cancer risk is predicted

to be negative two in a million (-2×10^{-6}). This risk value does not exceed the significance criterion of 10 in a million (10×10^{-6}) risk. This impact would occur in an industrial area in POLA south of East 22nd Street near Berth 47. The maximum CEQA increment for cancer risk at a sensitive receptor is predicted to be negative two in a million (-2×10^{-6}). This risk value does not exceed the significance criterion of 10 in a million (10×10^{-6}) risk. This impact would occur at the Cleveland Elementary School at 4760 Hackett Avenue in Lakewood.

Table A-3-10 shows that the maximum CEQA increments for the non-cancer chronic and acute hazard indices would be less than one at all receptors. These impacts are less than the significance criterion of one. The cancer burden CEQA increment would be -4.04 cancer cases, which is less than the significance threshold of 0.5. Consequently, these impacts are below significance.

Table A-3-10 also shows that the maximum NEPA increment for residential cancer risk is predicted to be eight in a million (8×10^{-6}). This risk value does not exceed the significance criterion of 10 in a million (10×10^{-6}) risk. This impact would occur in a mixed-use area in downtown Long Beach, north of Ocean Boulevard and east of Golden Shore Street. The maximum NEPA increment for occupational cancer risk is predicted to be nine in a million (9×10^{-6}). This risk value does not exceed the significance criterion of 10 in a million (10×10^{-6}) risk. This impact would occur in the industrial area on Terminal Island at the South Eastern corner of Pier A. The maximum NEPA increment for cancer risk at a sensitive receptor is predicted to be four in a million (4×10^{-6}). This risk value is less than the significance criterion of 10 in a million (10×10^{-6}) risk. This impact would occur at a day care center located near Chavez Elementary School at 730 West Third Street in downtown Long Beach..

Table A-3-10 shows that the maximum NEPA increments for the non-cancer chronic and acute hazard indices would be less than one at all receptors. This impact would not exceed the significance criterion of one. The cancer burden NEPA increment would be 0.08 cancer cases, which is less than the significance threshold of 0.5. Consequently, these impacts are below significance.

Figures A-3-13 through A-3-15 show the distribution of predicted *residential* cancer risks

within the modeling domain for the: (1) Mitigated proposed Project; (2) Mitigated CEQA increment (mitigated Project minus CEQA Baseline); and (3) Mitigated NEPA increment (mitigated Project minus NEPA Baseline), respectively.

Table A-3-11 identifies the contribution by emission source category to the maximum residential and occupational impact locations for their respective CEQA cancer increments for the mitigated Alternative 1 scenario. The main contributors of mitigated Alternative 1 emissions at the maximum residential cancer risk location at residences on the corner of Skyline Drive and East Panorama Drive, include: (1) 28 percent by ships in harbor transit; (2) 23 percent by ships transit in Fairway and Precautionary Area; (3) 17 percent by trucks; and (4) Eight percent by ships hoteling.

The main contributors of unmitigated Alternative 1 emissions to the maximum occupational cancer risk location (off Miner Street), near POLA Berth 47, include: (1) 28 percent by ships transit in fairway and precautionary area; (2) 19 percent by ships in harbor transit; (3) 11 percent by trucks; and (4) seven percent by ships hoteling.

7.2 ALTERNATIVE 2 (315-ACRE ALTERNATIVE)

7.2.1 Unmitigated Alternative 2 (315-Acre Alternative)

Table A-3-12 presents a summary of the maximum health impacts that would occur for each receptor type due to construction and operation of unmitigated Alternative 2. Since the data in Table A-3-12 correspond to the maximum incremental impacts predicted for each receptor type, the incremental impacts at all other receptor locations would be less than these values.

Table A-3-12 shows that the maximum CEQA increment for residential cancer risk is predicted to be negative five in a million (-5×10^{-6}). This risk value does not exceed the significance criterion of 10 in a million (10×10^{-6}) risk. This impact would occur at residences on the corner of Skyline Drive and East Panorama drive, approximately one mile south of Interstate 405. The maximum CEQA increment for occupational cancer risk is predicted to be negative two in a million (-2×10^{-6}). This risk value does not exceed the significance criterion of 10 in a million (10×10^{-6}) risk. This impact would occur in an industrial area in POLA south of East 22nd Street near Berth 47. The maximum CEQA

increment for cancer risk at a sensitive receptor is predicted to be -2 in a million (-2×10^{-6}). This risk value does not exceed the significance criterion of 10 in a million (10×10^{-6}) risk. This impact would occur at the Cleveland Elementary School at 4760 Hackett Avenue in Lakewood.. The cancer risk was modeled conservatively based on a 70-year residential exposure.

Table A-3-12 shows that the maximum CEQA increments for the chronic and acute hazard index would be less than one at all receptors. The cancer burden CEQA increment would be -4.08 cancer cases, which is less than the significance threshold of 0.5. Consequently, these impacts would be below significance.

Table A-3-12 shows that the maximum NEPA increment for residential cancer risk is predicted to be five in a million (5×10^{-6}). This risk value is less than the significance criterion of 10 in a million (10×10^{-6}) risk. This impact occurs on the western side of Marina Park Harbor just north of Marina Park Drive. The maximum NEPA increment for occupational cancer risk is predicted to be 15 in a million (15×10^{-6}). This risk value exceeds the significance criterion of 10 in a million (10×10^{-6}) risk. This impact would occur in the industrial area on Terminal Island at the South Eastern corner of Pier A.. The maximum NEPA increment for cancer risk at a sensitive receptor is predicted to be six in a million (6×10^{-6}). This risk value is less than the significance criterion of 10 in a million (10×10^{-6}) risk. This impact would occur at a day care center located near Chavez Elementary School at 730 West Third Street in downtown Long Beach.

Table A-3-12 shows that the maximum NEPA increments for the chronic and acute hazard index would be less than one at all receptors. The cancer burden NEPA increment would be 0.04 cancer cases, which is less than the significance threshold of 0.5. Consequently, these impacts would be less than significant.

Figures A-3-16 through A-3-18 show the distribution of predicted *residential* cancer risks within the modeling domain for: (1) Unmitigated Alternative 2; (2) Unmitigated CEQA increment (unmitigated Alternative 2 minus CEQA Baseline); and (3) Unmitigated NEPA increment (unmitigated Alternative 2 minus NEPA Baseline), respectively.

7.2.2 Mitigated Alternative 2 (315-Acre Alternative)

Table A-3-13 presents a summary of the maximum health impacts that would occur for

each receptor type due to construction and operation of mitigated Alternative 2 (315-Acre Alternative) scenario. Since the data in Table A-3-12 correspond to the maximum incremental impacts predicted for each receptor type, the incremental impacts at all other receptor locations would be less than these values.

Table A-3-13 shows that the maximum CEQA increment for residential cancer risk is predicted to be negative six in a million (-6×10^{-6}). This risk value does not exceed the significance criterion of 10 in a million (10×10^{-6}) risk. This impact would occur at residences on the corner of Skyline Drive and East Panorama drive, approximately one mile south of Interstate 405. The maximum CEQA increment for occupational cancer risk is predicted to be negative two in a million (-2×10^{-6}). This risk value does not exceed the significance criterion of 10 in a million (10×10^{-6}) risk. This impact would occur in an industrial area in POLA south of East 22nd Street near Berth 47. The maximum CEQA increment for cancer risk at a sensitive receptor is predicted to be negative two in a million (-2×10^{-6}). This risk value does not exceed the significance criterion of 10 in a million (10×10^{-6}) risk. This impact would occur at the Cleveland Elementary School at 4760 Hackett Avenue in Lakewood. The risk value was modeled conservatively with 70-year residential exposure assumptions.

Table A-3-13 shows that the maximum CEQA increments for the chronic and acute hazard index would be less than one at all receptors. The cancer burden CEQA increment would be -4.18 cancer cases, which is less than the significance threshold of 0.5. Consequently, these impacts would be below significance.

Table A-3-13 shows that the maximum NEPA increment for residential cancer risk is predicted to be three in a million (3×10^{-6}). This risk value is less than the significance criterion of 10 in a million (10×10^{-6}) risk. This impact would occur in a mixed-use area in downtown Long Beach, north of Ocean Boulevard and east of Golden Shore Street. The maximum NEPA increment for occupational cancer risk is predicted to be 8 in a million (8×10^{-6}). This risk value does not exceed the significance criterion of 10 in a million (10×10^{-6}) risk. This impact would occur in the industrial area on Terminal Island at the South Eastern corner of Pier A. The maximum NEPA increment for cancer risk at a sensitive receptor is predicted to be four in a million (4×10^{-6}). This risk value is less than the significance criterion of 10 in a million (10×10^{-6}) risk. This impact would occur at

a day care center located near Chavez Elementary School at 730 West Third Street in downtown Long Beach.

Table A-3-13 shows that the maximum NEPA increments for the chronic and acute hazard indices would be less than one at all receptors. The cancer burden NEPA increment would be -0.06 cancer cases, which is less than the significance threshold of 0.5. Consequently, these impacts would be less than significant.

Figures A-3-19 through A-3-21 show the distribution of predicted residential cancer risks within the modeling domain for the: (1) Mitigated Alternative 2; (2) Mitigated CEQA increment (mitigated Alternative 2 minus CEQA Baseline); and (3) Mitigated NEPA increment (mitigated Alternative 2 minus NEPA Baseline), respectively.

7.3 ALTERNATIVE 3 (LANDSLIDE IMPROVEMENTS ALTERNATIVE)

The Alternative 3 (Landslide Improvements Alternative) operations include the adoption of all applicable air regulations and CAAP measures. There are no feasible mitigation measures that would further reduce air quality impacts from this alternative. As a result, the HRA analysis for Alternative 3 does not include an analysis of a mitigated scenario.

Table A-3-14 presents a summary of the maximum health impacts that would occur for each receptor type due to construction and operation of the Alternative 3 (Landslide Improvements Alternative) scenario. Since the data in Table A-3-14 correspond to the maximum incremental impacts predicted for each receptor type, the incremental impacts at all other receptor locations would be less than these values.

Table A-3-14 shows that the maximum CEQA increment for residential cancer risk is predicted to be negative five in a million (-5×10^{-6}). This impact would occur at residences on the corner of Skyline Drive and East Panorama drive, approximately one mile south of Interstate 405. The maximum CEQA increment for occupational cancer risk is predicted to be negative two in a million (-2×10^{-6}). This impact would occur in the industrial area on Terminal Island at the South Eastern corner of Pier A. The maximum CEQA increment for cancer risk at a sensitive receptor is predicted to be negative three in a million (-3×10^{-6}). This impact would occur at the Cleveland Elementary School

at 4760 Hackett Avenue in Lakewood. These risk values are less than the significance criterion of 10 in a million (10×10^{-6}) risk.

Table A-3-14 shows that the maximum CEQA increments for the chronic and acute hazard indices would be less than one at all receptors. The cancer burden CEQA increment would be -3.86 cancer cases, which is less than the significance threshold of 0.5. Consequently, these impacts would be below significance.

Figures A-3-22 and A-3-23 show the distribution of predicted residential cancer risks within the modeling domain for the: (1) Alternative 3; and (2) CEQA increment (Alternative 3 minus CEQA Baseline), respectively.

Calculations of NEPA impacts from Alternative 3 are not included, since both scenarios are equal and the increment is zero at all receptors (that is, Alternative 3 risks are equivalent to NEPA Baseline risks at all receptors).

7.4 ALTERNATIVE 4 (NO PROJECT)

Table A-3-15 presents a summary of the maximum health impacts that would occur for each receptor type for the Alternative 4 (No Project Alternative) scenario. The data in Table A-3-15 correspond to the maximum incremental impacts predicted for each receptor type and the incremental impacts at all other receptor locations would be less than these values. Since the No Project Alternative would not include any federal action, the Alternative would not produce any air quality impacts under NEPA.

Table A-3-15 shows that the maximum CEQA increment for residential cancer risk is predicted to be negative six in a million (-6×10^{-6}). This impact would occur at residences on the corner of Skyline Drive and East Panorama drive, approximately one mile south of Interstate 405. The maximum CEQA increment for occupational cancer risk is predicted to be negative two in a million (-2×10^{-6}). This impact would occur in an industrial area in POLA south of East 22nd Street near Berth 47. The maximum CEQA increment for cancer risk at a sensitive receptor is predicted to be negative two in a million (-2×10^{-6}). This impact would occur at the Cleveland Elementary School at 4760 Hackett Avenue in Lakewood.

These risk values are less than the significance criterion of 10 in a million (10×10^{-6}) risk.

Table A-3-15 shows that the maximum CEQA increments for the chronic and acute hazard index would be less than one at all receptors. The cancer burden CEQA increment would be -4.16 cancer cases, which is less than the significance threshold of 0.5. Consequently, these impacts would be below significance.

Figures A-3-24 and A-3-25 show the distribution of predicted residential cancer risks within the modeling domain for the: (1) Alternative 4 (No Project Alternative); and (2) CEQA increment (Alternative 4 minus CEQA Baseline).

8.0 PM MORBIDITY & MORTALITY CONSIDERATIONS

8.1 HEALTH EFFECTS OF DPM EMISSIONS

Particles small enough to be inhaled into the deepest parts of the lung are of great concern to public health. Respirable particles (PM_{10}) can accumulate in the respiratory system and aggravate health problems such as asthma, bronchitis and other lung diseases. Children, the elderly, exercising adults, and those suffering from asthma are especially vulnerable to adverse health effects of PM_{10} and $PM_{2.5}$.

The proposed Project would emit DPM, which is mainly $PM_{2.5}$, during Project construction and operation. This section discusses potential health effects caused by DPM emissions and the regulatory impetus to address their health impacts.

Epidemiological studies substantiate the correlation between inhalation of ambient PM and increased mortality and morbidity (ARB 2002a; ARB 2007d). Recently, ARB conducted a study to assess the potential health effects associated with exposure to air pollutants arising from ports and goods movement in California (ARB 2006a; ARB 2006b). ARB's assessment evaluated numerous studies and research efforts, and focused on PM and ozone as they represent a large portion of known risk associated with exposure to outdoor air pollution. ARB's analysis of various studies allowed large-scale quantification of the health effects associated with emission sources. ARB's assessment quantified premature deaths and increased cases of disease linked to exposure to PM and ozone from ports and goods movement. Table A-3-16 presents the statewide PM and ozone health effects identified by ARB (ARB 2006h).

In addition, although epidemiologic studies are numerous, few toxicology studies have

investigated the responses of human subjects specifically exposed to DPM, and the available epidemiologic studies have not measured the DPM content of the outdoor pollution mix. ARB has made quantitative estimates of the public health impacts of DPM based on the assumption that DPM is as toxic as the general ambient PM mixture (ARB 2006b).

ARB's study concluded that there are significant uncertainties involved in quantitatively estimating the health effects of exposure to outdoor air pollution. Uncertain elements include emission and population exposure estimates, concentration-response functions, baseline rates of mortality and morbidity that are entered into concentration response functions, and occurrence of additional not-quantified adverse health effects (ARB 2006). Many of these elements have a factor-of-two uncertainty. Numerous new studies, ongoing and proposed, will likely increase scientific knowledge and provide better estimates of DPM health effects.

It should be noted that PM in ambient air is a complex mixture that varies in size and chemical composition, as well as varying spatially and temporally. Different types of particles may cause different effects with different time courses, and perhaps only in susceptible individuals. The interaction between PM and gaseous co-pollutants adds additional complexity because in ambient air pollution, a number of pollutants tend to co-occur and have strong inter-relationships with each other (e.g., PM, SO₂, NO₂, CO, and O₃) (SCAQMD 2007; ARB 2006h; and ARB 2006i).

Nevertheless, various studies have been published that substantiate the correlation between the inhalation of ambient PM and increased cases of premature death from heart and/or lung diseases (Pope et al., 1995, 2002; Jerrett et al. 2005, Krewski et al., 2001). These studies serve as the fundamental basis for PM air quality standards promulgated by SCAQMD, ARB, EPA, and the World Health Organization.

8.2 EXISTING CEQA THRESHOLDS

8.2.1 Concentration Thresholds

Regulatory agencies set protective health-based short and long-term ambient concentration standards designed "in consideration of public health, safety, and welfare, including, but not limited to, health, illness, irritation to the senses, aesthetic value, interference with visibility, and

effects on the economy" (Health and Safety Code Section 39606(a)(2)). Ambient Air Quality Standards (AAQS) specify concentrations and durations of exposure to air pollutants that reflect the relationships between the intensity and composition of air pollution and undesirable effects. The fundamental objective of an AAQS is to provide a basis for preventing or abating adverse health or welfare effects of air pollution.

In developing the AAQS, state and local air quality regulatory agencies consider existing health science literature and recommendations from OEHHA. Standards are set to ensure that sensitive population sub-groups are protected from exposure to levels of pollutants that may cause adverse health effects. In the case of PM, CAAQS are peer reviewed by the Air Quality Advisory Committee (AQAC), an external scientific peer review committee, comprised of world-class scientists in the PM field.

Within the SCAB, the SCAQMD further identifies localized ambient significance thresholds. These ambient concentration thresholds target those pollutants the SCAQMD has determined are most likely to cause or contribute to an exceedance of the NAAQS or CAAQS. The localized standards for PM are more stringent than either the NAAQS or the CAAQS. SCAQMD's localized significance thresholds for PM₁₀ and PM_{2.5} are 10.4 µg/m³ and 2.5 µg/m³ for construction and operation, respectively. These values were developed based on ARB guidance and epidemiological studies showing significant toxicity (resulting in mortality and morbidity) related to exposure to fine particles. The proposed Project conducted dispersion analysis to determine ambient air concentrations and determined localized significance under **Impact AQ-4** in Section 3.2.2.3.

8.2.2 Quantifying Morbidity and Mortality

ARB's recent study (ARB 2006h and ARB 2006i) used a health effects model, based on multiple epidemiological studies, which quantified expected non-cancer impacts of mortality and morbidity from ambient PM exposure (for example premature deaths, cardiac and respiratory hospitalizations, asthma and other lower respiratory symptoms, and lost work/school days). The study focused on large-scale applications such as the benefits of attaining the state air quality standard for PM_{2.5}, the impacts of goods

movement emissions on a statewide and broad regional level, and the impacts from combined operations at POLB and POLA (ARB 2006h and ARB 2006i).

According to ARB, health impacts from PM exposure are commonly estimated at the statewide or a similarly large geographic scale because these estimates are based on epidemiological studies that relied on single ambient air monitoring stations to represent regional exposures to the pollutant and incidence rates obtained at the county level (ARB, 2008). Because ARB's methodology was designed for larger-scale projects affecting a much larger population, the methodology may not be sensitive enough to provide accurate results for projects affecting much smaller populations. The proposed Project is located in Long Beach and, based on the HRA completed for this Project, the potential health impacts of PM emissions would largely be restricted to an area three miles east-west by three miles north-south around the terminal area (about 87,000 people). In contrast, ARB's study looked at a 40 mile by 50-mile area that encompasses much of the area and population of the SCAB. The ARB published a recent document that updates the health information and methodology that relates changes in PM_{2.5} exposures to premature death (ARB, 2008). OEHHA is in the process of developing further guidance on assessing health impacts from PM exposure. The approach for this analysis followed the recent ARB guidance and earlier guidance for projects similar in size to the Middle Harbor Redevelopment Project including the "Public Hearing to Consider Amendments to Ambient Air Quality Standards for Particulate Matter and Sulfates" (ARB 2002b). This document pools together different research papers and epidemiological studies and describes how different impacts of morbidity and mortality (i.e., long-term mortality, chronic bronchitis, and hospital admissions for asthma) were quantified in considering AAQS revisions for PM.

The document used concentration-response (C-R) functions to determine morbidity and mortality impacts. C-R functions are equations that relate the change in the number of adverse health effect incidences in a population to a change in pollutant concentration experienced by that population. Normally, epidemiological studies are used to estimate the relationship between a pollutant and a particular health endpoint at different locations.

Most common C-R functions are represented in log-linear form.

The basic form of a C-R function is as follows:

$$\Delta y = y_0 (e^{\beta \Delta PM} - 1) * \text{population}$$

where:

Δy = changes in the incidence of a health endpoint corresponding to a particular change in PM;

y_0 = baseline incidence rate per person for the SCAB (0.001768);

β = coefficient (PM₁₀: 0.005827); this coefficient is based on the relative risk that is associated with a particular concentration and varies from one study to another; and

ΔPM = change in PM concentration.

Uncertainties in the Calculations

It is important to note that the parameters in the C-R functions can vary widely depending on the study. For example, some studies exclude accidental deaths from their mortality counts while others include all deaths. Furthermore, some studies consider only members of a particular subgroup of the population, such as individuals 30 and older, while other studies consider the entire population in the study location. When applying a C-R function from an epidemiological study to estimate changes in the incidence of a health endpoint corresponding to a particular change in PM in a location, it is important to use the appropriate value of parameters for the C-R function. That is, the measure of PM, the type of population, and the characterization of the health endpoint should be the same as, or as close as possible to, those used in the study that estimated the C-R function. The sample analysis presented here used parameters as closely related to the chosen C-R function as possible.

Among the uncertainties in the risk estimates is the degree of transferability of the concentration-response functions to California. Many of the epidemiologic studies used by ARB/OEHHA include several California cities, but not all. For example, the C-R function for long-term mortality (Krewski et al. 2000) included eight California cities out of a total of 63. Another uncertainty stems from the issue of co-pollutants. Specifically, it is possible that some of the estimated health effects include the effects of both PM and other correlated pollutants. Finally, the studies used in

developing the C-R functions do not usually take into consideration estimates of averting behaviors. Examples of averting behaviors include measures that prevent symptoms from occurring in the first place, such as avoiding strenuous exertion on days with high PM, staying indoors, or the use of filters, etc.

However, perhaps the most compelling use limitation of C-R functions for site-specific projects is the consideration of whether it is valid to apply the C-R functions to changes in PM concentrations that are far below the ambient concentration. For example, the ARB/OEHHA analysis applied a threshold of $18 \mu\text{g}/\text{m}^3$ for the long-term mortality C-R function, representing the lowest concentration level observed in the long-term mortality studies evaluated. In other words, ARB/OEHHA assumed that the C-R functions were continuous and differentiable down to threshold levels. In the case of trying to quantify Project-specific impacts, it may not be appropriate to use C-R functions that were developed with a threshold significantly higher than the change in PM due to the Project.

Results of the Mortality Calculations

Despite these uncertainties in the analysis, the expected increase in mortality was calculated for the proposed Project. Using the guidance presented above, and using a coefficient based on a 1.12 relative risk that is associated with a mean change of $24.5 \mu\text{g}/\text{m}^3$ (ARB 2002b), the following represents the result of the calculations for long-term mortality due to PM_{10} for the proposed Project (with and without mitigation). The location was chosen to represent the closest residential area to the Project site that would be potentially exposed to changes in PM_{10} emissions. The parameters used in the calculation include:

- Location: Area in south-central Long Beach, bounded north/south by E. Ocean Blvd and W. 6th St., and west/east by the Los Angeles River and Pacific Area;
- Population (>30 years of age): 3,683 within the area specified above; and
- Change in annual PM_{10} concentration: $0.15 \mu\text{g}/\text{m}^3$ (mitigated peak project minus CEQA Baseline);
- Change in annual PM_{10} concentration: $0.17 \mu\text{g}/\text{m}^3$ (unmitigated peak project minus CEQA Baseline).

- The very small change in annual PM_{10} concentrations resulting from the proposed Project is apparently due to a dynamic equilibrium occurring between the increased operational activities in Middle Harbor and the increased PM emission controls that would be implemented under the SPBP CAAP. The results of the analysis are shown in Table A-3-17; and
- Under both the mitigated and unmitigated actions, the Project would result in an increase in mortality of approximately 0.001 additional cases per year. Given the large uncertainties in the results, the conclusion is that there would be no expected increase in mortality and morbidity due to the Project.

9.0 RISK UNCERTAINTY

Risk estimates, by their nature, cannot be completely accurate because they are *predictions* of risk. Scientists, medical experts, regulators, and practitioners do not completely understand how toxic air pollutants harm human cells and how different pollutants may interact with each other in the human body. The exposure assessment often relies on computer models that are based on numerous assumptions, both in terms of present and future conditions.

When information is missing or uncertain, risk analysts generally make assumptions that tend to prevent them from underestimating the potential risk. These assumptions generally are very conservative so they provide a margin of safety to protect human health. For example, regarding exposure durations for cancer risks, essentially no one resides in one location 24 hours a day and 350 days a year for 70 years. Additionally, there is no one standard way of conducting health risk assessments, leading to possible problems in comparing different risks. Assumptions also change over time and even HRAs completed using the same models can produce different results.

OEHHA provided the following discussion of risk assessment uncertainties (OEHHA 2003).

There is a great deal of uncertainty associated with the process of risk assessment. The uncertainty arises from lack of data in many areas necessitating the use of assumptions. The assumptions used in these guidelines are designed to err on the side of health protection in order to avoid underestimation of risk to the public. Sources of uncertainty, which may either

emissions; 3) uncertainty in the air dispersion models; and 4) uncertainty in the exposure estimates. Uncertainty may be defined as what is not known and may be reduced with further scientific studies. In addition to uncertainty, there is a natural range or variability in the human population in such properties as height, weight, and susceptibility to chemical toxicants. Scientific studies with representative individuals and large enough sample size can characterize this variability.

Interactive effects of exposure to more than one carcinogen or toxicant are also not necessarily quantified in the HRA. Cancer risks from all emitted carcinogens are typically added, and hazard quotients for substances impacting the same target organ system are added to determine the hazard index (HI). Many examples of additivity and synergism (interactive effects greater than additive) are known. For substances that act synergistically, the HRA could underestimate the risks. Some substances may have antagonistic effects (lessen the toxic effects produced by another substance). For substances that act antagonistically, the HRA could overestimate the risks.

Other sources of uncertainty, which may underestimate or overestimate risk, can be found in exposure estimates where little or no data are available (e.g., soil half-life and dermal penetration of some substances from a soil matrix).

The differences among species and within human populations usually cannot be easily quantified and incorporated into risk assessments. Factors including metabolism, target site sensitivity, diet, immunological responses, and genetics may influence the response to toxicants. The human population is much more diverse both genetically and culturally (e.g., lifestyle, diet) than inbred experimental animals. The intraspecies variability among humans is expected to be much greater than in laboratory animals. Adjustment for tumors at multiple sites induced by some carcinogens could result in a higher potency. Other uncertainties arise 1) in the assumptions underlying the dose-response model used, and 2) in extrapolating from large experimental doses, where, for example, other toxic effects may compromise the assessment of carcinogenic potential, to usually much smaller environmental doses. Also, only single

tumor sites induced by a substance are usually considered. When epidemiological data are used to generate a carcinogenic potency, less uncertainty is involved in the extrapolation from workplace exposures to environmental exposures. However, children, a subpopulation whose hematological, nervous, endocrine, and immune systems, for example, are still developing and who may be more sensitive to the effects of carcinogens on their developing systems, are not included in the worker population and risk estimates based on occupational epidemiological data are more uncertain for children than adults. Finally, the quantification of each uncertainty applied in the estimate of cancer potency is itself uncertain.

Thus, risk estimates generated by an HRA should not be interpreted as the expected rates of disease in the exposed population but rather as estimates of potential risk, based on current knowledge and a number of assumptions. Additionally, the uncertainty factors integrated within the estimates of noncancer RELs are meant to err on the side of public health protection in order to avoid underestimation of risk. Risk assessment is best used as a ruler to compare one source with another and to prioritize concerns. Consistent approaches to risk assessment are necessary to fulfill this function.

Modeling Parameters Uncertainty

There are uncertainties in the predicted risks, that are associated with the air dispersion modeling portion of the HRA. For example, specific assumptions and/or decisions regarding the selection of meteorological data, source representation, source parameters, plume rise adjustments, and the use of buildings and the resulting uncertainty associated with these assumptions can have an effect on the HRA results.

Uncertainty in forecasting source activity (e.g., traffic volumes) is an important source of potential error, as truck emissions tend to have a significant contribution to risks. For this HRA, to ensure that a conservative analysis is conducted the best available information was used in selecting:

1. An appropriate dispersion mode for establish ground-level concentrations;
2. Meteorological data which are representative of local conditions, including

the use of a split domain to cover both off-shore and on-shore meteorological conditions;

3. Source representation;
4. Source parameters; and
5. Plume rise adjustments and building downwash considerations, etc.

This HRA analysis used EPA's AERMOD, representing the latest default regulatory dispersion model. Dispersion models have historically been unable to predict concentrations for a particular time and place with great reliability for short averaging times. According to EPA's Guideline on Air Quality Models (40 CFR 51 Appendix W):

1. Models are more reliable for estimating longer time-averaged concentrations than for estimating short-term concentrations at specific locations; and
2. The models are reasonably reliable in estimating the magnitude of the highest concentrations occurring at a certain time and location. For example, errors in highest estimated concentrations of ± 10 to 40 percent are found to be typical, that is, certainly well within the often-quoted factor-of-two accuracy that has been recognized for these models. However, predicted short-term concentrations for specific locations typically would correlate poorly with actual observed concentrations.

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Tables

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Pollutant	CAS Number	Weight Percent of TOG or PM ₁₀				
		TOG Profile No. 504	PM ₁₀ Profile No. 111	PM ₁₀ Profile No. 112	PM ₁₀ Profile No. 472	PM ₁₀ Profile No. 473
Acetaldehyde	75070	--	--	--	--	--
Ammonia	7664417	--	--	--	0.019	0.003
Antimony	7440360	--	--	--	--	--
Arsenic	7440382	--	0.04	0.54	--	0.001
Benzene	71432	1.90578	--	--	--	--
Bromine	7726956	--	--	--	0.0015	0.004
Cadmium	7440439	--	--	0.05	--	--
Chlorine	7782505	--	--	--	0.78	0.15
Copper	7440508	--	0.05	--	0.049	1.1485
Formaldehyde	50000	0.088231	--	--	--	--
Hexavalent Chromium	18540299	--	0.0275	0.027	0.00015	0.006
Lead	7439921	--	--	0.55	0.016	0.005
Manganese	7439965	--	0.05	--	0.01	0.17
Mercury	7439976	--	--	--	--	--
Naphthalene	91203	0.061761	--	--	--	--
n-Hexane	110543	1.402864	--	--	--	--
Nickel	7440020	--	0.55	0.05	0.005	0.066
Phosphorous	7723140	--	--	--	0.125	--
Propylene	115071	4.023313	--	--	--	--
Sulfates	9960	--	50.26	25	0.25	--
Toluene	108883	1.896957	--	--	--	--
Vanadium	7440622	--	0.55	--	--	0.066
Xylene	1210	0.970537	--	--	--	--
Zinc	7440666	--	--	0.55	0.5305	0.027
Applicable Emission Sources		Ship boilers (residual or distillate)	Ship boilers (residual fuel)	Ship boilers (distillate fuel)	Tire wear	Brake wear
<p><i>Notes:</i></p> <ol style="list-style-type: none"> TOG = total organic gas, of which VOC is a subset. For Profile No. 504, TOG = VOC ÷ 0.8347. For all PM₁₀ profiles, hexavalent chromium is assumed to be 5 percent of total chromium, according to ARB's AB2588 Technical Support Document, page 57 (1989). TACs contributing a negligible amount to the total health risk results were screened out of the HRA and are not shown in this table. <p>Source: ARB 2002b; 2003b.</p>						

Source/Assumption	Unmitigated and Mitigated Project Scenarios		
	Alt 1	Alt 2	Alt 3
Tugboats			
Main and Aux. Engines – ARB Harbor Craft Regulation	X	X	X
Main and Aux. Engines – ULSD	X	X	X
Trucks			
ARB Port Truck Regulation Fleet	X	X	X
Engines – ULSD	X	X	X
Construction Equipment			
Engines – EPA Nonroad Tier 3 Equivalent Standards	X	X	X
Engines – ULSD	X	X	X
Fugitive Dust			
Reduced 75% from Uncontrolled Levels	X ¹	X ¹	X ¹
<p><i>Notes:</i></p> <ol style="list-style-type: none"> Mitigated scenarios would reduce fugitive dust by 90% from uncontrolled levels. <p>Abbreviations: ULSD - ultra low sulfur diesel.</p>			

Table A-3-3. Middle Harbor Project Air Quality Assumptions for Proposed Operational Scenarios

Source/Assumption	CAAP Measure	Project Scenario ¹							
		Baselines		Unmitigated			Mitigated		
		CEQA	NEPA	Alt 1	Alt 2	Alt 4	Alt 1	Alt 2	Alt 3
OGV									
Vessel Speed Reduction Program	OGV1		X	X	X	X	X	X	X
Main Engines - 2.7% S RFO		X							
Main Engines - 0.2% S RFO	OGV4		X				X	X	X
Aux. Engines - 71/29% RFO/MGO @ 2.7/0.5% S		X							
Aux. Engines - 0.2% S MGO	OGV3		X				X	X	X
Aux. Engines - Cold-ironed - 90% Control	OGV2		X				X	X	X
Aux. Engines - ARB Berthing Regulation			X	X	X	X	X	X	X
All Sources – 1.5/0.1% S Diesel pre-2012/2012 ²				X	X	X			
All Sources – 0.1% S Diesel in 2012 ²			X				X	X	X
Tugboats									
Year 2005 = Baseline Fleet		X							
ARB Harbor Craft Regulation	HC1		X	X	X	X	X	X	X
Main/Aux. Engines - 0.19% S Diesel		X							
Main/Aux. Engines – ULSD			X	X	X	X	X	X	X
Locomotives									
Switch Locomotives = 2005 Baseline Fleet		X							
Switch Locomotives = Tier 2 + DOCs	RL1		X	X	X	X	X	X	X
Switch Locomotives = 0.035% S Diesel		X							
Switch Locomotives = ULSD			X	X	X	X	X	X	X
Line Haul Locomotives = National Fleet		X	X	X	X	X	X	X	X
Line Haul/Switch Locomotives = Tier 3 in 2025			X	X	X	X	X	X	X
Line Haul Locomotives = 0.22% S Diesel		X							
Line Haul Locomotives = ULSD Year 2012			X	X	X	X	X	X	X
Trucks									
Port 2005 Baseline Fleet		X							
ARB Port Truck Regulation Fleet			X	X	X	X	X	X	X
Clean Truck Program Fleet	HDV1		X				X	X	X
0.035% S Diesel		X							
ULSD			X	X	X	X	X	X	X
Terminal/Rail yard Equipment									
Year 2005 = Baseline Fleet		X							
ARB CHE Regulation Only Fleet				X	X	X			
ARB CHE Regulation + CAAP CHE1 Fleet	CHE1		X				X	X	X
0.035% S Diesel		X							
ULSD			X	X	X	X	X	X	X
<p>Notes: 1. All project scenarios begin in 2010, except the CEQA Baseline is fixed at year 2005 emission levels.</p> <p>2. In compliance with the ARB Fuel Sulfur Regulation for OGVs.</p> <p>Abbreviations: S – sulfur; RFO - residual fuel oil, MGO - marine gas oil; ULSD - ultra low sulfur diesel; DOCs - diesel oxidation catalysts; CHE - cargo handling equipment.</p>									

Table A-3-4. Sensitive Receptors Evaluated in the HRA

Sensitive Receptor	Street Address	City	E UTM (m)	N UTM (m)
Day Care Centers				
Munchkin Center	1348 N Marine Ave	Wilmington	382913	3739578
New Harbor Vista Child Development Center	909 W D St	Wilmington	382162	3737760
Wilmington Park Children's Center	1419 E Young St	Wilmington	384574	3739189
Yvette's Daycare	815 W -Opp	Wilmington	382225	3738771
Sanchez Family Child Care	1443 Deepwater Ave	Wilmington	383539	3739921
Voa/Cesar Chavez Head Start	1269 N. Avalon Street	Wilmington	383089	3739394
A Love 4 Learning Academy	306 Elm Avenue	Long Beach	390048	3737366
Carousel Preschool	366 Cherry Ave	Long Beach	391856	3737375
YMCA Fairfield 3rd Street Preschool	607 E. 3rd Street	Long Beach	390292	3737325
Young Horizons Child Development Centers	501 Atlantic Ave	Long Beach	390248	3737631
Coronado Head Start Child Care Center	1395 Coronado Street	Long Beach	393181	3738829
First Foursquare Church Preschool	2416 E 11th St	Long Beach	392312	3738428
Huntington Academy Preschool	2935 E. Spaulding St.	Long Beach	392832	3738974
Simply Kare Child Development Center	1406 Obispo Avenue	Long Beach	393126	3738858
12 th Street Head Start	1212 Long Beach Blvd	Long Beach	389912	3738586
Long Beach Day Nursery	2801 Atlantic Ave	Long Beach	390295	3741518
Atlantic Headstart	1862 Atlantic Ave	Long Beach	390314	3739617
Comprehensive Child Development	2565 Pacific Ave.	Long Beach	389484	3741031
Elm Street Head Start	1425 & 1429 Elm Avenue	Long Beach	389991	3738889
Fords Family Day Care	2726 San Francisco Ave	Long Beach	388588	3741372
Kelly's Kids Daycare Center	855 W Willow St	Long Beach	388761	3741139
Long Beach Blvd Head Start	2236 Long Beach Blvd.	Long Beach	389931	3740374
Long Beach Center For Child Development	622 E. Hill Street	Long Beach	390330	3740309
Long Beach Child Development Center	2222 Olive Ave	Long Beach	390492	3740339
Long Beach City College Child Development	1305 E. Pacific Coast Hwy.	Long Beach	391235	3739503
Oakwood Children's Center	2650 Pacific Ave	Long Beach	389536	3741216
Old King Cole Day Care	3300 Oregon Ave	Long Beach	388795	3742493
P.A.L. Family Day Care	1980 Daisy Ave	Long Beach	389000	3739857
Pacific Head Start	2179 Pacific Ave	Long Beach	389473	3740259
Ruiz Family Daycare	2670 Daisy Ave	Long Beach	388990	3741078
Ruiz Family Daycare	2670 Daisy Ave	Long Beach	388979	3741256
Signal Hill Head Start	2285 Walnut Avenue	Long Beach	391535	3740444
Smart & Manageable	2054 Myrtle Ave	Long Beach	390588	3739997
Tender Child Care	211 E 29th St	Long Beach	389844	3741688
Young Horizons Child Development Centers	1840 Pacific Ave	Long Beach	389515	3739582
Young Horizons Child Development Centers	2418 Pacific Ave	Long Beach	389526	3740732
Cabrillo Child Development Center	2205 San Gabriel Ave.	Long Beach	386680	3739773
Garfield Head Start	2240 Baltic Avenue	Long Beach	387670	3740408
Job Corp Head Start	1903 Santa Fe Ave.	Long Beach	387501	3739748
West Child Development Center	2125 Santa Fe Ave.	Long Beach	387505	3740187
Bundle Of Joy Daycare 2	1330 E 16th St	Long Beach	391218	3739157
Child Care Center At St Mary Medical Center	930 Elm Ave	Long Beach	390021	3738204
Childtime Learning Center	1 World Trade Ctr # 199	Long Beach	388899	3737062
Gaviota Head Start	1131 Gaviota Street	Long Beach	391569	3738492
Jenkins Day Care	1720 Cerritos Ave	Long Beach	390961	3739326
Kelly's Care	943 N Washington Pl	Long Beach	390636	3738218
Little Lighthouse Educational Childcare Center	911 Pine Avenue	Long Beach	389577	3738176
Lucy's Baby Care	940 Maine Ave	Long Beach	388828	3738211
My Three Kids Tons Of Fun Day Care	1240 E 17th St	Long Beach	391142	3739294
N2 Lil Folkz	1624 Chestnut Ave	Long Beach	389217	3739222
Ole King Cole Dev Center	1814 E 7th St	Long Beach	391695	3737831
Pine Head Start	927 Pine Ave.	Long Beach	389581	3738225
Alpha Project, The	1301 W. 12th Street	Long Beach	388060	3738639
Progressive Steps Children Center	911 Pine Ave	Long Beach	389621	3738176
Vincent Family Child Care	925 Walnut Ave	Long Beach	391463	3738185

Note:

E = Easting and N = Northing geographic reference locations in Universal Transverse Mercator (UTM) coordinates.

Table A-3-4. Sensitive Receptors Evaluated in the HRA (continued)				
Sensitive Receptor	Street Address	City	E UTM (m)	N UTM (m)
Day Care Centers (continued)				
West Anaheim Child Care Center	440 W. Anaheim Street	Long Beach	389183	3738668
Young Horizons/El Jardin De La Felicidad	507 Pacific Ave.	Long Beach	389513	3738709
Bethany Preschool	2217 East 6th St.	Long Beach	392106	3737683
Great Beginnings	3027 E. 4th St.	Long Beach	392907	3737426
Our Saviour's Lutheran Preschool	370 Junipero Ave	Long Beach	392172	3737336
Phases An Early Learning Comp.	404 Newport Ave	Long Beach	393376	3737451
Schools				
Avalon High School	1425 N Avalon Blvd	Wilmington	383009	3739758
Banning New Elementary School #1	500 North Island Ave.	Wilmington	382098	3737638
First Baptist Christian School	1360 Broad Ave	Wilmington	383227	3739705
Fries Ave. Elementary School	1301 N Fries Ave	Wilmington	382810	3739440
Hawaiian Avenue Elementary School	540 Hawaiian Ave	Wilmington	381786	3737951
Holy Family Preschool and Elementary School	1122 E Robidoux St	Wilmington	384268	3739363
Phineas Banning Senior High School	1527 Lakme Ave	Wilmington	383235	3740075
Saints Peter & Paul School	706 Bay View Ave	Wilmington	382434	3738305
Wilmington Park Elementary School	1140 Mahar Ave	Wilmington	384625	3739124
Cesar Chavez Elementary	730 West Third St.	Long Beach	388744	3737296
Constellation Community Charter Middle	620 Olive Ave.	Long Beach	390505	3737788
Saint Anthony High School	620 Olive Ave.	Long Beach	390534	3737794
Edison Elementary	625 Maine Ave.	Long Beach	388805	3737814
Franklin Classical Middle	540 Cerritos Ave.	Long Beach	390943	3737669
Saint Anthony Preschool / Elementary	855 East Fifth St.	Long Beach	390580	3737582
Select Community Day (Secondary)	5869 Atlantic Ave.	Long Beach	390248	3737371
Stevenson Elementary	515 Lime Ave.	Long Beach	390365	3737647
City Christian School	2209 E 6th St	Long Beach	392087	3737681
Birney Elementary	710 West Spring St.	Long Beach	388875	3741876
Burnett Elementary	565 East Hill St.	Long Beach	390228	3740326
Cambodian Christian	2474 Pacific Ave	Long Beach	389562	3740833
Holy Innocents Elementary School	2500 Pacific Ave	Long Beach	389544	3740927
Jackie Robinson Academy	2750 Pine Ave	Long Beach	389600	3741418
Lafayette Elementary School	2445 Chestnut Ave	Long Beach	389278	3740828
Mary Butler Elementary	1400 E 20th St	Long Beach	391299	3739855
Oakwood Academy	2951 Long Beach Blvd	Long Beach	389888	3741829
Signal Hill Elementary School	2285 Walnut Ave	Long Beach	391480	3740435
Cabrillo (Juan Rodriguez) High School	2001 Santa Fe Ave.	Long Beach	387438	3739936
Hudson Development Center Daycare and Elementary School	2335 Webster Ave	Long Beach	387067	3740604
James A Garfield Elementary	2240 Baltic Ave	Long Beach	387710	3740410
Muir Elementary	3038 Delta Ave.	Long Beach	387933	3742038
Saint Lucy School	2320 Cota Ave.	Long Beach	387406	3740569
Stephens Middle	1830 West Columbia St.	Long Beach	387350	3741632
Abraham Lincoln Elementary School	1175 E 11th St	Long Beach	390986	3738499
Artesia Well Preparatory Academy	1235 Pacific Ave	Long Beach	389454	3738592
Creative Arts Daycare and Elementary School	1423 Walnut Ave	Long Beach	391473	3738915
First Baptist Church School	1000 Pine Ave	Long Beach	389638	3738317
First Lutheran Day Care, Preschool and Elementary School	946 Linden Ave	Long Beach	390184	3738233
George Washington Middle School	1450 Cedar Ave	Long Beach	389390	3738917
Long Beach Montessori School	525 E. 7th St	Long Beach	390202	3737906
Polytechnic High School	1600Atlantic Ave.	Long Beach	390337	3739143
Renaissance High School for the Arts	235 East Eighth St.	Long Beach	389785	3738088
Roosevelt Elementary	1574 Linden Ave.	Long Beach	390166	3739112
The New City School	1230 Pine Ave	Long Beach	389586	3738611
John G Whittier Elementary School	1761 Walnut Ave	Long Beach	391468	3739354
Burbank Elementary	501 Junipero Ave	Long Beach	392178	3737551
<i>Note:</i> E = Easting and N = Northing geographic reference locations in Universal Transverse Mercator (UTM) coordinates.				

Sensitive Receptor	Street Address	City	E UTM (m)	N UTM (m)
Convalescent Homes				
Bellagio Manor	1046 East 4th St.	Long Beach	390833	3737451
Breakers Of Long Beach, The	210 E Ocean Blvd	Long Beach	389740	3736892
Colonial Care Center	1913 E. 5th St.	Long Beach	391786	3737576
Crofton Manor Inn	1950 E. 5th St.	Long Beach	391833	3737571
Wells House	245 Cherry Avenue	Long Beach	391842	3737014
Broadway By The Sea	2725 East Broadway	Long Beach	392578	3736808
Villa Redondo Care Home	237 Redondo Avenue	Long Beach	393261	3736714
Akin's Post Acute Rehab Hospital; Atlantic Memorial Healthcare Center	2750 Atlantic Ave	Long Beach	390344	3741381
Caruthers Royale Care	2204 Lime Ave.	Long Beach	390386	3740307
Courtyard Care Center	1880 Dawson Avenue	Long Beach	392087	3739639
Deluxe Guest Home	3260 Pine Ave.	Long Beach	389587	3740686
Deluxe Guest Home li	3266 Pine Avenue	Long Beach	389586	3740722
Rmr Residential Care Facility, Llc	2900 De Forest Avenue	Long Beach	388554	3741647
Royal Care Skilled Nursing Center	2725 Pacific Avenue	Long Beach	389543	3741355
Burnett Home Care	1740 West Burnett St.	Long Beach	387440	3740697
Loram Manor	1925 Gemini Street	Long Beach	387269	3740453
Harbor View Rehabilitation Center	490 W. 14th Street	Long Beach	389116	3738782
Regency High School	490 W. 14th Street	Long Beach	389126	3738772
Healthview Pine Villa Assisted Living	117 East 8th Street	Long Beach	389645	3737994
Olive Tree Home	1035 Olive Street	Long Beach	390455	3738345
Skylight Convalescent Hospital	1201 Walnut Avenue	Long Beach	391465	3738580
Villa Maria Care Center	723 E 9th St	Long Beach	390433	3738121
Edgewater Convalescent Hospital	2625 East Fourth Street	Long Beach	392530	3737465
Ruby's Guest Home	2125 E. 4th Street	Long Beach	391994	3737434
Hospitals				
Earl & Lorraine Miller Children's Hospital; Long Beach Memorial Medical Center and Hospital	2801 Atlantic Ave	Long Beach	390174	3741497
Pacific Hospital of Long Beach	2776 Pacific Ave	Long Beach	389484	3741460
Long Beach Doctors Hospital	1725 Pacific Ave	Long Beach	389456	3739345
St Mary Medical Center	1050 Linden Ave	Long Beach	390100	3738380
Tom Redgate Memorial Hospital	1775 Chestnut Ave	Long Beach	389227	3739447
<i>Note:</i> E = Easting and N = Northing geographic reference locations in Universal Transverse Mercator (UTM) coordinates.				

Category	Time Period	Activity Distribution	Hours per Day
Ocean-Going Vessel	4 A.M. – 8 P.M.	80%	16
	8 P.M. – 4 A.M.	20%	8
Hoteling	Midnight-midnight	100%	24
Harbor Craft	6 A.M. – 6 P.M.	80%	12
	6 P.M. – 6 A.M.	20%	12
Cargo Handling	8 A.M. – 5 P.M.	80%	9
	5 P.M. – 3 A.M.	15%	10
	3 A.M. – 8 A.M.	5%	5
Trucks (offsite) ^a	6 A.M. – 6 P.M.	80%	12
	6 P.M. – 6 A.M.	20%	12
Locomotives	Midnight-midnight	100%	24
<i>Note:</i> ^a Onsite trucks were modeled with the same activity distribution as cargo handling equipment.			

Table A-3-6. Toxicity Factors Used in the Middle Harbor Redevelopment Project HRA Analysis

Pollutant	CAS Number	Inhalation Cancer Potency Factor (mg/kg-d) ⁻¹	Chronic Inhalation REL (µg/m ³)	Target Organ for Chronic Exposure	Acute Inhalation REL (µg/m ³)	Target Organ for Acute Exposure
DPM ^a	9901	1.1	5	I	—	—
Acetaldehyde	75070	0.01	9	I	—	—
Antimony	7440360	—	0.2	I	—	—
Benzene	71432	0.1	60	C,E,G	1,300	C,E,F,H
Chlorine	7782505	—	0.2	I	210	D,I
Formaldehyde	50000	0.021	3	D,I	94	D,F,I
Hex. Chromium ^b	18540299	510	0.2	E,I	—	—
Xylenes	1210	—	700	G,I	22,000	D,I
Naphthalene	91203	0.12	9	I	—	—
n-Hexane	110543	—	7,000	G	—	—
Phosphorous	7723140	—	0.07	C,H	—	—
Propylene	115071	—	3,000	I	—	—
Toluene	108883	—	300	C,G,I	37,000	C,D,G,H,I
Ammonia	7664417	—	200	I	3,200	D,I
Arsenic ^b	7440382	12	0.03	B,C,G,J	0.19	C,H
Bromine	7726956	—	1.7	I	—	—
Cadmium ^b	7440439	15	0.02	I,M	—	—
Copper	7440508	—	2.4	I	100	I
Lead ^b	7439921	0.042	—	—	—	—
Manganese	7439965	—	0.2	G	—	—
Mercury ^b	7439976	—	0.09	F,G,M	1.8	C,H
Nickel ^b	7440020	0.91	0.05	A,E,I	6.0	F,I
Sulfates	9960	—	25	I	120	I
Zinc	7440666	—	35	B,E,I	—	—
Vanadium	7440622	—	—	—	30	D,I

Notes:

- For diesel internal combustion engines, only DPM emissions were evaluated for cancer risk and chronic hazard indices, because DPM is a surrogate for the combined health effects associated with exposure to diesel exhaust emissions. For the acute hazard indices, DPM was not evaluated; rather, emissions of the 14 other toxic air contaminants, derived from combustion speciation profiles, were evaluated for all emission sources.
- Arsenic, cadmium, hexavalent chromium, lead, mercury, and nickel were also evaluated for noninhalation exposure pathways. For arsenic, the cancer risk oral slope factor is 1.5 (mg/kg/day)⁻¹, and the noncancer chronic oral REL is 0.0003 mg/kg/day. For cadmium, the noncancer chronic oral REL is 0.0005 mg/kg/day. For lead, the cancer risk oral slope factor is 0.0085 (mg/kg/day)⁻¹. For mercury, the noncancer chronic oral REL is 0.0003 mg/kg/day. For nickel, the noncancer chronic oral REL is 0.05 mg/kg/day.
- The acute exposure period is 1 hour for all compounds except benzene (6 hours) and arsenic (4 hours).

Key to noncancer acute and chronic exposure target organs:

- A. Alimentary Tract
- B. Cardiovascular System
- C. Developmental System
- D. Eye
- E. Hematologic System
- F. Immune System
- G. Nervous System
- H. Reproductive System
- I. Respiratory System
- J. Skin
- K. Bone
- L. Endocrine System
- M. Kidney

Source: ARB 2005b.

Table A-3-7. Exposure Assumptions for Individual Lifetime Cancer Risk

Receptor Type	Exposure Frequency		Exposure Duration (Years)	Breathing Rate (L/kg-day)
	Hours/Day	Days/Year		
Residential	24	350	70	302
Occupational	8	245	40	447
Sensitive	24	350	70	302

Notes:
 The residential breathing rate of 302 L/kg BW-day represents the 80th percentile breathing rate.
 The occupational exposure frequency of 245 days/year represents five days/week, 49 weeks/year. The occupational breathing rate of 447 L/kg BW-day equates to 149 L/kg BW-day over an eight-hour work day (OEHHA 2003).

Table A-3-8. Maximum Health Impacts Estimated for Construction and Unmitigated Operations of the Proposed Project (345-Acre Alternative)

Health Impact	Receptor Type	Maximum Predicted Incremental Impacts ¹						Significance Threshold ³
		Alt. 1	CEQA Baseline	CEQA Increment ²	Alt. 1	NEPA Baseline	NEPA Increment ²	
Cancer Risk	Residential	2 x 10 ⁻⁶	7 x 10 ⁻⁶	-5 x 10 ⁻⁶	33 x 10 ⁻⁶	24 x 10 ⁻⁶	9 x 10 ⁻⁶	10 x 10 ⁻⁶
	Occupational	1 x 10 ⁻⁶	3 x 10 ⁻⁶	-2 x 10 ⁻⁶	52 x 10 ⁻⁶	36 x 10 ⁻⁶	16 x 10⁻⁶	
	Sensitive	1 x 10 ⁻⁶	3 x 10 ⁻⁶	-2 x 10 ⁻⁶	26 x 10 ⁻⁶	19 x 10 ⁻⁶	7 x 10 ⁻⁶	
Chronic Hazard Index	Residential	0.013	0.013	0.0004	0.069	0.018	0.051	1.0
	Occupational	0.368	0.138	0.230	0.368	0.038	0.330	
	Sensitive	0.004	0.008	-0.004	0.026	0.015	0.011	
Acute Hazard Index	Residential	0.111	0.099	0.012	0.218	0.167	0.051	1.0
	Occupational	0.650	0.515	0.135	0.883	0.622	0.261	
	Sensitive	0.092	0.086	0.007	0.189	0.146	0.043	
Cancer Burden		-	-	-3.94	-	-	0.18	0.5

Notes:
 1 For each receptor type, all risk values correspond to the receptor with the maximum CEQA/NEPA incremental impact.
 2 The CEQA Increment represents proposed Project impact minus CEQA Baseline impact. The NEPA Increment represents proposed Project impact minus NEPA Baseline impact.
 3 Exceedances of the significance criteria are in bold. The significance thresholds for cancer risk and chronic hazard index only apply to the CEQA and NEPA increment values.

Table A-3-9. Unmitigated Alternative 1 Source Contributions at the Maximum Residential and Occupational CEQA Cancer Increment Locations

Emission Source	Maximum Residential Receptor Cancer Risk	Maximum Occupational Receptor Cancer Risk
Ships – Fairway and Precautionary Area Transit	21.2%	26.5%
Ships – Harbor Transit	26.1%	17.4%
Ships – Turning and Docking	5.5%	4.6%
Ships – Hoteling	14.0%	12.9%
Tugboats	1.9%	1.9%
Terminal and Railyard Equipment	5.2%	7.7%
Trucks – Off-Terminal	14.8%	9.8%
Locomotives – Railyard Switching and Idling	6.4%	8.2%
Locomotives – Haul from Railyard to PCH	3.9%	2.9%
Construction	0.9%	8.1%

Table A-3-10. Maximum Health Impacts Estimated for Construction and Mitigated Operations of the Proposed Project (345-Acre Alternative)

Health Impact	Receptor Type	Maximum Predicted Incremental Impacts ¹						Significance Threshold ³
		Mitigated Alt. 1	CEQA Baseline	CEQA Increment ²	Mitigated Alt. 1	NEPA Baseline	NEPA Increment ²	
Cancer Risk	Residential	1 × 10 ⁻⁶	7 × 10 ⁻⁶	-6 × 10 ⁻⁶	40 × 10 ⁻⁶	32 × 10 ⁻⁶	8 × 10 ⁻⁶	10 × 10 ⁻⁶
	Occupational	1 × 10 ⁻⁶	3 × 10 ⁻⁶	-2 × 10 ⁻⁶	41 × 10 ⁻⁶	32 × 10 ⁻⁶	9 × 10 ⁻⁶	
	Sensitive	1 × 10 ⁻⁶	3 × 10 ⁻⁶	-2 × 10 ⁻⁶	23 × 10 ⁻⁶	19 × 10 ⁻⁶	4 × 10 ⁻⁶	
Chronic Hazard Index	Residential	0.004	0.005	-0.001	0.057	0.018	0.039	1.0
	Occupational	0.317	0.111	0.206	0.338	0.038	0.300	
	Sensitive	0.002	0.008	-0.006	0.017	0.015	0.002	
Acute Hazard Index	Residential	0.089	0.096	-0.007	0.172	0.158	0.014	1.0
	Occupational	0.457	0.460	-0.003	0.695	0.622	0.073	
	Sensitive	0.074	0.080	-0.006	0.132	0.122	0.010	
Cancer Burden		-	-	-4.04	-	-	0.08	0.5

Notes:

- For each receptor type, all risk values correspond to the receptor with the maximum CEQA/NEPA incremental impact.
- The CEQA Increment represents proposed Project impact minus CEQA Baseline impact. The NEPA Increment represents proposed Project impact minus NEPA Baseline impact.
- Exceedances of the significance criteria are in bold. The significance thresholds for cancer risk and chronic hazard index only apply to the CEQA and NEPA increment values.

Table A-3-11. Mitigated Alternative 1 Source Contributions at the Maximum Residential and Occupational CEQA Cancer Increment Locations

Emission Source	Maximum Residential Receptor Cancer Risk	Maximum Occupational Receptor Cancer Risk
Ships – Fairway and Precautionary Area Transit	23.1%	28.8%
Ships – Harbor Transit	28.4%	18.9%
Ships – Turning and Docking	6.0%	5.0%
Ships – Hoteling	7.8%	7.3%
Tugboats	2.2%	2.2%
Terminal and Railyard Equipment	3.4%	5.0%
Trucks – Off-Terminal	16.7%	11.0%
Locomotives – Railyard Switching and Idling	7.3%	9.3%
Locomotives – Haul from Railyard to PCH	4.4%	3.3%
Construction	0.9%	9.1%

Table A-3-12. Maximum Health Impacts Estimated for Construction and Unmitigated Operations of Alternative 2 (315-Acre Alternative)

Health Impact	Receptor Type	Maximum Predicted Incremental Impacts ¹						Significance Threshold ³
		Alt. 2	CEQA Baseline	CEQA Increment ²	Alt. 2	NEPA Baseline	NEPA Increment ²	
Cancer Risk	Residential	2 × 10 ⁻⁶	7 × 10 ⁻⁶	-5 × 10 ⁻⁶	21 × 10 ⁻⁶	16 × 10 ⁻⁶	5 × 10 ⁻⁶	10 × 10 ⁻⁶
	Occupational	1 × 10 ⁻⁶	3 × 10 ⁻⁶	-2 × 10 ⁻⁶	51 × 10 ⁻⁶	36 × 10 ⁻⁶	15 × 10⁻⁶	
	Sensitive	1 × 10 ⁻⁶	3 × 10 ⁻⁶	-2 × 10 ⁻⁶	25 × 10 ⁻⁶	19 × 10 ⁻⁶	6 × 10 ⁻⁶	
Chronic Hazard Index	Residential	0.013	0.013	0.0003	0.068	0.018	0.050	1.0
	Occupational	0.365	0.138	0.227	0.365	0.038	0.327	
	Sensitive	0.004	0.008	-0.004	0.025	0.015	0.010	
Acute Hazard Index	Residential	0.109	0.099	0.010	0.212	0.167	0.045	1.0
	Occupational	0.645	0.515	0.130	0.860	0.622	0.238	
	Sensitive	0.091	0.086	0.005	0.186	0.146	0.040	
Cancer Burden		-	-	-4.08	-	-	0.35	0.5

Notes:

- For each receptor type, all risk values correspond to the receptor with the maximum CEQA/NEPA incremental impact.
- The CEQA Increment represents proposed Project impact minus CEQA Baseline impact. The NEPA Increment represents proposed Project impact minus NEPA Baseline impact.
- Exceedances of the significance criteria are in bold. The significance thresholds for cancer risk and chronic hazard index only apply to the CEQA and NEPA increment values.

Table A-3-13. Maximum Health Impacts Estimated for Construction and Mitigated Operations from Alternative 2 (315-Acre Alternative)								
Health Impact	Receptor Type	Maximum Predicted Incremental Impacts ¹						Significance Threshold ³
		Mitigated Alter. 2	CEQA Baseline	CEQA Increment ²	Mitigated Alter. 2	NEPA Baseline	NEPA Increment ²	
Cancer Risk	Residential	1 x 10 ⁻⁶	7 x 10 ⁻⁶	-6 x 10 ⁻⁶	28 x 10 ⁻⁶	25 x 10 ⁻⁶	3 x 10 ⁻⁶	10 x 10 ⁻⁶
	Occupational	1 x 10 ⁻⁶	3 x 10 ⁻⁶	-2 x 10 ⁻⁶	45 x 10 ⁻⁶	37 x 10 ⁻⁶	8 x 10 ⁻⁶	
	Sensitive	1 x 10 ⁻⁶	3 x 10 ⁻⁶	-2 x 10 ⁻⁶	23 x 10 ⁻⁶	19 x 10 ⁻⁶	4 x 10 ⁻⁶	
Chronic Hazard Index	Residential	0.004	0.005	-0.001	0.056	0.018	0.039	1.0
	Occupational	0.316	0.111	0.205	0.337	0.038	0.299	
	Sensitive	0.002	0.008	-0.006	0.016	0.015	0.001	
Acute Hazard Index	Residential	0.038	0.043	-0.005	0.162	0.153	0.009	1.0
	Occupational	0.081	0.082	-0.001	0.676	0.622	0.054	
	Sensitive	0.073	0.080	-0.007	0.129	0.122	0.007	
Cancer Burden		-	-	-4.18	-	-	-0.06	0.5

Notes:

- 1 For each receptor type, all risk values correspond to the receptor with the maximum CEQA/NEPA incremental impact.
- 2 The CEQA Increment represents Alternative 2 impact minus CEQA Baseline impact. The NEPA Increment represents Alternative 2 impact minus NEPA Baseline impact.
- 3 Exceedances of the significance criteria are in bold. The significance thresholds for cancer risk and chronic hazard index only apply to the CEQA and NEPA increment values.

Table A-3-14. Maximum Health Impacts Estimated for Construction and Operations from Alternative 3 (Landside Improvements Alternative)								
Health Impact	Receptor Type	Maximum Predicted Incremental Impacts ^{1,4}						Significance Threshold ³
		Alter. 3	CEQA Baseline	CEQA Increment ²	Alter. 3	NEPA Baseline	NEPA Increment ²	
Cancer Risk	Residential	2 X 10 ⁻⁶	7 X 10 ⁻⁶	-5 X 10 ⁻⁶	-	-	-	10 x 10 ⁻⁶
	Occupational	1 X 10 ⁻⁶	3 X 10 ⁻⁶	-2 X 10 ⁻⁶	-	-	-	
	Sensitive	1 X 10 ⁻⁶	4 X 10 ⁻⁶	-3 X 10 ⁻⁶	-	-	-	
Chronic Hazard Index	Residential	0.002	0.005	-0.003	-	-	-	1.0
	Occupational	0.003	0.006	-0.003	-	-	-	
	Sensitive	0.002	0.008	-0.006	-	-	-	
Acute Hazard Index	Residential	0.366	0.434	-0.007	-	-	-	1.0
	Occupational	0.080	0.082	-0.002	-	-	-	
	Sensitive	0.086	0.096	-0.010	-	-	-	
Cancer Burden		-	-	-3.86	-	-	-	0.5

Notes:

- 1 For each receptor type, all risk values correspond to the receptor with the maximum CEQA/NEPA incremental impact.
- 2 The CEQA Increment represents Alternative 2 impact minus CEQA Baseline impact. The NEPA Increment represents Alternative 3 impact minus NEPA Baseline impact.
- 3 Exceedances of the significance criteria are in bold. The significance thresholds for cancer risk and chronic hazard index only apply to the CEQA and NEPA increment values.
- 4 Alternative 3 impacts equal those from the NEPA Baseline. Thus, an increment was not calculated.

Health Impact	Receptor Type	Maximum Predicted Incremental Impacts ^{1,4}						Significance Threshold ³
		Alt. 4	CEQA Baseline	CEQA Increment ²	Alt. 4	NEPA Baseline	NEPA Increment ²	
Cancer Risk	Residential	1 x 10 ⁻⁶	7 x 10 ⁻⁶	-6 x 10 ⁻⁶	--	--	--	10 x 10 ⁻⁶
	Occupational	1 x 10 ⁻⁶	3 x 10 ⁻⁶	-2 x 10 ⁻⁶	--	--	--	
	Sensitive	1 x 10 ⁻⁶	3 x 10 ⁻⁶	-2 x 10 ⁻⁶	--	--	--	
Chronic Hazard Index	Residential	0.006	0.008	-0.002	--	--	--	1.0
	Occupational	0.003	0.006	-0.003	--	--	--	
	Sensitive	0.004	0.008	-0.004	--	--	--	
Acute Hazard Index	Residential	0.101	0.099	0.002	--	--	--	1.0
	Occupational	0.612	0.515	0.097	--	--	--	
	Sensitive	0.084	0.086	-0.002	--	--	--	
Cancer Burden		--	--	-4.16	--	--	--	0.5

Notes:

- For each receptor type, all risk values correspond to the receptor with the maximum CEQA/NEPA incremental impact.
- The CEQA Increment represents Alternative 4 impact minus CEQA Baseline impact. The NEPA Increment represents Alternative 4 impact minus NEPA Baseline impact.
- Exceedances of the significance criteria are in bold. The significance thresholds for cancer risk and chronic and acute hazard indices only apply to the CEQA and NEPA increment values.
- Alternative 4 impacts equal those from the NEPA Baseline. Thus, an increment was not calculated.

Health Outcome	Cases Per Year	Uncertainty Range (Cases per Year) ²
Premature Death	2,400	720 to 4,100
Hospital Admissions (respiratory causes)	2,000	1,200 to 2,800
Hospital Admissions (cardiovascular causes)	830	530 to 1,300
Asthma and Other Lower Respiratory Symptoms	62,000	24,000 to 99,000
Acute Bronchitis	5,100	-1,200 to 11,000
Work Loss Days	360,000	310,000 to 420,000
Minor Restricted Activity Days	3,900,000	2,200,000 to 5,800,000
School Absence Days	1,100,000	460,000 to 1,800,000

Notes:

- Does not include the contributions from particle sulfate formed from SO_x emissions, which is being addressed with several ongoing emissions, measurement, and modeling studies.
- Range reflects uncertainty in health concentration-response functions, but not in emissions or exposure estimates. A negative value as a lower bound of the uncertainty range is not meant to imply that exposure to pollutants is beneficial; rather, it is a reflection of the adequacy of the data used to develop these uncertainty range estimates.

Parameter	With Mitigation	Without Mitigation
Population of most affected area	3,683	3,683
Change in annual PM ₁₀ concentration	0.15 µg/m ³	0.17 µg/m ³
Increase in mortality (cases per year)	0.006	0.006

Figures

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Figures

A3-1 Receptor Grid for Cancer Risk, Chronic and Acute Hazard Indices

A3-2 Receptor Grid for Cancer Burden (Population Centroids)

A3-3 AERMOD Representation of On-Terminal Sources for CEQA Baseline and No Project

A3-4 AERMOD Representation of On-Terminal Sources for NEPA Baseline and Alternative 3

A3-5 AERMOD Representation of On-Terminal Sources for Alternative 1 (Proposed Project)

A3-5a AERMOD Representation of On-Terminal Sources for Alternative 2 (315-Acre Alternative)

A3-5a AERMOD Representation of Construction Sources Used Dispersion Modeling Analysis

A3-6 AERMOD Representation of Ship Transit Routes

A3-7 AERMOD Representation of Truck, Locomotive, and Ship Harbor Transit Routes

A3-8 Residential Cancer Risk Isopleths - CEQA Baseline (probability of causing cancer per million)

A3-9 Residential Cancer Risk Isopleths - NEPA Baseline (probability of causing cancer per million)

A3-10 Residential Cancer Risk Isopleths - Unmitigated Alternative 1 (Proposed Project) (probability of causing cancer per million)

A-3-11 Residential Cancer Risk CEQA Increment Isopleths - Unmitigated Alternative 1 (probability of causing cancer per million)

A-3-12 Residential Cancer Risk NEPA Increment Isopleths- Unmitigated Alternative 1 (probability of causing cancer per million)

A-3-13 Residential Cancer Risk Isopleths - Mitigated Alternative 1 (probability of causing cancer per million)

A-3-14 Residential Cancer Risk CEQA Increment Isopleths - Mitigated Alternative 1 (probability of causing cancer per million)

A-3-15 Residential Cancer Risk NEPA Increment Isopleths- Mitigated Alternative 1 (probability of causing cancer per million)

A3-16 Residential Cancer Risk Isopleths - Unmitigated Alternative 2 (315-Acre) (probability of causing cancer per million)

A3-17 Residential Cancer Risk Isopleths - Unmitigated Alternative 2 CEQA Increment (probability of causing cancer per million)

A3-18 Residential Cancer Risk Isopleths - Unmitigated Alternative 2 NEPA Increment (probability of causing cancer per million)

A3-19 Residential Cancer Risk Isopleths - Mitigated Alternative 2 (probability of causing cancer per million)

A3-20 Residential Cancer Risk Isopleths - Mitigated Alternative 2 CEQA Increment (probability of causing cancer per million)

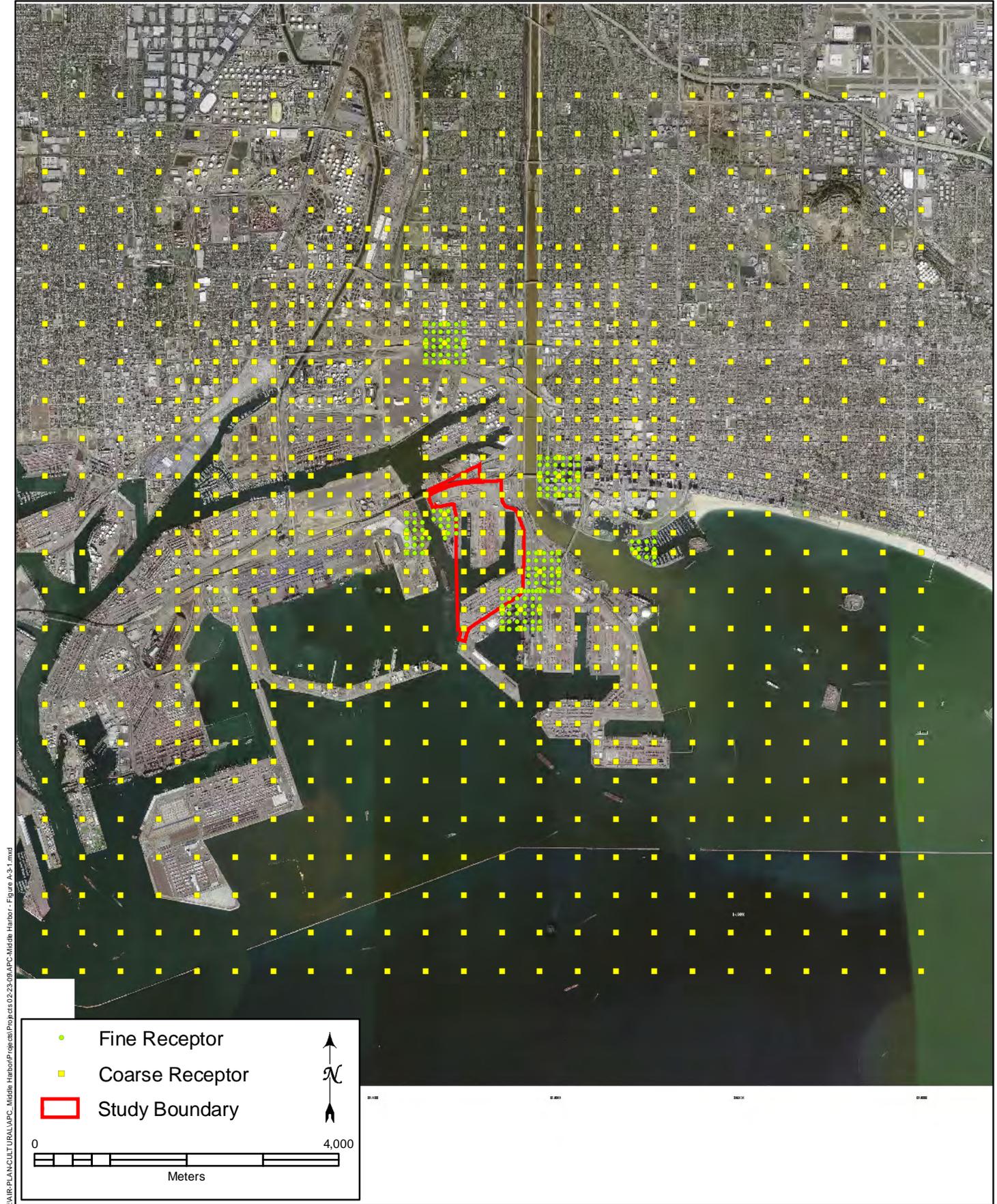
A3-21 Residential Cancer Risk Isopleths - Mitigated Alternative 2 NEPA Increment (probability of causing cancer per million)

A3-22 Residential Cancer Risk Isopleths - Unmitigated Alternative 3 (Landside Improvement Alternative) (probability of causing cancer per million)

A3-23 Residential Cancer Risk CEQA Increment Isopleths - Unmitigated Alternative 3 (probability of causing cancer per million)

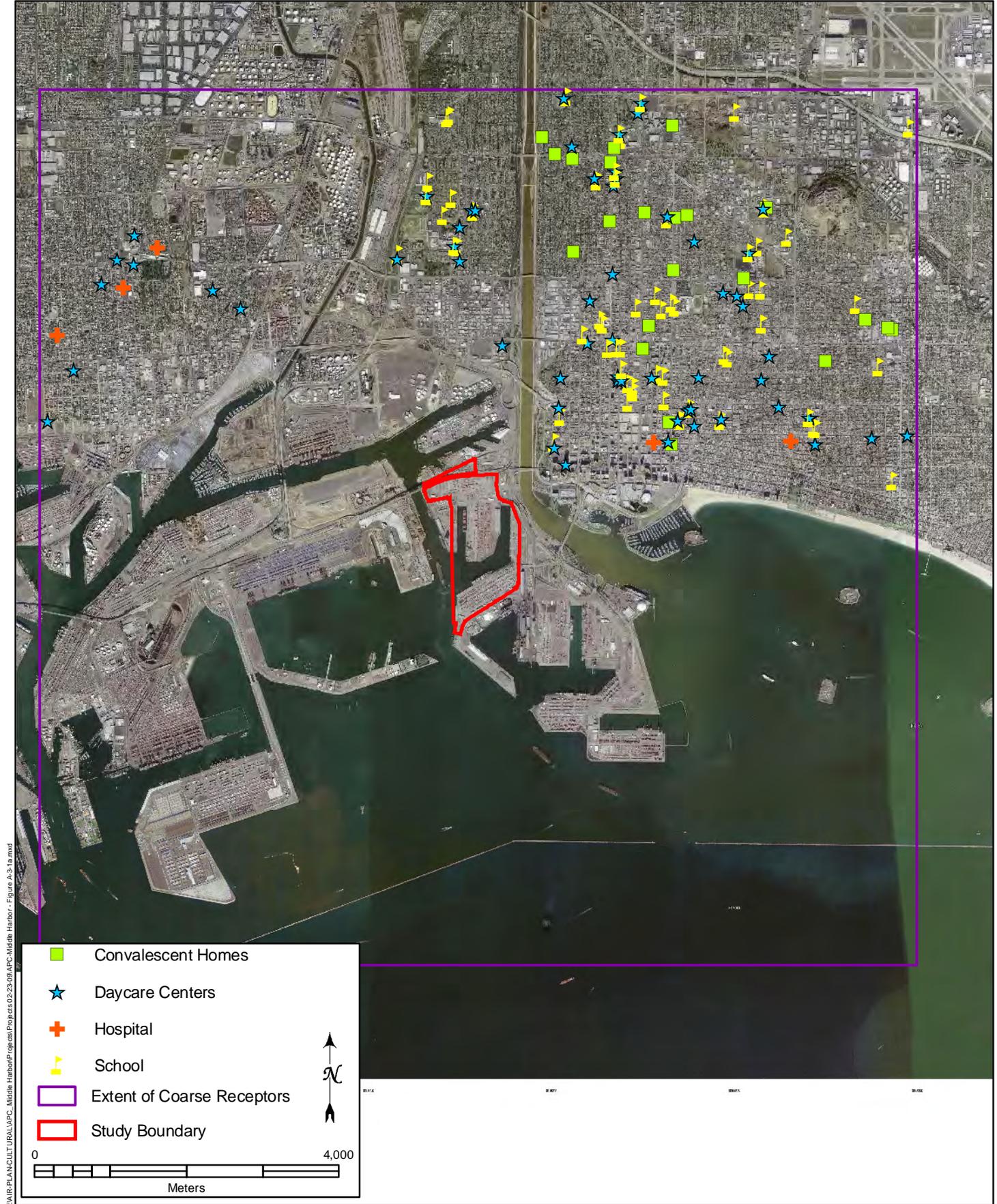
A3-24 Residential Cancer Risk Isopleths - Alternative 4 (No Project) (probability of causing cancer per million)

A3-25 Residential Cancer Risk CEQA Increment Isopleths - Alternative 4 (probability of causing cancer per million)



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Figure A-3-1. Receptor Grid used in Dispersion Modeling Analyses for the Middle Harbor Redevelopment Project



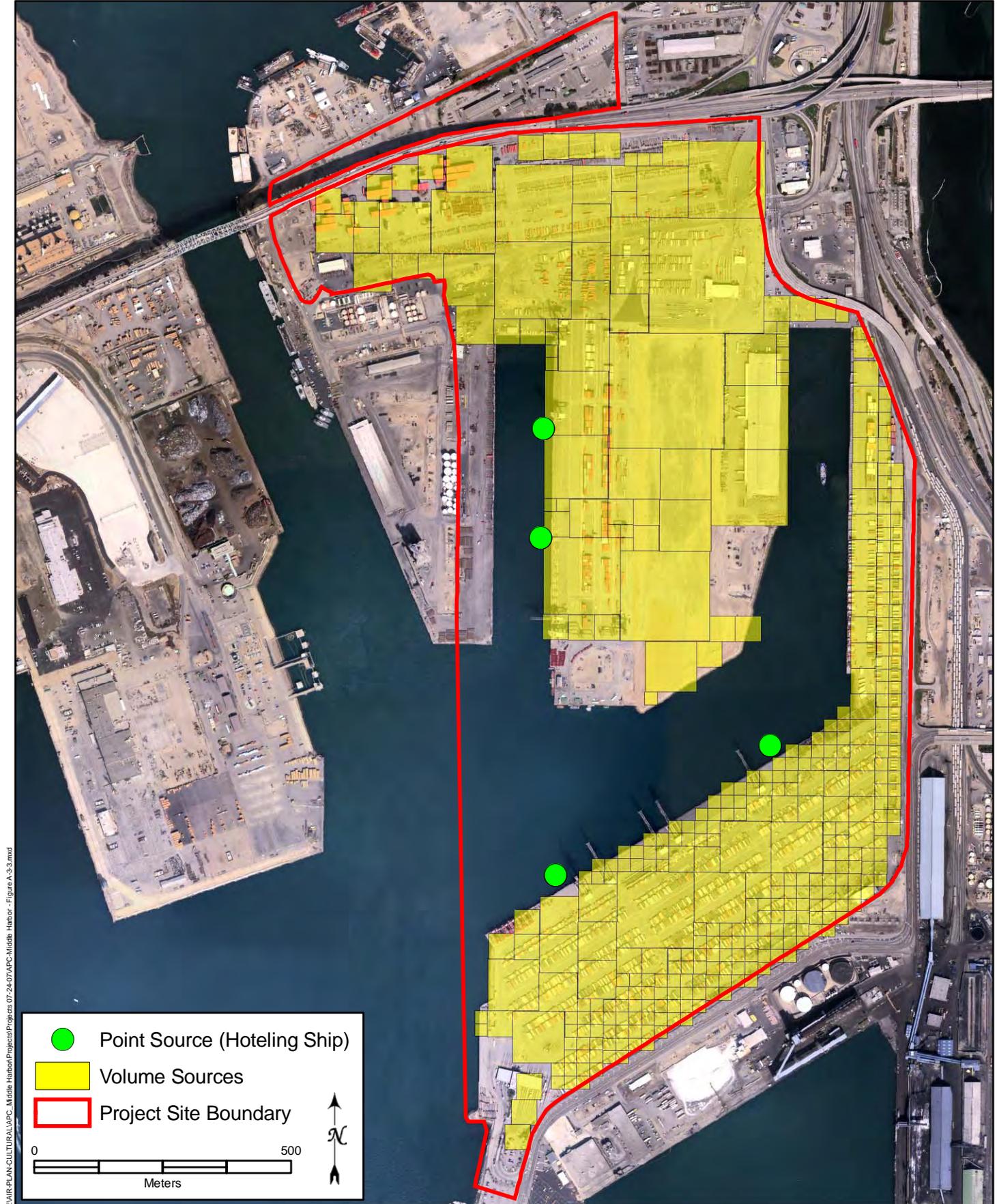
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Figure A-3-1a. Sensitive Receptors used in Dispersion Modeling Analyses for the Middle Harbor Redevelopment Project



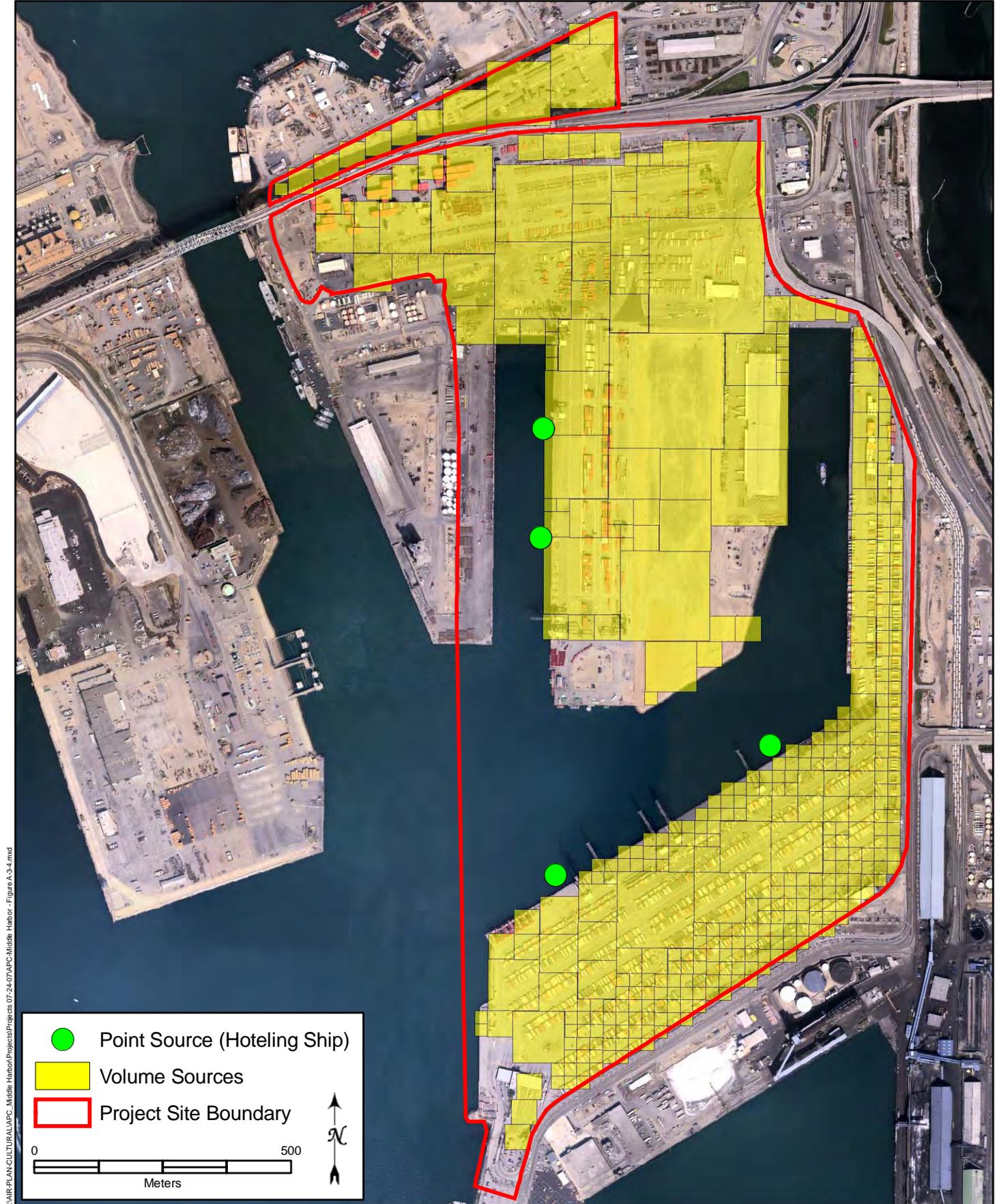
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Figure A-3-2. Receptor Grid for Cancer Burden



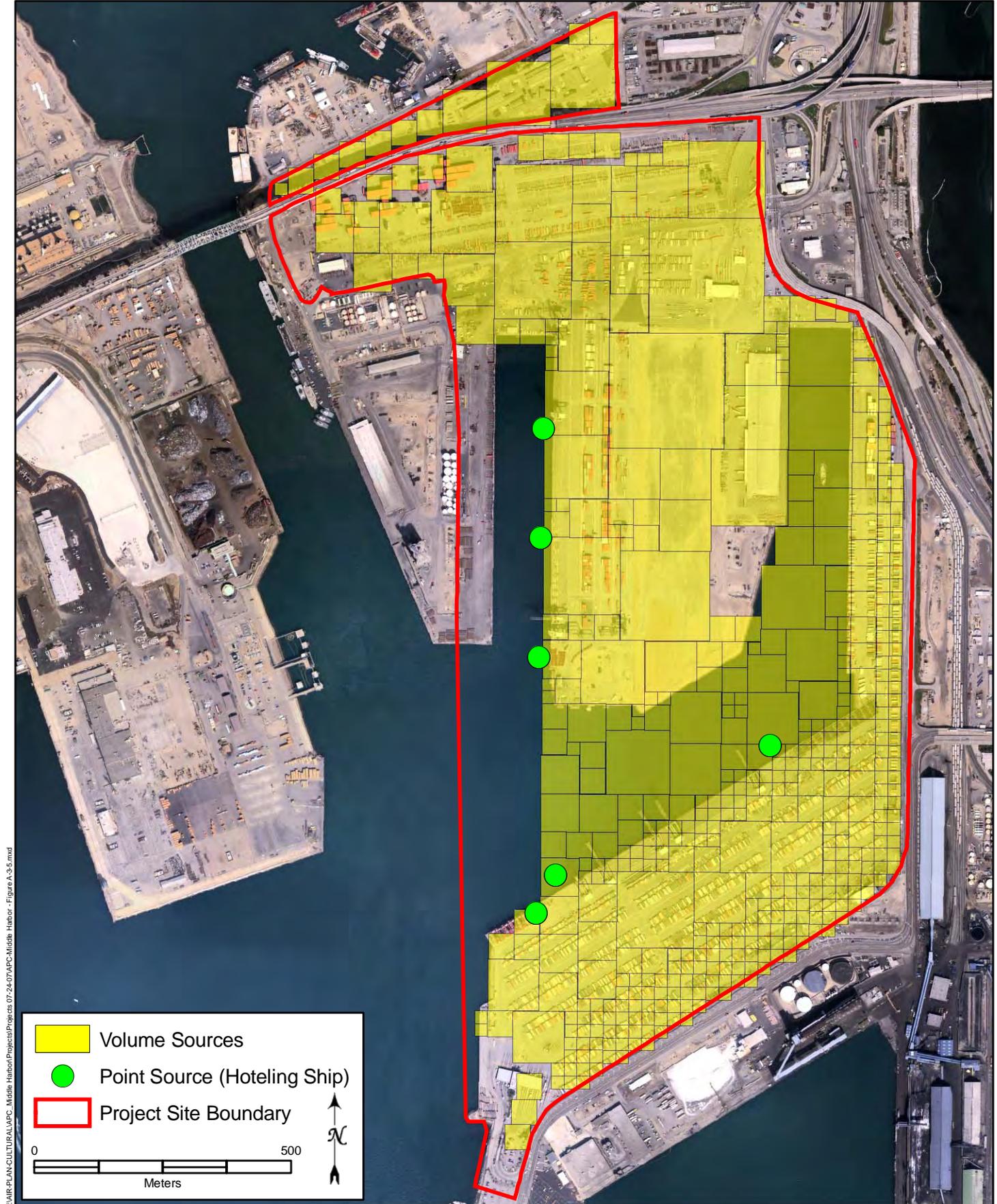
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Figure A-3-3. AERMOD Representation of On-Terminal Sources for CEQA Baseline



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Figure A-3-4. AERMOD Representation of On-Terminal Sources for No Federal Action Baseline



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Figure A-3-5. AERMOD Representation of On-Terminal Sources for Alternative 1 (Proposed Project)



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Figure A-3-5a. AERMOD Representation of On-Terminal Sources for Alternative 2 (315-Acre Alternative)



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Figure A-3-5b. Construction Sources used in Dispersion Modeling Analyses for the Middle Harbor Redevelopment Project

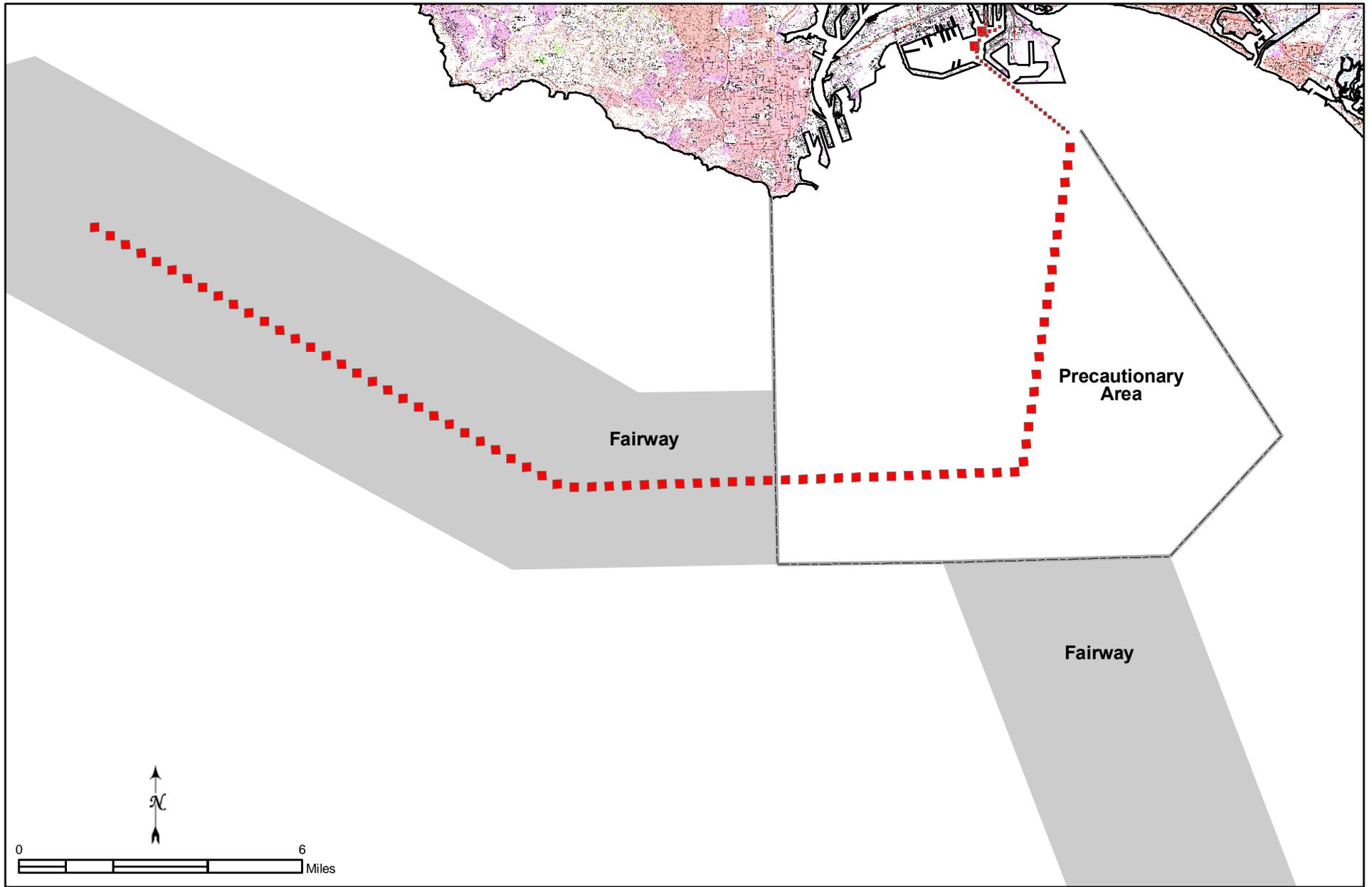
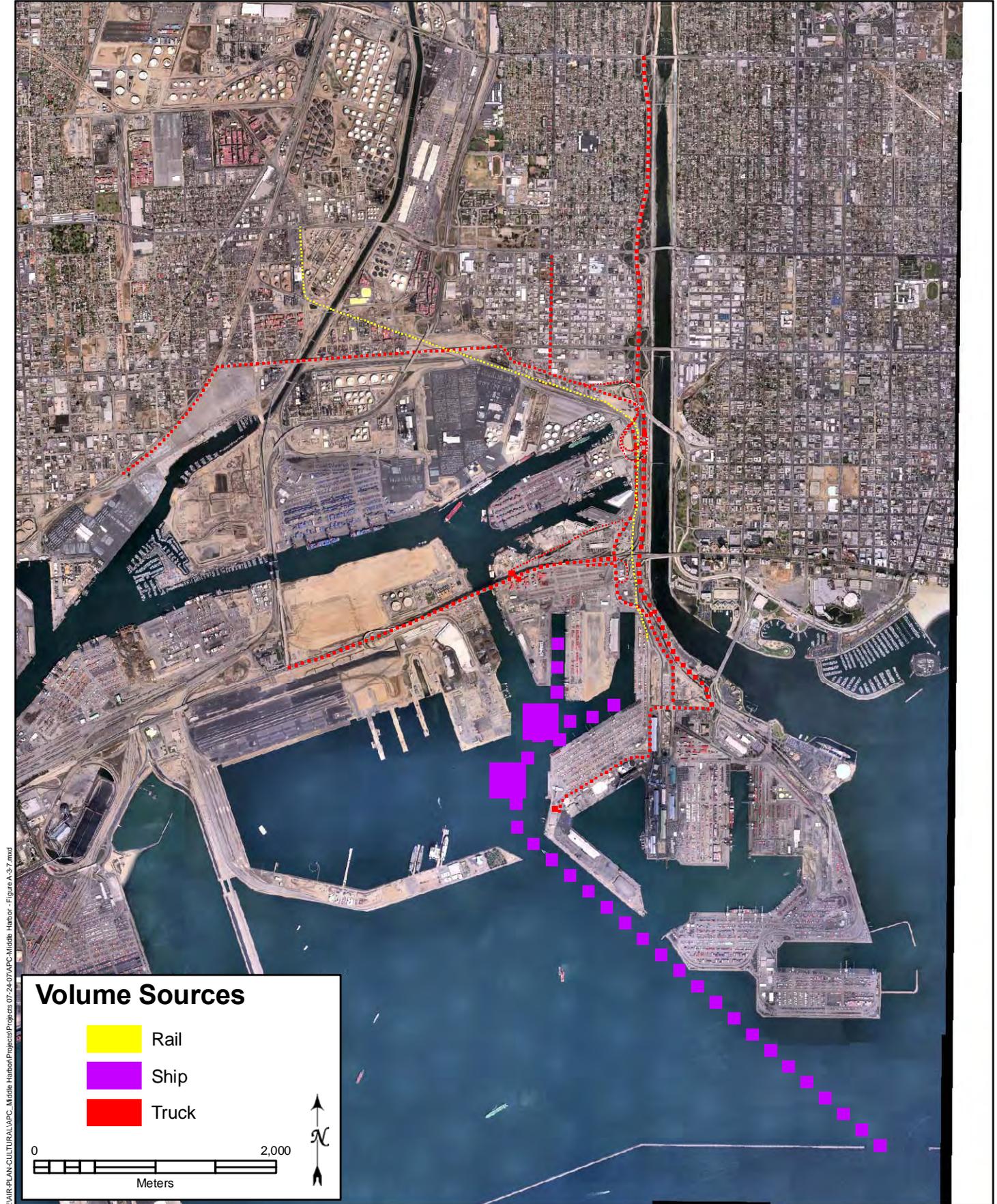
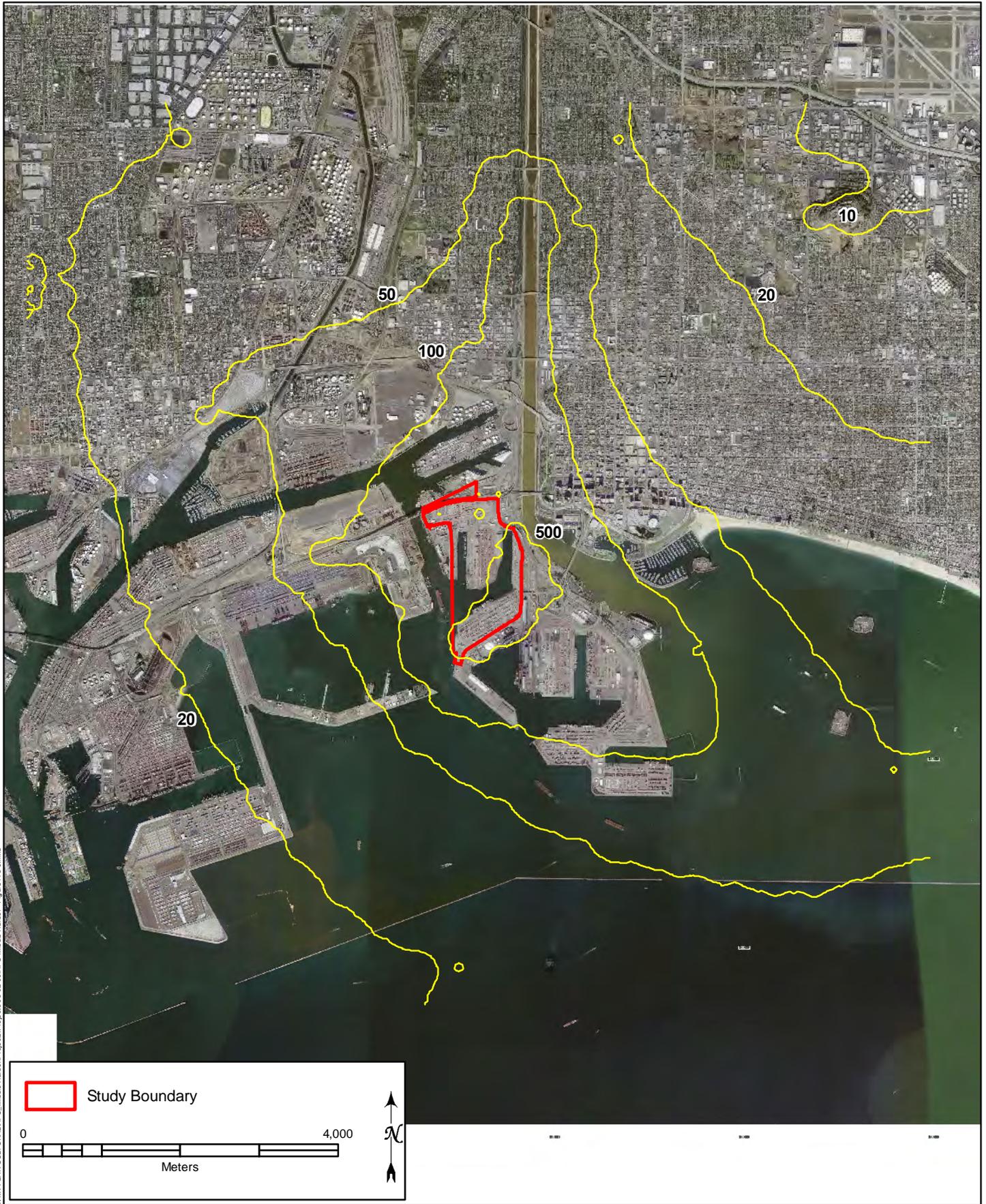


Figure A-3-6. AERMOD Representation of Ship Fairway and Precautionary Area Transit Routes



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Figure A-3-7. AERMOD Representation of Truck, Locomotive, and Ship Harbor Transit Routes



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Figure A-3-8. CEQA Cancer Risk Isopleths - (probability of causing cancer per million)



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Figure A-3-9 NEPA Cancer Risk Isopleths - (probability of causing cancer per million)



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**Figure A-3-10 Cancer Risk Isopleths -
Unmitigated Alternative 1 Total (probability of causing cancer per million)**



G:\StateC\A\Mid die Habitat\Projects\Review\072809\Figure A-3-11-Residential_CEQA Increment - Unmit Alt.mxd

Figure A-3-11 Cancer Risk Isopleths - CEQA Increment Unmitigated Alternative 1 (probability of causing cancer per million)



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Figure A-3-12 Cancer Risk Isopleths - NEPA Increment Unmitigated Alternative1 (probability of causing cancer per million)



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**Figure A-3-13 Cancer Risk Isopleths - Mitigated Alternative 1 Total
(probability of causing cancer per million)**



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Figure A-3-14 Cancer Risk Isopleths - CEQA Increment Mitigated Alternative 1 (probability of causing cancer per million)



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Figure A-3-15 Cancer Risk Isopleths - NEPA Increment Mitigated Alternative 1 (probability of causing cancer per million)



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Figure A-3-16 Cancer Risk Isopleths - Unmitigated Alternative 2 Total (probability of causing cancer per million)



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Figure A-3-17 Cancer Risk Isopleths - CEQA Increment Unmitigated Alternative 2 (probability of causing cancer per million)



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Figure A-3-18 Cancer Risk Isopleths - NEPA Increment Unmitigated Alternative 2 (probability of causing cancer per million)



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**Figure A-3-19 Cancer Risk Isopleths - Mitigated Alternative 2 Total
(probability of causing cancer per million)**



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Figure A-3-20 Cancer Risk Isopleths - CEQA Increment Mitigated Alternative 2 (probability of causing cancer per million)



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Figure A-3-21 Cancer Risk Isopleths - NEPA Increment Mitigated Alternative 2 (probability of causing cancer per million)



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**FigureA-3-22. Cancer Risk Isopleths - Alternative 3 (LSI) Total
(Probability of Causing Cancer in a Million)**



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**FigureA-3-23. Cancer Risk Isopleths - CEQA Increment Alternative 3 (LSI)
(Probability of Causing Cancer in a Million)**



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Figure A-3-24 Cancer Risk Isopleths - Alternative 4 Total (probability of causing cancer per million)



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**Figure A-3-25 Cancer Risk Isopleths - CEQA Increment Alternative 4
(probability of causing cancer per million)**

HRA Calculations

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Appendix A-3 Attachments – HRA Modeling Emission Calculation Tables

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Attachment A-3.1 – Cancer Health Risk Analysis Modeling Emissions Tables

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Cancer Health Risk Analysis

Table A.3.1-Alt1U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 1

Table A.3.1-Alt1M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 1

Table A.3.1-Alt2U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 2

Table A.3.1-Alt2M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 2.

Table A.3.1-Alt3M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 3.

Table A.3.1-Alt4U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 4

Table A.3.1-CB. 2005 VOC and PM10 Emissions - POLB - MHTP - CEQA Baseline

Table A.3.1-Alt1U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 1

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
RTGs - No CAAP - Config B	312.8	225.5
RTGs - No CAAP - Config C	60.1	29.3
RTGs - No CAAP - Config D	76.1	10.7
RTGs - No CAAP - Config F	4,017.9	616.9
RTGs on Pier E - No CAAP - Config A	128.0	104.2
RTGs on Pier F - No CAAP - Config A	18.9	15.4
Side Picks - No CAAP - Config B	38.0	32.7
Side Picks - No CAAP - Config C	9.7	4.7
Side Picks - No CAAP - Config D	16.4	2.0
Side Picks - No CAAP - Config F	916.7	125.6
Side Picks on Pier E - No CAAP - Config A	11.7	12.4
Side Picks on Pier F - No CAAP - Config A	3.2	3.5
Top Picks - No CAAP - Config B	58.5	33.5
Top Picks - No CAAP - Config C	15.5	5.3
Top Picks - No CAAP - Config D	26.8	3.8
Top Picks on Pier E - No CAAP - Config A	19.3	13.6
Top Picks on Pier F - No CAAP - Config A	3.4	2.4
Yard Tractors - No CAAP - Config B	14.5	11.3
Yard Tractors - No CAAP - Config C	5.3	3.0
Yard Tractors - No CAAP - Config D	11.4	5.0
Yard Tractors - No CAAP - Config F	516.8	232.7
Yard Tractors on Pier E - No CAAP - Config A	3.3	3.3
Yard Tractors on Pier F - No CAAP - Config A	1.1	1.0
RTGs - No CAAP - Existing Railyard	27.9	19.8
RTGs - No CAAP - Expanded Railyard	833.2	130.3
Yard Tractors - No CAAP - Existing Railyard	1.8	1.4
Yard Tractors - No CAAP - Expanded Railyard	125.4	56.5
Ships - Boilers - 0.1% S Fuel - Docking - Config B	0.4	0.3
Ships - Boilers - 0.1% S Fuel - Docking - Config C	0.7	0.5
Ships - Boilers - 0.1% S Fuel - Docking - Config D	20.8	13.5
Ships - Boilers - 1.5% S Fuel - Docking - Config A	0.2	0.5
Ships - Boilers - 1.5% S Fuel - Docking - Config B	0.2	0.5
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Docking - Config B	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Docking - Config C	0.8	0.4
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Docking - Config D	236.8	113.9
Ships 10,000 - 11,999 TEU - Aux Engines - 1.5% S - Docking - Config A	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 1.5% S - Docking - Config B	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Docking - Config B	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Docking - Config C	5.6	0.4
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Docking - Config D	1,734.0	128.1
Ships 10,000 - 11,999 TEU - Mains - 1.5% S - Docking - Config A	-	-
Ships 10,000 - 11,999 TEU - Mains - 1.5% S - Docking - Config B	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Docking - Config B	1.0	0.5
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Docking - Config C	2.7	1.3
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Docking - Config D	1.3	0.6
Ships 3,000 - 3,999 TEU - Aux Engines - 1.5% S - Docking - Config A	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 1.5% S - Docking - Config B	0.2	0.4
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Docking - Config B	13.5	1.0
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Docking - Config C	35.1	2.6
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Docking - Config D	16.2	1.2
Ships 3,000 - 3,999 TEU - Mains - 1.5% S - Docking - Config A	-	-
Ships 3,000 - 3,999 TEU - Mains - 1.5% S - Docking - Config B	2.5	0.7

Table A.3.1-Alt1U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 1

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Docking - Config B	4.7	2.3
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Docking - Config C	5.3	2.6
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Docking - Config D	195.2	93.8
Ships 4,000 - 4,999 TEU - Aux Engines - 1.5% S - Docking - Config A	2.9	5.7
Ships 4,000 - 4,999 TEU - Aux Engines - 1.5% S - Docking - Config B	2.7	5.1
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Docking - Config B	51.9	3.8
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Docking - Config C	58.8	4.3
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Docking - Config D	2,158.3	159.5
Ships 4,000 - 4,999 TEU - Mains - 1.5% S - Docking - Config A	32.6	9.6
Ships 4,000 - 4,999 TEU - Mains - 1.5% S - Docking - Config B	29.3	8.6
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Docking - Config B	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Docking - Config C	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Docking - Config D	125.8	60.5
Ships 5,000 - 5,999 TEU - Aux Engines - 1.5% S - Docking - Config A	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 1.5% S - Docking - Config B	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Docking - Config B	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Docking - Config C	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Docking - Config D	1,271.2	93.9
Ships 5,000 - 5,999 TEU - Mains - 1.5% S - Docking - Config A	-	-
Ships 5,000 - 5,999 TEU - Mains - 1.5% S - Docking - Config B	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Docking - Config B	5.7	2.8
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Docking - Config C	8.6	4.1
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Docking - Config D	181.1	87.1
Ships 6,000 - 6,999 TEU - Aux Engines - 1.5% S - Docking - Config A	2.7	5.2
Ships 6,000 - 6,999 TEU - Aux Engines - 1.5% S - Docking - Config B	2.7	5.2
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Docking - Config B	51.6	3.8
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Docking - Config C	77.4	5.7
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Docking - Config D	1,625.4	120.1
Ships 6,000 - 6,999 TEU - Mains - 1.5% S - Docking - Config A	24.3	7.2
Ships 6,000 - 6,999 TEU - Mains - 1.5% S - Docking - Config B	24.3	7.2
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Docking - Config B	2.9	1.4
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Docking - Config C	8.0	3.9
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Docking - Config D	181.1	87.1
Ships 7,000 - 7,999 TEU - Aux Engines - 1.5% S - Docking - Config A	-	-
Ships 7,000 - 7,999 TEU - Aux Engines - 1.5% S - Docking - Config B	0.5	1.0
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Docking - Config B	25.8	1.9
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Docking - Config C	72.2	5.3
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Docking - Config D	1,625.4	120.1
Ships 7,000 - 7,999 TEU - Mains - 1.5% S - Docking - Config A	-	-
Ships 7,000 - 7,999 TEU - Mains - 1.5% S - Docking - Config B	4.9	1.4
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Docking - Config B	6.4	3.1
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Docking - Config C	9.6	4.6
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Docking - Config D	201.2	96.7
Ships 8,000 - 9,999 TEU - Aux Engines - 1.5% S - Docking - Config A	3.0	5.8
Ships 8,000 - 9,999 TEU - Aux Engines - 1.5% S - Docking - Config B	3.0	5.8
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Docking - Config B	56.1	4.1
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Docking - Config C	84.2	6.2
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Docking - Config D	1,767.7	130.6
Ships 8,000 - 9,999 TEU - Mains - 1.5% S - Docking - Config A	26.4	7.8
Ships 8,000 - 9,999 TEU - Mains - 1.5% S - Docking - Config B	26.4	7.8
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	286.5	137.7
Ships 10,000 - 11,999 TEU - Aux Engines - 1.5% S - Fairway @ 12 kts	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	3,791.0	543.3

Table A.3.1-Alt1U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 1

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Ships 10,000 - 11,999 TEU - Mains - 1.5% S - Fairway @ 12 kts	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	6.5	3.1
Ships 3,000 - 3,999 TEU - Aux Engines - 1.5% S - Fairway @ 12 kts	0.3	0.5
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	118.2	21.8
Ships 3,000 - 3,999 TEU - Mains - 1.5% S - Fairway @ 12 kts	4.6	3.4
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	247.4	119.0
Ships 4,000 - 4,999 TEU - Aux Engines - 1.5% S - Fairway @ 12 kts	6.8	13.0
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	4,540.2	709.6
Ships 4,000 - 4,999 TEU - Mains - 1.5% S - Fairway @ 12 kts	123.9	77.3
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	151.7	72.9
Ships 5,000 - 5,999 TEU - Aux Engines - 1.5% S - Fairway @ 12 kts	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	2,655.7	380.6
Ships 5,000 - 5,999 TEU - Mains - 1.5% S - Fairway @ 12 kts	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	235.7	113.3
Ships 6,000 - 6,999 TEU - Aux Engines - 1.5% S - Fairway @ 12 kts	6.5	12.5
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	3,689.4	528.7
Ships 6,000 - 6,999 TEU - Mains - 1.5% S - Fairway @ 12 kts	102.3	58.5
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	231.5	111.3
Ships 7,000 - 7,999 TEU - Aux Engines - 1.5% S - Fairway @ 12 kts	0.7	1.3
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	3,755.6	538.2
Ships 7,000 - 7,999 TEU - Mains - 1.5% S - Fairway @ 12 kts	10.6	6.1
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	261.9	125.9
Ships 8,000 - 9,999 TEU - Aux Engines - 1.5% S - Fairway @ 12 kts	7.3	13.9
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	4,257.1	610.1
Ships 8,000 - 9,999 TEU - Mains - 1.5% S - Fairway @ 12 kts	118.0	67.5
Ships - Boilers - 0.1% S Fuel - Harbor Transit - Config B	1.0	0.7
Ships - Boilers - 0.1% S Fuel - Harbor Transit - Config C	1.7	1.1
Ships - Boilers - 0.1% S Fuel - Harbor Transit - Config D	50.3	32.5
Ships - Boilers - 0.1% S Fuel - Turning - West (Proposed) Location	10.3	6.6
Ships - Boilers - 1.5% S Fuel - Harbor Transit - Config A	0.5	1.2
Ships - Boilers - 1.5% S Fuel - Harbor Transit - Config B	0.5	1.2
Ships - Boilers - 1.5% S Fuel - Turning - West (Proposed) Location	0.2	0.5
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	1.8	0.9
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config D	571.5	274.8
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	110.9	53.3
Ships 10,000 - 11,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config A	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config B	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 1.5% S - Turning - West (Proposed) Location	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	9.4	0.8
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Harbor Transit - Config D	2,904.1	234.2
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	563.4	45.4
Ships 10,000 - 11,999 TEU - Mains - 1.5% S - Harbor Transit - Config A	-	-
Ships 10,000 - 11,999 TEU - Mains - 1.5% S - Harbor Transit - Config B	-	-
Ships 10,000 - 11,999 TEU - Mains - 1.5% S - Turning - West (Proposed) Location	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	2.5	1.2
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	6.6	3.2
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config D	3.0	1.5
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	2.3	1.1
Ships 3,000 - 3,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config A	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config B	0.5	0.9
Ships 3,000 - 3,999 TEU - Aux Engines - 1.5% S - Turning - West (Proposed) Location	0.1	0.2

Table A.3.1-Alt1U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 1

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	27.0	2.2
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	70.2	5.7
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Harbor Transit - Config D	32.4	2.6
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	25.1	2.0
Ships 3,000 - 3,999 TEU - Mains - 1.5% S - Harbor Transit - Config A	-	-
Ships 3,000 - 3,999 TEU - Mains - 1.5% S - Harbor Transit - Config B	5.1	1.6
Ships 3,000 - 3,999 TEU - Mains - 1.5% S - Turning - West (Proposed) Location	1.0	0.3
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	11.3	5.4
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	12.8	6.2
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config D	471.1	226.5
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	95.8	46.0
Ships 4,000 - 4,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config A	7.1	13.6
Ships 4,000 - 4,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config B	6.4	12.3
Ships 4,000 - 4,999 TEU - Aux Engines - 1.5% S - Turning - West (Proposed) Location	2.6	5.0
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	87.7	7.1
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	99.4	8.0
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Harbor Transit - Config D	3,650.1	294.3
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	742.0	59.8
Ships 4,000 - 4,999 TEU - Mains - 1.5% S - Harbor Transit - Config A	55.1	17.7
Ships 4,000 - 4,999 TEU - Mains - 1.5% S - Harbor Transit - Config B	49.6	16.0
Ships 4,000 - 4,999 TEU - Mains - 1.5% S - Turning - West (Proposed) Location	20.3	6.5
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config D	303.6	146.0
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	58.7	28.2
Ships 5,000 - 5,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config A	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config B	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 1.5% S - Turning - West (Proposed) Location	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Harbor Transit - Config D	3,758.2	277.7
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	726.7	53.7
Ships 5,000 - 5,999 TEU - Mains - 1.5% S - Harbor Transit - Config A	-	-
Ships 5,000 - 5,999 TEU - Mains - 1.5% S - Harbor Transit - Config B	-	-
Ships 5,000 - 5,999 TEU - Mains - 1.5% S - Turning - West (Proposed) Location	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	13.9	6.7
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	20.8	10.0
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config D	437.0	210.1
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	91.2	43.9
Ships 6,000 - 6,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config A	6.5	12.5
Ships 6,000 - 6,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config B	6.5	12.5
Ships 6,000 - 6,999 TEU - Aux Engines - 1.5% S - Turning - West (Proposed) Location	2.5	4.8
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	152.5	11.3
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	228.8	16.9
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Harbor Transit - Config D	4,805.2	355.1
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	1,002.9	74.1
Ships 6,000 - 6,999 TEU - Mains - 1.5% S - Harbor Transit - Config A	71.9	21.2
Ships 6,000 - 6,999 TEU - Mains - 1.5% S - Harbor Transit - Config B	71.9	21.2
Ships 6,000 - 6,999 TEU - Mains - 1.5% S - Turning - West (Proposed) Location	27.8	8.2
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	6.9	3.3
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	19.4	9.3
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config D	437.0	210.1
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	89.6	43.1

Table A.3.1-Alt1U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 1

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Ships 7,000 - 7,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config A	-	-
Ships 7,000 - 7,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config B	1.3	2.5
Ships 7,000 - 7,999 TEU - Aux Engines - 1.5% S - Turning - West (Proposed) Location	0.3	0.5
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	42.4	3.4
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	118.6	9.6
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Harbor Transit - Config D	2,668.7	215.2
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	547.2	44.1
Ships 7,000 - 7,999 TEU - Mains - 1.5% S - Harbor Transit - Config A	-	-
Ships 7,000 - 7,999 TEU - Mains - 1.5% S - Harbor Transit - Config B	8.0	2.6
Ships 7,000 - 7,999 TEU - Mains - 1.5% S - Turning - West (Proposed) Location	1.5	0.5
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	15.4	7.4
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	23.1	11.1
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config D	485.5	233.4
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	101.3	48.7
Ships 8,000 - 9,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config A	7.3	13.9
Ships 8,000 - 9,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config B	7.3	13.9
Ships 8,000 - 9,999 TEU - Aux Engines - 1.5% S - Turning - West (Proposed) Location	2.8	5.4
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	94.0	7.6
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	141.0	11.4
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Harbor Transit - Config D	2,960.4	238.7
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	617.9	49.8
Ships 8,000 - 9,999 TEU - Mains - 1.5% S - Harbor Transit - Config A	44.3	14.2
Ships 8,000 - 9,999 TEU - Mains - 1.5% S - Harbor Transit - Config B	44.3	14.2
Ships 8,000 - 9,999 TEU - Mains - 1.5% S - Turning - West (Proposed) Location	17.1	5.5
Ships - Boilers - 0.1% S Fuel - Hotelling - Config B	35.2	22.8
Ships - Boilers - 0.1% S Fuel - Hotelling - Config C	57.3	37.0
Ships - Boilers - 0.1% S Fuel - Hotelling - Config D	1,610.1	1,040.8
Ships - Boilers - 1.5% S Fuel - Hotelling - Config A	16.2	40.2
Ships - Boilers - 1.5% S Fuel - Hotelling - Config B	16.8	41.7
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	8.9	4.3
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Hotelling - Config D	1,145.8	550.9
Ships 10,000 - 11,999 TEU - Aux Engines - 1.5% S - Hotelling - Config A	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 1.5% S - Hotelling - Config B	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	35.8	17.2
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	46.6	22.4
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Hotelling - Config D	21.5	10.3
Ships 3,000 - 3,999 TEU - Aux Engines - 1.5% S - Hotelling - Config A	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 1.5% S - Hotelling - Config B	6.8	13.0
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	131.8	63.4
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	72.1	34.7
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Hotelling - Config D	1,085.4	521.8
Ships 4,000 - 4,999 TEU - Aux Engines - 1.5% S - Hotelling - Config A	84.4	161.9
Ships 4,000 - 4,999 TEU - Aux Engines - 1.5% S - Hotelling - Config B	75.5	144.8
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Hotelling - Config D	602.6	289.7
Ships 5,000 - 5,999 TEU - Aux Engines - 1.5% S - Hotelling - Config A	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 1.5% S - Hotelling - Config B	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	141.1	67.8
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	103.0	49.5
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Hotelling - Config D	900.5	432.9
Ships 6,000 - 6,999 TEU - Aux Engines - 1.5% S - Hotelling - Config A	68.4	131.3

Table A.3.1-Alt1U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 1

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Ships 6,000 - 6,999 TEU - Aux Engines - 1.5% S - Hotelling - Config B	67.6	129.8
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	68.5	32.9
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	95.7	46.0
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Hotelling - Config D	900.5	432.9
Ships 7,000 - 7,999 TEU - Aux Engines - 1.5% S - Hotelling - Config A	-	-
Ships 7,000 - 7,999 TEU - Aux Engines - 1.5% S - Hotelling - Config B	12.9	24.8
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	156.8	75.4
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	114.4	55.0
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Hotelling - Config D	1,000.5	481.0
Ships 8,000 - 9,999 TEU - Aux Engines - 1.5% S - Hotelling - Config A	76.0	145.8
Ships 8,000 - 9,999 TEU - Aux Engines - 1.5% S - Hotelling - Config B	75.2	144.2
Ships - Boilers - 0.1% S Fuel - Precautionary Area	83.9	54.3
Ships - Boilers - 1.5% S Fuel - Precautionary Area	1.5	3.7
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Precautionary Area	453.6	218.1
Ships 10,000 - 11,999 TEU - Aux Engines - 1.5% S - Precautionary Area	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Precautionary Area	3,507.9	416.7
Ships 10,000 - 11,999 TEU - Mains - 1.5% S - Precautionary Area	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Precautionary Area	10.3	5.0
Ships 3,000 - 3,999 TEU - Aux Engines - 1.5% S - Precautionary Area	0.4	0.8
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Precautionary Area	115.4	16.5
Ships 3,000 - 3,999 TEU - Mains - 1.5% S - Precautionary Area	4.5	2.6
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Precautionary Area	391.8	188.3
Ships 4,000 - 4,999 TEU - Aux Engines - 1.5% S - Precautionary Area	10.7	20.5
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Precautionary Area	4,913.8	583.7
Ships 4,000 - 4,999 TEU - Mains - 1.5% S - Precautionary Area	134.1	63.6
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Precautionary Area	240.2	115.5
Ships 5,000 - 5,999 TEU - Aux Engines - 1.5% S - Precautionary Area	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Precautionary Area	2,457.4	291.9
Ships 5,000 - 5,999 TEU - Mains - 1.5% S - Precautionary Area	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Precautionary Area	373.1	179.4
Ships 6,000 - 6,999 TEU - Aux Engines - 1.5% S - Precautionary Area	10.3	19.8
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Precautionary Area	3,413.9	405.5
Ships 6,000 - 6,999 TEU - Mains - 1.5% S - Precautionary Area	94.6	44.8
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Precautionary Area	366.6	176.2
Ships 7,000 - 7,999 TEU - Aux Engines - 1.5% S - Precautionary Area	1.0	2.0
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Precautionary Area	3,475.2	412.8
Ships 7,000 - 7,999 TEU - Mains - 1.5% S - Precautionary Area	9.8	4.6
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Precautionary Area	414.6	199.3
Ships 8,000 - 9,999 TEU - Aux Engines - 1.5% S - Precautionary Area	11.5	22.0
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Precautionary Area	3,939.3	467.9
Ships 8,000 - 9,999 TEU - Mains - 1.5% S - Precautionary Area	109.2	51.7
Line Haul Locomotive - Day 10 mph - Port to Ocean Blvd	310.8	87.9
Line Haul Locomotive - Day 20 mph - Ocean Blvd to Alameda Corridor	703.8	198.9
Line Haul Locomotive - Night 10 mph - Port to Ocean Blvd	310.8	87.9
Line Haul Locomotive - Night 20 mph - Ocean Blvd to Alameda Corridor	703.8	198.9
Line Haul Locomotive - Day Switching - Existing Railyard	40.2	14.9
Line Haul Locomotive - Day Switching - Expanded Railyard	1,835.6	515.3
Line Haul Locomotive - Night Switching - Existing Railyard	40.2	14.9
Line Haul Locomotive - Night Switching - Expanded Railyard	1,835.6	515.3
Yard Locomotive - Day - Existing Railyard	16.1	4.6
Yard Locomotive - Day - Expanded Railyard	930.1	172.6
Yard Locomotive - Night - Existing Railyard	16.1	4.6
Yard Locomotive - Night - Expanded Railyard	930.1	172.6

Table A.3.1-Alt1U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 1

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Truck Driving on Terminal - Config A - No CAAP - Unmitigated Alts 1 & 2	203.2	7.7
Truck Driving on Terminal - Config B - No CAAP - Unmitigated Alts 1 & 2	673.0	24.1
Truck Driving on Terminal - Config C - No CAAP - Unmitigated Alts 1 & 2	122.6	3.9
Truck Driving on Terminal - Config D - No CAAP - Unmitigated Alts 1 & 2	158.3	4.1
Truck Driving on Terminal - Config E - No CAAP - Unmitigated Alts 1 & 2	131.4	4.9
Truck Driving on Terminal - Config F - No CAAP - Unmitigated Alts 1 & 2	5,745.0	219.4
Truck Idling on Terminal - Config A - No CAAP - 0.35 hr idling - Unmitigated Alts 1 & 2	54.3	6.1
Truck Idling on Terminal - Config B - No CAAP - 0.35 hr idling - Unmitigated Alts 1 & 2	233.2	18.2
Truck Idling on Terminal - Config C - No CAAP - 0.35 hr idling - Unmitigated Alts 1 & 2	66.8	2.4
Truck Idling on Terminal - Config D - No CAAP - 0.35 hr idling - Unmitigated Alts 1 & 2	126.8	1.5
Truck Idling on Terminal - Config E - No CAAP - 0.35 hr idling - Unmitigated Alts 1 & 2	35.1	4.0
Truck Idling on Terminal - Config F - No CAAP - 0.35 hr idling - Unmitigated Alts 1 & 2	6,257.2	73.4
Trucks - Proposed Project - Brake Wear - 10th Street: Pico - 9th (NB only)	-	3.8
Trucks - Proposed Project - Brake Wear - 9th Street: Anaheim St - Santa Fe	-	3.5
Trucks - Proposed Project - Brake Wear - 9th Street: Caspian - Pico (SB only)	-	7.3
Trucks - Proposed Project - Brake Wear - 9th Street: Santa Fe to 10th	-	3.6
Trucks - Proposed Project - Brake Wear - Alameda St: Eubank - Anaheim St	-	6.1
Trucks - Proposed Project - Brake Wear - Anaheim St: Alameda - SR-47	-	1.7
Trucks - Proposed Project - Brake Wear - Anaheim St: SR-47 - 9th St	-	9.1
Trucks - Proposed Project - Brake Wear - Harbor Plaza: Pier F Ave - Pier G Ave	-	9.3
Trucks - Proposed Project - Brake Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge	-	3.7
Trucks - Proposed Project - Brake Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	-	41.8
Trucks - Proposed Project - Brake Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	-	4.4
Trucks - Proposed Project - Brake Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	-	29.8
Trucks - Proposed Project - Brake Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	-	19.2
Trucks - Proposed Project - Brake Wear - I-710 : n/o 9th Street Onramp (Northbound)	-	141.8
Trucks - Proposed Project - Brake Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)	-	86.6
Trucks - Proposed Project - Brake Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	-	11.5
Trucks - Proposed Project - Brake Wear - Ocean Blvd: Bridge	-	12.8
Trucks - Proposed Project - Brake Wear - Ocean Blvd: Bridge - I-710 Offramp	-	4.6
Trucks - Proposed Project - Brake Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge	-	9.2
Trucks - Proposed Project - Brake Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)	-	5.5
Trucks - Proposed Project - Brake Wear - Offramp: I-710 at 9th Street (Southbound)	-	3.7
Trucks - Proposed Project - Brake Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)	-	8.5
Trucks - Proposed Project - Brake Wear - Onramp: 9th St - I-710 (Northbound)	-	5.5
Trucks - Proposed Project - Brake Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza	-	26.0
Trucks - Proposed Project - Brake Wear - Pico Ave: Pier B St - Pier D St	-	52.7
Trucks - Proposed Project - Brake Wear - Pico Ave: Pier D St - Terminal Entrance	-	16.2
Trucks - Proposed Project - Brake Wear - Pico Ave: Pier E St - Harbor Scenic Connector	-	5.0
Trucks - Proposed Project - Brake Wear - Pico Ave: Terminal Entrance - Pier E St	-	2.2
Trucks - Proposed Project - Brake Wear - Pier D Entry Road (off Pico)	-	10.6
Trucks - Proposed Project - Brake Wear - Pier D Exit Road (off Pier D St)	-	3.5
Trucks - Proposed Project - Brake Wear - Pier D St: w/o Pico Ave - w/o Pico Ave	-	26.0
Trucks - Proposed Project - Brake Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd	-	1.5
Trucks - Proposed Project - Brake Wear - Pier F Ave: Middle Harbor - Harbor Plaza	-	62.1
Trucks - Proposed Project - Brake Wear - Pier F Entry Road (off Pier F Ave)	-	1.9
Trucks - Proposed Project - Brake Wear - Pier F Exit Road (off Pier F Ave)	-	8.4
Trucks - Proposed Project - Brake Wear - Santa Fe: 9th St - Anaheim St	-	1.3
Trucks - Proposed Project - Brake Wear - Santa Fe: n/o Anaheim St - s/o Willow St	-	5.2
Trucks - Proposed Project - Tire Wear - 10th Street: Pico - 9th (NB only)	-	4.8
Trucks - Proposed Project - Tire Wear - 9th Street: Anaheim St - Santa Fe	-	4.4
Trucks - Proposed Project - Tire Wear - 9th Street: Caspian - Pico (SB only)	-	9.0
Trucks - Proposed Project - Tire Wear - 9th Street: Santa Fe to 10th	-	4.5

Table A.3.1-Alt1U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 1

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Trucks - Proposed Project - Tire Wear - Alameda St: Eubank - Anaheim St	-	7.5
Trucks - Proposed Project - Tire Wear - Anaheim St: Alameda - SR-47	-	2.1
Trucks - Proposed Project - Tire Wear - Anaheim St: SR-47 - 9th St	-	11.3
Trucks - Proposed Project - Tire Wear - Harbor Plaza: Pier F Ave - Pier G Ave	-	11.5
Trucks - Proposed Project - Tire Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge	-	4.6
Trucks - Proposed Project - Tire Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	-	51.9
Trucks - Proposed Project - Tire Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	-	5.5
Trucks - Proposed Project - Tire Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	-	37.0
Trucks - Proposed Project - Tire Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	-	23.9
Trucks - Proposed Project - Tire Wear - I-710 : n/o 9th Street Onramp (Northbound)	-	176.0
Trucks - Proposed Project - Tire Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)	-	107.5
Trucks - Proposed Project - Tire Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	-	14.3
Trucks - Proposed Project - Tire Wear - Ocean Blvd: Bridge	-	15.9
Trucks - Proposed Project - Tire Wear - Ocean Blvd: Bridge - I-710 Offramp	-	5.7
Trucks - Proposed Project - Tire Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge	-	11.4
Trucks - Proposed Project - Tire Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)	-	6.9
Trucks - Proposed Project - Tire Wear - Offramp: I-710 at 9th Street (Southbound)	-	4.6
Trucks - Proposed Project - Tire Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)	-	10.6
Trucks - Proposed Project - Tire Wear - Onramp: 9th St - I-710 (Northbound)	-	6.8
Trucks - Proposed Project - Tire Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza	-	32.3
Trucks - Proposed Project - Tire Wear - Pico Ave: Pier B St - Pier D St	-	65.5
Trucks - Proposed Project - Tire Wear - Pico Ave: Pier D St - Terminal Entrance	-	20.1
Trucks - Proposed Project - Tire Wear - Pico Ave: Pier E St - Harbor Scenic Connector	-	6.2
Trucks - Proposed Project - Tire Wear - Pico Ave: Terminal Entrance - Pier E St	-	2.7
Trucks - Proposed Project - Tire Wear - Pier D Entry Road (off Pico)	-	13.1
Trucks - Proposed Project - Tire Wear - Pier D Exit Road (off Pier D St)	-	4.4
Trucks - Proposed Project - Tire Wear - Pier D St: w/o Pico Ave - w/o Pico Ave	-	32.2
Trucks - Proposed Project - Tire Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd	-	1.9
Trucks - Proposed Project - Tire Wear - Pier F Ave: Middle Harbor - Harbor Plaza	-	77.1
Trucks - Proposed Project - Tire Wear - Pier F Entry Road (off Pier F Ave)	-	2.3
Trucks - Proposed Project - Tire Wear - Pier F Exit Road (off Pier F Ave)	-	10.4
Trucks - Proposed Project - Tire Wear - Santa Fe: 9th St - Anaheim St	-	1.6
Trucks - Proposed Project - Tire Wear - Santa Fe: n/o Anaheim St - s/o Willow St	-	6.5
Trucks - Unmitigated Project (Alt 1) - 10th Street: Pico - 9th (NB only)	58.1	12.4
Trucks - Unmitigated Project (Alt 1) - 9th Street: Anaheim St - Santa Fe	59.0	11.4
Trucks - Unmitigated Project (Alt 1) - 9th Street: Caspian - Pico (SB only)	108.2	23.4
Trucks - Unmitigated Project (Alt 1) - 9th Street: Santa Fe to 10th	77.0	12.5
Trucks - Unmitigated Project (Alt 1) - Alameda St: Eubank - Anaheim St	130.9	20.8
Trucks - Unmitigated Project (Alt 1) - Anaheim St: Alameda - SR-47	119.2	6.7
Trucks - Unmitigated Project (Alt 1) - Anaheim St: SR-47 - 9th St	198.0	31.2
Trucks - Unmitigated Project (Alt 1) - Harbor Plaza: Pier F Ave - Pier G Ave	147.1	30.0
Trucks - Unmitigated Project (Alt 1) - Harbor Plaza: Pier G Ave - Queens Way Bridge	60.0	12.1
Trucks - Unmitigated Project (Alt 1) - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	413.6	171.5
Trucks - Unmitigated Project (Alt 1) - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	44.7	18.2
Trucks - Unmitigated Project (Alt 1) - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	291.3	121.8
Trucks - Unmitigated Project (Alt 1) - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	193.4	78.4
Trucks - Unmitigated Project (Alt 1) - I-710 : n/o 9th Street Onramp (Northbound)	1,392.9	580.3
Trucks - Unmitigated Project (Alt 1) - I-710 : n/o Anaheim SB On Ramp (Southbound)	942.5	325.7
Trucks - Unmitigated Project (Alt 1) - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	113.3	49.2
Trucks - Unmitigated Project (Alt 1) - Ocean Blvd: Bridge	193.6	42.1
Trucks - Unmitigated Project (Alt 1) - Ocean Blvd: Bridge - I-710 Offramp	69.7	15.2
Trucks - Unmitigated Project (Alt 1) - Ocean Blvd: Seaside Blvd OnRamp - Bridge	139.4	30.3
Trucks - Unmitigated Project (Alt 1) - Offramp: I-710 at 9th Street (Southbound BRIDGE)	99.5	18.1

Table A.3.1-Alt1U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 1

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Trucks - Unmitigated Project (Alt 1) - Offramp: I-710 at 9th Street (Southbound)	67.0	12.2
Trucks - Unmitigated Project (Alt 1) - Onramp: 9th St - I-710 (Northbound BRIDGE)	152.9	28.0
Trucks - Unmitigated Project (Alt 1) - Onramp: 9th St - I-710 (Northbound)	98.6	18.0
Trucks - Unmitigated Project (Alt 1) - Pico Ave: Harbor Scenic Connector - Harbor Plaza	375.4	84.8
Trucks - Unmitigated Project (Alt 1) - Pico Ave: Pier B St - Pier D St	783.8	171.0
Trucks - Unmitigated Project (Alt 1) - Pico Ave: Pier D St - Terminal Entrance	245.1	52.1
Trucks - Unmitigated Project (Alt 1) - Pico Ave: Pier E St - Harbor Scenic Connector	74.6	16.1
Trucks - Unmitigated Project (Alt 1) - Pico Ave: Terminal Entrance - Pier E St	31.6	7.0
Trucks - Unmitigated Project (Alt 1) - Pier D Entry Road (off Pico)	510.7	41.7
Trucks - Unmitigated Project (Alt 1) - Pier D Exit Road (off Pier D St)	176.0	14.1
Trucks - Unmitigated Project (Alt 1) - Pier D St: w/o Pico Ave - w/o Pico Ave	474.6	85.6
Trucks - Unmitigated Project (Alt 1) - Pier E St Off Ramp : Pico Ave - Ocean Blvd	27.4	5.0
Trucks - Unmitigated Project (Alt 1) - Pier F Ave: Middle Harbor - Harbor Plaza	953.7	200.4
Trucks - Unmitigated Project (Alt 1) - Pier F Entry Road (off Pier F Ave)	94.4	7.6
Trucks - Unmitigated Project (Alt 1) - Pier F Exit Road (off Pier F Ave)	400.6	32.9
Trucks - Unmitigated Project (Alt 1) - Santa Fe: 9th St - Anaheim St	19.0	4.1
Trucks - Unmitigated Project (Alt 1) - Santa Fe: n/o Anaheim St - s/o Willow St	80.4	16.9
Tugboat assist - aux engine - Config A	0.7	1.1
Tugboat assist - aux engine - Config B	2.3	2.8
Tugboat assist - aux engine - Config C	2.7	2.0
Tugboat assist - aux engine - Config D	76.9	29.0
Tugboat assist - main engine - Config A	7.9	10.2
Tugboat assist - main engine - Config B	25.9	23.7
Tugboat assist - main engine - Config C	29.4	12.4
Tugboat assist - main engine - Config D	851.7	262.0

Table A.3.1-Alt2U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 2.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
RTGs - No CAAP - Config B	121.1	93.9
RTGs - No CAAP - Config C	240.5	152.8
RTGs - No CAAP - Config D	3,540.4	542.2
RTGs on Pier E - No CAAP - Config A	122.4	99.6
RTGs on Pier F - No CAAP - Config A	17.9	14.6
Side Picks - No CAAP - Config B	13.4	13.1
Side Picks - No CAAP - Config C	33.0	23.2
Side Picks - No CAAP - Config D	807.4	110.3
Side Picks on Pier E - No CAAP - Config A	11.1	11.9
Side Picks on Pier F - No CAAP - Config A	3.1	3.3
Top Picks - No CAAP - Config B	20.5	13.3
Top Picks - No CAAP - Config C	51.4	24.4
Top Picks - No CAAP - Config D	1,312.2	207.4
Top Picks on Pier E - No CAAP - Config A	18.5	13.0
Top Picks on Pier F - No CAAP - Config A	3.3	2.3
Yard Tractors - No CAAP - Config C	14.8	10.0
Yard Tractors - No CAAP - Config D	459.1	206.5
Yard Tractors on Pier E - No CAAP - Config A	3.2	3.1
Yard Tractors on Pier F - No CAAP - Config A	1.0	1.0
RTGs - No CAAP - Existing Railyard	8.3	6.5
RTGs - No CAAP - Expanded Railyard	743.8	126.5
Yard Tractors - No CAAP - Existing Railyard	0.4	0.4
Yard Tractors - No CAAP - Expanded Railyard	110.4	50.1
Ships - Boilers - 0.1% S Fuel - Docking - Config B	0.2	0.1
Ships - Boilers - 0.1% S Fuel - Docking - Config C	21.5	13.9
Ships - Boilers - 1.5% S Fuel - Docking - Config A	0.2	0.5
Ships - Boilers - 1.5% S Fuel - Docking - Config B	0.2	0.5
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Docking - Config B	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Docking - Config C	19.2	9.2
Ships 10,000 - 11,999 TEU - Aux Engines - 1.5% S - Docking - Config A	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 1.5% S - Docking - Config B	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Docking - Config B	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Docking - Config C	140.3	10.4
Ships 10,000 - 11,999 TEU - Mains - 1.5% S - Docking - Config A	-	-
Ships 10,000 - 11,999 TEU - Mains - 1.5% S - Docking - Config B	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Docking - Config B	0.4	0.2
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Docking - Config C	129.4	62.2
Ships 3,000 - 3,999 TEU - Aux Engines - 1.5% S - Docking - Config A	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 1.5% S - Docking - Config B	0.2	0.4
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Docking - Config B	5.4	0.4
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Docking - Config C	1,663.8	122.9
Ships 3,000 - 3,999 TEU - Mains - 1.5% S - Docking - Config A	-	-
Ships 3,000 - 3,999 TEU - Mains - 1.5% S - Docking - Config B	2.5	0.7
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Docking - Config B	2.5	1.2
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Docking - Config C	105.7	50.8
Ships 4,000 - 4,999 TEU - Aux Engines - 1.5% S - Docking - Config A	2.9	5.7
Ships 4,000 - 4,999 TEU - Aux Engines - 1.5% S - Docking - Config B	2.7	5.1
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Docking - Config B	27.7	2.0
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Docking - Config C	1,169.1	86.4
Ships 4,000 - 4,999 TEU - Mains - 1.5% S - Docking - Config A	32.6	9.6
Ships 4,000 - 4,999 TEU - Mains - 1.5% S - Docking - Config B	29.3	8.6
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Docking - Config B	-	-

Table A.3.1-Alt2U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 2.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Docking - Config C	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 1.5% S - Docking - Config A	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 1.5% S - Docking - Config B	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Docking - Config B	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Docking - Config C	-	-
Ships 5,000 - 5,999 TEU - Mains - 1.5% S - Docking - Config A	-	-
Ships 5,000 - 5,999 TEU - Mains - 1.5% S - Docking - Config B	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Docking - Config B	2.9	1.4
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Docking - Config C	342.0	164.4
Ships 6,000 - 6,999 TEU - Aux Engines - 1.5% S - Docking - Config A	2.7	5.2
Ships 6,000 - 6,999 TEU - Aux Engines - 1.5% S - Docking - Config B	2.7	5.2
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Docking - Config B	25.8	1.9
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Docking - Config C	3,070.2	226.9
Ships 6,000 - 6,999 TEU - Mains - 1.5% S - Docking - Config A	24.3	7.2
Ships 6,000 - 6,999 TEU - Mains - 1.5% S - Docking - Config B	24.3	7.2
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Docking - Config B	1.1	0.6
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Docking - Config C	190.9	91.8
Ships 7,000 - 7,999 TEU - Aux Engines - 1.5% S - Docking - Config A	-	-
Ships 7,000 - 7,999 TEU - Aux Engines - 1.5% S - Docking - Config B	0.5	1.0
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Docking - Config B	10.3	0.8
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Docking - Config C	1,713.1	126.6
Ships 7,000 - 7,999 TEU - Mains - 1.5% S - Docking - Config A	-	-
Ships 7,000 - 7,999 TEU - Mains - 1.5% S - Docking - Config B	4.9	1.4
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Docking - Config B	3.2	1.5
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Docking - Config C	214.0	102.9
Ships 8,000 - 9,999 TEU - Aux Engines - 1.5% S - Docking - Config A	3.0	5.8
Ships 8,000 - 9,999 TEU - Aux Engines - 1.5% S - Docking - Config B	3.0	5.8
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Docking - Config B	28.1	2.1
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Docking - Config C	1,879.9	138.9
Ships 8,000 - 9,999 TEU - Mains - 1.5% S - Docking - Config A	26.4	7.8
Ships 8,000 - 9,999 TEU - Mains - 1.5% S - Docking - Config B	26.4	7.8
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	23.1	11.1
Ships 10,000 - 11,999 TEU - Aux Engines - 1.5% S - Fairway @ 12 kts	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	305.7	43.8
Ships 10,000 - 11,999 TEU - Mains - 1.5% S - Fairway @ 12 kts	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	168.4	81.0
Ships 3,000 - 3,999 TEU - Aux Engines - 1.5% S - Fairway @ 12 kts	0.3	0.5
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	3,047.5	563.3
Ships 3,000 - 3,999 TEU - Mains - 1.5% S - Fairway @ 12 kts	4.6	3.4
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	130.5	62.7
Ships 4,000 - 4,999 TEU - Aux Engines - 1.5% S - Fairway @ 12 kts	6.8	13.0
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	2,394.7	374.3
Ships 4,000 - 4,999 TEU - Mains - 1.5% S - Fairway @ 12 kts	123.9	77.3
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 1.5% S - Fairway @ 12 kts	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	-	-
Ships 5,000 - 5,999 TEU - Mains - 1.5% S - Fairway @ 12 kts	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	415.9	200.0
Ships 6,000 - 6,999 TEU - Aux Engines - 1.5% S - Fairway @ 12 kts	6.5	12.5
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	6,510.6	933.0
Ships 6,000 - 6,999 TEU - Mains - 1.5% S - Fairway @ 12 kts	102.3	58.5
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	231.5	111.3
Ships 7,000 - 7,999 TEU - Aux Engines - 1.5% S - Fairway @ 12 kts	0.7	1.3

Table A.3.1-Alt2U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 2.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	3,755.6	538.2
Ships 7,000 - 7,999 TEU - Mains - 1.5% S - Fairway @ 12 kts	10.6	6.1
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	261.9	125.9
Ships 8,000 - 9,999 TEU - Aux Engines - 1.5% S - Fairway @ 12 kts	7.3	13.9
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	4,257.1	610.1
Ships 8,000 - 9,999 TEU - Mains - 1.5% S - Fairway @ 12 kts	118.0	67.5
Ships - Boilers - 0.1% S Fuel - Harbor Transit - Config B	0.5	0.3
Ships - Boilers - 0.1% S Fuel - Harbor Transit - Config C	52.0	33.6
Ships - Boilers - 0.1% S Fuel - Turning - West (Proposed) Location	10.1	6.6
Ships - Boilers - 1.5% S Fuel - Harbor Transit - Config A	0.5	1.2
Ships - Boilers - 1.5% S Fuel - Harbor Transit - Config B	0.5	1.2
Ships - Boilers - 1.5% S Fuel - Turning - West (Proposed) Location	0.2	0.5
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	46.2	22.2
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	8.9	4.3
Ships 10,000 - 11,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config A	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config B	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 1.5% S - Turning - West (Proposed) Location	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	235.0	18.9
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	45.4	3.7
Ships 10,000 - 11,999 TEU - Mains - 1.5% S - Harbor Transit - Config A	-	-
Ships 10,000 - 11,999 TEU - Mains - 1.5% S - Harbor Transit - Config B	-	-
Ships 10,000 - 11,999 TEU - Mains - 1.5% S - Turning - West (Proposed) Location	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	1.0	0.5
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	312.4	150.2
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	60.6	29.1
Ships 3,000 - 3,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config A	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config B	0.5	0.9
Ships 3,000 - 3,999 TEU - Aux Engines - 1.5% S - Turning - West (Proposed) Location	0.1	0.2
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	10.8	0.9
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	3,332.7	268.8
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	646.5	52.1
Ships 3,000 - 3,999 TEU - Mains - 1.5% S - Harbor Transit - Config A	-	-
Ships 3,000 - 3,999 TEU - Mains - 1.5% S - Harbor Transit - Config B	5.1	1.6
Ships 3,000 - 3,999 TEU - Mains - 1.5% S - Turning - West (Proposed) Location	1.0	0.3
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	6.0	2.9
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	255.2	122.7
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	50.5	24.3
Ships 4,000 - 4,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config A	7.1	13.6
Ships 4,000 - 4,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config B	6.4	12.3
Ships 4,000 - 4,999 TEU - Aux Engines - 1.5% S - Turning - West (Proposed) Location	2.6	5.0
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	46.8	3.8
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	1,977.1	159.4
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	391.4	31.6
Ships 4,000 - 4,999 TEU - Mains - 1.5% S - Harbor Transit - Config A	55.1	17.7
Ships 4,000 - 4,999 TEU - Mains - 1.5% S - Harbor Transit - Config B	49.6	16.0
Ships 4,000 - 4,999 TEU - Mains - 1.5% S - Turning - West (Proposed) Location	20.3	6.5
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config A	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config B	-	-

Table A.3.1-Alt2U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 2.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Ships 5,000 - 5,999 TEU - Aux Engines - 1.5% S - Turning - West (Proposed) Location	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	-	-
Ships 5,000 - 5,999 TEU - Mains - 1.5% S - Harbor Transit - Config A	-	-
Ships 5,000 - 5,999 TEU - Mains - 1.5% S - Harbor Transit - Config B	-	-
Ships 5,000 - 5,999 TEU - Mains - 1.5% S - Turning - West (Proposed) Location	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	6.9	3.3
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	825.5	396.9
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	161.0	77.4
Ships 6,000 - 6,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config A	6.5	12.5
Ships 6,000 - 6,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config B	6.5	12.5
Ships 6,000 - 6,999 TEU - Aux Engines - 1.5% S - Turning - West (Proposed) Location	2.5	4.8
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	76.3	5.6
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	9,076.5	670.7
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	1,769.9	130.8
Ships 6,000 - 6,999 TEU - Mains - 1.5% S - Harbor Transit - Config A	71.9	21.2
Ships 6,000 - 6,999 TEU - Mains - 1.5% S - Harbor Transit - Config B	71.9	21.2
Ships 6,000 - 6,999 TEU - Mains - 1.5% S - Turning - West (Proposed) Location	27.8	8.2
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	2.8	1.3
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	460.6	221.4
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	89.6	43.1
Ships 7,000 - 7,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config A	-	-
Ships 7,000 - 7,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config B	1.3	2.5
Ships 7,000 - 7,999 TEU - Aux Engines - 1.5% S - Turning - West (Proposed) Location	0.3	0.5
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	16.9	1.4
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	2,812.8	226.8
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	547.2	44.1
Ships 7,000 - 7,999 TEU - Mains - 1.5% S - Harbor Transit - Config A	-	-
Ships 7,000 - 7,999 TEU - Mains - 1.5% S - Harbor Transit - Config B	8.0	2.6
Ships 7,000 - 7,999 TEU - Mains - 1.5% S - Turning - West (Proposed) Location	1.5	0.5
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	7.7	3.7
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	516.4	248.3
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	101.3	48.7
Ships 8,000 - 9,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config A	7.3	13.9
Ships 8,000 - 9,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config B	7.3	13.9
Ships 8,000 - 9,999 TEU - Aux Engines - 1.5% S - Turning - West (Proposed) Location	2.8	5.4
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	47.0	3.8
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	3,148.4	253.9
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	617.9	49.8
Ships 8,000 - 9,999 TEU - Mains - 1.5% S - Harbor Transit - Config A	44.3	14.2
Ships 8,000 - 9,999 TEU - Mains - 1.5% S - Harbor Transit - Config B	44.3	14.2
Ships 8,000 - 9,999 TEU - Mains - 1.5% S - Turning - West (Proposed) Location	17.1	5.5
Ships - Boilers - 0.1% S Fuel - Hotelling - Config B	17.3	11.2
Ships - Boilers - 0.1% S Fuel - Hotelling - Config C	1,666.7	1,077.4
Ships - Boilers - 1.5% S Fuel - Hotelling - Config A	16.2	40.2
Ships - Boilers - 1.5% S Fuel - Hotelling - Config B	16.8	41.7
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	142.1	68.3
Ships 10,000 - 11,999 TEU - Aux Engines - 1.5% S - Hotelling - Config A	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 1.5% S - Hotelling - Config B	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	14.3	6.9
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	940.1	452.0

Table A.3.1-Alt2U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 2.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Ships 3,000 - 3,999 TEU - Aux Engines - 1.5% S - Hotelling - Config A	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 1.5% S - Hotelling - Config B	6.8	13.0
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	70.6	34.0
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	684.5	329.1
Ships 4,000 - 4,999 TEU - Aux Engines - 1.5% S - Hotelling - Config A	84.4	161.9
Ships 4,000 - 4,999 TEU - Aux Engines - 1.5% S - Hotelling - Config B	75.5	144.8
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 1.5% S - Hotelling - Config A	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 1.5% S - Hotelling - Config B	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	71.0	34.1
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	1,726.5	830.0
Ships 6,000 - 6,999 TEU - Aux Engines - 1.5% S - Hotelling - Config A	68.4	131.3
Ships 6,000 - 6,999 TEU - Aux Engines - 1.5% S - Hotelling - Config B	67.6	129.8
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	27.4	13.2
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	1,037.3	498.7
Ships 7,000 - 7,999 TEU - Aux Engines - 1.5% S - Hotelling - Config A	-	-
Ships 7,000 - 7,999 TEU - Aux Engines - 1.5% S - Hotelling - Config B	12.9	24.8
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	78.8	37.9
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	1,192.8	573.5
Ships 8,000 - 9,999 TEU - Aux Engines - 1.5% S - Hotelling - Config A	76.0	145.8
Ships 8,000 - 9,999 TEU - Aux Engines - 1.5% S - Hotelling - Config B	75.2	144.2
Ships - Boilers - 0.1% S Fuel - Precautionary Area	83.0	53.7
Ships - Boilers - 1.5% S Fuel - Precautionary Area	1.5	3.7
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Precautionary Area	36.6	17.6
Ships 10,000 - 11,999 TEU - Aux Engines - 1.5% S - Precautionary Area	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Precautionary Area	282.9	33.6
Ships 10,000 - 11,999 TEU - Mains - 1.5% S - Precautionary Area	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Precautionary Area	266.6	128.2
Ships 3,000 - 3,999 TEU - Aux Engines - 1.5% S - Precautionary Area	0.4	0.8
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Precautionary Area	2,975.1	426.4
Ships 3,000 - 3,999 TEU - Mains - 1.5% S - Precautionary Area	4.5	2.6
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Precautionary Area	206.6	99.3
Ships 4,000 - 4,999 TEU - Aux Engines - 1.5% S - Precautionary Area	10.7	20.5
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Precautionary Area	2,591.7	307.9
Ships 4,000 - 4,999 TEU - Mains - 1.5% S - Precautionary Area	134.1	63.6
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Precautionary Area	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 1.5% S - Precautionary Area	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Precautionary Area	-	-
Ships 5,000 - 5,999 TEU - Mains - 1.5% S - Precautionary Area	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Precautionary Area	658.5	316.6
Ships 6,000 - 6,999 TEU - Aux Engines - 1.5% S - Precautionary Area	10.3	19.8
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Precautionary Area	6,024.5	715.6
Ships 6,000 - 6,999 TEU - Mains - 1.5% S - Precautionary Area	94.6	44.8
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Precautionary Area	366.6	176.2
Ships 7,000 - 7,999 TEU - Aux Engines - 1.5% S - Precautionary Area	1.0	2.0
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Precautionary Area	3,475.2	412.8
Ships 7,000 - 7,999 TEU - Mains - 1.5% S - Precautionary Area	9.8	4.6
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Precautionary Area	414.6	199.3
Ships 8,000 - 9,999 TEU - Aux Engines - 1.5% S - Precautionary Area	11.5	22.0
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Precautionary Area	3,939.3	467.9
Ships 8,000 - 9,999 TEU - Mains - 1.5% S - Precautionary Area	109.2	51.7
Line Haul Locomotive - Day 10 mph - Port to Ocean Blvd	315.3	89.1

Table A.3.1-Alt2U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 2.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Line Haul Locomotive - Day 20 mph - Ocean Blvd to Alameda Corridor	714.1	201.7
Line Haul Locomotive - Night 10 mph - Port to Ocean Blvd	315.3	89.1
Line Haul Locomotive - Night 20 mph - Ocean Blvd to Alameda Corridor	714.1	201.7
Line Haul Locomotive - Day Switching - Existing Railyard	9.6	3.7
Line Haul Locomotive - Day Switching - Expanded Railyard	1,893.5	533.9
Line Haul Locomotive - Night Switching - Existing Railyard	9.6	3.7
Line Haul Locomotive - Night Switching - Expanded Railyard	1,893.5	533.9
Yard Locomotive - Day - Existing Railyard	3.8	1.1
Yard Locomotive - Day - Expanded Railyard	956.5	178.6
Yard Locomotive - Night - Existing Railyard	3.8	1.1
Yard Locomotive - Night - Expanded Railyard	956.5	178.6
Truck Driving on Terminal - Config A - No CAAP - Unmitigated Alts 1 & 2	194.3	7.3
Truck Driving on Terminal - Config B - No CAAP - Unmitigated Alts 1 & 2	266.8	9.8
Truck Driving on Terminal - Config C - No CAAP - Unmitigated Alts 1 & 2	501.7	17.2
Truck Driving on Terminal - Config D - No CAAP - Unmitigated Alts 1 & 2	4,728.9	178.5
Truck Driving on Terminal - Config E - No CAAP - Unmitigated Alts 1 & 2	125.6	4.7
Truck Idling on Terminal - Config A - No CAAP - 0.35 hr idling - Unmitigated Alts 1 & 2	51.9	5.9
Truck Idling on Terminal - Config B - No CAAP - 0.35 hr idling - Unmitigated Alts 1 & 2	80.1	7.7
Truck Idling on Terminal - Config C - No CAAP - 0.35 hr idling - Unmitigated Alts 1 & 2	209.9	12.2
Truck Idling on Terminal - Config D - No CAAP - 0.35 hr idling - Unmitigated Alts 1 & 2	5,101.1	59.8
Truck Idling on Terminal - Config E - No CAAP - 0.35 hr idling - Unmitigated Alts 1 & 2	33.5	3.8
Trucks - Reduced Fill - Brake Wear - 10th Street: Pico - 9th (NB only)	-	2.7
Trucks - Reduced Fill - Brake Wear - 9th Street: Anaheim St - Santa Fe	-	2.7
Trucks - Reduced Fill - Brake Wear - 9th Street: Caspian - Pico (SB only)	-	5.3
Trucks - Reduced Fill - Brake Wear - 9th Street: Santa Fe to 10th	-	2.7
Trucks - Reduced Fill - Brake Wear - Alameda St: Eubank - Anaheim St	-	5.4
Trucks - Reduced Fill - Brake Wear - Anaheim St: Alameda - SR-47	-	1.5
Trucks - Reduced Fill - Brake Wear - Anaheim St: SR-47 - 9th St	-	8.0
Trucks - Reduced Fill - Brake Wear - Harbor Plaza: Pier F Ave - Pier G Ave	-	7.5
Trucks - Reduced Fill - Brake Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge	-	3.0
Trucks - Reduced Fill - Brake Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	-	33.7
Trucks - Reduced Fill - Brake Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	-	3.6
Trucks - Reduced Fill - Brake Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	-	25.8
Trucks - Reduced Fill - Brake Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	-	15.9
Trucks - Reduced Fill - Brake Wear - I-710 : n/o 9th Street Onramp (Northbound)	-	115.7
Trucks - Reduced Fill - Brake Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)	-	71.4
Trucks - Reduced Fill - Brake Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	-	9.2
Trucks - Reduced Fill - Brake Wear - Ocean Blvd: Bridge	-	10.8
Trucks - Reduced Fill - Brake Wear - Ocean Blvd: Bridge - I-710 Offramp	-	3.9
Trucks - Reduced Fill - Brake Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge	-	7.7
Trucks - Reduced Fill - Brake Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)	-	4.6
Trucks - Reduced Fill - Brake Wear - Offramp: I-710 at 9th Street (Southbound)	-	3.1
Trucks - Reduced Fill - Brake Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)	-	6.5
Trucks - Reduced Fill - Brake Wear - Onramp: 9th St - I-710 (Northbound)	-	4.2
Trucks - Reduced Fill - Brake Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza	-	21.0
Trucks - Reduced Fill - Brake Wear - Pico Ave: Pier B St - Pier D St	-	41.2
Trucks - Reduced Fill - Brake Wear - Pico Ave: Pier D St - Terminal Entrance	-	12.5
Trucks - Reduced Fill - Brake Wear - Pico Ave: Pier E St - Harbor Scenic Connector	-	3.8
Trucks - Reduced Fill - Brake Wear - Pico Ave: Terminal Entrance - Pier E St	-	1.5
Trucks - Reduced Fill - Brake Wear - Pier D Entry Road (off Pico)	-	8.5
Trucks - Reduced Fill - Brake Wear - Pier D Exit Road (off Pier D St)	-	2.8
Trucks - Reduced Fill - Brake Wear - Pier D St: w/o Pico Ave - w/o Pico Ave	-	21.0
Trucks - Reduced Fill - Brake Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd	-	1.3

Table A.3.1-Alt2U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 2.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Trucks - Reduced Fill - Brake Wear - Pier F Ave: Middle Harbor - Harbor Plaza	-	50.1
Trucks - Reduced Fill - Brake Wear - Pier F Entry Road (off Pier F Ave)	-	1.5
Trucks - Reduced Fill - Brake Wear - Pier F Exit Road (off Pier F Ave)	-	6.8
Trucks - Reduced Fill - Brake Wear - Santa Fe: 9th St - Anaheim St	-	0.9
Trucks - Reduced Fill - Brake Wear - Santa Fe: n/o Anaheim St - s/o Willow St	-	3.8
Trucks - Reduced Fill - Tire Wear - 10th Street: Pico - 9th (NB only)	-	3.4
Trucks - Reduced Fill - Tire Wear - 9th Street: Anaheim St - Santa Fe	-	3.3
Trucks - Reduced Fill - Tire Wear - 9th Street: Caspian - Pico (SB only)	-	6.6
Trucks - Reduced Fill - Tire Wear - 9th Street: Santa Fe to 10th	-	3.4
Trucks - Reduced Fill - Tire Wear - Alameda St: Eubank - Anaheim St	-	6.7
Trucks - Reduced Fill - Tire Wear - Anaheim St: Alameda - SR-47	-	1.8
Trucks - Reduced Fill - Tire Wear - Anaheim St: SR-47 - 9th St	-	10.0
Trucks - Reduced Fill - Tire Wear - Harbor Plaza: Pier F Ave - Pier G Ave	-	9.3
Trucks - Reduced Fill - Tire Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge	-	3.7
Trucks - Reduced Fill - Tire Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	-	41.9
Trucks - Reduced Fill - Tire Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	-	4.4
Trucks - Reduced Fill - Tire Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	-	32.1
Trucks - Reduced Fill - Tire Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	-	19.7
Trucks - Reduced Fill - Tire Wear - I-710 : n/o 9th Street Onramp (Northbound)	-	143.7
Trucks - Reduced Fill - Tire Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)	-	88.6
Trucks - Reduced Fill - Tire Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	-	11.5
Trucks - Reduced Fill - Tire Wear - Ocean Blvd: Bridge	-	13.3
Trucks - Reduced Fill - Tire Wear - Ocean Blvd: Bridge - I-710 Offramp	-	4.8
Trucks - Reduced Fill - Tire Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge	-	9.6
Trucks - Reduced Fill - Tire Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)	-	5.8
Trucks - Reduced Fill - Tire Wear - Offramp: I-710 at 9th Street (Southbound)	-	3.9
Trucks - Reduced Fill - Tire Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)	-	8.1
Trucks - Reduced Fill - Tire Wear - Onramp: 9th St - I-710 (Northbound)	-	5.2
Trucks - Reduced Fill - Tire Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza	-	26.0
Trucks - Reduced Fill - Tire Wear - Pico Ave: Pier B St - Pier D St	-	51.1
Trucks - Reduced Fill - Tire Wear - Pico Ave: Pier D St - Terminal Entrance	-	15.5
Trucks - Reduced Fill - Tire Wear - Pico Ave: Pier E St - Harbor Scenic Connector	-	4.7
Trucks - Reduced Fill - Tire Wear - Pico Ave: Terminal Entrance - Pier E St	-	1.9
Trucks - Reduced Fill - Tire Wear - Pier D Entry Road (off Pico)	-	10.6
Trucks - Reduced Fill - Tire Wear - Pier D Exit Road (off Pier D St)	-	3.5
Trucks - Reduced Fill - Tire Wear - Pier D St: w/o Pico Ave - w/o Pico Ave	-	26.1
Trucks - Reduced Fill - Tire Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd	-	1.6
Trucks - Reduced Fill - Tire Wear - Pier F Ave: Middle Harbor - Harbor Plaza	-	62.1
Trucks - Reduced Fill - Tire Wear - Pier F Entry Road (off Pier F Ave)	-	1.9
Trucks - Reduced Fill - Tire Wear - Pier F Exit Road (off Pier F Ave)	-	8.4
Trucks - Reduced Fill - Tire Wear - Santa Fe: 9th St - Anaheim St	-	1.2
Trucks - Reduced Fill - Tire Wear - Santa Fe: n/o Anaheim St - s/o Willow St	-	4.7
Trucks - Unmitigated Alt 2 - 10th Street: Pico - 9th (NB only)	42.0	8.8
Trucks - Unmitigated Alt 2 - 9th Street: Anaheim St - Santa Fe	45.6	8.7
Trucks - Unmitigated Alt 2 - 9th Street: Caspian - Pico (SB only)	79.8	17.1
Trucks - Unmitigated Alt 2 - 9th Street: Santa Fe to 10th	58.1	9.3
Trucks - Unmitigated Alt 2 - Alameda St: Eubank - Anaheim St	116.4	18.4
Trucks - Unmitigated Alt 2 - Anaheim St: Alameda - SR-47	95.8	5.8
Trucks - Unmitigated Alt 2 - Anaheim St: SR-47 - 9th St	170.8	27.4
Trucks - Unmitigated Alt 2 - Harbor Plaza: Pier F Ave - Pier G Ave	120.6	24.3
Trucks - Unmitigated Alt 2 - Harbor Plaza: Pier G Ave - Queens Way Bridge	49.1	9.7
Trucks - Unmitigated Alt 2 - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	338.9	138.3
Trucks - Unmitigated Alt 2 - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	36.5	14.6

Table A.3.1-Alt2U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 2.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Trucks - Unmitigated Alt 2 - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	254.5	105.7
Trucks - Unmitigated Alt 2 - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	161.3	65.1
Trucks - Unmitigated Alt 2 - I-710 : n/o 9th Street Onramp (Northbound)	1,154.1	473.8
Trucks - Unmitigated Alt 2 - I-710 : n/o Anaheim SB On Ramp (Southbound)	785.1	268.5
Trucks - Unmitigated Alt 2 - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	92.5	39.5
Trucks - Unmitigated Alt 2 - Ocean Blvd: Bridge	165.5	35.5
Trucks - Unmitigated Alt 2 - Ocean Blvd: Bridge - I-710 Offramp	59.6	12.8
Trucks - Unmitigated Alt 2 - Ocean Blvd: Seaside Blvd OnRamp - Bridge	119.2	25.6
Trucks - Unmitigated Alt 2 - Offramp: I-710 at 9th Street (Southbound BRIDGE)	84.4	15.3
Trucks - Unmitigated Alt 2 - Offramp: I-710 at 9th Street (Southbound)	56.9	10.3
Trucks - Unmitigated Alt 2 - Onramp: 9th St - I-710 (Northbound BRIDGE)	120.2	21.5
Trucks - Unmitigated Alt 2 - Onramp: 9th St - I-710 (Northbound)	77.6	13.9
Trucks - Unmitigated Alt 2 - Pico Ave: Harbor Scenic Connector - Harbor Plaza	300.8	68.8
Trucks - Unmitigated Alt 2 - Pico Ave: Pier B St - Pier D St	622.9	133.9
Trucks - Unmitigated Alt 2 - Pico Ave: Pier D St - Terminal Entrance	191.8	40.2
Trucks - Unmitigated Alt 2 - Pico Ave: Pier E St - Harbor Scenic Connector	58.1	12.3
Trucks - Unmitigated Alt 2 - Pico Ave: Terminal Entrance - Pier E St	22.9	4.9
Trucks - Unmitigated Alt 2 - Pier D Entry Road (off Pico)	420.8	33.9
Trucks - Unmitigated Alt 2 - Pier D Exit Road (off Pier D St)	146.4	11.6
Trucks - Unmitigated Alt 2 - Pier D St: w/o Pico Ave - w/o Pico Ave	393.1	69.7
Trucks - Unmitigated Alt 2 - Pier E St Off Ramp : Pico Ave - Ocean Blvd	23.8	4.3
Trucks - Unmitigated Alt 2 - Pier F Ave: Middle Harbor - Harbor Plaza	781.8	162.0
Trucks - Unmitigated Alt 2 - Pier F Entry Road (off Pier F Ave)	78.4	6.2
Trucks - Unmitigated Alt 2 - Pier F Exit Road (off Pier F Ave)	329.6	26.8
Trucks - Unmitigated Alt 2 - Santa Fe: 9th St - Anaheim St	15.4	3.0
Trucks - Unmitigated Alt 2 - Santa Fe: n/o Anaheim St - s/o Willow St	65.1	12.4
Tugboat assist - aux engine - Config A	0.7	1.1
Tugboat assist - aux engine - Config B	1.5	1.9
Tugboat assist - aux engine - Config C	79.5	31.5
Tugboat assist - main engine - Config A	7.9	10.2
Tugboat assist - main engine - Config B	16.9	17.1
Tugboat assist - main engine - Config C	880.3	277.9

Table A.3.1-Alt1M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 1

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
RTGs - CAAP - Config B	195.3	74.0
RTGs - CAAP - Config C	46.8	12.1
RTGs - CAAP - Config D	76.1	11.4
RTGs - CAAP - Config F	125.7	19.1
RTGs on Pier E - CAAP - Config A	72.2	32.1
RTGs on Pier F - CAAP - Config A	10.7	4.7
Side Picks - CAAP - Config B	38.0	32.7
Side Picks - CAAP - Config C	9.7	4.7
Side Picks - CAAP - Config D	16.4	2.2
Side Picks - CAAP - Config F	916.7	129.4
Side Picks on Pier E - CAAP - Config A	11.7	12.4
Side Picks on Pier F - CAAP - Config A	3.2	3.5
Top Picks - CAAP - Config B	58.5	33.5
Top Picks - CAAP - Config C	15.5	5.3
Top Picks - CAAP - Config D	26.8	4.1
Top Picks on Pier E - CAAP - Config A	19.3	13.6
Top Picks on Pier F - CAAP - Config A	3.4	2.4
Yard Tractors - CAAP - Config B	13.8	8.6
Yard Tractors - CAAP - Config C	5.2	2.7
Yard Tractors - CAAP - Config D	11.6	5.4
Yard Tractors - CAAP - Config F	492.7	225.2
Yard Tractors on Pier E - CAAP - Config A	3.0	2.2
Yard Tractors on Pier F - CAAP - Config A	1.0	0.7
RTGs - CAAP - Existing Railyard	17.6	6.6
RTGs - CAAP - Expanded Railyard	51.4	8.6
Yard Tractors - CAAP - Existing Railyard	1.7	1.0
Yard Tractors - CAAP - Expanded Railyard	119.8	54.9
Ships - Boilers - 0.1% S Fuel - Docking - Config B	0.4	0.3
Ships - Boilers - 0.1% S Fuel - Docking - Config C	0.7	0.5
Ships - Boilers - 0.1% S Fuel - Docking - Config D	20.8	13.5
Ships - Boilers - 2.7% S Fuel - Docking - Config A	0.2	0.8
Ships - Boilers - 2.7% S Fuel - Docking - Config B	0.2	0.8
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Docking - Config B	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Docking - Config C	0.8	0.4
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Docking - Config D	236.8	113.9
Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Docking - Config B	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Docking - Config B	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Docking - Config C	5.6	0.4
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Docking - Config D	1,734.0	128.1
Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Docking - Config A	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Docking - Config B	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Docking - Config B	1.0	0.5
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Docking - Config C	2.7	1.3
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Docking - Config D	1.3	0.6
Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Docking - Config B	0.2	0.1
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Docking - Config B	13.5	1.0
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Docking - Config C	35.1	2.6
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Docking - Config D	16.2	1.2
Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Docking - Config A	-	-
Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Docking - Config B	2.7	0.2

Table A.3.1-Alt1M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 1

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Docking - Config B	4.7	2.3
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Docking - Config C	5.3	2.6
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Docking - Config D	195.2	93.8
Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Docking - Config A	3.1	1.7
Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Docking - Config B	2.8	1.5
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Docking - Config B	51.9	3.8
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Docking - Config C	58.8	4.3
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Docking - Config D	2,158.3	159.5
Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Docking - Config A	34.6	2.9
Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Docking - Config B	31.1	2.6
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Docking - Config B	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Docking - Config C	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Docking - Config D	125.8	60.5
Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Docking - Config B	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Docking - Config B	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Docking - Config C	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Docking - Config D	1,271.2	93.9
Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Docking - Config A	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Docking - Config B	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Docking - Config B	5.7	2.8
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Docking - Config C	8.6	4.1
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Docking - Config D	181.1	87.1
Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Docking - Config A	2.9	1.6
Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Docking - Config B	2.9	1.6
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Docking - Config B	51.6	3.8
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Docking - Config C	77.4	5.7
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Docking - Config D	1,625.4	120.1
Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Docking - Config A	25.8	2.2
Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Docking - Config B	25.8	2.2
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Docking - Config B	2.9	1.4
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Docking - Config C	8.0	3.9
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Docking - Config D	181.1	87.1
Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Docking - Config B	0.6	0.3
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Docking - Config B	25.8	1.9
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Docking - Config C	72.2	5.3
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Docking - Config D	1,625.4	120.1
Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Docking - Config A	-	-
Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Docking - Config B	5.2	0.4
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Docking - Config B	6.4	3.1
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Docking - Config C	9.6	4.6
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Docking - Config D	201.2	96.7
Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Docking - Config A	3.2	1.7
Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Docking - Config B	3.2	1.7
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Docking - Config B	56.1	4.1
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Docking - Config C	84.2	6.2
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Docking - Config D	1,767.7	130.6
Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Docking - Config A	28.1	2.3
Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Docking - Config B	28.1	2.3
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	286.5	137.7
Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	3,791.0	543.3

Table A.3.1-Alt1M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 1

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	6.5	3.1
Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	0.3	0.1
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	118.2	21.8
Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	4.9	1.0
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	247.4	119.0
Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	7.2	3.9
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	4,540.2	709.6
Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	131.5	23.2
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	151.7	72.9
Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	2,655.7	380.6
Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	235.7	113.3
Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	6.9	3.8
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	3,689.4	528.7
Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	108.5	17.6
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	231.5	111.3
Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	0.7	0.4
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	3,755.6	538.2
Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	11.2	1.8
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	261.9	125.9
Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	7.7	4.2
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	4,257.1	610.1
Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	125.2	20.3
Ships - Boilers - 0.1% S Fuel - Harbor Transit - Config B	1.0	0.7
Ships - Boilers - 0.1% S Fuel - Harbor Transit - Config C	1.7	1.1
Ships - Boilers - 0.1% S Fuel - Harbor Transit - Config D	50.3	32.5
Ships - Boilers - 0.1% S Fuel - Turning - West (Proposed) Location	10.3	6.6
Ships - Boilers - 2.7% S Fuel - Harbor Transit - Config A	0.5	1.8
Ships - Boilers - 2.7% S Fuel - Harbor Transit - Config B	0.5	1.9
Ships - Boilers - 2.7% S Fuel - Turning - West (Proposed) Location	0.2	0.7
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	1.8	0.9
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config D	571.5	274.8
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	110.9	53.3
Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config B	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	9.4	0.8
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Harbor Transit - Config D	2,904.1	234.2
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	563.4	45.4
Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Harbor Transit - Config B	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	2.5	1.2
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	6.6	3.2
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config D	3.0	1.5
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	2.3	1.1
Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config B	0.5	0.3
Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	0.1	0.1

Table A.3.1-Alt1M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 1

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	27.0	2.2
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	70.2	5.7
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Harbor Transit - Config D	32.4	2.6
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	25.1	2.0
Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	-	-
Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Harbor Transit - Config B	5.4	0.5
Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	1.0	0.1
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	11.3	5.4
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	12.8	6.2
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config D	471.1	226.5
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	95.8	46.0
Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	7.5	4.1
Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config B	6.8	3.7
Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	2.8	1.5
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	87.7	7.1
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	99.4	8.0
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Harbor Transit - Config D	3,650.1	294.3
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	742.0	59.8
Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	58.5	5.3
Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Harbor Transit - Config B	52.6	4.8
Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	21.5	2.0
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config D	303.6	146.0
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	58.7	28.2
Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config B	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Harbor Transit - Config D	3,758.2	277.7
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	726.7	53.7
Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Harbor Transit - Config B	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	13.9	6.7
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	20.8	10.0
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config D	437.0	210.1
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	91.2	43.9
Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	6.9	3.8
Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config B	6.9	3.8
Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	2.7	1.5
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	152.5	11.3
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	228.8	16.9
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Harbor Transit - Config D	4,805.2	355.1
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	1,002.9	74.1
Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	76.3	6.4
Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Harbor Transit - Config B	76.3	6.4
Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	29.5	2.5
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	6.9	3.3
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	19.4	9.3
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config D	437.0	210.1
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	89.6	43.1

Table A.3.1-Alt1M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 1

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config B	1.4	0.8
Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	0.3	0.1
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	42.4	3.4
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	118.6	9.6
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Harbor Transit - Config D	2,668.7	215.2
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	547.2	44.1
Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	-	-
Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Harbor Transit - Config B	8.5	0.8
Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	1.6	0.1
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	15.4	7.4
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	23.1	11.1
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config D	485.5	233.4
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	101.3	48.7
Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	7.7	4.2
Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config B	7.7	4.2
Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	3.0	1.6
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	94.0	7.6
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	141.0	11.4
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Harbor Transit - Config D	2,960.4	238.7
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	617.9	49.8
Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	47.0	4.3
Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Harbor Transit - Config B	47.0	4.3
Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	18.2	1.7
Ships - Boilers - 0.1% S Fuel - Hotelling - Config B	35.2	22.8
Ships - Boilers - 0.1% S Fuel - Hotelling - Config C	57.3	37.0
Ships - Boilers - 0.1% S Fuel - Hotelling - Config D	1,610.1	1,040.8
Ships - Boilers - 2.7% S Fuel - Hotelling - Config A	16.2	64.3
Ships - Boilers - 2.7% S Fuel - Hotelling - Config B	16.8	66.6
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	1.8	0.9
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Hotelling - Config D	548.9	263.9
Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Hotelling - Config B	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	25.2	12.1
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	26.6	12.8
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Hotelling - Config D	4.3	2.1
Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Hotelling - Config B	5.0	2.7
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	92.6	44.5
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	45.6	21.9
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Hotelling - Config D	512.9	246.6
Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	63.0	34.2
Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Hotelling - Config B	56.3	30.6
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Hotelling - Config D	301.3	144.8
Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Hotelling - Config B	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	99.2	47.7
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	62.4	30.0
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Hotelling - Config D	419.9	201.9
Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	51.0	27.7

Table A.3.1-Alt1M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 1

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Hotelling - Config B	50.5	27.4
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	48.1	23.1
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	52.2	25.1
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Hotelling - Config D	419.9	201.9
Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Hotelling - Config B	9.6	5.2
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	110.2	53.0
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	69.3	33.3
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Hotelling - Config D	466.6	224.3
Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	56.7	30.8
Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Hotelling - Config B	56.1	30.5
Ships - Boilers - 0.1% S Fuel - Precautionary Area	83.9	54.3
Ships - Boilers - 2.7% S Fuel - Precautionary Area	1.5	6.0
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Precautionary Area	453.6	218.1
Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Precautionary Area	3,507.9	416.7
Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Precautionary Area	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Precautionary Area	10.3	5.0
Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Precautionary Area	0.4	0.2
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Precautionary Area	115.4	16.5
Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Precautionary Area	4.8	0.8
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Precautionary Area	391.8	188.3
Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Precautionary Area	11.3	6.2
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Precautionary Area	4,913.8	583.7
Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Precautionary Area	142.3	19.1
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Precautionary Area	240.2	115.5
Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Precautionary Area	2,457.4	291.9
Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Precautionary Area	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Precautionary Area	373.1	179.4
Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Precautionary Area	11.0	6.0
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Precautionary Area	3,413.9	405.5
Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Precautionary Area	100.4	13.5
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Precautionary Area	366.6	176.2
Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Precautionary Area	1.1	0.6
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Precautionary Area	3,475.2	412.8
Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Precautionary Area	10.4	1.4
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Precautionary Area	414.6	199.3
Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Precautionary Area	12.2	6.6
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Precautionary Area	3,939.3	467.9
Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Precautionary Area	115.9	15.6
Line Haul Locomotive - Day 10 mph - Port to Ocean Blvd	310.8	87.9
Line Haul Locomotive - Day 20 mph - Ocean Blvd to Alameda Corridor	703.8	198.9
Line Haul Locomotive - Night 10 mph - Port to Ocean Blvd	310.8	87.9
Line Haul Locomotive - Night 20 mph - Ocean Blvd to Alameda Corridor	703.8	198.9
Line Haul Locomotive - Day Switching - Existing Railyard	40.2	14.9
Line Haul Locomotive - Day Switching - Expanded Railyard	1,835.6	515.3
Line Haul Locomotive - Night Switching - Existing Railyard	40.2	14.9
Line Haul Locomotive - Night Switching - Expanded Railyard	1,835.6	515.3
Yard Locomotive - Day - Existing Railyard	16.1	4.6
Yard Locomotive - Day - Expanded Railyard	930.1	172.6
Yard Locomotive - Night - Existing Railyard	16.1	4.6
Yard Locomotive - Night - Expanded Railyard	930.1	172.6

Table A.3.1-Alt1M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 1

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Truck Driving on Terminal - Config A - CAAP	186.1	6.7
Truck Driving on Terminal - Config B - CAAP	622.0	21.4
Truck Driving on Terminal - Config C - CAAP	116.0	3.6
Truck Driving on Terminal - Config D - CAAP	154.4	4.1
Truck Driving on Terminal - Config E - CAAP	120.3	4.3
Truck Driving on Terminal - Config F - CAAP	5,733.4	219.4
Truck Idling on Terminal - Config A - CAAP	54.3	6.1
Truck Idling on Terminal - Config B - CAAP	233.3	18.3
Truck Idling on Terminal - Config C - CAAP	66.8	2.4
Truck Idling on Terminal - Config D - CAAP	126.8	1.5
Truck Idling on Terminal - Config E - CAAP	35.1	4.0
Truck Idling on Terminal - Config F - CAAP	6,257.2	75.5
Trucks - Mitigated Project (Alt 1) - 10th Street: Pico - 9th (NB only)	57.4	12.3
Trucks - Mitigated Project (Alt 1) - 9th Street: Anaheim St - Santa Fe	58.4	11.3
Trucks - Mitigated Project (Alt 1) - 9th Street: Caspian - Pico (SB only)	107.3	23.2
Trucks - Mitigated Project (Alt 1) - 9th Street: Santa Fe to 10th	76.3	12.3
Trucks - Mitigated Project (Alt 1) - Alameda St: Eubank - Anaheim St	129.6	20.6
Trucks - Mitigated Project (Alt 1) - Anaheim St: Alameda - SR-47	118.4	6.6
Trucks - Mitigated Project (Alt 1) - Anaheim St: SR-47 - 9th St	195.8	30.9
Trucks - Mitigated Project (Alt 1) - Harbor Plaza: Pier F Ave - Pier G Ave	145.2	29.7
Trucks - Mitigated Project (Alt 1) - Harbor Plaza: Pier G Ave - Queens Way Bridge	59.0	11.9
Trucks - Mitigated Project (Alt 1) - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	408.5	169.6
Trucks - Mitigated Project (Alt 1) - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	44.0	18.0
Trucks - Mitigated Project (Alt 1) - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	288.1	120.7
Trucks - Mitigated Project (Alt 1) - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	190.8	77.5
Trucks - Mitigated Project (Alt 1) - I-710 : n/o 9th Street Onramp (Northbound)	1,376.4	574.4
Trucks - Mitigated Project (Alt 1) - I-710 : n/o Anaheim SB On Ramp (Southbound)	930.5	321.8
Trucks - Mitigated Project (Alt 1) - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	111.6	48.6
Trucks - Mitigated Project (Alt 1) - Ocean Blvd: Bridge	190.4	41.4
Trucks - Mitigated Project (Alt 1) - Ocean Blvd: Bridge - I-710 Offramp	68.5	14.9
Trucks - Mitigated Project (Alt 1) - Ocean Blvd: Seaside Blvd OnRamp - Bridge	137.1	29.8
Trucks - Mitigated Project (Alt 1) - Offramp: I-710 at 9th Street (Southbound BRIDGE)	98.0	17.9
Trucks - Mitigated Project (Alt 1) - Offramp: I-710 at 9th Street (Southbound)	66.0	12.1
Trucks - Mitigated Project (Alt 1) - Onramp: 9th St - I-710 (Northbound BRIDGE)	150.7	27.6
Trucks - Mitigated Project (Alt 1) - Onramp: 9th St - I-710 (Northbound)	97.2	17.8
Trucks - Mitigated Project (Alt 1) - Pico Ave: Harbor Scenic Connector - Harbor Plaza	371.1	84.0
Trucks - Mitigated Project (Alt 1) - Pico Ave: Pier B St - Pier D St	774.4	169.2
Trucks - Mitigated Project (Alt 1) - Pico Ave: Pier D St - Terminal Entrance	242.4	51.6
Trucks - Mitigated Project (Alt 1) - Pico Ave: Pier E St - Harbor Scenic Connector	73.8	15.9
Trucks - Mitigated Project (Alt 1) - Pico Ave: Terminal Entrance - Pier E St	31.3	6.9
Trucks - Mitigated Project (Alt 1) - Pier D Entry Road (off Pico)	503.2	41.1
Trucks - Mitigated Project (Alt 1) - Pier D Exit Road (off Pier D St)	172.8	13.9
Trucks - Mitigated Project (Alt 1) - Pier D St: w/o Pico Ave - w/o Pico Ave	467.1	84.4
Trucks - Mitigated Project (Alt 1) - Pier E St Off Ramp : Pico Ave - Ocean Blvd	27.0	4.9
Trucks - Mitigated Project (Alt 1) - Pier F Ave: Middle Harbor - Harbor Plaza	941.7	198.1
Trucks - Mitigated Project (Alt 1) - Pier F Entry Road (off Pier F Ave)	92.8	7.5
Trucks - Mitigated Project (Alt 1) - Pier F Exit Road (off Pier F Ave)	395.2	32.5
Trucks - Mitigated Project (Alt 1) - Santa Fe: 9th St - Anaheim St	18.8	4.1
Trucks - Mitigated Project (Alt 1) - Santa Fe: n/o Anaheim St - s/o Willow St	79.6	16.7
Trucks - Proposed Project - Brake Wear - 10th Street: Pico - 9th (NB only)	-	3.8
Trucks - Proposed Project - Brake Wear - 9th Street: Anaheim St - Santa Fe	-	3.5
Trucks - Proposed Project - Brake Wear - 9th Street: Caspian - Pico (SB only)	-	7.3
Trucks - Proposed Project - Brake Wear - 9th Street: Santa Fe to 10th	-	3.6

Table A.3.1-Alt1M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 1

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Trucks - Proposed Project - Brake Wear - Alameda St: Eubank - Anaheim St	-	6.1
Trucks - Proposed Project - Brake Wear - Anaheim St: Alameda - SR-47	-	1.7
Trucks - Proposed Project - Brake Wear - Anaheim St: SR-47 - 9th St	-	9.1
Trucks - Proposed Project - Brake Wear - Harbor Plaza: Pier F Ave - Pier G Ave	-	9.3
Trucks - Proposed Project - Brake Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge	-	3.7
Trucks - Proposed Project - Brake Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	-	41.8
Trucks - Proposed Project - Brake Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	-	4.4
Trucks - Proposed Project - Brake Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	-	29.8
Trucks - Proposed Project - Brake Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	-	19.2
Trucks - Proposed Project - Brake Wear - I-710 : n/o 9th Street Onramp (Northbound)	-	141.8
Trucks - Proposed Project - Brake Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)	-	86.6
Trucks - Proposed Project - Brake Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	-	11.5
Trucks - Proposed Project - Brake Wear - Ocean Blvd: Bridge	-	12.8
Trucks - Proposed Project - Brake Wear - Ocean Blvd: Bridge - I-710 Offramp	-	4.6
Trucks - Proposed Project - Brake Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge	-	9.2
Trucks - Proposed Project - Brake Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)	-	5.5
Trucks - Proposed Project - Brake Wear - Offramp: I-710 at 9th Street (Southbound)	-	3.7
Trucks - Proposed Project - Brake Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)	-	8.5
Trucks - Proposed Project - Brake Wear - Onramp: 9th St - I-710 (Northbound)	-	5.5
Trucks - Proposed Project - Brake Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza	-	26.0
Trucks - Proposed Project - Brake Wear - Pico Ave: Pier B St - Pier D St	-	52.7
Trucks - Proposed Project - Brake Wear - Pico Ave: Pier D St - Terminal Entrance	-	16.2
Trucks - Proposed Project - Brake Wear - Pico Ave: Pier E St - Harbor Scenic Connector	-	5.0
Trucks - Proposed Project - Brake Wear - Pico Ave: Terminal Entrance - Pier E St	-	2.2
Trucks - Proposed Project - Brake Wear - Pier D Entry Road (off Pico)	-	10.6
Trucks - Proposed Project - Brake Wear - Pier D Exit Road (off Pier D St)	-	3.5
Trucks - Proposed Project - Brake Wear - Pier D St: w/o Pico Ave - w/o Pico Ave	-	26.0
Trucks - Proposed Project - Brake Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd	-	1.5
Trucks - Proposed Project - Brake Wear - Pier F Ave: Middle Harbor - Harbor Plaza	-	62.1
Trucks - Proposed Project - Brake Wear - Pier F Entry Road (off Pier F Ave)	-	1.9
Trucks - Proposed Project - Brake Wear - Pier F Exit Road (off Pier F Ave)	-	8.4
Trucks - Proposed Project - Brake Wear - Santa Fe: 9th St - Anaheim St	-	1.3
Trucks - Proposed Project - Brake Wear - Santa Fe: n/o Anaheim St - s/o Willow St	-	5.2
Trucks - Proposed Project - Tire Wear - 10th Street: Pico - 9th (NB only)	-	4.8
Trucks - Proposed Project - Tire Wear - 9th Street: Anaheim St - Santa Fe	-	4.4
Trucks - Proposed Project - Tire Wear - 9th Street: Caspian - Pico (SB only)	-	9.0
Trucks - Proposed Project - Tire Wear - 9th Street: Santa Fe to 10th	-	4.5
Trucks - Proposed Project - Tire Wear - Alameda St: Eubank - Anaheim St	-	7.5
Trucks - Proposed Project - Tire Wear - Anaheim St: Alameda - SR-47	-	2.1
Trucks - Proposed Project - Tire Wear - Anaheim St: SR-47 - 9th St	-	11.3
Trucks - Proposed Project - Tire Wear - Harbor Plaza: Pier F Ave - Pier G Ave	-	11.5
Trucks - Proposed Project - Tire Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge	-	4.6
Trucks - Proposed Project - Tire Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	-	51.9
Trucks - Proposed Project - Tire Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	-	5.5
Trucks - Proposed Project - Tire Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	-	37.0
Trucks - Proposed Project - Tire Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	-	23.9
Trucks - Proposed Project - Tire Wear - I-710 : n/o 9th Street Onramp (Northbound)	-	176.0
Trucks - Proposed Project - Tire Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)	-	107.5
Trucks - Proposed Project - Tire Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	-	14.3
Trucks - Proposed Project - Tire Wear - Ocean Blvd: Bridge	-	15.9
Trucks - Proposed Project - Tire Wear - Ocean Blvd: Bridge - I-710 Offramp	-	5.7
Trucks - Proposed Project - Tire Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge	-	11.4
Trucks - Proposed Project - Tire Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)	-	6.9

Table A.3.1-Alt1M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 1

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Trucks - Proposed Project - Tire Wear - Offramp: I-710 at 9th Street (Southbound)	-	4.6
Trucks - Proposed Project - Tire Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)	-	10.6
Trucks - Proposed Project - Tire Wear - Onramp: 9th St - I-710 (Northbound)	-	6.8
Trucks - Proposed Project - Tire Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza	-	32.3
Trucks - Proposed Project - Tire Wear - Pico Ave: Pier B St - Pier D St	-	65.5
Trucks - Proposed Project - Tire Wear - Pico Ave: Pier D St - Terminal Entrance	-	20.1
Trucks - Proposed Project - Tire Wear - Pico Ave: Pier E St - Harbor Scenic Connector	-	6.2
Trucks - Proposed Project - Tire Wear - Pico Ave: Terminal Entrance - Pier E St	-	2.7
Trucks - Proposed Project - Tire Wear - Pier D Entry Road (off Pico)	-	13.1
Trucks - Proposed Project - Tire Wear - Pier D Exit Road (off Pier D St)	-	4.4
Trucks - Proposed Project - Tire Wear - Pier D St: w/o Pico Ave - w/o Pico Ave	-	32.2
Trucks - Proposed Project - Tire Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd	-	1.9
Trucks - Proposed Project - Tire Wear - Pier F Ave: Middle Harbor - Harbor Plaza	-	77.1
Trucks - Proposed Project - Tire Wear - Pier F Entry Road (off Pier F Ave)	-	2.3
Trucks - Proposed Project - Tire Wear - Pier F Exit Road (off Pier F Ave)	-	10.4
Trucks - Proposed Project - Tire Wear - Santa Fe: 9th St - Anaheim St	-	1.6
Trucks - Proposed Project - Tire Wear - Santa Fe: n/o Anaheim St - s/o Willow St	-	6.5
Tugboat assist - aux engine - Config A	0.7	1.1
Tugboat assist - aux engine - Config B	2.3	2.8
Tugboat assist - aux engine - Config C	2.7	2.0
Tugboat assist - aux engine - Config D	76.9	29.0
Tugboat assist - main engine - Config A	7.9	10.2
Tugboat assist - main engine - Config B	25.9	23.7
Tugboat assist - main engine - Config C	29.4	12.4
Tugboat assist - main engine - Config D	851.7	262.0

Table A.3.1-Alt2M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 2.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
RTGs - CAAP - Config C	163.7	53.8
RTGs - CAAP - Config D	189.0	28.5
RTGs on Pier E - CAAP - Config A	69.0	30.7
RTGs on Pier F - CAAP - Config A	10.1	4.5
Side Picks - CAAP - Config B	13.4	13.1
Side Picks - CAAP - Config C	33.0	23.2
Side Picks - CAAP - Config D	807.4	113.8
Side Picks on Pier E - CAAP - Config A	11.1	11.9
Side Picks on Pier F - CAAP - Config A	3.1	3.3
Top Picks - CAAP - Config B	20.5	13.3
Top Picks - CAAP - Config C	51.4	24.4
Top Picks - CAAP - Config D	1,312.2	213.8
Top Picks on Pier E - CAAP - Config A	18.5	13.0
Top Picks on Pier F - CAAP - Config A	3.3	2.3
Yard Tractors - CAAP - Config B	4.1	2.8
Yard Tractors - CAAP - Config D	438.5	200.6
Yard Tractors on Pier E - CAAP - Config A	2.9	2.1
Yard Tractors on Pier F - CAAP - Config A	0.9	0.7
RTGs - CAAP - Existing Railyard	4.8	2.0
RTGs - CAAP - Expanded Railyard	60.8	12.5
Yard Tractors - CAAP - Existing Railyard	0.4	0.3
Yard Tractors - CAAP - Expanded Railyard	105.5	48.5
Ships - Boilers - 0.1% S Fuel - Docking - Config B	0.2	0.1
Ships - Boilers - 0.1% S Fuel - Docking - Config C	21.5	13.9
Ships - Boilers - 2.7% S Fuel - Docking - Config A	0.2	0.8
Ships - Boilers - 2.7% S Fuel - Docking - Config B	0.2	0.8
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Docking - Config B	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Docking - Config C	19.2	9.2
Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Docking - Config B	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Docking - Config B	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Docking - Config C	140.3	10.4
Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Docking - Config A	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Docking - Config B	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Docking - Config B	0.4	0.2
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Docking - Config C	129.4	62.2
Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Docking - Config B	0.2	0.1
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Docking - Config B	5.4	0.4
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Docking - Config C	1,663.8	122.9
Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Docking - Config A	-	-
Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Docking - Config B	2.7	0.2
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Docking - Config B	2.5	1.2
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Docking - Config C	105.7	50.8
Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Docking - Config A	3.1	1.7
Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Docking - Config B	2.8	1.5
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Docking - Config B	27.7	2.0
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Docking - Config C	1,169.1	86.4
Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Docking - Config A	34.6	2.9
Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Docking - Config B	31.1	2.6
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Docking - Config B	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Docking - Config C	-	-

Table A.3.1-Alt2M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 2.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Docking - Config B	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Docking - Config B	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Docking - Config C	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Docking - Config A	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Docking - Config B	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Docking - Config B	2.9	1.4
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Docking - Config C	342.0	164.4
Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Docking - Config A	2.9	1.6
Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Docking - Config B	2.9	1.6
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Docking - Config B	25.8	1.9
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Docking - Config C	3,070.2	226.9
Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Docking - Config A	25.8	2.2
Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Docking - Config B	25.8	2.2
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Docking - Config B	1.1	0.6
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Docking - Config C	190.9	91.8
Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Docking - Config B	0.6	0.3
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Docking - Config B	10.3	0.8
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Docking - Config C	1,713.1	126.6
Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Docking - Config A	-	-
Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Docking - Config B	5.2	0.4
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Docking - Config B	3.2	1.5
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Docking - Config C	214.0	102.9
Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Docking - Config A	3.2	1.7
Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Docking - Config B	3.2	1.7
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Docking - Config B	28.1	2.1
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Docking - Config C	1,879.9	138.9
Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Docking - Config A	28.1	2.3
Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Docking - Config B	28.1	2.3
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	23.1	11.1
Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	305.7	43.8
Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	168.4	81.0
Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	0.3	0.1
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	3,047.5	563.3
Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	4.9	1.0
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	130.5	62.7
Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	7.2	3.9
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	2,394.7	374.3
Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	131.5	23.2
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	415.9	200.0
Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	6.9	3.8
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	6,510.6	933.0
Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	108.5	17.6
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	231.5	111.3
Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	0.7	0.4
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	3,755.6	538.2

Table A.3.1-Alt2M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 2.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	11.2	1.8
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	261.9	125.9
Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	7.7	4.2
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	4,257.1	610.1
Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	125.2	20.3
Ships - Boilers - 0.1% S Fuel - Harbor Transit - Config B	0.5	0.3
Ships - Boilers - 0.1% S Fuel - Harbor Transit - Config C	52.0	33.6
Ships - Boilers - 0.1% S Fuel - Turning - West (Proposed) Location	10.1	6.6
Ships - Boilers - 2.7% S Fuel - Harbor Transit - Config A	0.5	1.8
Ships - Boilers - 2.7% S Fuel - Harbor Transit - Config B	0.5	1.9
Ships - Boilers - 2.7% S Fuel - Turning - West (Proposed) Location	0.2	0.7
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	46.2	22.2
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	8.9	4.3
Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config B	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	235.0	18.9
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	45.4	3.7
Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Harbor Transit - Config B	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	1.0	0.5
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	312.4	150.2
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	60.6	29.1
Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config B	0.5	0.3
Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	0.1	0.1
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	10.8	0.9
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	3,332.7	268.8
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	646.5	52.1
Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	-	-
Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Harbor Transit - Config B	5.4	0.5
Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	1.0	0.1
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	6.0	2.9
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	255.2	122.7
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	50.5	24.3
Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	7.5	4.1
Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config B	6.8	3.7
Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	2.8	1.5
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	46.8	3.8
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	1,977.1	159.4
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	391.4	31.6
Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	58.5	5.3
Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Harbor Transit - Config B	52.6	4.8
Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	21.5	2.0
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config B	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	-	-

Table A.3.1-Alt2M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 2.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Harbor Transit - Config B	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	6.9	3.3
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	825.5	396.9
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	161.0	77.4
Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	6.9	3.8
Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config B	6.9	3.8
Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	2.7	1.5
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	76.3	5.6
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	9,076.5	670.7
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	1,769.9	130.8
Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	76.3	6.4
Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Harbor Transit - Config B	76.3	6.4
Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	29.5	2.5
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	2.8	1.3
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	460.6	221.4
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	89.6	43.1
Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config B	1.4	0.8
Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	0.3	0.1
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	16.9	1.4
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	2,812.8	226.8
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	547.2	44.1
Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	-	-
Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Harbor Transit - Config B	8.5	0.8
Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	1.6	0.1
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config B	7.7	3.7
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config C	516.4	248.3
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Turning - West (Proposed) Location	101.3	48.7
Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	7.7	4.2
Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config B	7.7	4.2
Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	3.0	1.6
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Harbor Transit - Config B	47.0	3.8
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Harbor Transit - Config C	3,148.4	253.9
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Turning - West (Proposed) Location	617.9	49.8
Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	47.0	4.3
Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Harbor Transit - Config B	47.0	4.3
Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	18.2	1.7
Ships - Boilers - 0.1% S Fuel - Hotelling - Config B	17.3	11.2
Ships - Boilers - 0.1% S Fuel - Hotelling - Config C	1,666.7	1,077.4
Ships - Boilers - 2.7% S Fuel - Hotelling - Config A	16.2	64.3
Ships - Boilers - 2.7% S Fuel - Hotelling - Config B	16.8	66.6
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	44.4	21.4
Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Hotelling - Config B	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	10.1	4.8
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	460.8	221.6
Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-

Table A.3.1-Alt2M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 2.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Hotelling - Config B	5.0	2.7
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	49.7	23.9
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	346.7	166.7
Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	63.0	34.2
Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Hotelling - Config B	56.3	30.6
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Hotelling - Config B	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	49.9	24.0
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	878.1	422.1
Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	51.0	27.7
Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Hotelling - Config B	50.5	27.4
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	19.3	9.3
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	501.0	240.9
Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Hotelling - Config B	9.6	5.2
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Hotelling - Config B	55.4	26.6
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Hotelling - Config C	590.7	284.0
Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	56.7	30.8
Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Hotelling - Config B	56.1	30.5
Ships - Boilers - 0.1% S Fuel - Precautionary Area	83.0	53.7
Ships - Boilers - 2.7% S Fuel - Precautionary Area	1.5	6.0
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Precautionary Area	36.6	17.6
Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Precautionary Area	282.9	33.6
Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Precautionary Area	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Precautionary Area	266.6	128.2
Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Precautionary Area	0.4	0.2
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Precautionary Area	2,975.1	426.4
Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Precautionary Area	4.8	0.8
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Precautionary Area	206.6	99.3
Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Precautionary Area	11.3	6.2
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Precautionary Area	2,591.7	307.9
Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Precautionary Area	142.3	19.1
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Precautionary Area	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Precautionary Area	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Precautionary Area	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Precautionary Area	658.5	316.6
Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Precautionary Area	11.0	6.0
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Precautionary Area	6,024.5	715.6
Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Precautionary Area	100.4	13.5
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Precautionary Area	366.6	176.2
Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Precautionary Area	1.1	0.6
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Precautionary Area	3,475.2	412.8
Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Precautionary Area	10.4	1.4
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Precautionary Area	414.6	199.3
Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Precautionary Area	12.2	6.6
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Precautionary Area	3,939.3	467.9
Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Precautionary Area	115.9	15.6
Line Haul Locomotive - Day 10 mph - Port to Ocean Blvd	315.3	89.1
Line Haul Locomotive - Day 20 mph - Ocean Blvd to Alameda Corridor	714.1	201.7

Table A.3.1-Alt2M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 2.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Line Haul Locomotive - Night 10 mph - Port to Ocean Blvd	315.3	89.1
Line Haul Locomotive - Night 20 mph - Ocean Blvd to Alameda Corridor	714.1	201.7
Line Haul Locomotive - Day Switching - Existing Railyard	9.6	3.7
Line Haul Locomotive - Day Switching - Expanded Railyard	1,893.5	533.9
Line Haul Locomotive - Night Switching - Existing Railyard	9.6	3.7
Line Haul Locomotive - Night Switching - Expanded Railyard	1,893.5	533.9
Yard Locomotive - Day - Existing Railyard	3.8	1.1
Yard Locomotive - Day - Expanded Railyard	956.5	178.6
Yard Locomotive - Night - Existing Railyard	3.8	1.1
Yard Locomotive - Night - Expanded Railyard	956.5	178.6
Truck Driving on Terminal - Config A - CAAP	177.9	6.4
Truck Driving on Terminal - Config B - CAAP	245.2	8.6
Truck Driving on Terminal - Config C - CAAP	467.6	15.4
Truck Driving on Terminal - Config D - CAAP	4,715.6	178.5
Truck Driving on Terminal - Config E - CAAP	115.0	4.1
Truck Idling on Terminal - Config A - CAAP	51.9	5.9
Truck Idling on Terminal - Config B - CAAP	80.2	7.7
Truck Idling on Terminal - Config C - CAAP	210.0	12.3
Truck Idling on Terminal - Config D - CAAP	5,101.1	61.5
Truck Idling on Terminal - Config E - CAAP	33.6	3.8
Trucks - Mitigated Alt 2 - 10th Street: Pico - 9th (NB only)	41.4	8.7
Trucks - Mitigated Alt 2 - 9th Street: Anaheim St - Santa Fe	45.1	8.6
Trucks - Mitigated Alt 2 - 9th Street: Caspian - Pico (SB only)	79.0	16.9
Trucks - Mitigated Alt 2 - 9th Street: Santa Fe to 10th	57.5	9.2
Trucks - Mitigated Alt 2 - Alameda St: Eubank - Anaheim St	115.1	18.2
Trucks - Mitigated Alt 2 - Anaheim St: Alameda - SR-47	95.1	5.8
Trucks - Mitigated Alt 2 - Anaheim St: SR-47 - 9th St	168.7	27.1
Trucks - Mitigated Alt 2 - Harbor Plaza: Pier F Ave - Pier G Ave	118.9	24.0
Trucks - Mitigated Alt 2 - Harbor Plaza: Pier G Ave - Queens Way Bridge	48.2	9.5
Trucks - Mitigated Alt 2 - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	334.1	136.6
Trucks - Mitigated Alt 2 - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	35.9	14.4
Trucks - Mitigated Alt 2 - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	251.4	104.6
Trucks - Mitigated Alt 2 - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	159.0	64.3
Trucks - Mitigated Alt 2 - I-710 : n/o 9th Street Onramp (Northbound)	1,138.8	468.2
Trucks - Mitigated Alt 2 - I-710 : n/o Anaheim SB On Ramp (Southbound)	774.2	265.0
Trucks - Mitigated Alt 2 - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	90.9	38.9
Trucks - Mitigated Alt 2 - Ocean Blvd: Bridge	162.5	34.8
Trucks - Mitigated Alt 2 - Ocean Blvd: Bridge - I-710 Offramp	58.5	12.5
Trucks - Mitigated Alt 2 - Ocean Blvd: Seaside Blvd OnRamp - Bridge	117.0	25.1
Trucks - Mitigated Alt 2 - Offramp: I-710 at 9th Street (Southbound BRIDGE)	83.1	15.1
Trucks - Mitigated Alt 2 - Offramp: I-710 at 9th Street (Southbound)	56.0	10.2
Trucks - Mitigated Alt 2 - Onramp: 9th St - I-710 (Northbound BRIDGE)	118.2	21.1
Trucks - Mitigated Alt 2 - Onramp: 9th St - I-710 (Northbound)	76.3	13.6
Trucks - Mitigated Alt 2 - Pico Ave: Harbor Scenic Connector - Harbor Plaza	296.9	68.0
Trucks - Mitigated Alt 2 - Pico Ave: Pier B St - Pier D St	614.4	132.2
Trucks - Mitigated Alt 2 - Pico Ave: Pier D St - Terminal Entrance	189.3	39.7
Trucks - Mitigated Alt 2 - Pico Ave: Pier E St - Harbor Scenic Connector	57.4	12.2
Trucks - Mitigated Alt 2 - Pico Ave: Terminal Entrance - Pier E St	22.6	4.9
Trucks - Mitigated Alt 2 - Pier D Entry Road (off Pico)	413.9	33.4
Trucks - Mitigated Alt 2 - Pier D Exit Road (off Pier D St)	143.5	11.3
Trucks - Mitigated Alt 2 - Pier D St: w/o Pico Ave - w/o Pico Ave	386.0	68.5
Trucks - Mitigated Alt 2 - Pier E St Off Ramp : Pico Ave - Ocean Blvd	23.3	4.2
Trucks - Mitigated Alt 2 - Pier F Ave: Middle Harbor - Harbor Plaza	770.8	159.9

Table A.3.1-Alt2M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 2.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Trucks - Mitigated Alt 2 - Pier F Entry Road (off Pier F Ave)	76.9	6.1
Trucks - Mitigated Alt 2 - Pier F Exit Road (off Pier F Ave)	324.6	26.4
Trucks - Mitigated Alt 2 - Santa Fe: 9th St - Anaheim St	15.2	3.0
Trucks - Mitigated Alt 2 - Santa Fe: n/o Anaheim St - s/o Willow St	64.4	12.2
Trucks - Reduced Fill - Brake Wear - 10th Street: Pico - 9th (NB only)	-	2.7
Trucks - Reduced Fill - Brake Wear - 9th Street: Anaheim St - Santa Fe	-	2.7
Trucks - Reduced Fill - Brake Wear - 9th Street: Caspian - Pico (SB only)	-	5.3
Trucks - Reduced Fill - Brake Wear - 9th Street: Santa Fe to 10th	-	2.7
Trucks - Reduced Fill - Brake Wear - Alameda St: Eubank - Anaheim St	-	5.4
Trucks - Reduced Fill - Brake Wear - Anaheim St: Alameda - SR-47	-	1.5
Trucks - Reduced Fill - Brake Wear - Anaheim St: SR-47 - 9th St	-	8.0
Trucks - Reduced Fill - Brake Wear - Harbor Plaza: Pier F Ave - Pier G Ave	-	7.5
Trucks - Reduced Fill - Brake Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge	-	3.0
Trucks - Reduced Fill - Brake Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	-	33.7
Trucks - Reduced Fill - Brake Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	-	3.6
Trucks - Reduced Fill - Brake Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	-	25.8
Trucks - Reduced Fill - Brake Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	-	15.9
Trucks - Reduced Fill - Brake Wear - I-710 : n/o 9th Street Onramp (Northbound)	-	115.7
Trucks - Reduced Fill - Brake Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)	-	71.4
Trucks - Reduced Fill - Brake Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	-	9.2
Trucks - Reduced Fill - Brake Wear - Ocean Blvd: Bridge	-	10.8
Trucks - Reduced Fill - Brake Wear - Ocean Blvd: Bridge - I-710 Offramp	-	3.9
Trucks - Reduced Fill - Brake Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge	-	7.7
Trucks - Reduced Fill - Brake Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)	-	4.6
Trucks - Reduced Fill - Brake Wear - Offramp: I-710 at 9th Street (Southbound)	-	3.1
Trucks - Reduced Fill - Brake Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)	-	6.5
Trucks - Reduced Fill - Brake Wear - Onramp: 9th St - I-710 (Northbound)	-	4.2
Trucks - Reduced Fill - Brake Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza	-	21.0
Trucks - Reduced Fill - Brake Wear - Pico Ave: Pier B St - Pier D St	-	41.2
Trucks - Reduced Fill - Brake Wear - Pico Ave: Pier D St - Terminal Entrance	-	12.5
Trucks - Reduced Fill - Brake Wear - Pico Ave: Pier E St - Harbor Scenic Connector	-	3.8
Trucks - Reduced Fill - Brake Wear - Pico Ave: Terminal Entrance - Pier E St	-	1.5
Trucks - Reduced Fill - Brake Wear - Pier D Entry Road (off Pico)	-	8.5
Trucks - Reduced Fill - Brake Wear - Pier D Exit Road (off Pier D St)	-	2.8
Trucks - Reduced Fill - Brake Wear - Pier D St: w/o Pico Ave - w/o Pico Ave	-	21.0
Trucks - Reduced Fill - Brake Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd	-	1.3
Trucks - Reduced Fill - Brake Wear - Pier F Ave: Middle Harbor - Harbor Plaza	-	50.1
Trucks - Reduced Fill - Brake Wear - Pier F Entry Road (off Pier F Ave)	-	1.5
Trucks - Reduced Fill - Brake Wear - Pier F Exit Road (off Pier F Ave)	-	6.8
Trucks - Reduced Fill - Brake Wear - Santa Fe: 9th St - Anaheim St	-	0.9
Trucks - Reduced Fill - Brake Wear - Santa Fe: n/o Anaheim St - s/o Willow St	-	3.8
Trucks - Reduced Fill - Tire Wear - 10th Street: Pico - 9th (NB only)	-	3.4
Trucks - Reduced Fill - Tire Wear - 9th Street: Anaheim St - Santa Fe	-	3.3
Trucks - Reduced Fill - Tire Wear - 9th Street: Caspian - Pico (SB only)	-	6.6
Trucks - Reduced Fill - Tire Wear - 9th Street: Santa Fe to 10th	-	3.4
Trucks - Reduced Fill - Tire Wear - Alameda St: Eubank - Anaheim St	-	6.7
Trucks - Reduced Fill - Tire Wear - Anaheim St: Alameda - SR-47	-	1.8
Trucks - Reduced Fill - Tire Wear - Anaheim St: SR-47 - 9th St	-	10.0
Trucks - Reduced Fill - Tire Wear - Harbor Plaza: Pier F Ave - Pier G Ave	-	9.3
Trucks - Reduced Fill - Tire Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge	-	3.7
Trucks - Reduced Fill - Tire Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	-	41.9
Trucks - Reduced Fill - Tire Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	-	4.4
Trucks - Reduced Fill - Tire Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	-	32.1

Table A.3.1-Alt2M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 2.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Trucks - Reduced Fill - Tire Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	-	19.7
Trucks - Reduced Fill - Tire Wear - I-710 : n/o 9th Street Onramp (Northbound)	-	143.7
Trucks - Reduced Fill - Tire Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)	-	88.6
Trucks - Reduced Fill - Tire Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	-	11.5
Trucks - Reduced Fill - Tire Wear - Ocean Blvd: Bridge	-	13.3
Trucks - Reduced Fill - Tire Wear - Ocean Blvd: Bridge - I-710 Offramp	-	4.8
Trucks - Reduced Fill - Tire Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge	-	9.6
Trucks - Reduced Fill - Tire Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)	-	5.8
Trucks - Reduced Fill - Tire Wear - Offramp: I-710 at 9th Street (Southbound)	-	3.9
Trucks - Reduced Fill - Tire Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)	-	8.1
Trucks - Reduced Fill - Tire Wear - Onramp: 9th St - I-710 (Northbound)	-	5.2
Trucks - Reduced Fill - Tire Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza	-	26.0
Trucks - Reduced Fill - Tire Wear - Pico Ave: Pier B St - Pier D St	-	51.1
Trucks - Reduced Fill - Tire Wear - Pico Ave: Pier D St - Terminal Entrance	-	15.5
Trucks - Reduced Fill - Tire Wear - Pico Ave: Pier E St - Harbor Scenic Connector	-	4.7
Trucks - Reduced Fill - Tire Wear - Pico Ave: Terminal Entrance - Pier E St	-	1.9
Trucks - Reduced Fill - Tire Wear - Pier D Entry Road (off Pico)	-	10.6
Trucks - Reduced Fill - Tire Wear - Pier D Exit Road (off Pier D St)	-	3.5
Trucks - Reduced Fill - Tire Wear - Pier D St: w/o Pico Ave - w/o Pico Ave	-	26.1
Trucks - Reduced Fill - Tire Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd	-	1.6
Trucks - Reduced Fill - Tire Wear - Pier F Ave: Middle Harbor - Harbor Plaza	-	62.1
Trucks - Reduced Fill - Tire Wear - Pier F Entry Road (off Pier F Ave)	-	1.9
Trucks - Reduced Fill - Tire Wear - Pier F Exit Road (off Pier F Ave)	-	8.4
Trucks - Reduced Fill - Tire Wear - Santa Fe: 9th St - Anaheim St	-	1.2
Trucks - Reduced Fill - Tire Wear - Santa Fe: n/o Anaheim St - s/o Willow St	-	4.7
Tugboat assist - aux engine - Config A	0.7	1.1
Tugboat assist - aux engine - Config B	1.5	1.9
Tugboat assist - aux engine - Config C	79.5	31.5
Tugboat assist - main engine - Config A	7.9	10.2
Tugboat assist - main engine - Config B	16.9	17.1
Tugboat assist - main engine - Config C	880.3	277.9

Table A.3.1-Alt3M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 3.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
RTGs on Pier E - No CAAP - Config A	1,392.0	298.3
RTGs on Pier F - No CAAP - Config A	1,335.2	286.1
Side Picks on Pier E - No CAAP - Config A	329.6	62.1
Side Picks on Pier F - No CAAP - Config A	337.8	63.7
Top Picks on Pier E - No CAAP - Config A	395.4	72.7
Top Picks on Pier F - No CAAP - Config A	565.4	104.0
Yard Tractors on Pier E - No CAAP - Config A	200.0	93.1
Yard Tractors on Pier F - No CAAP - Config A	240.9	112.1
RTGs - No CAAP - Existing Railyard	719.4	134.8
Yard Tractors - No CAAP - Existing Railyard	104.9	48.0
Ships - Boilers - 0.1% S Fuel - Docking - Config A	18.8	12.1
Ships - Boilers - 1.5% S Fuel - Docking - Config A	0.4	1.0
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Docking - Config A	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 1.5% S - Docking - Config A	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Docking - Config A	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Docking - Config A	58.4	28.1
Ships 3,000 - 3,999 TEU - Aux Engines - 1.5% S - Docking - Config A	0.1	0.2
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Docking - Config A	751.0	55.5
Ships 3,000 - 3,999 TEU - Mains - 1.5% S - Docking - Config A	1.4	0.4
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Docking - Config A	98.8	47.5
Ships 4,000 - 4,999 TEU - Aux Engines - 1.5% S - Docking - Config A	6.0	11.5
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Docking - Config A	1,092.1	80.7
Ships 4,000 - 4,999 TEU - Mains - 1.5% S - Docking - Config A	66.2	19.5
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Docking - Config A	121.6	58.5
Ships 5,000 - 5,999 TEU - Aux Engines - 1.5% S - Docking - Config A	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Docking - Config A	1,229.2	90.8
Ships 5,000 - 5,999 TEU - Mains - 1.5% S - Docking - Config A	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Docking - Config A	274.8	132.1
Ships 6,000 - 6,999 TEU - Aux Engines - 1.5% S - Docking - Config A	4.7	9.1
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Docking - Config A	2,466.6	182.3
Ships 6,000 - 6,999 TEU - Mains - 1.5% S - Docking - Config A	42.4	12.5
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Docking - Config A	153.6	73.8
Ships 7,000 - 7,999 TEU - Aux Engines - 1.5% S - Docking - Config A	0.2	0.5
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Docking - Config A	1,378.5	101.9
Ships 7,000 - 7,999 TEU - Mains - 1.5% S - Docking - Config A	2.2	0.6
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Docking - Config A	217.2	104.4
Ships 8,000 - 9,999 TEU - Aux Engines - 1.5% S - Docking - Config A	6.0	11.5
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Docking - Config A	1,908.0	141.0
Ships 8,000 - 9,999 TEU - Mains - 1.5% S - Docking - Config A	52.9	15.6
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 1.5% S - Fairway @ 12 kts	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	-	-
Ships 10,000 - 11,999 TEU - Mains - 1.5% S - Fairway @ 12 kts	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	75.8	36.4
Ships 3,000 - 3,999 TEU - Aux Engines - 1.5% S - Fairway @ 12 kts	0.1	0.3
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	1,371.1	253.5
Ships 3,000 - 3,999 TEU - Mains - 1.5% S - Fairway @ 12 kts	2.5	1.8
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	119.1	57.3
Ships 4,000 - 4,999 TEU - Aux Engines - 1.5% S - Fairway @ 12 kts	7.2	13.8
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	2,185.3	341.6
Ships 4,000 - 4,999 TEU - Mains - 1.5% S - Fairway @ 12 kts	132.4	82.6
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	146.7	70.5

Table A.3.1-Alt3M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 3.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Ships 5,000 - 5,999 TEU - Aux Engines - 1.5% S - Fairway @ 12 kts	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	2,567.9	368.0
Ships 5,000 - 5,999 TEU - Mains - 1.5% S - Fairway @ 12 kts	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	331.4	159.3
Ships 6,000 - 6,999 TEU - Aux Engines - 1.5% S - Fairway @ 12 kts	5.7	10.9
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	5,187.0	743.4
Ships 6,000 - 6,999 TEU - Mains - 1.5% S - Fairway @ 12 kts	89.1	50.9
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	185.2	89.0
Ships 7,000 - 7,999 TEU - Aux Engines - 1.5% S - Fairway @ 12 kts	0.3	0.6
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	3,004.0	430.5
Ships 7,000 - 7,999 TEU - Mains - 1.5% S - Fairway @ 12 kts	4.7	2.7
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	261.9	125.9
Ships 8,000 - 9,999 TEU - Aux Engines - 1.5% S - Fairway @ 12 kts	7.3	13.9
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	4,257.1	610.1
Ships 8,000 - 9,999 TEU - Mains - 1.5% S - Fairway @ 12 kts	118.0	67.5
Ships - Boilers - 0.1% S Fuel - Harbor Transit - Config A	45.3	29.3
Ships - Boilers - 0.1% S Fuel - Turning - East (Current) Location	8.8	5.7
Ships - Boilers - 1.5% S Fuel - Harbor Transit - Config A	0.9	2.3
Ships - Boilers - 1.5% S Fuel - Turning - East (Current) Location	0.2	0.4
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config A	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Turning - East (Current) Location	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config A	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 1.5% S - Turning - East (Current) Location	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Harbor Transit - Config A	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Turning - East (Current) Location	-	-
Ships 10,000 - 11,999 TEU - Mains - 1.5% S - Harbor Transit - Config A	-	-
Ships 10,000 - 11,999 TEU - Mains - 1.5% S - Turning - East (Current) Location	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config A	141.0	67.8
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Turning - East (Current) Location	27.3	13.1
Ships 3,000 - 3,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config A	0.3	0.5
Ships 3,000 - 3,999 TEU - Aux Engines - 1.5% S - Turning - East (Current) Location	0.0	0.1
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Harbor Transit - Config A	1,504.3	121.3
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Turning - East (Current) Location	290.9	23.5
Ships 3,000 - 3,999 TEU - Mains - 1.5% S - Harbor Transit - Config A	2.7	0.9
Ships 3,000 - 3,999 TEU - Mains - 1.5% S - Turning - East (Current) Location	0.5	0.2
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config A	238.4	114.6
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Turning - East (Current) Location	46.1	22.2
Ships 4,000 - 4,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config A	14.4	27.7
Ships 4,000 - 4,999 TEU - Aux Engines - 1.5% S - Turning - East (Current) Location	2.8	5.4
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Harbor Transit - Config A	1,847.0	148.9
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Turning - East (Current) Location	357.2	28.8
Ships 4,000 - 4,999 TEU - Mains - 1.5% S - Harbor Transit - Config A	111.9	36.0
Ships 4,000 - 4,999 TEU - Mains - 1.5% S - Turning - East (Current) Location	21.6	7.0
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config A	293.5	141.1
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Turning - East (Current) Location	56.8	27.3
Ships 5,000 - 5,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config A	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 1.5% S - Turning - East (Current) Location	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Harbor Transit - Config A	3,634.0	268.5
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Turning - East (Current) Location	702.7	51.9
Ships 5,000 - 5,999 TEU - Mains - 1.5% S - Harbor Transit - Config A	-	-
Ships 5,000 - 5,999 TEU - Mains - 1.5% S - Turning - East (Current) Location	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config A	663.2	318.8
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Turning - East (Current) Location	128.2	61.7

Table A.3.1-Alt3M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 3.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Ships 6,000 - 6,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config A	11.4	21.8
Ships 6,000 - 6,999 TEU - Aux Engines - 1.5% S - Turning - East (Current) Location	2.2	4.2
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Harbor Transit - Config A	7,292.0	538.8
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Turning - East (Current) Location	1,410.1	104.2
Ships 6,000 - 6,999 TEU - Mains - 1.5% S - Harbor Transit - Config A	125.2	36.9
Ships 6,000 - 6,999 TEU - Mains - 1.5% S - Turning - East (Current) Location	24.2	7.1
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config A	370.6	178.2
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Turning - East (Current) Location	71.7	34.5
Ships 7,000 - 7,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config A	0.6	1.1
Ships 7,000 - 7,999 TEU - Aux Engines - 1.5% S - Turning - East (Current) Location	0.1	0.2
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Harbor Transit - Config A	2,263.4	182.5
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Turning - East (Current) Location	437.7	35.3
Ships 7,000 - 7,999 TEU - Mains - 1.5% S - Harbor Transit - Config A	3.5	1.1
Ships 7,000 - 7,999 TEU - Mains - 1.5% S - Turning - East (Current) Location	0.7	0.2
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config A	524.1	252.0
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Turning - East (Current) Location	101.3	48.7
Ships 8,000 - 9,999 TEU - Aux Engines - 1.5% S - Harbor Transit - Config A	14.5	27.9
Ships 8,000 - 9,999 TEU - Aux Engines - 1.5% S - Turning - East (Current) Location	2.8	5.4
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Harbor Transit - Config A	3,195.4	257.7
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Turning - East (Current) Location	617.9	49.8
Ships 8,000 - 9,999 TEU - Mains - 1.5% S - Harbor Transit - Config A	88.6	28.5
Ships 8,000 - 9,999 TEU - Mains - 1.5% S - Turning - East (Current) Location	17.1	5.5
Ships - Boilers - 0.1% S Fuel - Hotelling - Config A	1,683.1	1,088.0
Ships - Boilers - 1.5% S Fuel - Hotelling - Config A	34.4	85.6
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Hotelling - Config A	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 1.5% S - Hotelling - Config A	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Hotelling - Config A	505.9	243.2
Ships 3,000 - 3,999 TEU - Aux Engines - 1.5% S - Hotelling - Config A	4.1	7.9
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Hotelling - Config A	768.4	369.4
Ships 4,000 - 4,999 TEU - Aux Engines - 1.5% S - Hotelling - Config A	182.4	350.0
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Hotelling - Config A	694.4	333.9
Ships 5,000 - 5,999 TEU - Aux Engines - 1.5% S - Hotelling - Config A	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Hotelling - Config A	1,819.3	874.7
Ships 6,000 - 6,999 TEU - Aux Engines - 1.5% S - Hotelling - Config A	126.9	243.5
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Hotelling - Config A	920.9	442.7
Ships 7,000 - 7,999 TEU - Aux Engines - 1.5% S - Hotelling - Config A	6.4	12.4
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Hotelling - Config A	1,460.0	701.9
Ships 8,000 - 9,999 TEU - Aux Engines - 1.5% S - Hotelling - Config A	161.9	310.5
Ships - Boilers - 0.1% S Fuel - Precautionary Area	71.7	46.3
Ships - Boilers - 1.5% S Fuel - Precautionary Area	1.5	3.6
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Precautionary Area	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 1.5% S - Precautionary Area	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Precautionary Area	-	-
Ships 10,000 - 11,999 TEU - Mains - 1.5% S - Precautionary Area	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Precautionary Area	119.9	57.7
Ships 3,000 - 3,999 TEU - Aux Engines - 1.5% S - Precautionary Area	0.2	0.4
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Precautionary Area	1,338.6	191.8
Ships 3,000 - 3,999 TEU - Mains - 1.5% S - Precautionary Area	2.4	1.4
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Precautionary Area	188.6	90.7
Ships 4,000 - 4,999 TEU - Aux Engines - 1.5% S - Precautionary Area	11.4	21.9
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Precautionary Area	2,365.1	280.9
Ships 4,000 - 4,999 TEU - Mains - 1.5% S - Precautionary Area	143.3	67.9
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Precautionary Area	232.2	111.6

Table A.3.1-Alt3M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 3.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Ships 5,000 - 5,999 TEU - Aux Engines - 1.5% S - Precautionary Area	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Precautionary Area	2,376.1	282.2
Ships 5,000 - 5,999 TEU - Mains - 1.5% S - Precautionary Area	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Precautionary Area	524.6	252.2
Ships 6,000 - 6,999 TEU - Aux Engines - 1.5% S - Precautionary Area	9.0	17.3
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Precautionary Area	4,799.7	570.1
Ships 6,000 - 6,999 TEU - Mains - 1.5% S - Precautionary Area	82.4	39.1
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Precautionary Area	293.2	141.0
Ships 7,000 - 7,999 TEU - Aux Engines - 1.5% S - Precautionary Area	0.5	0.9
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Precautionary Area	2,779.7	330.2
Ships 7,000 - 7,999 TEU - Mains - 1.5% S - Precautionary Area	4.3	2.1
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Precautionary Area	414.6	199.3
Ships 8,000 - 9,999 TEU - Aux Engines - 1.5% S - Precautionary Area	11.5	22.0
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Precautionary Area	3,939.3	467.9
Ships 8,000 - 9,999 TEU - Mains - 1.5% S - Precautionary Area	109.2	51.7
Line Haul Locomotive - Day 10 mph - Port to Ocean Blvd	119.2	33.8
Line Haul Locomotive - Day 20 mph - Ocean Blvd to Alameda Corridor	270.0	76.5
Line Haul Locomotive - Night 10 mph - Port to Ocean Blvd	119.2	33.8
Line Haul Locomotive - Night 20 mph - Ocean Blvd to Alameda Corridor	270.0	76.5
Line Haul Locomotive - Day Switching - Existing Railyard	719.7	203.8
Line Haul Locomotive - Night Switching - Existing Railyard	719.7	203.8
Yard Locomotive - Day - Existing Railyard	362.6	68.1
Yard Locomotive - Night - Existing Railyard	362.6	68.1
Truck Driving on Terminal - Config A - No CAAP - CEQA BL & No Project	3,088.3	115.8
Truck Driving on Terminal - Config E - No CAAP - CEQA BL & No Project	1,715.3	64.2
Truck Idling on Terminal - Config A - No CAAP - 0.70 hr idling - CEQA BL & No Project	7,346.3	109.3
Truck Idling on Terminal - Config E - No CAAP - 0.70 hr idling - CEQA BL & No Project	3,864.1	65.2
Trucks - No Project - 10th Street: Pico - 9th (NB only)	69.4	14.7
Trucks - No Project - 9th Street: Anaheim St - Santa Fe	45.0	10.2
Trucks - No Project - 9th Street: Caspian - Pico (SB only)	78.4	20.8
Trucks - No Project - 9th Street: Santa Fe to 10th	56.4	11.1
Trucks - No Project - Alameda St: Eubank - Anaheim St	90.2	15.7
Trucks - No Project - Anaheim St: Alameda - SR-47	62.2	4.9
Trucks - No Project - Anaheim St: SR-47 - 9th St	156.8	27.1
Trucks - No Project - Brake Wear - 10th Street: Pico - 9th (NB only)	-	4.6
Trucks - No Project - Brake Wear - 9th Street: Anaheim St - Santa Fe	-	3.1
Trucks - No Project - Brake Wear - 9th Street: Caspian - Pico (SB only)	-	6.2
Trucks - No Project - Brake Wear - 9th Street: Santa Fe to 10th	-	3.4
Trucks - No Project - Brake Wear - Alameda St: Eubank - Anaheim St	-	4.7
Trucks - No Project - Brake Wear - Anaheim St: Alameda - SR-47	-	1.3
Trucks - No Project - Brake Wear - Anaheim St: SR-47 - 9th St	-	8.1
Trucks - No Project - Brake Wear - Harbor Plaza: Pier F Ave - Pier G Ave	-	7.3
Trucks - No Project - Brake Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge	-	3.4
Trucks - No Project - Brake Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	-	29.2
Trucks - No Project - Brake Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	-	4.9
Trucks - No Project - Brake Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	-	17.4
Trucks - No Project - Brake Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	-	18.8
Trucks - No Project - Brake Wear - I-710 : n/o 9th Street Onramp (Northbound)	-	125.8
Trucks - No Project - Brake Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)	-	83.4
Trucks - No Project - Brake Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	-	12.8
Trucks - No Project - Brake Wear - Ocean Blvd: Bridge	-	17.2
Trucks - No Project - Brake Wear - Ocean Blvd: Bridge - I-710 Offramp	-	6.2
Trucks - No Project - Brake Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge	-	12.4

Table A.3.1-Alt3M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 3.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Trucks - No Project - Brake Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)	-	5.0
Trucks - No Project - Brake Wear - Offramp: I-710 at 9th Street (Southbound)	-	3.4
Trucks - No Project - Brake Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)	-	10.3
Trucks - No Project - Brake Wear - Onramp: 9th St - I-710 (Northbound)	-	6.6
Trucks - No Project - Brake Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza	-	19.5
Trucks - No Project - Brake Wear - Pico Ave: Pier B St - Pier D St	-	52.7
Trucks - No Project - Brake Wear - Pico Ave: Pier D St - Terminal Entrance	-	13.6
Trucks - No Project - Brake Wear - Pico Ave: Pier E St - Harbor Scenic Connector	-	5.1
Trucks - No Project - Brake Wear - Pico Ave: Terminal Entrance - Pier E St	-	1.8
Trucks - No Project - Brake Wear - Pier D Entry Road (off Pico)	-	9.6
Trucks - No Project - Brake Wear - Pier D Exit Road (off Pier D St)	-	4.8
Trucks - No Project - Brake Wear - Pier D St: w/o Pico Ave - w/o Pico Ave	-	35.9
Trucks - No Project - Brake Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd	-	2.0
Trucks - No Project - Brake Wear - Pier F Ave: Middle Harbor - Harbor Plaza	-	48.8
Trucks - No Project - Brake Wear - Pier F Entry Road (off Pier F Ave)	-	2.1
Trucks - No Project - Brake Wear - Pier F Exit Road (off Pier F Ave)	-	5.0
Trucks - No Project - Brake Wear - Santa Fe: 9th St - Anaheim St	-	1.4
Trucks - No Project - Brake Wear - Santa Fe: n/o Anaheim St - s/o Willow St	-	5.8
Trucks - No Project - Harbor Plaza: Pier F Ave - Pier G Ave	119.5	23.8
Trucks - No Project - Harbor Plaza: Pier G Ave - Queens Way Bridge	55.8	11.2
Trucks - No Project - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	305.4	117.2
Trucks - No Project - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	49.6	20.1
Trucks - No Project - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	177.2	71.2
Trucks - No Project - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	214.6	67.9
Trucks - No Project - I-710 : n/o 9th Street Onramp (Northbound)	1,243.1	515.2
Trucks - No Project - I-710 : n/o Anaheim SB On Ramp (Southbound)	906.6	313.4
Trucks - No Project - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	148.3	46.2
Trucks - No Project - Ocean Blvd: Bridge	255.6	56.2
Trucks - No Project - Ocean Blvd: Bridge - I-710 Offramp	92.0	20.2
Trucks - No Project - Ocean Blvd: Seaside Blvd OnRamp - Bridge	184.0	40.5
Trucks - No Project - Offramp: I-710 at 9th Street (Southbound BRIDGE)	89.0	16.3
Trucks - No Project - Offramp: I-710 at 9th Street (Southbound)	59.9	11.0
Trucks - No Project - Onramp: 9th St - I-710 (Northbound BRIDGE)	180.7	33.5
Trucks - No Project - Onramp: 9th St - I-710 (Northbound)	116.6	21.6
Trucks - No Project - Pico Ave: Harbor Scenic Connector - Harbor Plaza	296.7	63.5
Trucks - No Project - Pico Ave: Pier B St - Pier D St	779.4	170.6
Trucks - No Project - Pico Ave: Pier D St - Terminal Entrance	206.5	43.9
Trucks - No Project - Pico Ave: Pier E St - Harbor Scenic Connector	76.2	16.6
Trucks - No Project - Pico Ave: Terminal Entrance - Pier E St	25.8	5.8
Trucks - No Project - Pier D Entry Road (off Pico)	461.8	37.7
Trucks - No Project - Pier D Exit Road (off Pier D St)	230.9	18.9
Trucks - No Project - Pier D St: w/o Pico Ave - w/o Pico Ave	634.7	117.2
Trucks - No Project - Pier E St Off Ramp : Pico Ave - Ocean Blvd	29.1	6.3
Trucks - No Project - Pier F Ave: Middle Harbor - Harbor Plaza	773.9	158.4
Trucks - No Project - Pier F Entry Road (off Pier F Ave)	105.2	8.4
Trucks - No Project - Pier F Exit Road (off Pier F Ave)	256.1	20.4
Trucks - No Project - Santa Fe: 9th St - Anaheim St	20.9	4.5
Trucks - No Project - Santa Fe: n/o Anaheim St - s/o Willow St	87.3	18.7
Trucks - No Project - Tire Wear - 10th Street: Pico - 9th (NB only)	-	5.7
Trucks - No Project - Tire Wear - 9th Street: Anaheim St - Santa Fe	-	3.9
Trucks - No Project - Tire Wear - 9th Street: Caspian - Pico (SB only)	-	7.7
Trucks - No Project - Tire Wear - 9th Street: Santa Fe to 10th	-	4.3
Trucks - No Project - Tire Wear - Alameda St: Eubank - Anaheim St	-	5.9

Table A.3.1-Alt3M. 70-Year Average PM10 Emissions - POLB - MHTP - Mitigated Alternative 3.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Trucks - No Project - Tire Wear - Anaheim St: Alameda - SR-47	-	1.6
Trucks - No Project - Tire Wear - Anaheim St: SR-47 - 9th St	-	10.1
Trucks - No Project - Tire Wear - Harbor Plaza: Pier F Ave - Pier G Ave	-	9.0
Trucks - No Project - Tire Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge	-	4.2
Trucks - No Project - Tire Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	-	36.2
Trucks - No Project - Tire Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	-	6.1
Trucks - No Project - Tire Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	-	21.6
Trucks - No Project - Tire Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	-	23.3
Trucks - No Project - Tire Wear - I-710 : n/o 9th Street Onramp (Northbound)	-	156.2
Trucks - No Project - Tire Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)	-	103.5
Trucks - No Project - Tire Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	-	15.8
Trucks - No Project - Tire Wear - Ocean Blvd: Bridge	-	21.3
Trucks - No Project - Tire Wear - Ocean Blvd: Bridge - I-710 Offramp	-	7.7
Trucks - No Project - Tire Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge	-	15.3
Trucks - No Project - Tire Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)	-	6.2
Trucks - No Project - Tire Wear - Offramp: I-710 at 9th Street (Southbound)	-	4.2
Trucks - No Project - Tire Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)	-	12.8
Trucks - No Project - Tire Wear - Onramp: 9th St - I-710 (Northbound)	-	8.2
Trucks - No Project - Tire Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza	-	24.2
Trucks - No Project - Tire Wear - Pico Ave: Pier B St - Pier D St	-	65.5
Trucks - No Project - Tire Wear - Pico Ave: Pier D St - Terminal Entrance	-	16.9
Trucks - No Project - Tire Wear - Pico Ave: Pier E St - Harbor Scenic Connector	-	6.4
Trucks - No Project - Tire Wear - Pico Ave: Terminal Entrance - Pier E St	-	2.2
Trucks - No Project - Tire Wear - Pier D Entry Road (off Pico)	-	11.9
Trucks - No Project - Tire Wear - Pier D Exit Road (off Pier D St)	-	6.0
Trucks - No Project - Tire Wear - Pier D St: w/o Pico Ave - w/o Pico Ave	-	44.6
Trucks - No Project - Tire Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd	-	2.5
Trucks - No Project - Tire Wear - Pier F Ave: Middle Harbor - Harbor Plaza	-	60.5
Trucks - No Project - Tire Wear - Pier F Entry Road (off Pier F Ave)	-	2.6
Trucks - No Project - Tire Wear - Pier F Exit Road (off Pier F Ave)	-	6.3
Trucks - No Project - Tire Wear - Santa Fe: 9th St - Anaheim St	-	1.7
Trucks - No Project - Tire Wear - Santa Fe: n/o Anaheim St - s/o Willow St	-	7.2
Tugboat assist - aux engine - Config A	70.7	30.0
Tugboat assist - main engine - Config A	783.4	265.9

Table A.3.1-Alt4U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 4.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
RTGs - CAAP - Config B	197.6	70.6
RTGs - CAAP - Config C	173.7	26.2
RTGs on Pier E - CAAP - Config A	59.3	26.4
RTGs on Pier F - CAAP - Config A	12.4	5.5
Side Picks - CAAP - Config B	45.8	35.8
Side Picks - CAAP - Config C	817.0	115.2
Side Picks on Pier E - CAAP - Config A	10.3	11.0
Side Picks on Pier F - CAAP - Config A	3.7	3.9
Top Picks - CAAP - Config B	60.2	31.8
Top Picks - CAAP - Config C	1,467.4	239.3
Top Picks on Pier E - CAAP - Config A	15.9	11.2
Top Picks on Pier F - CAAP - Config A	3.9	2.8
Yard Tractors - CAAP - Config B	18.5	11.0
Yard Tractors - CAAP - Config C	444.1	203.2
Yard Tractors on Pier E - CAAP - Config A	2.8	2.0
RTGs - CAAP - Existing Railyard	5.1	2.2
RTGs - CAAP - Expanded Railyard	60.9	12.5
Yard Tractors - CAAP - Existing Railyard	0.4	0.3
Yard Tractors - CAAP - Expanded Railyard	106.9	49.1
Ships - Boilers - 0.1% S Fuel - Docking - Config A	24.7	16.0
Ships - Boilers - 2.7% S Fuel - Docking - Config A	0.4	1.6
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Docking - Config A	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Docking - Config A	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Docking - Config A	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Docking - Config A	129.9	62.4
Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Docking - Config A	0.2	0.1
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Docking - Config A	1,669.2	123.3
Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Docking - Config A	2.7	0.2
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Docking - Config A	197.4	94.9
Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Docking - Config A	5.9	3.2
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Docking - Config A	2,182.6	161.3
Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Docking - Config A	65.7	5.5
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Docking - Config A	136.8	65.8
Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Docking - Config A	1,382.8	102.2
Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Docking - Config A	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Docking - Config A	195.5	94.0
Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Docking - Config A	5.7	3.1
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Docking - Config A	1,754.4	129.6
Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Docking - Config A	51.6	4.3
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Docking - Config A	192.0	92.3
Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Docking - Config A	0.6	0.3
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Docking - Config A	1,723.4	127.4
Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Docking - Config A	5.2	0.4
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Docking - Config A	217.2	104.4
Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Docking - Config A	6.4	3.5
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Docking - Config A	1,908.0	141.0
Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Docking - Config A	56.1	4.7
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	-	-

Table A.3.1-Alt4U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 4.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	168.4	81.0
Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	0.3	0.1
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	3,047.5	563.3
Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	4.9	1.0
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	238.0	114.4
Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	7.2	3.9
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	4,367.2	682.6
Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	131.5	23.2
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	165.0	79.3
Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	2,888.6	414.0
Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	235.7	113.3
Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	6.9	3.8
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	3,689.4	528.7
Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	108.5	17.6
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	231.5	111.3
Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	0.7	0.4
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	3,755.6	538.2
Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	11.2	1.8
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Fairway @ 12 kts	261.9	125.9
Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	7.7	4.2
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Fairway @ 12 kts	4,257.1	610.1
Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	125.2	20.3
Ships - Boilers - 0.1% S Fuel - Harbor Transit - Config A	59.7	38.6
Ships - Boilers - 0.1% S Fuel - Turning - East (Current) Location	11.5	7.5
Ships - Boilers - 2.7% S Fuel - Harbor Transit - Config A	1.0	3.8
Ships - Boilers - 2.7% S Fuel - Turning - East (Current) Location	0.2	0.7
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config A	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Turning - East (Current) Location	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Turning - East (Current) Location	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Harbor Transit - Config A	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Turning - East (Current) Location	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Turning - East (Current) Location	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config A	313.4	150.7
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Turning - East (Current) Location	60.6	29.1
Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	0.5	0.3
Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Turning - East (Current) Location	0.1	0.1
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Harbor Transit - Config A	3,343.6	269.6
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Turning - East (Current) Location	646.5	52.1
Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	5.4	0.5
Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Turning - East (Current) Location	1.0	0.1
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config A	476.4	229.0
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Turning - East (Current) Location	92.1	44.3
Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	14.3	7.8
Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Turning - East (Current) Location	2.8	1.5
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Harbor Transit - Config A	3,691.0	297.6
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Turning - East (Current) Location	713.7	57.6
Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	111.1	10.1
Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Turning - East (Current) Location	21.5	2.0

Table A.3.1-Alt4U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 4.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config A	330.2	158.8
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Turning - East (Current) Location	63.9	30.7
Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Turning - East (Current) Location	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Harbor Transit - Config A	4,087.9	302.1
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Turning - East (Current) Location	790.5	58.4
Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Turning - East (Current) Location	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config A	471.7	226.8
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Turning - East (Current) Location	91.2	43.9
Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	13.9	7.5
Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Turning - East (Current) Location	2.7	1.5
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Harbor Transit - Config A	5,186.6	383.3
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Turning - East (Current) Location	1,002.9	74.1
Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	152.5	12.7
Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Turning - East (Current) Location	29.5	2.5
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config A	463.4	222.8
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Turning - East (Current) Location	89.6	43.1
Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	1.4	0.8
Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Turning - East (Current) Location	0.3	0.1
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Harbor Transit - Config A	2,829.7	228.2
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Turning - East (Current) Location	547.2	44.1
Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	8.5	0.8
Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Turning - East (Current) Location	1.6	0.1
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Harbor Transit - Config A	524.1	252.0
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Turning - East (Current) Location	101.3	48.7
Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	15.4	8.4
Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Turning - East (Current) Location	3.0	1.6
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Harbor Transit - Config A	3,195.4	257.7
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Turning - East (Current) Location	617.9	49.8
Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	94.0	8.6
Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Turning - East (Current) Location	18.2	1.7
Ships - Boilers - 0.1% S Fuel - Hotelling - Config A	1,914.1	1,237.3
Ships - Boilers - 2.7% S Fuel - Hotelling - Config A	32.9	131.0
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Hotelling - Config A	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Hotelling - Config A	470.9	226.4
Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	5.0	2.7
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Hotelling - Config A	630.6	303.2
Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	119.3	64.8
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Hotelling - Config A	327.7	157.6
Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Hotelling - Config A	581.5	279.6
Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	101.5	55.1
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Hotelling - Config A	520.3	250.1
Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	9.6	5.2
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Hotelling - Config A	646.1	310.6
Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	112.8	61.3
Ships - Boilers - 0.1% S Fuel - Precautionary Area	94.4	61.0
Ships - Boilers - 2.7% S Fuel - Precautionary Area	1.5	6.0
Ships 10,000 - 11,999 TEU - Aux Engines - 0.1% S - Precautionary Area	-	-
Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships 10,000 - 11,999 TEU - Mains - 0.1% S - Precautionary Area	-	-

Table A.3.1-Alt4U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 4.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Precautionary Area	-	-
Ships 3,000 - 3,999 TEU - Aux Engines - 0.1% S - Precautionary Area	266.6	128.2
Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Precautionary Area	0.4	0.2
Ships 3,000 - 3,999 TEU - Mains - 0.1% S - Precautionary Area	2,975.1	426.4
Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Precautionary Area	4.8	0.8
Ships 4,000 - 4,999 TEU - Aux Engines - 0.1% S - Precautionary Area	376.8	181.2
Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Precautionary Area	11.3	6.2
Ships 4,000 - 4,999 TEU - Mains - 0.1% S - Precautionary Area	4,726.5	561.4
Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Precautionary Area	142.3	19.1
Ships 5,000 - 5,999 TEU - Aux Engines - 0.1% S - Precautionary Area	261.2	125.6
Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships 5,000 - 5,999 TEU - Mains - 0.1% S - Precautionary Area	2,672.9	317.5
Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Precautionary Area	-	-
Ships 6,000 - 6,999 TEU - Aux Engines - 0.1% S - Precautionary Area	373.1	179.4
Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Precautionary Area	11.0	6.0
Ships 6,000 - 6,999 TEU - Mains - 0.1% S - Precautionary Area	3,413.9	405.5
Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Precautionary Area	100.4	13.5
Ships 7,000 - 7,999 TEU - Aux Engines - 0.1% S - Precautionary Area	366.6	176.2
Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Precautionary Area	1.1	0.6
Ships 7,000 - 7,999 TEU - Mains - 0.1% S - Precautionary Area	3,475.2	412.8
Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Precautionary Area	10.4	1.4
Ships 8,000 - 9,999 TEU - Aux Engines - 0.1% S - Precautionary Area	414.6	199.3
Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Precautionary Area	12.2	6.6
Ships 8,000 - 9,999 TEU - Mains - 0.1% S - Precautionary Area	3,939.3	467.9
Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Precautionary Area	115.9	15.6
Line Haul Locomotive - Day 10 mph - Port to Ocean Blvd	208.4	58.9
Line Haul Locomotive - Day 20 mph - Ocean Blvd to Alameda Corridor	471.9	133.4
Line Haul Locomotive - Night 10 mph - Port to Ocean Blvd	208.4	58.9
Line Haul Locomotive - Night 20 mph - Ocean Blvd to Alameda Corridor	471.9	133.4
Line Haul Locomotive - Day Switching - Existing Railyard	7.7	3.0
Line Haul Locomotive - Day Switching - Expanded Railyard	1,249.9	352.7
Line Haul Locomotive - Night Switching - Existing Railyard	7.7	3.0
Line Haul Locomotive - Night Switching - Expanded Railyard	1,249.9	352.7
Yard Locomotive - Day - Existing Railyard	3.0	0.9
Yard Locomotive - Day - Expanded Railyard	631.2	118.0
Yard Locomotive - Night - Existing Railyard	3.0	0.9
Yard Locomotive - Night - Expanded Railyard	631.2	118.0
Truck Driving on Terminal - Config A - CAAP	179.9	6.4
Truck Driving on Terminal - Config B - CAAP	775.3	26.1
Truck Driving on Terminal - Config C - CAAP	5,789.4	219.0
Truck Driving on Terminal - Config E - CAAP	116.2	4.2
Truck Idling on Terminal - Config A - CAAP	52.5	5.9
Truck Idling on Terminal - Config B - CAAP	318.0	21.6
Truck Idling on Terminal - Config C - CAAP	6,258.6	75.5
Truck Idling on Terminal - Config E - CAAP	33.9	3.8
Trucks - No Federal Action - 10th Street: Pico - 9th (NB only)	63.5	13.5
Trucks - No Federal Action - 9th Street: Anaheim St - Santa Fe	62.6	11.6
Trucks - No Federal Action - 9th Street: Caspian - Pico (SB only)	108.4	23.4
Trucks - No Federal Action - 9th Street: Santa Fe to 10th	79.8	12.9
Trucks - No Federal Action - Alameda St: Eubank - Anaheim St	114.2	18.1
Trucks - No Federal Action - Anaheim St: Alameda - SR-47	94.1	5.7
Trucks - No Federal Action - Anaheim St: SR-47 - 9th St	167.3	26.8
Trucks - No Federal Action - Brake Wear - 10th Street: Pico - 9th (NB only)	-	4.2

Table A.3.1-Alt4U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 4.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Trucks - No Federal Action - Brake Wear - 9th Street: Anaheim St - Santa Fe	-	3.6
Trucks - No Federal Action - Brake Wear - 9th Street: Caspian - Pico (SB only)	-	7.3
Trucks - No Federal Action - Brake Wear - 9th Street: Santa Fe to 10th	-	3.8
Trucks - No Federal Action - Brake Wear - Alameda St: Eubank - Anaheim St	-	5.3
Trucks - No Federal Action - Brake Wear - Anaheim St: Alameda - SR-47	-	1.4
Trucks - No Federal Action - Brake Wear - Anaheim St: SR-47 - 9th St	-	8.0
Trucks - No Federal Action - Brake Wear - Harbor Plaza: Pier F Ave - Pier G Ave	-	9.1
Trucks - No Federal Action - Brake Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge	-	3.6
Trucks - No Federal Action - Brake Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	-	41.1
Trucks - No Federal Action - Brake Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	-	4.4
Trucks - No Federal Action - Brake Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	-	29.3
Trucks - No Federal Action - Brake Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	-	18.9
Trucks - No Federal Action - Brake Wear - I-710 : n/o 9th Street Onramp (Northbound)	-	138.0
Trucks - No Federal Action - Brake Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)	-	85.4
Trucks - No Federal Action - Brake Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	-	11.5
Trucks - No Federal Action - Brake Wear - Ocean Blvd: Bridge	-	12.2
Trucks - No Federal Action - Brake Wear - Ocean Blvd: Bridge - I-710 Offramp	-	4.4
Trucks - No Federal Action - Brake Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge	-	8.8
Trucks - No Federal Action - Brake Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)	-	5.4
Trucks - No Federal Action - Brake Wear - Offramp: I-710 at 9th Street (Southbound)	-	3.6
Trucks - No Federal Action - Brake Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)	-	8.2
Trucks - No Federal Action - Brake Wear - Onramp: 9th St - I-710 (Northbound)	-	5.3
Trucks - No Federal Action - Brake Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza	-	25.6
Trucks - No Federal Action - Brake Wear - Pico Ave: Pier B St - Pier D St	-	52.0
Trucks - No Federal Action - Brake Wear - Pico Ave: Pier D St - Terminal Entrance	-	15.9
Trucks - No Federal Action - Brake Wear - Pico Ave: Pier E St - Harbor Scenic Connector	-	4.9
Trucks - No Federal Action - Brake Wear - Pico Ave: Terminal Entrance - Pier E St	-	2.1
Trucks - No Federal Action - Brake Wear - Pier D Entry Road (off Pico)	-	10.4
Trucks - No Federal Action - Brake Wear - Pier D Exit Road (off Pier D St)	-	3.4
Trucks - No Federal Action - Brake Wear - Pier D St: w/o Pico Ave - w/o Pico Ave	-	25.5
Trucks - No Federal Action - Brake Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd	-	1.4
Trucks - No Federal Action - Brake Wear - Pier F Ave: Middle Harbor - Harbor Plaza	-	61.0
Trucks - No Federal Action - Brake Wear - Pier F Entry Road (off Pier F Ave)	-	1.9
Trucks - No Federal Action - Brake Wear - Pier F Exit Road (off Pier F Ave)	-	8.3
Trucks - No Federal Action - Brake Wear - Santa Fe: 9th St - Anaheim St	-	1.4
Trucks - No Federal Action - Brake Wear - Santa Fe: n/o Anaheim St - s/o Willow St	-	5.6
Trucks - No Federal Action - Harbor Plaza: Pier F Ave - Pier G Ave	143.3	29.1
Trucks - No Federal Action - Harbor Plaza: Pier G Ave - Queens Way Bridge	57.7	11.6
Trucks - No Federal Action - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	402.6	166.5
Trucks - No Federal Action - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	43.9	17.8
Trucks - No Federal Action - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	285.2	118.7
Trucks - No Federal Action - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	188.2	76.1
Trucks - No Federal Action - I-710 : n/o 9th Street Onramp (Northbound)	1,347.1	558.6
Trucks - No Federal Action - I-710 : n/o Anaheim SB On Ramp (Southbound)	920.6	317.2
Trucks - No Federal Action - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	111.1	48.2
Trucks - No Federal Action - Ocean Blvd: Bridge	182.4	39.4
Trucks - No Federal Action - Ocean Blvd: Bridge - I-710 Offramp	65.7	14.2
Trucks - No Federal Action - Ocean Blvd: Seaside Blvd OnRamp - Bridge	131.3	28.4
Trucks - No Federal Action - Offramp: I-710 at 9th Street (Southbound BRIDGE)	96.3	17.5
Trucks - No Federal Action - Offramp: I-710 at 9th Street (Southbound)	64.9	11.8
Trucks - No Federal Action - Onramp: 9th St - I-710 (Northbound BRIDGE)	145.9	26.5
Trucks - No Federal Action - Onramp: 9th St - I-710 (Northbound)	94.1	17.1
Trucks - No Federal Action - Pico Ave: Harbor Scenic Connector - Harbor Plaza	368.0	82.7

Table A.3.1-Alt4U. 70-Year Average PM10 Emissions - POLB - MHTP - Unmitigated Alternative 4.

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Trucks - No Federal Action - Pico Ave: Pier B St - Pier D St	766.0	166.7
Trucks - No Federal Action - Pico Ave: Pier D St - Terminal Entrance	239.1	50.7
Trucks - No Federal Action - Pico Ave: Pier E St - Harbor Scenic Connector	72.8	15.6
Trucks - No Federal Action - Pico Ave: Terminal Entrance - Pier E St	30.4	6.7
Trucks - No Federal Action - Pier D Entry Road (off Pico)	498.5	40.5
Trucks - No Federal Action - Pier D Exit Road (off Pier D St)	170.8	13.6
Trucks - No Federal Action - Pier D St: w/o Pico Ave - w/o Pico Ave	461.7	82.9
Trucks - No Federal Action - Pier E St Off Ramp : Pico Ave - Ocean Blvd	25.7	4.6
Trucks - No Federal Action - Pier F Ave: Middle Harbor - Harbor Plaza	929.4	194.5
Trucks - No Federal Action - Pier F Entry Road (off Pier F Ave)	91.8	7.3
Trucks - No Federal Action - Pier F Exit Road (off Pier F Ave)	391.0	32.0
Trucks - No Federal Action - Santa Fe: 9th St - Anaheim St	22.1	4.4
Trucks - No Federal Action - Santa Fe: n/o Anaheim St - s/o Willow St	93.3	17.9
Trucks - No Federal Action - Tire Wear - 10th Street: Pico - 9th (NB only)	-	5.3
Trucks - No Federal Action - Tire Wear - 9th Street: Anaheim St - Santa Fe	-	4.5
Trucks - No Federal Action - Tire Wear - 9th Street: Caspian - Pico (SB only)	-	9.1
Trucks - No Federal Action - Tire Wear - 9th Street: Santa Fe to 10th	-	4.7
Trucks - No Federal Action - Tire Wear - Alameda St: Eubank - Anaheim St	-	6.6
Trucks - No Federal Action - Tire Wear - Anaheim St: Alameda - SR-47	-	1.8
Trucks - No Federal Action - Tire Wear - Anaheim St: SR-47 - 9th St	-	9.9
Trucks - No Federal Action - Tire Wear - Harbor Plaza: Pier F Ave - Pier G Ave	-	11.3
Trucks - No Federal Action - Tire Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge	-	4.5
Trucks - No Federal Action - Tire Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	-	51.0
Trucks - No Federal Action - Tire Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	-	5.5
Trucks - No Federal Action - Tire Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	-	36.4
Trucks - No Federal Action - Tire Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	-	23.5
Trucks - No Federal Action - Tire Wear - I-710 : n/o 9th Street Onramp (Northbound)	-	171.3
Trucks - No Federal Action - Tire Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)	-	106.0
Trucks - No Federal Action - Tire Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	-	14.2
Trucks - No Federal Action - Tire Wear - Ocean Blvd: Bridge	-	15.1
Trucks - No Federal Action - Tire Wear - Ocean Blvd: Bridge - I-710 Offramp	-	5.4
Trucks - No Federal Action - Tire Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge	-	10.9
Trucks - No Federal Action - Tire Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)	-	6.7
Trucks - No Federal Action - Tire Wear - Offramp: I-710 at 9th Street (Southbound)	-	4.5
Trucks - No Federal Action - Tire Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)	-	10.2
Trucks - No Federal Action - Tire Wear - Onramp: 9th St - I-710 (Northbound)	-	6.6
Trucks - No Federal Action - Tire Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza	-	31.8
Trucks - No Federal Action - Tire Wear - Pico Ave: Pier B St - Pier D St	-	64.5
Trucks - No Federal Action - Tire Wear - Pico Ave: Pier D St - Terminal Entrance	-	19.8
Trucks - No Federal Action - Tire Wear - Pico Ave: Pier E St - Harbor Scenic Connector	-	6.1
Trucks - No Federal Action - Tire Wear - Pico Ave: Terminal Entrance - Pier E St	-	2.6
Trucks - No Federal Action - Tire Wear - Pier D Entry Road (off Pico)	-	12.9
Trucks - No Federal Action - Tire Wear - Pier D Exit Road (off Pier D St)	-	4.3
Trucks - No Federal Action - Tire Wear - Pier D St: w/o Pico Ave - w/o Pico Ave	-	31.7
Trucks - No Federal Action - Tire Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd	-	1.8
Trucks - No Federal Action - Tire Wear - Pier F Ave: Middle Harbor - Harbor Plaza	-	75.7
Trucks - No Federal Action - Tire Wear - Pier F Entry Road (off Pier F Ave)	-	2.3
Trucks - No Federal Action - Tire Wear - Pier F Exit Road (off Pier F Ave)	-	10.3
Trucks - No Federal Action - Tire Wear - Santa Fe: 9th St - Anaheim St	-	1.7
Trucks - No Federal Action - Tire Wear - Santa Fe: n/o Anaheim St - s/o Willow St	-	6.9
Tugboat assist - aux engine - Config A	92.7	38.6
Tugboat assist - main engine - Config A	1,026.8	342.6

Table A.3.1-CB. 2005 VOC and PM10 Emissions - POLB - MHTP - CEQA Baseline

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
CHE Pier E - 2005 Only	12,344.4	6,924.1
CHE Pier F - 2005 Only	12,337.4	5,021.2
Railyard Equipment - 2005 Only	1,662.6	676.7
Ships - Aux Engines - Docking - CEQA Baseline Only	253.1	729.0
Ships - Boilers - Docking - CEQA Baseline Only	5.6	22.4
Ships - Mains - Docking - CEQA Baseline Only	1,775.3	1,707.2
Ships - Aux Engines - Fairway @ 12 kts - CEQA Baseline Only	218.2	818.3
Ships - Mains - Fairway @ 12 kts - CEQA Baseline Only	4,697.6	8,452.1
Ships - Aux Engines - Harbor Transit - CEQA Baseline Only	610.9	1,759.3
Ships - Aux Engines - Turning - CEQA Baseline Only	118.1	340.2
Ships - Boilers - Harbor Transit - CEQA Baseline Only	13.6	54.1
Ships - Boilers - Turning - CEQA Baseline Only	2.6	10.5
Ships - Mains - Harbor Transit - CEQA Baseline Only	3,841.6	3,694.3
Ships - Mains - Turning - CEQA Baseline Only	742.9	714.4
Ships - Aux Engines <3K TEU - Hotelling - CEQA Baseline Only	1,343.2	2,199.5
Ships - Aux Engines 3-5K TEU - Hotelling - CEQA Baseline Only	8,771.5	14,363.3
Ships - Boilers - Hotelling - CEQA Baseline Only	1,680.3	6,684.0
Ships - Aux Engines - Precautionary Area - CEQA Baseline Only	446.2	1,285.0
Ships - Boilers - Precautionary Area - CEQA Baseline Only	31.3	124.7
Ships - Mains - Precautionary Area - CEQA Baseline Only	3,782.5	5,823.2
Line Haul Locomotive - Day 10 mph - Port to Ocean Blvd	32.8	18.0
Line Haul Locomotive - Day 20 mph - Ocean Blvd to Alameda Corridor	74.3	40.7
Line Haul Locomotive - Night 10 mph - Port to Ocean Blvd	32.8	18.0
Line Haul Locomotive - Night 20 mph - Ocean Blvd to Alameda Corridor	74.3	40.7
Line Haul Locomotive - Day Switching - Existing Railyard	198.0	108.5
Line Haul Locomotive - Night Switching - Existing Railyard	198.0	108.5
Yard Locomotive - Day - Existing Railyard	143.1	49.1
Yard Locomotive - Night - Existing Railyard	143.1	49.1
Truck Driving on Terminal - Config A - No CAAP - CEQA BL & No Project	6,643.4	2,124.8
Truck Driving on Terminal - Config E - No CAAP - CEQA BL & No Project	10,521.8	3,365.2
Truck Idling on Terminal - Config A - No CAAP - 0.70 hr idling - CEQA BL & No Project	5,939.6	888.1
Truck Idling on Terminal - Config E - No CAAP - 0.70 hr idling - CEQA BL & No Project	9,407.0	1,406.6
Trucks - CEQA Baseline - 10th Street: Pico - 9th (NB only)	125.3	94.0
Trucks - CEQA Baseline - 9th Street: Anaheim St - Santa Fe	89.2	69.3
Trucks - CEQA Baseline - 9th Street: Caspian - Pico (SB only)	99.3	79.8
Trucks - CEQA Baseline - 9th Street: Santa Fe to 10th	90.8	67.4
Trucks - CEQA Baseline - Alameda St: Eubank - Anaheim St	322.2	232.5
Trucks - CEQA Baseline - Anaheim St: Alameda - SR-47	107.1	72.0
Trucks - CEQA Baseline - Anaheim St: SR-47 - 9th St	597.5	431.1
Trucks - CEQA Baseline - Brake Wear - 10th Street: Pico - 9th (NB only)		1.8
Trucks - CEQA Baseline - Brake Wear - 9th Street: Anaheim St - Santa Fe		1.5
Trucks - CEQA Baseline - Brake Wear - 9th Street: Caspian - Pico (SB only)		1.8
Trucks - CEQA Baseline - Brake Wear - 9th Street: Santa Fe to 10th		1.3
Trucks - CEQA Baseline - Brake Wear - Alameda St: Eubank - Anaheim St		4.0
Trucks - CEQA Baseline - Brake Wear - Anaheim St: Alameda - SR-47		1.1
Trucks - CEQA Baseline - Brake Wear - Anaheim St: SR-47 - 9th St		7.3
Trucks - CEQA Baseline - Brake Wear - Harbor Plaza: Pier F Ave - Pier G Ave		9.3
Trucks - CEQA Baseline - Brake Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge		4.9
Trucks - CEQA Baseline - Brake Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp		39.4
Trucks - CEQA Baseline - Brake Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)		6.1
Trucks - CEQA Baseline - Brake Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)		22.4

Table A.3.1-CB. 2005 VOC and PM10 Emissions - POLB - MHTP - CEQA Baseline

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Trucks - CEQA Baseline - Brake Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)		14.7
Trucks - CEQA Baseline - Brake Wear - I-710 : n/o 9th Street Onramp (Northbound)		84.9
Trucks - CEQA Baseline - Brake Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)		62.5
Trucks - CEQA Baseline - Brake Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)		15.8
Trucks - CEQA Baseline - Brake Wear - Ocean Blvd: Bridge		17.8
Trucks - CEQA Baseline - Brake Wear - Ocean Blvd: Bridge - I-710 Offramp		6.4
Trucks - CEQA Baseline - Brake Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge		12.8
Trucks - CEQA Baseline - Brake Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)		2.3
Trucks - CEQA Baseline - Brake Wear - Offramp: I-710 at 9th Street (Southbound)		1.6
Trucks - CEQA Baseline - Brake Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)		3.7
Trucks - CEQA Baseline - Brake Wear - Onramp: 9th St - I-710 (Northbound)		2.4
Trucks - CEQA Baseline - Brake Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza		22.3
Trucks - CEQA Baseline - Brake Wear - Pico Ave: Pier B St - Pier D St		20.4
Trucks - CEQA Baseline - Brake Wear - Pico Ave: Pier D St - Terminal Entrance		6.2
Trucks - CEQA Baseline - Brake Wear - Pico Ave: Pier E St - Harbor Scenic Connector		5.2
Trucks - CEQA Baseline - Brake Wear - Pico Ave: Terminal Entrance - Pier E St		1.5
Trucks - CEQA Baseline - Brake Wear - Pier D Entry Road (off Pico)		4.2
Trucks - CEQA Baseline - Brake Wear - Pier D Exit Road (off Pier D St)		2.0
Trucks - CEQA Baseline - Brake Wear - Pier D St: w/o Pico Ave - w/o Pico Ave		14.8
Trucks - CEQA Baseline - Brake Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd		2.0
Trucks - CEQA Baseline - Brake Wear - Pier F Ave: Middle Harbor - Harbor Plaza		62.1
Trucks - CEQA Baseline - Brake Wear - Pier F Entry Road (off Pier F Ave)		2.5
Trucks - CEQA Baseline - Brake Wear - Pier F Exit Road (off Pier F Ave)		6.6
Trucks - CEQA Baseline - Brake Wear - Santa Fe: 9th St - Anaheim St		0.4
Trucks - CEQA Baseline - Brake Wear - Santa Fe: n/o Anaheim St - s/o Willow St		1.9
Trucks - CEQA Baseline - Harbor Plaza: Pier F Ave - Pier G Ave	665.8	494.0
Trucks - CEQA Baseline - Harbor Plaza: Pier G Ave - Queens Way Bridge	336.5	252.4
Trucks - CEQA Baseline - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1,674.2	1,446.6
Trucks - CEQA Baseline - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	258.4	223.2
Trucks - CEQA Baseline - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	952.6	823.1
Trucks - CEQA Baseline - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	685.1	571.8
Trucks - CEQA Baseline - I-710 : n/o 9th Street Onramp (Northbound)	3,610.7	3,119.8
Trucks - CEQA Baseline - I-710 : n/o Anaheim SB On Ramp (Southbound)	2,802.2	2,384.4
Trucks - CEQA Baseline - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	738.4	616.2
Trucks - CEQA Baseline - Ocean Blvd: Bridge	1,132.3	868.9
Trucks - CEQA Baseline - Ocean Blvd: Bridge - I-710 Offramp	407.7	312.8
Trucks - CEQA Baseline - Ocean Blvd: Seaside Blvd OnRamp - Bridge	815.3	625.7
Trucks - CEQA Baseline - Offramp: I-710 at 9th Street (Southbound BRIDGE)	198.6	142.1
Trucks - CEQA Baseline - Offramp: I-710 at 9th Street (Southbound)	133.8	95.7
Trucks - CEQA Baseline - Onramp: 9th St - I-710 (Northbound BRIDGE)	315.1	225.5
Trucks - CEQA Baseline - Onramp: 9th St - I-710 (Northbound)	203.3	145.5
Trucks - CEQA Baseline - Pico Ave: Harbor Scenic Connector - Harbor Plaza	1,475.5	1,119.0
Trucks - CEQA Baseline - Pico Ave: Pier B St - Pier D St	1,349.1	1,023.1
Trucks - CEQA Baseline - Pico Ave: Pier D St - Terminal Entrance	427.6	320.7
Trucks - CEQA Baseline - Pico Ave: Pier E St - Harbor Scenic Connector	344.6	261.3
Trucks - CEQA Baseline - Pico Ave: Terminal Entrance - Pier E St	100.3	76.1
Trucks - CEQA Baseline - Pier D Entry Road (off Pico)	1,084.5	473.5
Trucks - CEQA Baseline - Pier D Exit Road (off Pier D St)	511.0	223.1
Trucks - CEQA Baseline - Pier D St: w/o Pico Ave - w/o Pico Ave	1,248.6	893.6
Trucks - CEQA Baseline - Pier E St Off Ramp : Pico Ave - Ocean Blvd	137.0	102.8
Trucks - CEQA Baseline - Pier F Ave: Middle Harbor - Harbor Plaza	4,255.6	3,191.8
Trucks - CEQA Baseline - Pier F Entry Road (off Pier F Ave)	661.5	288.8

Table A.3.1-CB. 2005 VOC and PM10 Emissions - POLB - MHTP - CEQA Baseline

Emission Description	VOC 70yr (lb/yr)	PM10 70yr (lb/yr)
Trucks - CEQA Baseline - Pier F Exit Road (off Pier F Ave)	1,724.8	753.0
Trucks - CEQA Baseline - Santa Fe: 9th St - Anaheim St	27.3	20.4
Trucks - CEQA Baseline - Santa Fe: n/o Anaheim St - s/o Willow St	133.1	99.8
Trucks - CEQA Baseline - Tire Wear - 10th Street: Pico - 9th (NB only)		2.3
Trucks - CEQA Baseline - Tire Wear - 9th Street: Anaheim St - Santa Fe		1.8
Trucks - CEQA Baseline - Tire Wear - 9th Street: Caspian - Pico (SB only)		2.3
Trucks - CEQA Baseline - Tire Wear - 9th Street: Santa Fe to 10th		1.6
Trucks - CEQA Baseline - Tire Wear - Alameda St: Eubank - Anaheim St		4.9
Trucks - CEQA Baseline - Tire Wear - Anaheim St: Alameda - SR-47		1.3
Trucks - CEQA Baseline - Tire Wear - Anaheim St: SR-47 - 9th St		9.1
Trucks - CEQA Baseline - Tire Wear - Harbor Plaza: Pier F Ave - Pier G Ave		11.5
Trucks - CEQA Baseline - Tire Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge		6.1
Trucks - CEQA Baseline - Tire Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp		48.9
Trucks - CEQA Baseline - Tire Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)		7.5
Trucks - CEQA Baseline - Tire Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)		27.8
Trucks - CEQA Baseline - Tire Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)		18.2
Trucks - CEQA Baseline - Tire Wear - I-710 : n/o 9th Street Onramp (Northbound)		105.4
Trucks - CEQA Baseline - Tire Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)		77.6
Trucks - CEQA Baseline - Tire Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)		19.6
Trucks - CEQA Baseline - Tire Wear - Ocean Blvd: Bridge		22.1
Trucks - CEQA Baseline - Tire Wear - Ocean Blvd: Bridge - I-710 Offramp		8.0
Trucks - CEQA Baseline - Tire Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge		15.9
Trucks - CEQA Baseline - Tire Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)		2.9
Trucks - CEQA Baseline - Tire Wear - Offramp: I-710 at 9th Street (Southbound)		2.0
Trucks - CEQA Baseline - Tire Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)		4.6
Trucks - CEQA Baseline - Tire Wear - Onramp: 9th St - I-710 (Northbound)		3.0
Trucks - CEQA Baseline - Tire Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza		27.7
Trucks - CEQA Baseline - Tire Wear - Pico Ave: Pier B St - Pier D St		25.4
Trucks - CEQA Baseline - Tire Wear - Pico Ave: Pier D St - Terminal Entrance		7.8
Trucks - CEQA Baseline - Tire Wear - Pico Ave: Pier E St - Harbor Scenic Connector		6.5
Trucks - CEQA Baseline - Tire Wear - Pico Ave: Terminal Entrance - Pier E St		1.9
Trucks - CEQA Baseline - Tire Wear - Pier D Entry Road (off Pico)		5.2
Trucks - CEQA Baseline - Tire Wear - Pier D Exit Road (off Pier D St)		2.4
Trucks - CEQA Baseline - Tire Wear - Pier D St: w/o Pico Ave - w/o Pico Ave		18.3
Trucks - CEQA Baseline - Tire Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd		2.5
Trucks - CEQA Baseline - Tire Wear - Pier F Ave: Middle Harbor - Harbor Plaza		77.1
Trucks - CEQA Baseline - Tire Wear - Pier F Entry Road (off Pier F Ave)		3.2
Trucks - CEQA Baseline - Tire Wear - Pier F Exit Road (off Pier F Ave)		8.2
Trucks - CEQA Baseline - Tire Wear - Santa Fe: 9th St - Anaheim St		0.5
Trucks - CEQA Baseline - Tire Wear - Santa Fe: n/o Anaheim St - s/o Willow St		2.4
Tugboat assist - aux engine - CEQA Baseline Only	48.4	76.8
Tugboat assist - main engine - CEQA Baseline Only	535.8	733.4

**Attachment A-3.2 –
Acute Health Risk Analysis
Modeling Emissions Tables**

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ACUTE ANALYSIS

Table A.3.2-CB-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - CEQA Baseline

Table A.3.2-Alt1U-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - Unmitigated Alternative 1

Table A.3.2-Alt1M-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - Mitigated Alternative 1

Table A.3.2-Alt2U-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - Unmitigated Alternative 1

Table A.3.2-Alt2-M-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - Mitigated Alternative 2

Table A.3.2-Alt3-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - NEPA Baseline (Alt. 3)

Table A.3.2-Alt4NP-1. Op. Hourly/Daily Emissions - POLB - MHTP – Alternative 4.

Table A.3.2-CB-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - CEQA Baseline

Activity/Source ID	Volume Source Pounds per Hour				
	TOG	CO	NO ₂	PM ₁₀	PM _{2.5}
<i>OGV - Harbor Transit - 1 3-4k TEU</i>					
	0.70	0.74	2.32	0.19	0.18
Subtotals	18.82	20.04	62.69	5.13	4.82
<i>OGV - Docking - 1 3-4k TEU</i>					
	7.61	6.87	22.26	1.92	1.80
Subtotals	7.61	6.87	22.26	1.92	1.80
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>					
	2.88	5.46	17.79	1.38	1.30
Subtotals	2.88	5.46	17.79	1.38	1.30
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>					
	0.19	1.57	1.08	0.51	0.50
Subtotals	0.19	1.57	1.08	0.51	0.50
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>					
	0.08	0.41	1.02	0.07	0.07
Subtotals	2.09	10.99	27.65	1.99	1.87
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>					
	0.73	3.82	9.60	0.69	0.65
Subtotals	0.73	3.82	9.60	0.69	0.65
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>					
	0.01	0.02	0.04	0.01	0.01
Subtotals	0.34	0.52	0.93	0.13	0.13
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>					
	0.01	0.01	0.01	0.00	0.00
Subtotals	0.78	1.18	2.10	0.29	0.29
<i>Locomotives - Rail Yard</i>					
	0.07	0.09	0.18	0.02	0.02
Subtotals	1.98	2.57	5.10	0.64	0.64
<i>Rail Yard Equipment</i>					
	0.07	0.12	0.27	0.02	0.02
Subtotals	1.94	3.44	7.69	0.54	0.50
<i>Rail Yard - Locomotives + Equipment</i>					
	0.14	0.21	0.44	0.04	0.04
Subtotals	3.92	6.02	12.80	1.18	1.14

Table A.3.2-CB-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - CEQA Baseline

Activity/Source ID	Volume Source Pounds per Hour						
	Benzene	Formaldehyde	Toluene	Xylenes	Methanol	MEK	m-Xylene
<i>OGV - Harbor Transit - 1 3-4k TEU</i>							
	0.015	0.102	-	0.002	0.0002	0.010	0.004
Subtotals							
<i>OGV - Docking - 1 3-4k TEU</i>							
	0.168	1.119	-	0.026	0.0023	0.114	0.046
Subtotals							
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>							
	0.063	0.423	-	0.010	0.0009	0.043	0.018
Subtotals							
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>							
	0.004	0.000	0.004	0.001	-	-	-
Subtotals							
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>							
	0.002	0.011	-	-	0.000	0.001	0.000
Subtotals							
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>							
	0.015	0.107	-	-	0.000	0.011	0.004
Subtotals							
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>							
	0.000	0.002	-	-	0.000	0.000	0.000
Subtotals							
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>							
	0.000	0.001	-	-	0.000	0.000	0.000
Subtotals							
<i>Locomotives - Rail Yard</i>							
	0.001	0.010	-	-	0.000	0.001	0.000
Subtotals							
<i>Rail Yard Equipment</i>							
	0.001	0.010	-	-	0.000	0.001	0.000
Subtotals							
<i>Rail Yard - Locomotives + Equipment</i>							
	0.003	0.020	-	-	0.000	0.002	0.001
Subtotals							

Table A.3.2-CB-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - CEQA Baseline

Activity/Source ID	Volume Source Pounds per Hour						
	o-Xylene	p-Xylene	Styrene	Toluene	Ammonia	Arsenic	Copper
<i>OGV - Harbor Transit - 1 3-4k TEU</i>							
	0.003	0.001	0.0004	0.015	0.001	0.001	0.0001
Subtotals							
<i>OGV - Docking - 1 3-4k TEU</i>							
	0.034	0.007	0.0044	0.168	0.006	0.010	0.0010
Subtotals							
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>							
	0.013	0.003	0.0017	0.063	0.005	0.007	0.0007
Subtotals							
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>							
	-	-	-	-	-	0.000	0.000
Subtotals							
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>							
	0.000	0.000	0.000	0.001	0.000	0.000	0.000
Subtotals							
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>							
	0.002	0.001	0.000	0.011	0.002	0.000	0.000
Subtotals							
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>							
	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Subtotals							
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>							
	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Subtotals							
<i>Locomotives - Rail Yard</i>							
	0.000	0.000	0.000	0.001	0.000	0.000	0.000
Subtotals							
<i>Rail Yard Equipment</i>							
	0.000	0.000	0.000	0.001	0.000	0.000	0.000
Subtotals							
<i>Rail Yard - Locomotives + Equipment</i>							
	0.000	0.000	0.000	0.002	0.000	0.000	0.000
Subtotals							

Table A.3.2-CB-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - CEQA Baseline

Activity/Source ID	Volume Source Pounds per Hour			
	Mercury	Nickel	Sulfates	Vanadium
<i>OGV - Harbor Transit - 1 3-4k TEU</i>				
	0.000005	0.001	0.084	0.001
Subtotals				
<i>OGV - Docking - 1 3-4k TEU</i>				
	0.000050	0.011	0.843	0.011
Subtotals				
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>				
	0.000036	0.008	0.609	0.008
Subtotals				
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>				
	-	0.009	0.055	0.001
Subtotals				
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>				
	0.000	0.000	0.001	0.000
Subtotals				
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>				
	0.000	0.000	0.013	0.000
Subtotals				
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>				
	0.000	0.000	0.000	0.000
Subtotals				
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>				
	0.000	0.000	0.000	0.000
Subtotals				
<i>Locomotives - Rail Yard</i>				
	0.000	0.000	0.001	0.000
Subtotals				
<i>Rail Yard Equipment</i>				
	0.000	0.000	0.001	0.000
Subtotals				
<i>Rail Yard - Locomotives + Equipment</i>				
	0.000	0.000	0.002	0.000
Subtotals				

Table A.3.2-CB-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - CEQA Baseline

Activity/Source ID	Volume Source Pounds per Hour				
	TOG	CO	NO ₂	PM ₁₀	PM _{2.5}
<i>Terminal Equipment</i>					
	0.07	0.18	0.31	0.03	0.03
	0.15	0.41	0.70	0.06	0.06
	0.20	0.52	0.90	0.08	0.08
	0.27	0.72	1.25	0.12	0.11
	0.42	1.13	1.96	0.18	0.17
	0.61	1.63	2.82	0.26	0.24
	0.83	2.22	3.83	0.35	0.33
	1.08	2.89	5.01	0.46	0.42
	2.44	6.51	11.27	1.04	0.96
4.33	11.58	20.03	1.85	1.70	
Subtotals					
<i>Trucks - On-Terminal</i>					
	0.03	0.04	0.03	0.01	0.01
	0.06	0.10	0.07	0.01	0.01
	0.08	0.12	0.09	0.02	0.02
	0.11	0.17	0.13	0.02	0.02
	0.18	0.27	0.20	0.04	0.03
	0.26	0.39	0.29	0.05	0.05
	0.35	0.53	0.39	0.07	0.07
	0.46	0.69	0.51	0.10	0.09
	1.03	1.55	1.14	0.22	0.20
1.84	2.76	2.03	0.39	0.36	
Subtotals					
<i>Terminal - Equipment + Trucks</i>					
	0.10	0.22	0.34	0.03	0.03
	0.22	0.50	0.78	0.08	0.07
	0.28	0.65	1.00	0.10	0.09
	0.39	0.90	1.38	0.14	0.13
	0.60	1.40	2.15	0.22	0.20
	0.87	2.02	3.10	0.31	0.29
	1.18	2.74	4.22	0.43	0.39
	1.54	3.58	5.51	0.56	0.51
	3.47	8.06	12.41	1.26	1.16
6.17	14.34	22.06	2.23	2.05	
Subtotals					

Table A.3.2-CB-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - CEQA Baseline

Activity/Source ID	Volume Source Pounds per Hour						
	Benzene	Formaldehyde	Toluene	Xylenes	Methanol	MEK	m-Xylene
<i>Terminal Equipment</i>							
	0.001	0.010	-	-	0.000	0.001	0.000
	0.003	0.022	-	-	0.000	0.002	0.001
	0.004	0.029	-	-	0.000	0.003	0.001
	0.005	0.040	-	-	0.000	0.004	0.002
	0.008	0.062	-	-	0.000	0.006	0.003
	0.012	0.090	-	-	0.000	0.009	0.004
	0.017	0.122	-	-	0.000	0.012	0.005
	0.022	0.159	-	-	0.000	0.016	0.007
	0.049	0.358	-	-	0.001	0.037	0.015
	0.087	0.637	-	-	0.001	0.065	0.026
Subtotals	-	-	-	-	-	-	-
<i>Trucks - On-Terminal</i>							
	0.001	0.004	-	-	0.000	0.000	0.000
	0.001	0.010	-	-	0.000	0.001	0.000
	0.002	0.012	-	-	0.000	0.001	0.001
	0.002	0.017	-	-	0.000	0.002	0.001
	0.004	0.026	-	-	0.000	0.003	0.001
	0.005	0.038	-	-	0.000	0.004	0.002
	0.007	0.052	-	-	0.000	0.005	0.002
	0.009	0.068	-	-	0.000	0.007	0.003
	0.021	0.152	-	-	0.000	0.016	0.006
	0.037	0.270	-	-	0.001	0.028	0.011
Subtotals	-	-	-	-	-	-	-
<i>Terminal - Equipment + Trucks</i>							
	0.001929	0.014180	-	-	0.000029	0.001447	0.000588
	0.004341	0.031906	-	-	0.000065	0.003256	0.001324
	0.005576	0.040982	-	-	0.000084	0.004182	0.001701
	0.007717	0.056722	-	-	0.000116	0.005788	0.002354
	0.012058	0.088628	-	-	0.000181	0.009044	0.003678
	0.017364	0.127624	-	-	0.000260	0.013023	0.005296
	0.023634	0.173711	-	-	0.000355	0.017726	0.007208
	0.030869	0.226887	-	-	0.000463	0.023152	0.009415
	0.069455	0.510497	-	-	0.001042	0.052092	0.021184
	0.123476	0.907550	-	-	0.001852	0.092607	0.037660
Subtotals							

Table A.3.2-CB-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - CEQA Baseline

Activity/Source ID	Volume Source Pounds per Hour						
	o-Xylene	p-Xylene	Styrene	Toluene	Ammonia	Arsenic	Copper
<i>Terminal Equipment</i>							
	0.000	0.000	0.000	0.001	0.000	0.000	0.000
	0.001	0.000	0.000	0.002	0.001	0.000	0.000
	0.001	0.000	0.000	0.003	0.001	0.000	0.000
	0.001	0.000	0.000	0.004	0.001	0.000	0.000
	0.001	0.000	0.000	0.006	0.001	0.000	0.000
	0.002	0.001	0.000	0.009	0.002	0.000	0.000
	0.003	0.001	0.000	0.012	0.003	0.000	0.000
	0.004	0.001	0.001	0.016	0.004	0.000	0.000
	0.008	0.002	0.001	0.037	0.008	0.000	0.000
	0.015	0.004	0.003	0.065	0.014	0.000	0.000
Subtotals	-	-	-	-	-	-	-
<i>Trucks - On-Terminal</i>							
	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.001	0.000	0.000	0.000
	0.000	0.000	0.000	0.001	0.000	0.000	0.000
	0.000	0.000	0.000	0.002	0.000	0.000	0.000
	0.001	0.000	0.000	0.003	0.001	0.000	0.000
	0.001	0.000	0.000	0.004	0.001	0.000	0.000
	0.001	0.000	0.000	0.005	0.001	0.000	0.000
	0.002	0.000	0.000	0.007	0.002	0.000	0.000
	0.004	0.001	0.001	0.016	0.003	0.000	0.000
	0.006	0.002	0.001	0.028	0.006	0.000	0.000
Subtotals	-	-	-	-	-	-	-
<i>Terminal - Equipment + Trucks</i>							
	0.000328	0.000092	0.000056	0.001447	0.000318	0.000000	0.000003
	0.000738	0.000206	0.000126	0.003256	0.000716	0.000001	0.000007
	0.000948	0.000265	0.000162	0.004182	0.000920	0.000001	0.000008
	0.001312	0.000367	0.000224	0.005788	0.001273	0.000002	0.000012
	0.002050	0.000573	0.000350	0.009044	0.001990	0.000002	0.000018
	0.002952	0.000825	0.000504	0.013023	0.002865	0.000003	0.000026
	0.004018	0.001123	0.000685	0.017726	0.003900	0.000005	0.000035
	0.005248	0.001466	0.000895	0.023152	0.005093	0.000006	0.000046
	0.011807	0.003299	0.002014	0.052092	0.011460	0.000014	0.000104
	0.020991	0.005865	0.003581	0.092607	0.020374	0.000025	0.000185
Subtotals							

Table A.3.2-CB-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - CEQA Baseline

Activity/Source ID	Volume Source Pounds per Hour			
	Mercury	Nickel	Sulfates	Vanadium
<i>Terminal Equipment</i>	0.000	0.000	0.001	0.000
	0.000	0.000	0.003	0.000
	0.000	0.000	0.004	0.000
	0.000	0.000	0.005	0.000
	0.000	0.000	0.008	0.000
	0.000	0.000	0.011	0.000
	0.000	0.000	0.015	0.000
	0.000	0.000	0.020	0.000
	0.000	0.000	0.044	0.000
	0.000	0.000	0.078	0.000
	Subtotals	-	-	-
<i>Trucks - On-Terminal</i>	0.000	0.000	0.001	0.000
	0.000	0.000	0.001	0.000
	0.000	0.000	0.001	0.000
	0.000	0.000	0.002	0.000
	0.000	0.000	0.003	0.000
	0.000	0.000	0.005	0.000
	0.000	0.000	0.006	0.000
	0.000	0.000	0.008	0.000
	0.000	0.000	0.019	0.000
	0.000	0.000	0.033	0.000
	Subtotals	-	-	-
<i>Terminal - Equipment + Trucks</i>	0.000003	0.000002	0.001736	0.000001
	0.000006	0.000003	0.003907	0.000003
	0.000007	0.000004	0.005018	0.000004
	0.000010	0.000006	0.006946	0.000006
	0.000016	0.000010	0.010852	0.000009
	0.000023	0.000014	0.015627	0.000013
	0.000031	0.000019	0.021271	0.000018
	0.000040	0.000025	0.027782	0.000023
	0.000090	0.000056	0.062510	0.000052
	0.000161	0.000099	0.111129	0.000093
	Subtotals			

Table A.3.2-CB-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - CEQA Baseline

Activity/Source ID	Volume Source Pounds per Hour				
	TOG	CO	NO ₂	PM ₁₀	PM _{2.5}
<i>Pier D Entry Road</i>					
	0.066	0.159	0.060	0.025	0.023
Subtotals	0.33	0.80	0.30	0.13	0.12
<i>Pier D In Gate</i>					
	0.14	0.20	0.09	0.04	0.04
Subtotals	0.69	0.98	0.46	0.19	0.18
<i>Pier D Exit Road</i>					
	0.04	0.11	0.04	0.02	0.02
Subtotals	0.09	0.22	0.08	0.03	0.03
<i>Pier D Out Gate</i>					
	0.13	0.18	0.08	0.04	0.03
Subtotals	0.38	0.53	0.25	0.11	0.10
<i>Pier F Entry Road</i>					
	0.05	0.13	0.05	0.02	0.02
Subtotals	0.16	0.40	0.15	0.06	0.06
<i>Pier F Exit Road</i>					
	0.20	0.49	0.19	0.08	0.07
Subtotals	0.61	1.47	0.56	0.23	0.21
<i>Pier F Entry + Exit Road</i>					
	0.26	0.62	0.24	0.10	0.09
Subtotals	0.77	1.86	0.71	0.30	0.27
<i>Pier F In + Out Gates</i>					
	1.01	1.44	0.68	0.29	0.26
Subtotals	1.01	1.44	0.68	0.29	0.26

Table A.3.2-CB-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - CEQA Baseline

Activity/Source ID	Volume Source Pounds per Hour						
	Benzene	Formaldehyde	Toluene	Xylenes	Methanol	MEK	m-Xylene
<i>Pier D Entry Road</i>							
	0.001	0.010	-	-	0.000	0.001	0.000
Subtotals							
<i>Pier D In Gate</i>							
	0.003	0.020	-	-	0.000	0.002	0.001
Subtotals							
<i>Pier D Exit Road</i>							
	0.001	0.007	-	-	0.000	0.001	0.000
Subtotals							
<i>Pier D Out Gate</i>							
	0.003	0.018	-	-	0.000	0.002	0.001
Subtotals							
<i>Pier F Entry Road</i>							
	0.001	0.008	-	-	0.000	0.001	0.000
Subtotals							
<i>Pier F Exit Road</i>							
	0.004	0.030	-	-	0.000	0.003	0.001
Subtotals							
<i>Pier F Entry + Exit Road</i>							
	0.005	0.038	-	-	0.000	0.004	0.002
Subtotals							
<i>Pier F In + Out Gates</i>							
	0.020	0.149	-	-	0.000	0.015	0.006
Subtotals							

Table A.3.2-CB-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - CEQA Baseline

Activity/Source ID	Volume Source Pounds per Hour						
	o-Xylene	p-Xylene	Styrene	Toluene	Ammonia	Arsenic	Copper
<i>Pier D Entry Road</i>							
	0.000	0.000	0.000	0.001	0.000	0.000	0.000
Subtotals							
<i>Pier D In Gate</i>							
	0.000	0.000	0.000	0.002	0.000	0.000	0.000
Subtotals							
<i>Pier D Exit Road</i>							
	0.000	0.000	0.000	0.001	0.000	0.000	0.000
Subtotals							
<i>Pier D Out Gate</i>							
	0.000	0.000	0.000	0.002	0.000	0.000	0.000
Subtotals							
<i>Pier F Entry Road</i>							
	0.000	0.000	0.000	0.001	0.000	0.000	0.000
Subtotals							
<i>Pier F Exit Road</i>							
	0.001	0.000	0.000	0.003	0.001	0.000	0.000
Subtotals							
<i>Pier F Entry + Exit Road</i>							
	0.001	0.000	0.000	0.004	0.001	0.000	0.000
Subtotals							
<i>Pier F In + Out Gates</i>							
	0.003	0.001	0.001	0.015	0.003	0.000	0.000
Subtotals							

Table A.3.2-CB-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - CEQA Baseline

Activity/Source ID	Volume Source Pounds per Hour			
	Mercury	Nickel	Sulfates	Vanadium
<i>Pier D Entry Road</i>				
	0.000	0.000	0.001	0.000
Subtotals				
<i>Pier D In Gate</i>				
	0.000	0.000	0.002	0.000
Subtotals				
<i>Pier D Exit Road</i>				
	0.000	0.000	0.001	0.000
Subtotals				
<i>Pier D Out Gate</i>				
	0.000	0.000	0.002	0.000
Subtotals				
<i>Pier F Entry Road</i>				
	0.000	0.000	0.001	0.000
Subtotals				
<i>Pier F Exit Road</i>				
	0.000	0.000	0.004	0.000
Subtotals				
<i>Pier F Entry + Exit Road</i>				
	0.000	0.000	0.005	0.000
Subtotals				
<i>Pier F In + Out Gates</i>				
	0.000	0.000	0.018	0.000
Subtotals				

Table A.3.2-Alt1U-1. Op. Crit. Poll. Emission Simulations -
POLB - MHTP - Unmitigated Alternative 1

Volume Source Pounds per Hour

Activity/Source ID	TOG	CO	NO ₂	PM ₁₀	PM _{2.5}
<i>OGV - Harbor Transit - 1 4-5k TEU</i>					
	0.79	0.87	2.89	0.22	0.21
Subtotals	21.30	23.37	78.13	5.98	5.61
<i>OGV - Docking - 1 4-5k TEU</i>					
	9.92	9.01	30.25	2.50	2.35
Subtotals	9.92	9.01	30.25	2.50	2.35
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>					
	2.88	5.46	17.79	1.38	1.30
Subtotals	2.88	5.46	17.79	1.38	1.30
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>					
	0.18	1.57	1.08	0.51	0.50
Subtotals	0.18	1.57	1.08	0.51	0.50
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen no cold-iron)</i>					
	2.59	4.91	16.01	1.25	1.17
Subtotals	2.59	4.91	16.01	1.25	1.17
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)</i>					
	0.18	1.57	1.08	0.51	0.50
Subtotals	0.18	1.57	1.08	0.51	0.50
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>					
	0.08	0.41	0.98	0.07	0.07
Subtotals	2.09	10.99	26.43	1.88	1.76
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>					
	0.73	3.82	9.18	0.65	0.61
Subtotals	0.73	3.82	9.18	0.65	0.61
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>					
	0.01	0.02	0.03	0.00	0.00
Subtotals	0.30	0.52	0.74	0.08	0.08
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>					
	0.00	0.01	0.01	0.00	0.00
Subtotals	0.68	1.18	1.67	0.18	0.18
<i>Locomotives - Rail Yard</i>					
	0.05	0.10	0.12	0.01	0.01
Subtotals	1.40	2.82	3.43	0.35	0.35
<i>Rail Yard Equipment</i>					
	0.01	0.03	0.03	0.00	0.00
Subtotals	0.19	0.96	0.88	0.11	0.10
<i>Rail Yard - Locomotives + Equipment</i>					
	0.05	0.13	0.15	0.02	0.02
Subtotals	1.59	3.77	4.31	0.45	0.45

Table A.3.2-Alt1U-1. Op. Crit. Poll. Emission Simulations -
POLB - MHTP - Unmitigated Alternative 1

Volume Source Pounds per Hour

Activity/Source ID	Benzene	Formaldehyde	Toluene	Xylenes	Methanol	MEK	m-Xylene	o-Xylene	p-Xylene
<i>OGV - Harbor Transit - 1 4-5k TEU</i>									
	0.017	0.116	-	0.003	0.0002	0.012	0.005	0.004	0.001
Subtotals									
<i>OGV - Docking - 1 4-5k TEU</i>									
	0.218	1.458	-	0.034	0.0030	0.149	0.060	0.045	0.009
Subtotals									
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>									
	0.063	0.423	-	0.010	0.0009	0.043	0.018	0.013	0.003
Subtotals									
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>									
	0.004	0.000	0.004	0.001	-	-	-	-	-
Subtotals									
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen no cold-iron)</i>									
	0.057	0.381	-	0.009	0.0008	0.039	0.016	0.012	0.002
Subtotals									
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)</i>									
	0.004	0.000	0.004	0.001	-	-	-	-	-
Subtotals									
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>									
	0.002	0.011	-	-	0.000	0.001	0.000	0.000	0.000
Subtotals									
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>									
	0.015	0.107	-	-	0.000	0.011	0.004	0.002	0.001
Subtotals									
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>									
	0.000	0.002	-	-	0.000	0.000	0.000	0.000	0.000
Subtotals									
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>									
	0.000	0.001	-	-	0.000	0.000	0.000	0.000	0.000
Subtotals									
<i>Locomotives - Rail Yard</i>									
	0.001	0.007	-	-	0.000	0.001	0.000	0.000	0.000
Subtotals									
<i>Rail Yard Equipment</i>									
	0.000	0.001	-	-	0.000	0.000	0.000	0.000	0.000
Subtotals									
<i>Rail Yard - Locomotives + Equipment</i>									
	0.001	0.008	-	-	0.000	0.001	0.000	0.000	0.000
Subtotals									

Table A.3.2-Alt1U-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - Unmitigated Alternative 1

Volume Source Pounds per Hour

Activity/Source ID	Styrene	Toluene	Ammonia	Arsenic	Copper	Mercury	Nickel	Sulfates	Vanadium
<i>OGV - Harbor Transit - 1 4-5k TEU</i>									
	0.0005	0.017	0.001	0.001	0.0001	0.000006	0.001	0.097	0.001
Subtotals									
<i>OGV - Docking - 1 4-5k TEU</i>									
	0.0058	0.218	0.008	0.013	0.0012	0.000065	0.014	1.100	0.014
Subtotals									
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>									
	0.0017	0.063	0.005	0.007	0.0007	0.000036	0.008	0.609	0.008
Subtotals									
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>									
	-	-	-	0.000	0.000	-	0.009	0.054	0.001
Subtotals									
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen no cold-iron)</i>									
	0.0015	0.057	0.004	0.007	0.0006	0.000032	0.007	0.548	0.007
Subtotals									
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)</i>									
	-	-	-	0.000	0.000	-	0.009	0.054	0.001
Subtotals									
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>									
	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000
Subtotals									
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>									
	0.000	0.011	0.002	0.000	0.000	0.000	0.000	0.013	0.000
Subtotals									
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>									
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Subtotals									
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>									
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Subtotals									
<i>Locomotives - Rail Yard</i>									
	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000
Subtotals									
<i>Rail Yard Equipment</i>									
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Subtotals									
<i>Rail Yard - Locomotives + Equipment</i>									
	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000
Subtotals									

Table A.3.2-Alt1U-1. Op. Crit. Poll. Emission Simulations -
POLB - MHTP - Unmitigated Alternative 1

Volume Source Pounds per Hour

<i>Activity/Source ID</i>	<i>TOG</i>	<i>CO</i>	<i>NO₂</i>	<i>PM₁₀</i>	<i>PM_{2.5}</i>
<i>Terminal Equipment</i>					
	0.04	0.23	0.26	0.03	0.03
	0.10	0.52	0.59	0.07	0.06
	0.12	0.67	0.75	0.09	0.08
	0.17	0.93	1.04	0.12	0.11
	0.27	1.45	1.63	0.19	0.18
	0.38	2.09	2.35	0.28	0.26
	0.52	2.85	3.19	0.38	0.35
	0.68	3.72	4.17	0.49	0.45
	1.53	8.37	9.39	1.11	1.02
	2.72	14.87	16.69	1.98	1.82
Subtotals					
<i>Trucks - On-Terminal</i>					
	0.03	0.04	0.03	0.00	0.00
	0.07	0.10	0.08	0.00	0.00
	0.09	0.13	0.10	0.00	0.00
	0.12	0.18	0.14	0.01	0.01
	0.19	0.28	0.22	0.01	0.01
	0.27	0.40	0.31	0.01	0.01
	0.37	0.55	0.42	0.02	0.02
	0.48	0.72	0.55	0.02	0.02
	1.09	1.62	1.24	0.05	0.05
	1.93	2.87	2.21	0.09	0.08
Subtotals					

Table A.3.2-Alt1U-1. Op. Crit. Poll. Emission Simulations -
POLB - MHTP - Unmitigated Alternative 1

Volume Source Pounds per Hour

Activity/Source ID	Benzene	Formaldehyde	Toluene	Xylenes	Methanol	MEK	m-Xylene	o-Xylene	p-Xylene
<i>Terminal Equipment</i>									
	0.001	0.006	-	-	0.000	0.001	0.000	0.000	0.000
	0.002	0.014	-	-	0.000	0.001	0.001	0.000	0.000
	0.002	0.018	-	-	0.000	0.002	0.001	0.000	0.000
	0.003	0.025	-	-	0.000	0.003	0.001	0.001	0.000
	0.005	0.039	-	-	0.000	0.004	0.002	0.001	0.000
	0.008	0.056	-	-	0.000	0.006	0.002	0.001	0.000
	0.010	0.077	-	-	0.000	0.008	0.003	0.002	0.000
	0.014	0.100	-	-	0.000	0.010	0.004	0.002	0.001
	0.031	0.225	-	-	0.000	0.023	0.009	0.005	0.001
	0.054	0.400	-	-	0.001	0.041	0.017	0.009	0.003
Subtotals	-	-	-	-	-	-	-	-	-
<i>Trucks - On-Terminal</i>									
	0.001	0.004	-	-	0.000	0.000	0.000	0.000	0.000
	0.001	0.010	-	-	0.000	0.001	0.000	0.000	0.000
	0.002	0.013	-	-	0.000	0.001	0.001	0.000	0.000
	0.002	0.018	-	-	0.000	0.002	0.001	0.000	0.000
	0.004	0.028	-	-	0.000	0.003	0.001	0.001	0.000
	0.005	0.040	-	-	0.000	0.004	0.002	0.001	0.000
	0.007	0.054	-	-	0.000	0.006	0.002	0.001	0.000
	0.010	0.071	-	-	0.000	0.007	0.003	0.002	0.000
	0.022	0.160	-	-	0.000	0.016	0.007	0.004	0.001
	0.039	0.284	-	-	0.001	0.029	0.012	0.007	0.002
Subtotals	-	-	-	-	-	-	-	-	-

Table A.3.2-Alt1U-1. Op. Crit. Poll. Emission Simulations -
POLB - MHTP - Unmitigated Alternative 1

Volume Source Pounds per Hour

Activity/Source ID	Styrene	Toluene	Ammonia	Arsenic	Copper	Mercury	Nickel	Sulfates	Vanadium
<i>Terminal Equipment</i>									
	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000
	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.002	0.000
	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.002	0.000
	0.000	0.003	0.001	0.000	0.000	0.000	0.000	0.003	0.000
	0.000	0.004	0.001	0.000	0.000	0.000	0.000	0.005	0.000
	0.000	0.006	0.001	0.000	0.000	0.000	0.000	0.007	0.000
	0.000	0.008	0.002	0.000	0.000	0.000	0.000	0.009	0.000
	0.000	0.010	0.002	0.000	0.000	0.000	0.000	0.012	0.000
	0.001	0.023	0.005	0.000	0.000	0.000	0.000	0.028	0.000
	0.002	0.041	0.009	0.000	0.000	0.000	0.000	0.049	0.000
Subtotals	-	-	-	-	-	-	-	-	-
<i>Trucks - On-Terminal</i>									
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000
	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.002	0.000
	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.002	0.000
	0.000	0.003	0.001	0.000	0.000	0.000	0.000	0.003	0.000
	0.000	0.004	0.001	0.000	0.000	0.000	0.000	0.005	0.000
	0.000	0.006	0.001	0.000	0.000	0.000	0.000	0.007	0.000
	0.000	0.007	0.002	0.000	0.000	0.000	0.000	0.009	0.000
	0.001	0.016	0.004	0.000	0.000	0.000	0.000	0.020	0.000
	0.001	0.029	0.006	0.000	0.000	0.000	0.000	0.035	0.000
Subtotals	-	-	-	-	-	-	-	-	-

Table A.3.2-Alt1U-1. Op. Crit. Poll. Emission Simulations -
POLB - MHTP - Unmitigated Alternative 1

Volume Source Pounds per Hour

Activity/Source ID	TOG	CO	NO ₂	PM ₁₀	PM _{2.5}
<i>Terminal - Equipment + Trucks</i>					
	0.07	0.28	0.30	0.03	0.03
	0.16	0.62	0.66	0.07	0.07
	0.21	0.80	0.85	0.09	0.09
	0.29	1.11	1.18	0.13	0.12
	0.45	1.73	1.85	0.20	0.19
	0.65	2.50	2.66	0.29	0.27
	0.89	3.40	3.62	0.40	0.36
	1.16	4.44	4.72	0.52	0.48
	2.62	9.98	10.63	1.16	1.07
	4.66	17.74	18.90	2.07	1.90
Subtotals					
<i>Pier D Entry Road</i>					
	0.103	0.222	0.106	0.005	0.005
Subtotals	0.52	1.11	0.53	0.03	0.02
<i>Pier D In Gate</i>					
	0.23	0.31	0.17	0.01	0.01
Subtotals	1.16	1.54	0.83	0.04	0.04
<i>Pier D Exit Road</i>					
	0.08	0.16	0.08	0.00	0.00
Subtotals	0.15	0.33	0.16	0.01	0.01
<i>Pier D Out Gate</i>					
	0.23	0.30	0.16	0.01	0.01
Subtotals	0.68	0.90	0.49	0.02	0.02
<i>Pier F Entry Road</i>					
	0.04	0.08	0.04	0.00	0.00
Subtotals	0.11	0.24	0.12	0.01	0.01
<i>Pier F Exit Road</i>					
	0.13	0.28	0.13	0.01	0.01
Subtotals	0.39	0.84	0.40	0.02	0.02
<i>Pier F Entry + Exit Road</i>					
	0.17	0.36	0.17	0.01	0.01
Subtotals	0.50	1.08	0.52	0.02	0.02
<i>Pier F In + Out Gates</i>					
	1.20	1.58	0.86	0.04	0.04
Subtotals	1.20	1.58	0.86	0.04	0.04

Table A.3.2-Alt1U-1. Op. Crit. Poll. Emission Simulations -
POLB - MHTP - Unmitigated Alternative 1

Volume Source Pounds per Hour

Activity/Source ID	Benzene	Formaldehyde	Toluene	Xylenes	Methanol	MEK	m-Xylene	o-Xylene	p-Xylene
<i>Terminal - Equipment + Trucks</i>									
	0.0014547	0.0106921	-	-	0.0000218	0.0010910	0.0004437	0.0002473	0.0000691
	0.0032731	0.0240572	-	-	0.0000491	0.0024548	0.0009983	0.0005564	0.0001555
	0.0042041	0.0309002	-	-	0.0000631	0.0031531	0.0012823	0.0007147	0.0001997
	0.0058188	0.0427684	-	-	0.0000873	0.0043641	0.0017747	0.0009892	0.0002764
	0.0090919	0.0668256	-	-	0.0001364	0.0068189	0.0027730	0.0015456	0.0004319
	0.0130924	0.0962289	-	-	0.0001964	0.0098193	0.0039932	0.0022257	0.0006219
	0.0178202	0.1309782	-	-	0.0002673	0.0133651	0.0054352	0.0030294	0.0008465
	0.0232753	0.1710736	-	-	0.0003491	0.0174565	0.0070990	0.0039568	0.0011056
	0.0523695	0.3849156	-	-	0.0007855	0.0392771	0.0159727	0.0089028	0.0024875
	0.0931013	0.6842944	-	-	0.0013965	0.0698260	0.0283959	0.0158272	0.0044223
Subtotals									
<i>Pier D Entry Road</i>									
	0.002	0.015	-	-	0.000	0.002	0.001	0.000	0.000
Subtotals									
<i>Pier D In Gate</i>									
	0.005	0.034	-	-	0.000	0.003	0.001	0.001	0.000
Subtotals									
<i>Pier D Exit Road</i>									
	0.002	0.011	-	-	0.000	0.001	0.000	0.000	0.000
Subtotals									
<i>Pier D Out Gate</i>									
	0.005	0.033	-	-	0.000	0.003	0.001	0.001	0.000
Subtotals									
<i>Pier F Entry Road</i>									
	0.001	0.006	-	-	0.000	0.001	0.000	0.000	0.000
Subtotals									
<i>Pier F Exit Road</i>									
	0.003	0.019	-	-	0.000	0.002	0.001	0.000	0.000
Subtotals									
<i>Pier F Entry + Exit Road</i>									
	0.003	0.025	-	-	0.000	0.003	0.001	0.001	0.000
Subtotals									
<i>Pier F In + Out Gates</i>									
	0.024	0.176	-	-	0.000	0.018	0.007	0.004	0.001
Subtotals									

Table A.3.2-Alt1U-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - Unmitigated Alternative 1

Volume Source Pounds per Hour

Activity/Source ID	Styrene	Toluene	Ammonia	Arsenic	Copper	Mercury	Nickel	Sulfates	Vanadium
<i>Terminal - Equipment + Trucks</i>									
	0.0000422	0.0010910	0.0002400	0.0000003	0.0000022	0.0000019	0.0000012	0.0013092	0.0000011
	0.0000949	0.0024548	0.0005401	0.0000007	0.0000049	0.0000043	0.0000026	0.0029458	0.0000025
	0.0001219	0.0031531	0.0006937	0.0000008	0.0000063	0.0000055	0.0000034	0.0037837	0.0000032
	0.0001687	0.0043641	0.0009601	0.0000012	0.0000087	0.0000076	0.0000047	0.0052369	0.0000044
	0.0002637	0.0068189	0.0015002	0.0000018	0.0000136	0.0000118	0.0000073	0.0081827	0.0000068
	0.0003797	0.0098193	0.0021602	0.0000026	0.0000196	0.0000170	0.0000105	0.0117831	0.0000098
	0.0005168	0.0133651	0.0029403	0.0000036	0.0000267	0.0000232	0.0000143	0.0160381	0.0000134
	0.0006750	0.0174565	0.0038404	0.0000047	0.0000349	0.0000303	0.0000186	0.0209478	0.0000175
	0.0015187	0.0392771	0.0086410	0.0000105	0.0000786	0.0000681	0.0000419	0.0471325	0.0000393
	0.0026999	0.0698260	0.0153617	0.0000186	0.0001397	0.0001210	0.0000745	0.0837912	0.0000698
Subtotals									
<i>Pier D Entry Road</i>									
	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.002	0.000
Subtotals									
<i>Pier D In Gate</i>									
	0.000	0.003	0.001	0.000	0.000	0.000	0.000	0.004	0.000
Subtotals									
<i>Pier D Exit Road</i>									
	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000
Subtotals									
<i>Pier D Out Gate</i>									
	0.000	0.003	0.001	0.000	0.000	0.000	0.000	0.004	0.000
Subtotals									
<i>Pier F Entry Road</i>									
	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000
Subtotals									
<i>Pier F Exit Road</i>									
	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.002	0.000
Subtotals									
<i>Pier F Entry + Exit Road</i>									
	0.000	0.003	0.001	0.000	0.000	0.000	0.000	0.003	0.000
Subtotals									
<i>Pier F In + Out Gates</i>									
	0.001	0.018	0.004	0.000	0.000	0.000	0.000	0.022	0.000
Subtotals									

Table A.3.2-Alt1M-1. Op. Crit. Poll. Emission Simulations - POLB -
MHTP - Mitig. Alternative 1

Volume Source Pounds per Hour

Activity/Source ID	TOG	CO	NO ₂	PM ₁₀	PM _{2.5}
<i>OGV - Harbor Transit - 1 4-5k TEU</i>					
	0.79	0.87	2.89	0.22	0.21
Subtotals	21.30	23.37	78.13	5.98	5.61
<i>OGV - Docking - 1 4-5k TEU</i>					
	9.92	9.01	30.25	2.50	2.35
Subtotals	9.92	9.01	30.25	2.50	2.35
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>					
	2.88	5.46	17.79	1.38	1.30
Subtotals	2.88	5.46	17.79	1.38	1.30
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>					
	0.18	1.57	1.08	0.51	0.50
Subtotals	0.18	1.57	1.08	0.51	0.50
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen cold-ironed)</i>					
	0.26	0.49	1.60	0.12	0.12
Subtotals	0.26	0.49	1.60	0.12	0.12
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)</i>					
	0.18	1.57	1.08	0.51	0.50
Subtotals	0.18	1.57	1.08	0.51	0.50
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>					
	0.08	0.41	0.98	0.07	0.07
Subtotals	2.09	10.99	26.43	1.88	1.76
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>					
	0.73	3.82	9.18	0.65	0.61
Subtotals	0.73	3.82	9.18	0.65	0.61
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>					
	0.01	0.02	0.03	0.00	0.00
Subtotals	0.30	0.52	0.74	0.08	0.08
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>					
	0.00	0.01	0.01	0.00	0.00
Subtotals	0.68	1.18	1.67	0.18	0.18
<i>Locomotives - Rail Yard</i>					
	0.05	0.10	0.12	0.01	0.01
Subtotals	1.40	2.82	3.43	0.35	0.35
<i>Rail Yard Equipment</i>					
	0.00	0.02	0.02	0.00	0.00
Subtotals	0.11	0.47	0.53	0.04	0.03
<i>Rail Yard - Locomotives + Equipment</i>					
	0.05	0.11	0.14	0.01	0.01
Subtotals	1.51	3.29	3.96	0.38	0.38

Table A.3.2-Alt1M-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - Mitig.Alternative 1

Volume Source Pounds per Hour

Activity/Source ID	Benzene	Formaldehyde	Toluene	Xylenes	Methanol	MEK	m-Xylene
<i>OGV - Harbor Transit - 1 4-5k TEU</i>							
	0.017	0.116	-	0.003	0.0002	0.012	0.005
Subtotals							
<i>OGV - Docking - 1 4-5k TEU</i>							
	0.218	1.458	-	0.034	0.0030	0.149	0.060
Subtotals							
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>							
	0.063	0.423	-	0.010	0.0009	0.043	0.018
Subtotals							
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>							
	0.004	0.000	0.004	0.001	-	-	-
Subtotals							
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen cold-ironed)</i>							
	0.006	0.038	-	0.001	0.0001	0.004	0.002
Subtotals							
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)</i>							
	0.004	0.000	0.004	0.001	-	-	-
Subtotals							
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>							
	0.002	0.011	-	-	0.000	0.001	0.000
Subtotals							
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>							
	0.015	0.107	-	-	0.000	0.011	0.004
Subtotals							
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>							
	0.000	0.002	-	-	0.000	0.000	0.000
Subtotals							
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>							
	0.000	0.001	-	-	0.000	0.000	0.000
Subtotals							
<i>Locomotives - Rail Yard</i>							
	0.001	0.007	-	-	0.000	0.001	0.000
Subtotals							
<i>Rail Yard Equipment</i>							
	0.000	0.001	-	-	0.000	0.000	0.000
Subtotals							
<i>Rail Yard - Locomotives + Equipment</i>							
	0.001	0.008	-	-	0.000	0.001	0.000
Subtotals							

Table A.3.2-Alt1M-1. Op. Crit. Poll. Emission Simulations - POLB -
MHTP - Mitig. Alternative 1

Volume Source Pounds per Hour

Activity/Source ID	o-Xylene	p-Xylene	Styrene	Toluene	Ammonia	Arsenic
<i>OGV - Harbor Transit - 1 4-5k TEU</i>						
	0.004	0.001	0.0005	0.017	0.001	0.001
Subtotals						
<i>OGV - Docking - 1 4-5k TEU</i>						
	0.045	0.009	0.0058	0.218	0.008	0.013
Subtotals						
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>						
	0.013	0.003	0.0017	0.063	0.005	0.007
Subtotals						
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>						
	-	-	-	-	-	0.000
Subtotals						
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen cold-ironed)</i>						
	0.001	0.000	0.0002	0.006	0.000	0.001
Subtotals						
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)</i>						
	-	-	-	-	-	0.000
Subtotals						
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>						
	0.000	0.000	0.000	0.001	0.000	0.000
Subtotals						
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>						
	0.002	0.001	0.000	0.011	0.002	0.000
Subtotals						
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>						
	0.000	0.000	0.000	0.000	0.000	0.000
Subtotals						
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>						
	0.000	0.000	0.000	0.000	0.000	0.000
Subtotals						
<i>Locomotives - Rail Yard</i>						
	0.000	0.000	0.000	0.001	0.000	0.000
Subtotals						
<i>Rail Yard Equipment</i>						
	0.000	0.000	0.000	0.000	0.000	0.000
Subtotals						
<i>Rail Yard - Locomotives + Equipment</i>						
	0.000	0.000	0.000	0.001	0.000	0.000
Subtotals						

Table A.3.2-Alt1M-1. Op. Crit. Poll. Emission Simulations - POLB -
MHTP - Mitig. Alternative 1

Volume Source Pounds per Hour

Activity/Source ID	Copper	Mercury	Nickel	Sulfates	Vanadium
<i>OGV - Harbor Transit - 1 4-5k TEU</i>					
	0.0001	0.000006	0.001	0.097	0.001
Subtotals					
<i>OGV - Docking - 1 4-5k TEU</i>					
	0.0012	0.000065	0.014	1.100	0.014
Subtotals					
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>					
	0.0007	0.000036	0.008	0.609	0.008
Subtotals					
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>					
	0.000	-	0.009	0.054	0.001
Subtotals					
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen cold-ironed)</i>					
	0.0001	0.000003	0.001	0.055	0.001
Subtotals					
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)</i>					
	0.000	-	0.009	0.054	0.001
Subtotals					
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>					
	0.000	0.000	0.000	0.001	0.000
Subtotals					
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>					
	0.000	0.000	0.000	0.013	0.000
Subtotals					
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>					
	0.000	0.000	0.000	0.000	0.000
Subtotals					
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>					
	0.000	0.000	0.000	0.000	0.000
Subtotals					
<i>Locomotives - Rail Yard</i>					
	0.000	0.000	0.000	0.001	0.000
Subtotals					
<i>Rail Yard Equipment</i>					
	0.000	0.000	0.000	0.000	0.000
Subtotals					
<i>Rail Yard - Locomotives + Equipment</i>					
	0.000	0.000	0.000	0.001	0.000
Subtotals					

Table A.3.2-Alt1M-1. Op. Crit. Poll. Emission Simulations - POLB -
MHTP - Mitig. Alternative 1

Volume Source Pounds per Hour

Activity/Source ID	TOG	CO	NO ₂	PM ₁₀	PM _{2.5}
<i>Terminal Equipment</i>					
	0.03	0.12	0.18	0.01	0.01
	0.06	0.27	0.41	0.03	0.03
	0.08	0.34	0.53	0.04	0.04
	0.11	0.47	0.73	0.06	0.05
	0.18	0.74	1.14	0.09	0.08
	0.25	1.06	1.64	0.13	0.12
	0.34	1.45	2.23	0.17	0.16
	0.45	1.89	2.91	0.23	0.21
	1.01	4.25	6.55	0.51	0.47
	1.79	7.56	11.64	0.91	0.84
Subtotals					
<i>Trucks - On-Terminal</i>					
	0.03	0.04	0.03	0.00	0.00
	0.06	0.10	0.07	0.00	0.00
	0.08	0.12	0.09	0.00	0.00
	0.11	0.17	0.12	0.01	0.00
	0.18	0.26	0.18	0.01	0.01
	0.25	0.38	0.27	0.01	0.01
	0.35	0.52	0.36	0.02	0.01
	0.45	0.68	0.47	0.02	0.02
	1.01	1.52	1.06	0.05	0.04
	1.80	2.70	1.89	0.08	0.08
Subtotals					
<i>Terminal - Equipment + Trucks</i>					
	0.06	0.16	0.21	0.02	0.01
	0.13	0.36	0.48	0.03	0.03
	0.16	0.46	0.61	0.04	0.04
	0.22	0.64	0.85	0.06	0.06
	0.35	1.00	1.32	0.10	0.09
	0.51	1.44	1.90	0.14	0.13
	0.69	1.96	2.59	0.19	0.18
	0.90	2.56	3.38	0.25	0.23
	2.02	5.77	7.61	0.56	0.51
	3.60	10.26	13.54	0.99	0.91
Subtotals					
<i>Pier D Entry Road</i>					
	0.094	0.203	0.075	0.004	0.004
Subtotals	0.47	1.02	0.38	0.02	0.02
<i>Pier D In Gate</i>					
	0.21	0.28	0.12	0.01	0.01
Subtotals	1.06	1.41	0.59	0.03	0.03

Table A.3.2-Alt1M-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - Mitig. Alternative 1

Volume Source Pounds per Hour

Activity/Source ID	Benzene	Formaldehyde	Toluene	Xylenes	Methanol	MEK	m-Xylene
<i>Terminal Equipment</i>							
	0.001	0.004	-	-	0.000	0.000	0.000
	0.001	0.009	-	-	0.000	0.001	0.000
	0.002	0.012	-	-	0.000	0.001	0.000
	0.002	0.016	-	-	0.000	0.002	0.001
	0.004	0.026	-	-	0.000	0.003	0.001
	0.005	0.037	-	-	0.000	0.004	0.002
	0.007	0.050	-	-	0.000	0.005	0.002
	0.009	0.066	-	-	0.000	0.007	0.003
	0.020	0.148	-	-	0.000	0.015	0.006
	0.036	0.264	-	-	0.001	0.027	0.011
Subtotals	-	-	-	-	-	-	-
<i>Trucks - On-Terminal</i>							
	0.001	0.004	-	-	0.000	0.000	0.000
	0.001	0.009	-	-	0.000	0.001	0.000
	0.002	0.012	-	-	0.000	0.001	0.000
	0.002	0.017	-	-	0.000	0.002	0.001
	0.004	0.026	-	-	0.000	0.003	0.001
	0.005	0.037	-	-	0.000	0.004	0.002
	0.007	0.051	-	-	0.000	0.005	0.002
	0.009	0.066	-	-	0.000	0.007	0.003
	0.020	0.149	-	-	0.000	0.015	0.006
	0.036	0.265	-	-	0.001	0.027	0.011
Subtotals	-	-	-	-	-	-	-
<i>Terminal - Equipment + Trucks</i>							
	0.0011239	0.0082608	-	-	0.0000169	0.0008429	0.0003428
	0.0025288	0.0185869	-	-	0.0000379	0.0018966	0.0007713
	0.0032481	0.0238738	-	-	0.0000487	0.0024361	0.0009907
	0.0044957	0.0330433	-	-	0.0000674	0.0033718	0.0013712
	0.0070245	0.0516301	-	-	0.0001054	0.0052684	0.0021425
	0.0101153	0.0743474	-	-	0.0001517	0.0075865	0.0030852
	0.0137680	0.1011951	-	-	0.0002065	0.0103260	0.0041993
	0.0179827	0.1321732	-	-	0.0002697	0.0134871	0.0054847
	0.0404612	0.2973897	-	-	0.0006069	0.0303459	0.0123407
	0.0719310	0.5286927	-	-	0.0010790	0.0539482	0.0219389
Subtotals							
<i>Pier D Entry Road</i>							
	0.002	0.014	-	-	0.000	0.001	0.001
Subtotals							
<i>Pier D In Gate</i>							
	0.004	0.031	-	-	0.000	0.003	0.001
Subtotals							

Table A.3.2-Alt1M-1. Op. Crit. Poll. Emission Simulations - POLB -
MHTP - Mitig. Alternative 1

Volume Source Pounds per Hour

Activity/Source ID	o-Xylene	p-Xylene	Styrene	Toluene	Ammonia	Arsenic
<i>Terminal Equipment</i>						
	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.001	0.000	0.000
	0.000	0.000	0.000	0.001	0.000	0.000
	0.000	0.000	0.000	0.002	0.000	0.000
	0.001	0.000	0.000	0.003	0.001	0.000
	0.001	0.000	0.000	0.004	0.001	0.000
	0.001	0.000	0.000	0.005	0.001	0.000
	0.002	0.000	0.000	0.007	0.001	0.000
	0.003	0.001	0.001	0.015	0.003	0.000
	0.006	0.002	0.001	0.027	0.006	0.000
Subtotals	-	-	-	-	-	-
<i>Trucks - On-Terminal</i>						
	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.001	0.000	0.000
	0.000	0.000	0.000	0.001	0.000	0.000
	0.000	0.000	0.000	0.002	0.000	0.000
	0.001	0.000	0.000	0.003	0.001	0.000
	0.001	0.000	0.000	0.004	0.001	0.000
	0.001	0.000	0.000	0.005	0.001	0.000
	0.002	0.000	0.000	0.007	0.001	0.000
	0.003	0.001	0.001	0.015	0.003	0.000
	0.006	0.002	0.001	0.027	0.006	0.000
Subtotals	-	-	-	-	-	-
<i>Terminal - Equipment + Trucks</i>						
	0.0001911	0.0000534	0.0000326	0.0008429	0.0001854	0.0000002
	0.0004299	0.0001201	0.0000733	0.0018966	0.0004173	0.0000005
	0.0005522	0.0001543	0.0000942	0.0024361	0.0005359	0.0000006
	0.0007643	0.0002135	0.0001304	0.0033718	0.0007418	0.0000009
	0.0011942	0.0003337	0.0002037	0.0052684	0.0011590	0.0000014
	0.0017196	0.0004805	0.0002933	0.0075865	0.0016690	0.0000020
	0.0023406	0.0006540	0.0003993	0.0103260	0.0022717	0.0000028
	0.0030571	0.0008542	0.0005215	0.0134871	0.0029672	0.0000036
	0.0068784	0.0019219	0.0011734	0.0303459	0.0066761	0.0000081
	0.0122283	0.0034167	0.0020860	0.0539482	0.0118686	0.0000144
Subtotals						
<i>Pier D Entry Road</i>						
	0.000	0.000	0.000	0.001	0.000	0.000
Subtotals						
<i>Pier D In Gate</i>						
	0.001	0.000	0.000	0.003	0.001	0.000
Subtotals						

Table A.3.2-Alt1M-1. Op. Crit. Poll. Emission Simulations - POLB -
MHTP - Mitig. Alternative 1

Volume Source Pounds per Hour

Activity/Source ID	Copper	Mercury	Nickel	Sulfates	Vanadium
<i>Terminal Equipment</i>					
	0.000	0.000	0.000	0.001	0.000
	0.000	0.000	0.000	0.001	0.000
	0.000	0.000	0.000	0.001	0.000
	0.000	0.000	0.000	0.002	0.000
	0.000	0.000	0.000	0.003	0.000
	0.000	0.000	0.000	0.005	0.000
	0.000	0.000	0.000	0.006	0.000
	0.000	0.000	0.000	0.008	0.000
	0.000	0.000	0.000	0.018	0.000
	0.000	0.000	0.000	0.032	0.000
Subtotals	-	-	-	-	-
<i>Trucks - On-Terminal</i>					
	0.000	0.000	0.000	0.001	0.000
	0.000	0.000	0.000	0.001	0.000
	0.000	0.000	0.000	0.001	0.000
	0.000	0.000	0.000	0.002	0.000
	0.000	0.000	0.000	0.003	0.000
	0.000	0.000	0.000	0.005	0.000
	0.000	0.000	0.000	0.006	0.000
	0.000	0.000	0.000	0.008	0.000
	0.000	0.000	0.000	0.018	0.000
	0.000	0.000	0.000	0.032	0.000
Subtotals	-	-	-	-	-
<i>Terminal - Equipment + Trucks</i>					
	0.0000017	0.0000015	0.0000009	0.0010115	0.0000008
	0.0000038	0.0000033	0.0000020	0.0022759	0.0000019
	0.0000049	0.0000042	0.0000026	0.0029233	0.0000024
	0.0000067	0.0000058	0.0000036	0.0040461	0.0000034
	0.0000105	0.0000091	0.0000056	0.0063221	0.0000053
	0.0000152	0.0000131	0.0000081	0.0091038	0.0000076
	0.0000207	0.0000179	0.0000110	0.0123912	0.0000103
	0.0000270	0.0000234	0.0000144	0.0161845	0.0000135
	0.0000607	0.0000526	0.0000324	0.0364151	0.0000303
	0.0001079	0.0000935	0.0000575	0.0647379	0.0000539
Subtotals					
<i>Pier D Entry Road</i>					
	0.000	0.000	0.000	0.002	0.000
Subtotals					
<i>Pier D In Gate</i>					
	0.000	0.000	0.000	0.004	0.000
Subtotals					

Table A.3.2-Alt1M-1. Op. Crit. Poll. Emission Simulations - POLB -
MHTP - Mitig. Alternative 1

Volume Source Pounds per Hour

Activity/Source ID	TOG	CO	NO ₂	PM ₁₀	PM _{2.5}
<i>Pier D Exit Road</i>					
	0.07	0.15	0.06	0.00	0.00
Subtotals	0.14	0.30	0.11	0.01	0.01
<i>Pier D Out Gate</i>					
	0.21	0.28	0.11	0.01	0.01
Subtotals	0.62	0.83	0.34	0.02	0.02
<i>Pier F Entry Road</i>					
	0.03	0.07	0.03	0.00	0.00
Subtotals	0.10	0.22	0.08	0.00	0.00
<i>Pier F Exit Road</i>					
	0.12	0.26	0.10	0.01	0.00
Subtotals	0.36	0.77	0.29	0.02	0.01
<i>Pier F Entry + Exit Road</i>					
	0.15	0.33	0.12	0.01	0.01
Subtotals	0.46	0.99	0.37	0.02	0.02
<i>Pier F In + Out Gates</i>					
	1.10	1.45	0.61	0.03	0.03
Subtotals	1.10	1.45	0.61	0.03	0.03

Table A.3.2-Alt1M-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - Mitig.Alternative 1

Volume Source Pounds per Hour

Activity/Source ID	Benzene	Formaldehyde	Toluene	Xylenes	Methanol	MEK	m-Xylene
<i>Pier D Exit Road</i>							
	0.001	0.010	-	-	0.000	0.001	0.000
Subtotals							
<i>Pier D Out Gate</i>							
	0.004	0.031	-	-	0.000	0.003	0.001
Subtotals							
<i>Pier F Entry Road</i>							
	0.001	0.005	-	-	0.000	0.001	0.000
Subtotals							
<i>Pier F Exit Road</i>							
	0.002	0.018	-	-	0.000	0.002	0.001
Subtotals							
<i>Pier F Entry + Exit Road</i>							
	0.003	0.023	-	-	0.000	0.002	0.001
Subtotals							
<i>Pier F In + Out Gates</i>							
	0.022	0.161	-	-	0.000	0.016	0.007
Subtotals							

Table A.3.2-Alt1M-1. Op. Crit. Poll. Emission Simulations - POLB -
MHTP - Mitig. Alternative 1

Volume Source Pounds per Hour

Activity/Source ID	o-Xylene	p-Xylene	Styrene	Toluene	Ammonia	Arsenic
<i>Pier D Exit Road</i>						
	0.000	0.000	0.000	0.001	0.000	0.000
Subtotals						
<i>Pier D Out Gate</i>						
	0.001	0.000	0.000	0.003	0.001	0.000
Subtotals						
<i>Pier F Entry Road</i>						
	0.000	0.000	0.000	0.001	0.000	0.000
Subtotals						
<i>Pier F Exit Road</i>						
	0.000	0.000	0.000	0.002	0.000	0.000
Subtotals						
<i>Pier F Entry + Exit Road</i>						
	0.001	0.000	0.000	0.002	0.001	0.000
Subtotals						
<i>Pier F In + Out Gates</i>						
	0.004	0.001	0.001	0.016	0.004	0.000
Subtotals						

Table A.3.2-Alt1M-1. Op. Crit. Poll. Emission Simulations - POLB -
MHTP - Mitig. Alternative 1

Volume Source Pounds per Hour

Activity/Source ID	Copper	Mercury	Nickel	Sulfates	Vanadium
<i>Pier D Exit Road</i>					
	0.000	0.000	0.000	0.001	0.000
Subtotals					
<i>Pier D Out Gate</i>					
	0.000	0.000	0.000	0.004	0.000
Subtotals					
<i>Pier F Entry Road</i>					
	0.000	0.000	0.000	0.001	0.000
Subtotals					
<i>Pier F Exit Road</i>					
	0.000	0.000	0.000	0.002	0.000
Subtotals					
<i>Pier F Entry + Exit Road</i>					
	0.000	0.000	0.000	0.003	0.000
Subtotals					
<i>Pier F In + Out Gates</i>					
	0.000	0.000	0.000	0.020	0.000
Subtotals					

Table A.3.2-Alt2U-1. Op. Crit. Poll. Emission Simulations - POLB MHTP - Unmitigated Alternative 2

Volume Source Pounds per Hour

Activity/Source ID	TOG	CO	NO ₂	PM ₁₀	PM _{2.5}
<i>OGV - Harbor Transit - 1 4-5k TEU</i>					
	0.79	0.87	2.89	0.22	0.21
Subtotals	21.30	23.37	78.13	5.98	5.61
<i>OGV - Docking - 1 4-5k TEU</i>					
	9.92	9.01	30.25	2.50	2.35
Subtotals	9.92	9.01	30.25	2.50	2.35
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>					
	2.88	5.46	17.79	1.38	1.30
Subtotals	2.88	5.46	17.79	1.38	1.30
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>					
	0.18	1.57	1.08	0.51	0.50
Subtotals	0.18	1.57	1.08	0.51	0.50
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen no cold-iron)</i>					
	2.59	4.91	16.01	1.25	1.17
Subtotals	2.59	4.91	16.01	1.25	1.17
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)</i>					
	0.18	1.57	1.08	0.51	0.50
Subtotals	0.18	1.57	1.08	0.51	0.50
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>					
	0.08	0.41	0.98	0.07	0.07
Subtotals	2.09	10.99	26.43	1.88	1.76
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>					
	0.73	3.82	9.18	0.65	0.61
Subtotals	0.73	3.82	9.18	0.65	0.61
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>					
	0.01	0.02	0.03	0.00	0.00
Subtotals	0.30	0.52	0.74	0.08	0.08
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>					
	0.00	0.01	0.01	0.00	0.00
Subtotals	0.68	1.18	1.67	0.18	0.18
<i>Locomotives - Rail Yard</i>					
	0.05	0.10	0.12	0.01	0.01
Subtotals	1.40	2.82	3.43	0.35	0.35
<i>Rail Yard Equipment</i>					
	0.01	0.03	0.03	0.00	0.00
Subtotals	0.19	0.96	0.88	0.11	0.10

Table A.3.2-Alt2U-1. Op. Crit. Poll. Emission Simulations - POLB MHTP - Unmitigated Alternative 2

Volume Source Pounds per Hour

Activity/Source ID	Benzene	Formaldehyde	Toluene	Xylenes	Methanol	MEK
<i>OGV - Harbor Transit - 1 4-5k TEU</i>						
	0.017	0.116	-	0.003	0.0002	0.012
Subtotals						
<i>OGV - Docking - 1 4-5k TEU</i>						
	0.218	1.458	-	0.034	0.0030	0.149
Subtotals						
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>						
	0.063	0.423	-	0.010	0.0009	0.043
Subtotals						
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>						
	0.004	0.000	0.004	0.001	-	-
Subtotals						
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen no cold-iron)</i>						
	0.057	0.381	-	0.009	0.0008	0.039
Subtotals						
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)</i>						
	0.004	0.000	0.004	0.001	-	-
Subtotals						
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>						
	0.002	0.011	-	-	0.000	0.001
Subtotals						
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>						
	0.015	0.107	-	-	0.000	0.011
Subtotals						
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>						
	0.000	0.002	-	-	0.000	0.000
Subtotals						
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>						
	0.000	0.001	-	-	0.000	0.000
Subtotals						
<i>Locomotives - Rail Yard</i>						
	0.001	0.007	-	-	0.000	0.001
Subtotals						
<i>Rail Yard Equipment</i>						
	0.000	0.001	-	-	0.000	0.000
Subtotals						

Table A.3.2-Alt2U-1. Op. Crit. Poll. Emission Simulations - POLB MHTP - Unmitigated Alternative 2

Activity/Source ID	Volume Source Pounds per Hour						
	m-Xylene	o-Xylene	p-Xylene	Styrene	Toluene	Ammonia	Arsenic
<i>OGV - Harbor Transit - 1 4-5k TEU</i>							
	0.005	0.004	0.001	0.0005	0.017	0.001	0.001
Subtotals							
<i>OGV - Docking - 1 4-5k TEU</i>							
	0.060	0.045	0.009	0.0058	0.218	0.008	0.013
Subtotals							
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>							
	0.018	0.013	0.003	0.0017	0.063	0.005	0.007
Subtotals							
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>							
	-	-	-	-	-	-	0.000
Subtotals							
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen no cold-iron)</i>							
	0.016	0.012	0.002	0.0015	0.057	0.004	0.007
Subtotals							
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)</i>							
	-	-	-	-	-	-	0.000
Subtotals							
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>							
	0.000	0.000	0.000	0.000	0.001	0.000	0.000
Subtotals							
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>							
	0.004	0.002	0.001	0.000	0.011	0.002	0.000
Subtotals							
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>							
	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Subtotals							
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>							
	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Subtotals							
<i>Locomotives - Rail Yard</i>							
	0.000	0.000	0.000	0.000	0.001	0.000	0.000
Subtotals							
<i>Rail Yard Equipment</i>							
	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Subtotals							

Table A.3.2-Alt2U-1. Op. Crit. Poll. Emission Simulations - POLB MHTP - Unmitigated Alternative 2

Activity/Source ID	Volume Source Pounds per Hour				
	Copper	Mercury	Nickel	Sulfates	Vanadium
<i>OGV - Harbor Transit - 1 4-5k TEU</i>					
	0.0001	0.000006	0.001	0.097	0.001
Subtotals					
<i>OGV - Docking - 1 4-5k TEU</i>					
	0.0012	0.000065	0.014	1.100	0.014
Subtotals					
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>					
	0.0007	0.000036	0.008	0.609	0.008
Subtotals					
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>					
	0.000	-	0.009	0.054	0.001
Subtotals					
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen no cold-iron)</i>					
	0.0006	0.000032	0.007	0.548	0.007
Subtotals					
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)</i>					
	0.000	-	0.009	0.054	0.001
Subtotals					
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>					
	0.000	0.000	0.000	0.001	0.000
Subtotals					
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>					
	0.000	0.000	0.000	0.013	0.000
Subtotals					
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>					
	0.000	0.000	0.000	0.000	0.000
Subtotals					
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>					
	0.000	0.000	0.000	0.000	0.000
Subtotals					
<i>Locomotives - Rail Yard</i>					
	0.000	0.000	0.000	0.001	0.000
Subtotals					
<i>Rail Yard Equipment</i>					
	0.000	0.000	0.000	0.000	0.000
Subtotals					

Table A.3.2-Alt2U-1. Op. Crit. Poll. Emission Simulations - POLB MHTP - Unmitigated Alternative 2

Volume Source Pounds per Hour

Activity/Source ID	TOG	CO	NO ₂	PM ₁₀	PM _{2.5}
<i>Rail Yard - Locomotives + Equipment</i>					
	0.05	0.13	0.15	0.02	0.02
Subtotals	1.59	3.77	4.31	0.45	0.45
<i>Terminal Equipment</i>					
	0.04	0.23	0.26	0.03	0.03
	0.09	0.51	0.57	0.07	0.06
	0.12	0.66	0.74	0.09	0.08
	0.17	0.91	1.02	0.12	0.11
	0.26	1.42	1.60	0.19	0.17
	0.37	2.05	2.30	0.27	0.25
	0.51	2.79	3.13	0.37	0.34
	0.67	3.64	4.08	0.48	0.44
	1.50	8.19	9.19	1.09	1.00
	2.67	14.56	16.34	1.93	1.78
Subtotals					
<i>Trucks - On-Terminal</i>					
	0.03	0.04	0.03	0.00	0.00
	0.07	0.10	0.07	0.00	0.00
	0.08	0.12	0.10	0.00	0.00
	0.12	0.17	0.13	0.01	0.01
	0.18	0.27	0.21	0.01	0.01
	0.26	0.39	0.30	0.01	0.01
	0.35	0.53	0.40	0.02	0.02
	0.46	0.69	0.53	0.02	0.02
	1.04	1.55	1.19	0.05	0.05
	1.85	2.75	2.11	0.09	0.08
Subtotals					
<i>Terminal - Equipment + Trucks</i>					
	0.07	0.27	0.29	0.03	0.03
	0.16	0.61	0.65	0.07	0.07
	0.20	0.78	0.83	0.09	0.08
	0.28	1.08	1.15	0.13	0.12
	0.44	1.69	1.80	0.20	0.18
	0.64	2.43	2.60	0.28	0.26
	0.86	3.31	3.53	0.39	0.36
	1.13	4.33	4.61	0.51	0.46
	2.54	9.74	10.38	1.14	1.05
	4.52	17.31	18.45	2.02	1.86
Subtotals					

Table A.3.2-Alt2U-1. Op. Crit. Poll. Emission Simulations - POLB MHTP - Unmitigated Alternative 2

Volume Source Pounds per Hour

Activity/Source ID	Benzene	Formaldehyde	Toluene	Xylenes	Methanol	MEK
<i>Rail Yard - Locomotives + Equipment</i>						
	0.001	0.008	-	-	0.000	0.001
Subtotals						
<i>Terminal Equipment</i>						
	0.001	0.006	-	-	0.000	0.001
	0.002	0.014	-	-	0.000	0.001
	0.002	0.018	-	-	0.000	0.002
	0.003	0.024	-	-	0.000	0.002
	0.005	0.038	-	-	0.000	0.004
	0.007	0.055	-	-	0.000	0.006
	0.010	0.075	-	-	0.000	0.008
	0.013	0.098	-	-	0.000	0.010
	0.030	0.220	-	-	0.000	0.022
	0.053	0.392	-	-	0.001	0.040
Subtotals	-	-	-	-	-	-
<i>Trucks - On-Terminal</i>						
	0.001	0.004	-	-	0.000	0.000
	0.001	0.010	-	-	0.000	0.001
	0.002	0.012	-	-	0.000	0.001
	0.002	0.017	-	-	0.000	0.002
	0.004	0.027	-	-	0.000	0.003
	0.005	0.038	-	-	0.000	0.004
	0.007	0.052	-	-	0.000	0.005
	0.009	0.068	-	-	0.000	0.007
	0.021	0.153	-	-	0.000	0.016
	0.037	0.272	-	-	0.001	0.028
Subtotals	-	-	-	-	-	-
<i>Terminal - Equipment + Trucks</i>						
	0.0014112	0.0103720	-	-	0.0000212	0.0010584
	0.0031751	0.0233369	-	-	0.0000476	0.0023813
	0.0040782	0.0299750	-	-	0.0000612	0.0030587
	0.0056446	0.0414879	-	-	0.0000847	0.0042335
	0.0088197	0.0648248	-	-	0.0001323	0.0066148
	0.0127004	0.0933477	-	-	0.0001905	0.0095253
	0.0172866	0.1270566	-	-	0.0002593	0.0129650
	0.0225784	0.1659515	-	-	0.0003387	0.0169338
	0.0508015	0.3733909	-	-	0.0007620	0.0381011
	0.0903138	0.6638061	-	-	0.0013547	0.0677353
Subtotals						

Table A.3.2-Alt2U-1. Op. Crit. Poll. Emission Simulations - POLB MHTP - Unmitigated Alternative 2

Activity/Source ID	Volume Source Pounds per Hour						
	m-Xylene	o-Xylene	p-Xylene	Styrene	Toluene	Ammonia	Arsenic
<i>Rail Yard - Locomotives + Equipment</i>							
	0.000	0.000	0.000	0.000	0.001	0.000	0.000
Subtotals							
<i>Terminal Equipment</i>							
	0.000	0.000	0.000	0.000	0.001	0.000	0.000
	0.001	0.000	0.000	0.000	0.001	0.000	0.000
	0.001	0.000	0.000	0.000	0.002	0.000	0.000
	0.001	0.001	0.000	0.000	0.002	0.001	0.000
	0.002	0.001	0.000	0.000	0.004	0.001	0.000
	0.002	0.001	0.000	0.000	0.006	0.001	0.000
	0.003	0.002	0.000	0.000	0.008	0.002	0.000
	0.004	0.002	0.001	0.000	0.010	0.002	0.000
	0.009	0.005	0.001	0.001	0.022	0.005	0.000
	0.016	0.009	0.003	0.002	0.040	0.009	0.000
Subtotals	-	-	-	-	-	-	-
<i>Trucks - On-Terminal</i>							
	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.001	0.000	0.000
	0.001	0.000	0.000	0.000	0.001	0.000	0.000
	0.001	0.000	0.000	0.000	0.002	0.000	0.000
	0.001	0.001	0.000	0.000	0.003	0.001	0.000
	0.002	0.001	0.000	0.000	0.004	0.001	0.000
	0.002	0.001	0.000	0.000	0.005	0.001	0.000
	0.003	0.002	0.000	0.000	0.007	0.002	0.000
	0.006	0.004	0.001	0.001	0.016	0.003	0.000
	0.011	0.006	0.002	0.001	0.028	0.006	0.000
Subtotals	-	-	-	-	-	-	-
<i>Terminal - Equipment + Trucks</i>							
	0.0004304	0.0002399	0.0000670	0.0000409	0.0010584	0.0002328	0.0000003
	0.0009684	0.0005398	0.0001508	0.0000921	0.0023813	0.0005239	0.0000006
	0.0012439	0.0006933	0.0001937	0.0001183	0.0030587	0.0006729	0.0000008
	0.0017216	0.0009596	0.0002681	0.0001637	0.0042335	0.0009314	0.0000011
	0.0026900	0.0014993	0.0004189	0.0002558	0.0066148	0.0014553	0.0000018
	0.0038736	0.0021591	0.0006033	0.0003683	0.0095253	0.0020956	0.0000025
	0.0052724	0.0029387	0.0008211	0.0005013	0.0129650	0.0028523	0.0000035
	0.0068864	0.0038383	0.0010725	0.0006548	0.0169338	0.0037254	0.0000045
	0.0154945	0.0086363	0.0024131	0.0014732	0.0381011	0.0083822	0.0000102
	0.0275457	0.0153533	0.0042899	0.0026191	0.0677353	0.0149018	0.0000181
Subtotals							

Table A.3.2-Alt2U-1. Op. Crit. Poll. Emission Simulations - POLB MHTP - Unmitigated Alternative 2

Activity/Source ID	Volume Source Pounds per Hour				
	Copper	Mercury	Nickel	Sulfates	Vanadium
<i>Rail Yard - Locomotives + Equipment</i>	0.000	0.000	0.000	0.001	0.000
Subtotals					
<i>Terminal Equipment</i>	0.000	0.000	0.000	0.001	0.000
	0.000	0.000	0.000	0.002	0.000
	0.000	0.000	0.000	0.002	0.000
	0.000	0.000	0.000	0.003	0.000
	0.000	0.000	0.000	0.005	0.000
	0.000	0.000	0.000	0.007	0.000
	0.000	0.000	0.000	0.009	0.000
	0.000	0.000	0.000	0.012	0.000
	0.000	0.000	0.000	0.027	0.000
	0.000	0.000	0.000	0.048	0.000
Subtotals	-	-	-	-	-
<i>Trucks - On-Terminal</i>	0.000	0.000	0.000	0.001	0.000
	0.000	0.000	0.000	0.001	0.000
	0.000	0.000	0.000	0.002	0.000
	0.000	0.000	0.000	0.002	0.000
	0.000	0.000	0.000	0.003	0.000
	0.000	0.000	0.000	0.005	0.000
	0.000	0.000	0.000	0.006	0.000
	0.000	0.000	0.000	0.008	0.000
	0.000	0.000	0.000	0.019	0.000
	0.000	0.000	0.000	0.033	0.000
Subtotals	-	-	-	-	-
<i>Terminal - Equipment + Trucks</i>	0.0000021	0.0000018	0.0000011	0.0012700	0.0000011
	0.0000048	0.0000041	0.0000025	0.0028576	0.0000024
	0.0000061	0.0000053	0.0000033	0.0036704	0.0000031
	0.0000085	0.0000073	0.0000045	0.0050801	0.0000042
	0.0000132	0.0000115	0.0000071	0.0079377	0.0000066
	0.0000191	0.0000165	0.0000102	0.0114303	0.0000095
	0.0000259	0.0000225	0.0000138	0.0155580	0.0000130
	0.0000339	0.0000294	0.0000181	0.0203206	0.0000169
	0.0000762	0.0000660	0.0000406	0.0457213	0.0000381
	0.0001355	0.0001174	0.0000723	0.0812824	0.0000677
Subtotals					

Table A.3.2-Alt2U-1. Op. Crit. Poll. Emission Simulations - POLB MHTP - Unmitigated Alternative 2

Volume Source Pounds per Hour

<i>Activity/Source ID</i>	<i>TOG</i>	<i>CO</i>	<i>NO₂</i>	<i>PM₁₀</i>	<i>PM_{2.5}</i>
<i>Pier D Entry Road</i>					
	0.099	0.212	0.101	0.005	0.004
Subtotals	0.49	1.06	0.51	0.02	0.02
<i>Pier D In Gate</i>					
	0.22	0.29	0.16	0.01	0.01
Subtotals	1.11	1.47	0.80	0.04	0.03
<i>Pier D Exit Road</i>					
	0.07	0.16	0.07	0.00	0.00
Subtotals	0.14	0.31	0.15	0.01	0.01
<i>Pier D Out Gate</i>					
	0.22	0.29	0.16	0.01	0.01
Subtotals	0.65	0.86	0.47	0.02	0.02
<i>Pier F Entry Road</i>					
	0.04	0.08	0.04	0.00	0.00
Subtotals	0.11	0.23	0.11	0.01	0.00
<i>Pier F Exit Road</i>					
	0.12	0.27	0.13	0.01	0.01
Subtotals	0.37	0.81	0.38	0.02	0.02
<i>Pier F Entry + Exit Road</i>					
	0.16	0.35	0.17	0.01	0.01
Subtotals	0.48	1.04	0.50	0.02	0.02
<i>Pier F In + Out Gates</i>					
	1.15	1.52	0.82	0.04	0.03
Subtotals	1.15	1.52	0.82	0.04	0.03

Table A.3.2-Alt2U-1. Op. Crit. Poll. Emission Simulations - POLB MHTP - Unmitigated Alternative 2

Volume Source Pounds per Hour

<i>Activity/Source ID</i>	Benzene	Formaldehyde	Toluene	Xylenes	Methanol	MEK
<i>Pier D Entry Road</i>						
	0.002	0.014	-	-	0.000	0.001
Subtotals						
<i>Pier D In Gate</i>						
	0.004	0.033	-	-	0.000	0.003
Subtotals						
<i>Pier D Exit Road</i>						
	0.001	0.011	-	-	0.000	0.001
Subtotals						
<i>Pier D Out Gate</i>						
	0.004	0.032	-	-	0.000	0.003
Subtotals						
<i>Pier F Entry Road</i>						
	0.001	0.005	-	-	0.000	0.001
Subtotals						
<i>Pier F Exit Road</i>						
	0.002	0.018	-	-	0.000	0.002
Subtotals						
<i>Pier F Entry + Exit Road</i>						
	0.003	0.024	-	-	0.000	0.002
Subtotals						
<i>Pier F In + Out Gates</i>						
	0.023	0.169	-	-	0.000	0.017
Subtotals						

Table A.3.2-Alt2U-1. Op. Crit. Poll. Emission Simulations - POLB MHTP - Unmitigated Alternative 2

Activity/Source ID	Volume Source Pounds per Hour						
	m-Xylene	o-Xylene	p-Xylene	Styrene	Toluene	Ammonia	Arsenic
<i>Pier D Entry Road</i>							
	0.001	0.000	0.000	0.000	0.001	0.000	0.000
Subtotals							
<i>Pier D In Gate</i>							
	0.001	0.001	0.000	0.000	0.003	0.001	0.000
Subtotals							
<i>Pier D Exit Road</i>							
	0.000	0.000	0.000	0.000	0.001	0.000	0.000
Subtotals							
<i>Pier D Out Gate</i>							
	0.001	0.001	0.000	0.000	0.003	0.001	0.000
Subtotals							
<i>Pier F Entry Road</i>							
	0.000	0.000	0.000	0.000	0.001	0.000	0.000
Subtotals							
<i>Pier F Exit Road</i>							
	0.001	0.000	0.000	0.000	0.002	0.000	0.000
Subtotals							
<i>Pier F Entry + Exit Road</i>							
	0.001	0.001	0.000	0.000	0.002	0.001	0.000
Subtotals							
<i>Pier F In + Out Gates</i>							
	0.007	0.004	0.001	0.001	0.017	0.004	0.000
Subtotals							

Table A.3.2-Alt2U-1. Op. Crit. Poll. Emission Simulations - POLB MHTP - Unmitigated Alternative 2

<i>Activity/Source ID</i>	<i>Volume Source Pounds per Hour</i>				
	Copper	Mercury	Nickel	Sulfates	Vanadium
<i>Pier D Entry Road</i>					
	0.000	0.000	0.000	0.002	0.000
Subtotals					
<i>Pier D In Gate</i>					
	0.000	0.000	0.000	0.004	0.000
Subtotals					
<i>Pier D Exit Road</i>					
	0.000	0.000	0.000	0.001	0.000
Subtotals					
<i>Pier D Out Gate</i>					
	0.000	0.000	0.000	0.004	0.000
Subtotals					
<i>Pier F Entry Road</i>					
	0.000	0.000	0.000	0.001	0.000
Subtotals					
<i>Pier F Exit Road</i>					
	0.000	0.000	0.000	0.002	0.000
Subtotals					
<i>Pier F Entry + Exit Road</i>					
	0.000	0.000	0.000	0.003	0.000
Subtotals					
<i>Pier F In + Out Gates</i>					
	0.000	0.000	0.000	0.021	0.000
Subtotals					

Table A.3.2-Alt2-M-1. Op. Crit. Poll. Emission Simulations -
POLB - MHTP - Mitigated Alternative 2

Volume Source Pounds per Hour

Activity/Source ID	TOG	CO	NO ₂	PM ₁₀	PM _{2.5}
<i>OGV - Harbor Transit - 1 4-5k TEU</i>					
	0.79	0.87	2.89	0.22	0.21
Subtotals	21.30	23.37	78.13	5.98	5.61
<i>OGV - Docking - 1 4-5k TEU</i>					
	9.92	9.01	30.25	2.50	2.35
Subtotals	9.92	9.01	30.25	2.50	2.35
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>					
	2.88	5.46	17.79	1.38	1.30
Subtotals	2.88	5.46	17.79	1.38	1.30
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>					
	0.18	1.57	1.08	0.51	0.50
Subtotals	0.18	1.57	1.08	0.51	0.50
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen cold-ironed)</i>					
	0.26	0.49	1.60	0.12	0.12
Subtotals	0.26	0.49	1.60	0.12	0.12
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)</i>					
	0.18	1.57	1.08	0.51	0.50
Subtotals	0.18	1.57	1.08	0.51	0.50
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>					
	0.08	0.41	0.98	0.07	0.07
Subtotals	2.09	10.99	26.43	1.88	1.76
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>					
	0.73	3.82	9.18	0.65	0.61
Subtotals	0.73	3.82	9.18	0.65	0.61
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>					
	0.01	0.02	0.03	0.00	0.00
Subtotals	0.30	0.52	0.74	0.08	0.08
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>					
	0.00	0.01	0.01	0.00	0.00
Subtotals	0.68	1.18	1.67	0.18	0.18
<i>Locomotives - Rail Yard</i>					
	0.05	0.10	0.12	0.01	0.01
Subtotals	1.40	2.82	3.43	0.35	0.35
<i>Rail Yard Equipment</i>					
	0.00	0.02	0.02	0.00	0.00
Subtotals	0.11	0.47	0.53	0.04	0.03
<i>Rail Yard - Locomotives + Equipment</i>					
	0.05	0.11	0.14	0.01	0.01
Subtotals	1.51	3.29	3.96	0.38	0.38

Table A.3.2-Alt2-M-1. Op. Crit. Poll. Emission Simulations -
POLB - MHTP - Mitigated Alternative 2

Volume Source Pounds per Hour

Activity/Source ID	Benzene	Formaldehyde	Toluene	Xylenes	Methanol	MEK	m-Xylene	o-Xylene
<i>OGV - Harbor Transit - 1 4-5k TEU</i>								
	0.01735	0.11595	-	0.00268	0.00024	0.01183	0.00481	0.00355
Subtotals								
<i>OGV - Docking - 1 4-5k TEU</i>								
	0.21817	1.45779	-	0.03372	0.00298	0.14875	0.06049	0.04463
Subtotals								
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>								
	0.06329	0.42292	-	0.00978	0.00086	0.04315	0.01755	0.01295
Subtotals								
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>								
	0.00397	0.00018	0.00404	0.00062	-	-	-	-
Subtotals								
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen cold-ironed)</i>								
	0.00570	0.03807	-	0.00088	0.00008	0.00388	0.00158	0.00117
Subtotals								
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)</i>								
	0.00397	0.00018	0.00404	0.00062	-	-	-	-
Subtotals								
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>								
	0.00155	0.01139	-	-	0.00002	0.00116	0.00047	0.00026
Subtotals								
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>								
	0.01452	0.10674	-	-	0.00022	0.01089	0.00443	0.00247
Subtotals								
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>								
	0.00023	0.00169	-	-	0.00000	0.00017	0.00007	0.00004
Subtotals								
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>								
	0.00009	0.00065	-	-	0.00000	0.00007	0.00003	0.00001
Subtotals								
<i>Locomotives - Rail Yard</i>								
	0.00097	0.00712	-	-	0.00001	0.00073	0.00030	0.00016
Subtotals								
<i>Rail Yard Equipment</i>								
	0.00008	0.00056	-	-	0.00000	0.00006	0.00002	0.00001
Subtotals								
<i>Rail Yard - Locomotives + Equipment</i>								
	0.00104	0.00767	-	-	0.00002	0.00078	0.00032	0.00018
Subtotals								

Table A.3.2-Alt2-M-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - Mitigated Alternative 2

Volume Source Pounds per Hour

Activity/Source ID	p-Xylene	Styrene	Toluene	Ammonia	Arsenic	Copper
<i>OGV - Harbor Transit - 1 4-5k TEU</i>						
	0.00075	0.00046	0.01735	0.00073	0.00117	0.00011
Subtotals						
<i>OGV - Docking - 1 4-5k TEU</i>						
	0.00942	0.00575	0.21817	0.00825	0.01325	0.00125
Subtotals						
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>						
	0.00273	0.00167	0.06329	0.00457	0.00733	0.00069
Subtotals						
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>						
	-	-	-	-	0.00009	0.00009
Subtotals						
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen cold-ironed)</i>						
	0.00025	0.00015	0.00570	0.00041	0.00066	0.00006
Subtotals						
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)</i>						
	-	-	-	-	0.00009	0.00009
Subtotals						
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>						
	0.00007	0.00004	0.00116	0.00026	0.00000	0.00000
Subtotals						
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>						
	0.00069	0.00042	0.01089	0.00240	0.00000	0.00002
Subtotals						
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>						
	0.00001	0.00001	0.00017	0.00004	0.00000	0.00000
Subtotals						
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>						
	0.00000	0.00000	0.00007	0.00001	0.00000	0.00000
Subtotals						
<i>Locomotives - Rail Yard</i>						
	0.00005	0.00003	0.00073	0.00016	0.00000	0.00000
Subtotals						
<i>Rail Yard Equipment</i>						
	0.00000	0.00000	0.00006	0.00001	0.00000	0.00000
Subtotals						
<i>Rail Yard - Locomotives + Equipment</i>						
	0.00005	0.00003	0.00078	0.00017	0.00000	0.00000
Subtotals						

Table A.3.2-Alt2-M-1. Op. Crit. Poll. Emission Simulations -
POLB - MHTP - Mitigated Alternative 2

Volume Source Pounds per Hour

Activity/Source ID	Mercury	Nickel	Sulfates	Vanadium
<i>OGV - Harbor Transit - 1 4-5k TEU</i>				
	0.00001	0.00122	0.09738	0.00122
Subtotals				
<i>OGV - Docking - 1 4-5k TEU</i>				
	0.00006	0.01375	1.09990	0.01375
Subtotals				
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>				
	0.00004	0.00761	0.60893	0.00761
Subtotals				
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>				
	-	0.00885	0.05398	0.00101
Subtotals				
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen cold-ironed)</i>				
	0.00000	0.00069	0.05481	0.00069
Subtotals				
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)</i>				
	-	0.00885	0.05398	0.00101
Subtotals				
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>				
	0.00000	0.00000	0.00139	0.00000
Subtotals				
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>				
	0.00002	0.00001	0.01307	0.00001
Subtotals				
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>				
	0.00000	0.00000	0.00021	0.00006
Subtotals				
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>				
	0.00000	0.00000	0.00008	0.00002
Subtotals				
<i>Locomotives - Rail Yard</i>				
	0.00000	0.00000	0.00087	0.00027
Subtotals				
<i>Rail Yard Equipment</i>				
	0.00000	0.00000	0.00007	0.00000
Subtotals				
<i>Rail Yard - Locomotives + Equipment</i>				
	0.00000	0.00000	0.00094	0.00027
Subtotals				

Table A.3.2-Alt2-M-1. Op. Crit. Poll. Emission Simulations -
POLB - MHTP - Mitigated Alternative 2

Volume Source Pounds per Hour

Activity/Source ID	TOG	CO	NO ₂	PM ₁₀	PM _{2.5}
<i>Terminal Equipment</i>					
	0.03	0.12	0.18	0.01	0.01
	0.06	0.26	0.40	0.03	0.03
	0.08	0.33	0.51	0.04	0.04
	0.11	0.46	0.71	0.06	0.05
	0.17	0.72	1.11	0.09	0.08
	0.25	1.04	1.60	0.13	0.12
	0.34	1.42	2.18	0.17	0.16
	0.44	1.85	2.85	0.22	0.20
	0.99	4.16	6.41	0.50	0.46
	1.76	7.40	11.40	0.89	0.82
Subtotals					
<i>Trucks - On-Terminal</i>					
	0.03	0.04	0.03	0.00	0.00
	0.06	0.09	0.06	0.00	0.00
	0.08	0.12	0.08	0.00	0.00
	0.11	0.16	0.11	0.01	0.00
	0.17	0.25	0.18	0.01	0.01
	0.24	0.36	0.25	0.01	0.01
	0.33	0.50	0.35	0.02	0.01
	0.43	0.65	0.45	0.02	0.02
	0.97	1.46	1.02	0.05	0.04
	1.73	2.59	1.81	0.08	0.07
Subtotals					
<i>Terminal - Equipment + Trucks</i>					
	0.05	0.16	0.21	0.02	0.01
	0.12	0.35	0.46	0.03	0.03
	0.16	0.45	0.60	0.04	0.04
	0.22	0.62	0.83	0.06	0.06
	0.34	0.98	1.29	0.09	0.09
	0.49	1.40	1.86	0.14	0.13
	0.67	1.91	2.53	0.19	0.17
	0.87	2.50	3.30	0.24	0.22
	1.96	5.62	7.43	0.55	0.50
	3.48	9.99	13.21	0.97	0.89
Subtotals					
<i>Pier D Entry Road</i>					
	0.090	0.195	0.072	0.004	0.004
Subtotals	0.45	0.97	0.36	0.02	0.02

Table A.3.2-Alt2-M-1. Op. Crit. Poll. Emission Simulations -
POLB - MHTP - Mitigated Alternative 2

Volume Source Pounds per Hour

Activity/Source ID	Benzene	Formaldehyde	Toluene	Xylenes	Methanol	MEK	m-Xylene	o-Xylene
<i>Terminal Equipment</i>								
	0.00055	0.00403	-	-	0.00001	0.00041	0.00017	0.00009
	0.00123	0.00907	-	-	0.00002	0.00093	0.00038	0.00021
	0.00159	0.01166	-	-	0.00002	0.00119	0.00048	0.00027
	0.00219	0.01613	-	-	0.00003	0.00165	0.00067	0.00037
	0.00343	0.02521	-	-	0.00005	0.00257	0.00105	0.00058
	0.00494	0.03630	-	-	0.00007	0.00370	0.00151	0.00084
	0.00672	0.04941	-	-	0.00010	0.00504	0.00205	0.00114
	0.00878	0.06453	-	-	0.00013	0.00658	0.00268	0.00149
	0.01975	0.14519	-	-	0.00030	0.01482	0.00602	0.00336
	0.03512	0.25812	-	-	0.00053	0.02634	0.01071	0.00597
Subtotals	-	-	-	-	-	-	-	-
<i>Trucks - On-Terminal</i>								
	0.00054	0.00397	-	-	0.00001	0.00040	0.00016	0.00009
	0.00121	0.00892	-	-	0.00002	0.00091	0.00037	0.00021
	0.00156	0.01146	-	-	0.00002	0.00117	0.00048	0.00027
	0.00216	0.01586	-	-	0.00003	0.00162	0.00066	0.00037
	0.00337	0.02478	-	-	0.00005	0.00253	0.00103	0.00057
	0.00486	0.03569	-	-	0.00007	0.00364	0.00148	0.00083
	0.00661	0.04857	-	-	0.00010	0.00496	0.00202	0.00112
	0.00863	0.06344	-	-	0.00013	0.00647	0.00263	0.00147
	0.01942	0.14275	-	-	0.00029	0.01457	0.00592	0.00330
	0.03453	0.25377	-	-	0.00052	0.02590	0.01053	0.00587
Subtotals	-	-	-	-	-	-	-	-
<i>Terminal - Equipment + Trucks</i>								
	0.00109	0.00800	-	-	0.00002	0.00082	0.00033	0.00018
	0.00245	0.01800	-	-	0.00004	0.00184	0.00075	0.00042
	0.00314	0.02311	-	-	0.00005	0.00236	0.00096	0.00053
	0.00435	0.03199	-	-	0.00007	0.00326	0.00133	0.00074
	0.00680	0.04999	-	-	0.00010	0.00510	0.00207	0.00116
	0.00979	0.07198	-	-	0.00015	0.00735	0.00299	0.00166
	0.01333	0.09798	-	-	0.00020	0.01000	0.00407	0.00227
	0.01741	0.12797	-	-	0.00026	0.01306	0.00531	0.00296
	0.03918	0.28794	-	-	0.00059	0.02938	0.01195	0.00666
	0.06964	0.51189	-	-	0.00104	0.05223	0.02124	0.01184
Subtotals								
<i>Pier D Entry Road</i>								
	0.00181	0.01328	-	-	0.00003	0.00136	0.00055	0.00031
Subtotals								

Table A.3.2-Alt2-M-1. Op. Crit. Poll. Emission Simulations - POLB - MHTP - Mitigated Alternative 2

Volume Source Pounds per Hour

Activity/Source ID	p-Xylene	Styrene	Toluene	Ammonia	Arsenic	Copper
<i>Terminal Equipment</i>						
	0.00003	0.00002	0.00041	0.00009	0.00000	0.00000
	0.00006	0.00004	0.00093	0.00020	0.00000	0.00000
	0.00008	0.00005	0.00119	0.00026	0.00000	0.00000
	0.00010	0.00006	0.00165	0.00036	0.00000	0.00000
	0.00016	0.00010	0.00257	0.00057	0.00000	0.00001
	0.00023	0.00014	0.00370	0.00081	0.00000	0.00001
	0.00032	0.00019	0.00504	0.00111	0.00000	0.00001
	0.00042	0.00025	0.00658	0.00145	0.00000	0.00001
	0.00094	0.00057	0.01482	0.00326	0.00000	0.00003
	0.00167	0.00102	0.02634	0.00579	0.00001	0.00005
Subtotals	-	-	-	-	-	-
<i>Trucks - On-Terminal</i>						
	0.00003	0.00002	0.00040	0.00009	0.00000	0.00000
	0.00006	0.00004	0.00091	0.00020	0.00000	0.00000
	0.00007	0.00005	0.00117	0.00026	0.00000	0.00000
	0.00010	0.00006	0.00162	0.00036	0.00000	0.00000
	0.00016	0.00010	0.00253	0.00056	0.00000	0.00001
	0.00023	0.00014	0.00364	0.00080	0.00000	0.00001
	0.00031	0.00019	0.00496	0.00109	0.00000	0.00001
	0.00041	0.00025	0.00647	0.00142	0.00000	0.00001
	0.00092	0.00056	0.01457	0.00320	0.00000	0.00003
	0.00164	0.00100	0.02590	0.00570	0.00001	0.00005
Subtotals	-	-	-	-	-	-
<i>Terminal - Equipment + Trucks</i>						
	0.00005	0.00003	0.00082	0.00018	0.00000	0.00000
	0.00012	0.00007	0.00184	0.00040	0.00000	0.00000
	0.00015	0.00009	0.00236	0.00052	0.00000	0.00000
	0.00021	0.00013	0.00326	0.00072	0.00000	0.00001
	0.00032	0.00020	0.00510	0.00112	0.00000	0.00001
	0.00047	0.00028	0.00735	0.00162	0.00000	0.00001
	0.00063	0.00039	0.01000	0.00220	0.00000	0.00002
	0.00083	0.00050	0.01306	0.00287	0.00000	0.00003
	0.00186	0.00114	0.02938	0.00646	0.00001	0.00006
	0.00331	0.00202	0.05223	0.01149	0.00001	0.00010
Subtotals						
<i>Pier D Entry Road</i>						
	0.00009	0.00005	0.00136	0.00030	0.00000	0.00000
Subtotals						

Table A.3.2-Alt2-M-1. Op. Crit. Poll. Emission Simulations -
POLB - MHTP - Mitigated Alternative 2

Volume Source Pounds per Hour

Activity/Source ID	Mercury	Nickel	Sulfates	Vanadium
<i>Terminal Equipment</i>				
	0.00000	0.00000	0.00049	0.00000
	0.00000	0.00000	0.00111	0.00000
	0.00000	0.00000	0.00143	0.00000
	0.00000	0.00000	0.00198	0.00000
	0.00000	0.00000	0.00309	0.00000
	0.00001	0.00000	0.00444	0.00000
	0.00001	0.00001	0.00605	0.00001
	0.00001	0.00001	0.00790	0.00001
	0.00003	0.00002	0.01778	0.00001
	0.00005	0.00003	0.03161	0.00003
Subtotals	-	-	-	-
<i>Trucks - On-Terminal</i>				
	0.00000	0.00000	0.00049	0.00000
	0.00000	0.00000	0.00109	0.00000
	0.00000	0.00000	0.00140	0.00000
	0.00000	0.00000	0.00194	0.00000
	0.00000	0.00000	0.00303	0.00000
	0.00001	0.00000	0.00437	0.00000
	0.00001	0.00001	0.00595	0.00000
	0.00001	0.00001	0.00777	0.00001
	0.00003	0.00002	0.01748	0.00001
	0.00004	0.00003	0.03107	0.00003
Subtotals	-	-	-	-
<i>Terminal - Equipment + Trucks</i>				
	0.00000	0.00000	0.00098	0.00000
	0.00000	0.00000	0.00220	0.00000
	0.00000	0.00000	0.00283	0.00000
	0.00001	0.00000	0.00392	0.00000
	0.00001	0.00001	0.00612	0.00001
	0.00001	0.00001	0.00881	0.00001
	0.00002	0.00001	0.01200	0.00001
	0.00002	0.00001	0.01567	0.00001
	0.00005	0.00003	0.03526	0.00003
	0.00009	0.00006	0.06268	0.00005
Subtotals				
<i>Pier D Entry Road</i>				
	0.00000	0.00000	0.00163	0.00000
Subtotals				

Table A.3.2-Alt2-M-1. Op. Crit. Poll. Emission Simulations -
POLB - MHTP - Mitigated Alternative 2

Volume Source Pounds per Hour

<i>Activity/Source ID</i>	<i>TOG</i>	<i>CO</i>	<i>NO₂</i>	<i>PM₁₀</i>	<i>PM_{2.5}</i>
<i>Pier D In Gate</i>					
	0.20	0.27	0.11	0.01	0.01
Subtotals	1.02	1.35	0.56	0.03	0.03
<i>Pier D Exit Road</i>					
	0.07	0.14	0.05	0.00	0.00
Subtotals	0.13	0.29	0.11	0.01	0.01
<i>Pier D Out Gate</i>					
	0.20	0.26	0.11	0.01	0.01
Subtotals	0.60	0.79	0.33	0.02	0.02
<i>Pier F Entry Road</i>					
	0.03	0.07	0.03	0.00	0.00
Subtotals	0.10	0.21	0.08	0.00	0.00
<i>Pier F Exit Road</i>					
	0.11	0.25	0.09	0.01	0.00
Subtotals	0.34	0.74	0.27	0.02	0.01
<i>Pier F Entry + Exit Road</i>					
	0.15	0.32	0.12	0.01	0.01
Subtotals	0.44	0.95	0.35	0.02	0.02
<i>Pier F In + Out Gates</i>					
	1.05	1.39	0.58	0.03	0.03
Subtotals	1.05	1.39	0.58	0.03	0.03

Table A.3.2-Alt2-M-1. Op. Crit. Poll. Emission Simulations -
POLB - MHTP - Mitigated Alternative 2

Volume Source Pounds per Hour

Activity/Source ID	Benzene	Formaldehyde	Toluene	Xylenes	Methanol	MEK	m-Xylene	o-Xylene
<i>Pier D In Gate</i>								
	0.00407	0.02994	-	-	0.00006	0.00305	0.00124	0.00069
Subtotals								
<i>Pier D Exit Road</i>								
	0.00132	0.00974	-	-	0.00002	0.00099	0.00040	0.00023
Subtotals								
<i>Pier D Out Gate</i>								
	0.00398	0.02926	-	-	0.00006	0.00299	0.00121	0.00068
Subtotals								
<i>Pier F Entry Road</i>								
	0.00066	0.00483	-	-	0.00001	0.00049	0.00020	0.00011
Subtotals								
<i>Pier F Exit Road</i>								
	0.00228	0.01679	-	-	0.00003	0.00171	0.00070	0.00039
Subtotals								
<i>Pier F Entry + Exit Road</i>								
	0.00294	0.02162	-	-	0.00004	0.00221	0.00090	0.00050
Subtotals								
<i>Pier F In + Out Gates</i>								
	0.02101	0.15440	-	-	0.00032	0.01576	0.00641	0.00357
Subtotals								

Table A.3.2-Alt2-M-1. Op. Crit. Poll. Emission Simulations -
POLB - MHTP - Mitigated Alternative 2

Volume Source Pounds per Hour

Activity/Source ID	p-Xylene	Styrene	Toluene	Ammonia	Arsenic	Copper
<i>Pier D In Gate</i>						
	0.00019	0.00012	0.00305	0.00067	0.00000	0.00001
Subtotals						
<i>Pier D Exit Road</i>						
	0.00006	0.00004	0.00099	0.00022	0.00000	0.00000
Subtotals						
<i>Pier D Out Gate</i>						
	0.00019	0.00012	0.00299	0.00066	0.00000	0.00001
Subtotals						
<i>Pier F Entry Road</i>						
	0.00003	0.00002	0.00049	0.00011	0.00000	0.00000
Subtotals						
<i>Pier F Exit Road</i>						
	0.00011	0.00007	0.00171	0.00038	0.00000	0.00000
Subtotals						
<i>Pier F Entry + Exit Road</i>						
	0.00014	0.00009	0.00221	0.00049	0.00000	0.00000
Subtotals						
<i>Pier F In + Out Gates</i>						
	0.00100	0.00061	0.01576	0.00347	0.00000	0.00003
Subtotals						

Table A.3.2-Alt2-M-1. Op. Crit. Poll. Emission Simulations -
POLB - MHTP - Mitigated Alternative 2

Volume Source Pounds per Hour

Activity/Source ID	Mercury	Nickel	Sulfates	Vanadium
<i>Pier D In Gate</i>				
	0.00001	0.00000	0.00367	0.00000
Subtotals				
<i>Pier D Exit Road</i>				
	0.00000	0.00000	0.00119	0.00000
Subtotals				
<i>Pier D Out Gate</i>				
	0.00001	0.00000	0.00358	0.00000
Subtotals				
<i>Pier F Entry Road</i>				
	0.00000	0.00000	0.00059	0.00000
Subtotals				
<i>Pier F Exit Road</i>				
	0.00000	0.00000	0.00206	0.00000
Subtotals				
<i>Pier F Entry + Exit Road</i>				
	0.00000	0.00000	0.00265	0.00000
Subtotals				
<i>Pier F In + Out Gates</i>				
	0.00003	0.00002	0.01891	0.00002
Subtotals				

Table A.3.2-Alt3-1. Op. Crit. Poll. Emission Simulations - POLB -
MHTP – NEPA Baseline

Volume Source Pounds per Hour

<i>Activity/Source ID</i>	<i>TOG</i>	<i>CO</i>	<i>NO₂</i>	<i>PM₁₀</i>	<i>PM_{2.5}</i>
<i>OGV - Harbor Transit - 1 4-5k TEU</i>					
	0.79	0.87	2.89	0.22	0.21
Subtotals	21.30	23.37	78.13	5.98	5.61
<i>OGV - Docking - 1 4-5k TEU</i>					
	9.92	9.01	30.25	2.50	2.35
Subtotals	9.92	9.01	30.25	2.50	2.35
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>					
	2.88	5.46	17.79	1.38	1.30
Subtotals	2.88	5.46	17.79	1.38	1.30
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>					
	0.18	1.57	1.08	0.51	0.50
Subtotals	0.18	1.57	1.08	0.51	0.50
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen cold-ironed)</i>					
	0.26	0.49	1.60	0.12	0.12
Subtotals	0.26	0.49	1.60	0.12	0.12
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)</i>					
	0.18	1.57	1.08	0.51	0.50
Subtotals	0.18	1.57	1.08	0.51	0.50
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>					
	0.08	0.41	0.98	0.07	0.07
Subtotals	2.09	10.99	26.43	1.88	1.76
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>					
	0.73	3.82	9.18	0.65	0.61
Subtotals	0.73	3.82	9.18	0.65	0.61
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>					
	0.01	0.02	0.03	0.00	0.00
Subtotals	0.30	0.52	0.74	0.08	0.08
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>					
	0.00	0.01	0.01	0.00	0.00
Subtotals	0.68	1.18	1.67	0.18	0.18
<i>Locomotives - Rail Yard</i>					
	0.05	0.10	0.12	0.01	0.01
Subtotals	1.40	2.82	3.43	0.35	0.35
<i>Rail Yard Equipment</i>					
	0.00	0.02	0.02	0.00	0.00
Subtotals	0.11	0.47	0.53	0.04	0.03
<i>Rail Yard - Locomotives + Equipment</i>					
	0.05	0.11	0.14	0.01	0.01
Subtotals	1.51	3.29	3.96	0.38	0.38

Table A.3.2-Alt3-1. Op. Crit. Poll. Emission Simulations - POLB -
MHTP – NEPA Baseline

Volume Source Pounds per Hour

Activity/Source ID	Benzene	Formaldehyde	Toluene	Xylenes	Methanol	MEK	m-Xylene	o-Xylene
<i>OGV - Harbor Transit - 1 4-5k TEU</i>								
	0.017	0.116	-	0.003	0.0002	0.012	0.005	0.004
Subtotals								
<i>OGV - Docking - 1 4-5k TEU</i>								
	0.218	1.458	-	0.034	0.0030	0.149	0.060	0.045
Subtotals								
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>								
	0.063	0.423	-	0.010	0.0009	0.043	0.018	0.013
Subtotals								
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>								
	0.004	0.000	0.004	0.001	-	-	-	-
Subtotals								
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen cold-ironed)</i>								
	0.006	0.038	-	0.001	0.0001	0.004	0.002	0.001
Subtotals								
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)</i>								
	0.004	0.000	0.004	0.001	-	-	-	-
Subtotals								
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>								
	0.002	0.011	-	-	0.000	0.001	0.000	0.000
Subtotals								
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>								
	0.015	0.107	-	-	0.000	0.011	0.004	0.002
Subtotals								
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>								
	0.000	0.002	-	-	0.000	0.000	0.000	0.000
Subtotals								
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>								
	0.000	0.001	-	-	0.000	0.000	0.000	0.000
Subtotals								
<i>Locomotives - Rail Yard</i>								
	0.001	0.007	-	-	0.000	0.001	0.000	0.000
Subtotals								
<i>Rail Yard Equipment</i>								
	0.000	0.001	-	-	0.000	0.000	0.000	0.000
Subtotals								
<i>Rail Yard - Locomotives + Equipment</i>								
	0.001	0.008	-	-	0.000	0.001	0.000	0.000
Subtotals								

Table A.3.2-Alt3-1. Op. Crit. Poll. Emission Simulations - POLB -
MHTP – NEPA Baseline

Volume Source Pounds per Hour

Activity/Source ID	p-Xylene	Styrene	Toluene	Ammonia	Arsenic
<i>OGV - Harbor Transit - 1 4-5k TEU</i>					
	0.001	0.0005	0.017	0.001	0.001
Subtotals					
<i>OGV - Docking - 1 4-5k TEU</i>					
	0.009	0.0058	0.218	0.008	0.013
Subtotals					
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>					
	0.003	0.0017	0.063	0.005	0.007
Subtotals					
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>					
	-	-	-	-	0.000
Subtotals					
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen cold-ironed)</i>					
	0.000	0.0002	0.006	0.000	0.001
Subtotals					
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)</i>					
	-	-	-	-	0.000
Subtotals					
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>					
	0.000	0.000	0.001	0.000	0.000
Subtotals					
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>					
	0.001	0.000	0.011	0.002	0.000
Subtotals					
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>					
	0.000	0.000	0.000	0.000	0.000
Subtotals					
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>					
	0.000	0.000	0.000	0.000	0.000
Subtotals					
<i>Locomotives - Rail Yard</i>					
	0.000	0.000	0.001	0.000	0.000
Subtotals					
<i>Rail Yard Equipment</i>					
	0.000	0.000	0.000	0.000	0.000
Subtotals					
<i>Rail Yard - Locomotives + Equipment</i>					
	0.000	0.000	0.001	0.000	0.000
Subtotals					

Table A.3.2-Alt3-1. Op. Crit. Poll. Emission Simulations - POLB -
MHTP – NEPA Baseline

Volume Source Pounds per Hour

Activity/Source ID	Copper	Mercury	Nickel	Sulfates	Vanadium
<i>OGV - Harbor Transit - 1 4-5k TEU</i>					
	0.0001	0.000006	0.001	0.097	0.001
Subtotals					
<i>OGV - Docking - 1 4-5k TEU</i>					
	0.0012	0.000065	0.014	1.100	0.014
Subtotals					
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>					
	0.0007	0.000036	0.008	0.609	0.008
Subtotals					
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>					
	0.000	-	0.009	0.054	0.001
Subtotals					
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen cold-ironed)</i>					
	0.0001	0.000003	0.001	0.055	0.001
Subtotals					
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)</i>					
	0.000	-	0.009	0.054	0.001
Subtotals					
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>					
	0.000	0.000	0.000	0.001	0.000
Subtotals					
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>					
	0.000	0.000	0.000	0.013	0.000
Subtotals					
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>					
	0.000	0.000	0.000	0.000	0.000
Subtotals					
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>					
	0.000	0.000	0.000	0.000	0.000
Subtotals					
<i>Locomotives - Rail Yard</i>					
	0.000	0.000	0.000	0.001	0.000
Subtotals					
<i>Rail Yard Equipment</i>					
	0.000	0.000	0.000	0.000	0.000
Subtotals					
<i>Rail Yard - Locomotives + Equipment</i>					
	0.000	0.000	0.000	0.001	0.000
Subtotals					

Table A.3.2-Alt3-1. Op. Crit. Poll. Emission Simulations - POLB -
MHTP – NEPA Baseline

Volume Source Pounds per Hour

<i>Activity/Source ID</i>	<i>TOG</i>	<i>CO</i>	<i>NO₂</i>	<i>PM₁₀</i>	<i>PM_{2.5}</i>
<i>Terminal Equipment</i>					
	0.02	0.10	0.16	0.01	0.01
	0.05	0.24	0.35	0.03	0.03
	0.07	0.30	0.45	0.04	0.03
	0.10	0.42	0.63	0.05	0.05
	0.15	0.65	0.98	0.08	0.07
	0.22	0.94	1.41	0.11	0.10
	0.30	1.28	1.92	0.15	0.14
	0.39	1.68	2.51	0.20	0.18
	0.87	3.77	5.65	0.45	0.41
	1.55	6.71	10.04	0.79	0.73
Subtotals					
<i>Trucks - On-Terminal</i>					
	0.02	0.04	0.03	0.00	0.00
	0.05	0.09	0.06	0.00	0.00
	0.07	0.12	0.08	0.00	0.00
	0.10	0.16	0.11	0.01	0.00
	0.15	0.26	0.18	0.01	0.01
	0.22	0.37	0.26	0.01	0.01
	0.29	0.50	0.35	0.02	0.01
	0.38	0.65	0.46	0.02	0.02
	0.86	1.47	1.03	0.05	0.04
	1.54	2.62	1.83	0.08	0.08
Subtotals					
<i>Terminal - Equipment + Trucks</i>					
	0.05	0.15	0.19	0.01	0.01
	0.11	0.33	0.42	0.03	0.03
	0.14	0.42	0.54	0.04	0.04
	0.19	0.58	0.74	0.05	0.05
	0.30	0.91	1.16	0.09	0.08
	0.43	1.31	1.67	0.12	0.11
	0.59	1.78	2.27	0.17	0.15
	0.77	2.33	2.97	0.22	0.20
	1.73	5.24	6.68	0.49	0.45
	3.08	9.32	11.88	0.87	0.80
Subtotals					
<i>Pier D Entry Road</i>					
	0.091	0.197	0.073	0.004	0.004
Subtotals	0.46	0.98	0.37	0.02	0.02

Table A.3.2-Alt3-1. Op. Crit. Poll. Emission Simulations - POLB -
MHTP – NEPA Baseline

Volume Source Pounds per Hour

Activity/Source ID	Benzene	Formaldehyde	Toluene	Xylenes	Methanol	MEK	m-Xylene	o-Xylene
<i>Terminal Equipment</i>								
	0.000	0.004	-	-	0.000	0.000	0.000	0.000
	0.001	0.008	-	-	0.000	0.001	0.000	0.000
	0.001	0.010	-	-	0.000	0.001	0.000	0.000
	0.002	0.014	-	-	0.000	0.001	0.001	0.000
	0.003	0.022	-	-	0.000	0.002	0.001	0.001
	0.004	0.032	-	-	0.000	0.003	0.001	0.001
	0.006	0.044	-	-	0.000	0.004	0.002	0.001
	0.008	0.057	-	-	0.000	0.006	0.002	0.001
	0.017	0.128	-	-	0.000	0.013	0.005	0.003
	0.031	0.227	-	-	0.000	0.023	0.009	0.005
Subtotals	-	-	-	-	-	-	-	-
<i>Trucks - On-Terminal</i>								
	0.000	0.004	-	-	0.000	0.000	0.000	0.000
	0.001	0.008	-	-	0.000	0.001	0.000	0.000
	0.001	0.010	-	-	0.000	0.001	0.000	0.000
	0.002	0.014	-	-	0.000	0.001	0.001	0.000
	0.003	0.022	-	-	0.000	0.002	0.001	0.001
	0.004	0.032	-	-	0.000	0.003	0.001	0.001
	0.006	0.043	-	-	0.000	0.004	0.002	0.001
	0.008	0.056	-	-	0.000	0.006	0.002	0.001
	0.017	0.127	-	-	0.000	0.013	0.005	0.003
	0.031	0.226	-	-	0.000	0.023	0.009	0.005
Subtotals	-	-	-	-	-	-	-	-
<i>Terminal - Equipment + Trucks</i>								
	0.0009638	0.0070836	-	-	0.0000145	0.0007228	0.0002939	0.0001638
	0.0021684	0.0159381	-	-	0.0000325	0.0016263	0.0006614	0.0003686
	0.0027853	0.0204716	-	-	0.0000418	0.0020889	0.0008495	0.0004735
	0.0038550	0.0283344	-	-	0.0000578	0.0028913	0.0011758	0.0006554
	0.0060235	0.0442725	-	-	0.0000904	0.0045176	0.0018372	0.0010240
	0.0086738	0.0637524	-	-	0.0001301	0.0065053	0.0026455	0.0014745
	0.0118060	0.0867741	-	-	0.0001771	0.0088545	0.0036008	0.0020070
	0.0154201	0.1133376	-	-	0.0002313	0.0115651	0.0047031	0.0026214
	0.0346952	0.2550095	-	-	0.0005204	0.0260214	0.0105820	0.0058982
	0.0616803	0.4533502	-	-	0.0009252	0.0462602	0.0188125	0.0104857
Subtotals								
<i>Pier D Entry Road</i>								
	0.002	0.013	-	-	0.000	0.001	0.001	0.000
Subtotals								

Table A.3.2-Alt3-1. Op. Crit. Poll. Emission Simulations - POLB -
MHTP – NEPA Baseline

Volume Source Pounds per Hour

Activity/Source ID	p-Xylene	Styrene	Toluene	Ammonia	Arsenic
<i>Terminal Equipment</i>	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.001	0.000	0.000
	0.000	0.000	0.001	0.000	0.000
	0.000	0.000	0.001	0.000	0.000
	0.000	0.000	0.002	0.000	0.000
	0.000	0.000	0.003	0.001	0.000
	0.000	0.000	0.004	0.001	0.000
	0.000	0.000	0.006	0.001	0.000
	0.001	0.001	0.013	0.003	0.000
	0.001	0.001	0.023	0.005	0.000
Subtotals	-	-	-	-	-
<i>Trucks - On-Terminal</i>	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.001	0.000	0.000
	0.000	0.000	0.001	0.000	0.000
	0.000	0.000	0.001	0.000	0.000
	0.000	0.000	0.002	0.000	0.000
	0.000	0.000	0.003	0.001	0.000
	0.000	0.000	0.004	0.001	0.000
	0.000	0.000	0.006	0.001	0.000
	0.001	0.001	0.013	0.003	0.000
	0.001	0.001	0.023	0.005	0.000
Subtotals	-	-	-	-	-
<i>Terminal - Equipment + Trucks</i>	0.0000458	0.0000279	0.0007228	0.0001590	0.0000002
	0.0001030	0.0000629	0.0016263	0.0003578	0.0000004
	0.0001323	0.0000808	0.0020889	0.0004596	0.0000006
	0.0001831	0.0001118	0.0028913	0.0006361	0.0000008
	0.0002861	0.0001747	0.0045176	0.0009939	0.0000012
	0.0004120	0.0002515	0.0065053	0.0014312	0.0000017
	0.0005608	0.0003424	0.0088545	0.0019480	0.0000024
	0.0007325	0.0004472	0.0115651	0.0025443	0.0000031
	0.0016480	0.0010062	0.0260214	0.0057247	0.0000069
	0.0029298	0.0017887	0.0462602	0.0101773	0.0000123
Subtotals					
<i>Pier D Entry Road</i>	0.000	0.000	0.001	0.000	0.000
Subtotals					

Table A.3.2-Alt3-1. Op. Crit. Poll. Emission Simulations - POLB -
MHTP – NEPA Baseline

Volume Source Pounds per Hour

Activity/Source ID	Copper	Mercury	Nickel	Sulfates	Vanadium
<i>Terminal Equipment</i>					
	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.001	0.000
	0.000	0.000	0.000	0.001	0.000
	0.000	0.000	0.000	0.002	0.000
	0.000	0.000	0.000	0.003	0.000
	0.000	0.000	0.000	0.004	0.000
	0.000	0.000	0.000	0.005	0.000
	0.000	0.000	0.000	0.007	0.000
	0.000	0.000	0.000	0.016	0.000
	0.000	0.000	0.000	0.028	0.000
Subtotals	-	-	-	-	-
<i>Trucks - On-Terminal</i>					
	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.001	0.000
	0.000	0.000	0.000	0.001	0.000
	0.000	0.000	0.000	0.002	0.000
	0.000	0.000	0.000	0.003	0.000
	0.000	0.000	0.000	0.004	0.000
	0.000	0.000	0.000	0.005	0.000
	0.000	0.000	0.000	0.007	0.000
	0.000	0.000	0.000	0.016	0.000
	0.000	0.000	0.000	0.028	0.000
Subtotals	-	-	-	-	-
<i>Terminal - Equipment + Trucks</i>					
	0.0000014	0.0000013	0.0000008	0.0008674	0.0000007
	0.0000033	0.0000028	0.0000017	0.0019516	0.0000016
	0.0000042	0.0000036	0.0000022	0.0025067	0.0000021
	0.0000058	0.0000050	0.0000031	0.0034695	0.0000029
	0.0000090	0.0000078	0.0000048	0.0054211	0.0000045
	0.0000130	0.0000113	0.0000069	0.0078064	0.0000065
	0.0000177	0.0000153	0.0000094	0.0106254	0.0000089
	0.0000231	0.0000200	0.0000123	0.0138781	0.0000116
	0.0000520	0.0000451	0.0000278	0.0312257	0.0000260
	0.0000925	0.0000802	0.0000493	0.0555123	0.0000463
Subtotals					
<i>Pier D Entry Road</i>					
	0.000	0.000	0.000	0.002	0.000
Subtotals					

Table A.3.2-Alt3-1. Op. Crit. Poll. Emission Simulations - POLB -
MHTP – NEPA Baseline

Volume Source Pounds per Hour

<i>Activity/Source ID</i>	<i>TOG</i>	<i>CO</i>	<i>NO₂</i>	<i>PM₁₀</i>	<i>PM_{2.5}</i>
<i>Pier D In Gate</i>					
	0.21	0.27	0.11	0.01	0.01
Subtotals	1.03	1.36	0.57	0.03	0.03
<i>Pier D Exit Road</i>					
	0.07	0.14	0.05	0.00	0.00
Subtotals	0.13	0.29	0.11	0.01	0.01
<i>Pier D Out Gate</i>					
	0.20	0.27	0.11	0.01	0.01
Subtotals	0.60	0.80	0.33	0.02	0.02
<i>Pier F Entry Road</i>					
	0.03	0.07	0.03	0.00	0.00
Subtotals	0.10	0.21	0.08	0.00	0.00
<i>Pier F Exit Road</i>					
	0.12	0.25	0.09	0.01	0.00
Subtotals	0.35	0.75	0.28	0.02	0.01
<i>Pier F Entry + Exit Road</i>					
	0.15	0.32	0.12	0.01	0.01
Subtotals	0.45	0.96	0.36	0.02	0.02
<i>Pier F In + Out Gates</i>					
	1.06	1.41	0.59	0.03	0.03
Subtotals	1.06	1.41	0.59	0.03	0.03

Table A.3.2-Alt3-1. Op. Crit. Poll. Emission Simulations - POLB -
MHTP – NEPA Baseline

Volume Source Pounds per Hour

<i>Activity/Source ID</i>	Benzene	Formaldehyde	Toluene	Xylenes	Methanol	MEK	m-Xylene	o-Xylene
<i>Pier D In Gate</i>								
	0.004	0.030	-	-	0.000	0.003	0.001	0.001
Subtotals								
<i>Pier D Exit Road</i>								
	0.001	0.010	-	-	0.000	0.001	0.000	0.000
Subtotals								
<i>Pier D Out Gate</i>								
	0.004	0.030	-	-	0.000	0.003	0.001	0.001
Subtotals								
<i>Pier F Entry Road</i>								
	0.001	0.005	-	-	0.000	0.000	0.000	0.000
Subtotals								
<i>Pier F Exit Road</i>								
	0.002	0.017	-	-	0.000	0.002	0.001	0.000
Subtotals								
<i>Pier F Entry + Exit Road</i>								
	0.003	0.022	-	-	0.000	0.002	0.001	0.001
Subtotals								
<i>Pier F In + Out Gates</i>								
	0.021	0.156	-	-	0.000	0.016	0.006	0.004
Subtotals								

Table A.3.2-Alt3-1. Op. Crit. Poll. Emission Simulations - POLB -
MHTP – NEPA Baseline

Volume Source Pounds per Hour

<i>Activity/Source ID</i>	p-Xylene	Styrene	Toluene	Ammonia	Arsenic
<i>Pier D In Gate</i>					
	0.000	0.000	0.003	0.001	0.000
Subtotals					
<i>Pier D Exit Road</i>					
	0.000	0.000	0.001	0.000	0.000
Subtotals					
<i>Pier D Out Gate</i>					
	0.000	0.000	0.003	0.001	0.000
Subtotals					
<i>Pier F Entry Road</i>					
	0.000	0.000	0.000	0.000	0.000
Subtotals					
<i>Pier F Exit Road</i>					
	0.000	0.000	0.002	0.000	0.000
Subtotals					
<i>Pier F Entry + Exit Road</i>					
	0.000	0.000	0.002	0.000	0.000
Subtotals					
<i>Pier F In + Out Gates</i>					
	0.001	0.001	0.016	0.004	0.000
Subtotals					

Table A.3.2-Alt3-1. Op. Crit. Poll. Emission Simulations - POLB -
MHTP – NEPA Baseline

Volume Source Pounds per Hour

<i>Activity/Source ID</i>	Copper	Mercury	Nickel	Sulfates	Vanadium
<i>Pier D In Gate</i>					
	0.000	0.000	0.000	0.004	0.000
Subtotals					
<i>Pier D Exit Road</i>					
	0.000	0.000	0.000	0.001	0.000
Subtotals					
<i>Pier D Out Gate</i>					
	0.000	0.000	0.000	0.004	0.000
Subtotals					
<i>Pier F Entry Road</i>					
	0.000	0.000	0.000	0.001	0.000
Subtotals					
<i>Pier F Exit Road</i>					
	0.000	0.000	0.000	0.002	0.000
Subtotals					
<i>Pier F Entry + Exit Road</i>					
	0.000	0.000	0.000	0.003	0.000
Subtotals					
<i>Pier F In + Out Gates</i>					
	0.000	0.000	0.000	0.019	0.000
Subtotals					

Table A.3.2-Alt4NP-1. Acute Op. Hourly/Daily Emissions - POLB - MHTP – Alternative 4.

Volume Source Pounds per Hour

Activity/Source ID	TOG	CO	NO ₂	PM ₁₀	PM _{2.5}
<i>OGV - Harbor Transit - 1 4-5k TEU</i>					
	0.79	0.87	2.89	0.22	0.21
Subtotals	21.30	23.37	78.13	5.98	5.61
<i>OGV - Docking - 1 4-5k TEU</i>					
	9.92	9.01	30.25	2.50	2.35
Subtotals	9.92	9.01	30.25	2.50	2.35
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>					
	2.88	5.46	17.79	1.38	1.30
Subtotals	2.88	5.46	17.79	1.38	1.30
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>					
	0.18	1.57	1.08	0.51	0.50
Subtotals	0.18	1.57	1.08	0.51	0.50
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen no cold-iron)</i>					
	2.59	4.91	16.01	1.25	1.17
Subtotals	2.59	4.91	16.01	1.25	1.17
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)</i>					
	0.18	1.57	1.08	0.51	0.50
Subtotals	0.18	1.57	1.08	0.51	0.50
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>					
	0.08	0.41	0.98	0.07	0.07
Subtotals	2.09	10.99	26.43	1.88	1.76
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>					
	0.73	3.82	9.18	0.65	0.61
Subtotals	0.73	3.82	9.18	0.65	0.61
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>					
	0.01	0.02	0.03	0.00	0.00
Subtotals	0.30	0.52	0.74	0.08	0.08
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>					
	0.00	0.01	0.01	0.00	0.00
Subtotals	0.68	1.18	1.67	0.18	0.18
<i>Locomotives - Rail Yard</i>					
	0.05	0.10	0.12	0.01	0.01
Subtotals	1.40	2.82	3.43	0.35	0.35
<i>Rail Yard Equipment</i>					
	0.01	0.03	0.03	0.00	0.00
Subtotals	0.19	0.96	0.88	0.11	0.10
<i>Rail Yard - Locomotives + Equipment</i>					
	0.05	0.13	0.15	0.02	0.02
Subtotals	1.59	3.77	4.31	0.45	0.45

Table A.3.2-Alt4NP-1. Acute Op. Hourly/Daily Emissions - POLB - MHTP - Alternative 4.

Activity/Source ID	Volume Source Pounds per Hour						
	Benzene	Formaldehyde	Toluene	Xylenes	Methanol	MEK	m-Xylene
<i>OGV - Harbor Transit - 1 4-5k TEU</i>							
	0.017	0.116	-	0.003	0.0002	0.012	0.005
Subtotals							
<i>OGV - Docking - 1 4-5k TEU</i>							
	0.218	1.458	-	0.034	0.0030	0.149	0.060
Subtotals							
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>							
	0.063	0.423	-	0.010	0.0009	0.043	0.018
Subtotals							
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>							
	0.004	0.000	0.004	0.001	-	-	-
Subtotals							
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen no cold-iron)</i>							
	0.057	0.381	-	0.009	0.0008	0.039	0.016
Subtotals							
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)</i>							
	0.004	0.000	0.004	0.001	-	-	-
Subtotals							
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>							
	0.002	0.011	-	-	0.000	0.001	0.000
Subtotals							
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>							
	0.015	0.107	-	-	0.000	0.011	0.004
Subtotals							
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>							
	0.000	0.002	-	-	0.000	0.000	0.000
Subtotals							
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>							
	0.000	0.001	-	-	0.000	0.000	0.000
Subtotals							
<i>Locomotives - Rail Yard</i>							
	0.001	0.007	-	-	0.000	0.001	0.000
Subtotals							
<i>Rail Yard Equipment</i>							
	0.000	0.001	-	-	0.000	0.000	0.000
Subtotals							
<i>Rail Yard - Locomotives + Equipment</i>							
	0.001	0.008	-	-	0.000	0.001	0.000
Subtotals							

Table A.3.2-Alt4NP-1. Acute Op. Hourly/Daily Emissions - POLB - MHTP - Alternative 4.

Activity/Source ID	Volume Source Pounds per Hour						
	o-Xylene	p-Xylene	Styrene	Toluene	Ammonia	Arsenic	Copper
<i>OGV - Harbor Transit - 1 4-5k TEU</i>							
	0.004	0.001	0.0005	0.017	0.001	0.001	0.0001
Subtotals							
<i>OGV - Docking - 1 4-5k TEU</i>							
	0.045	0.009	0.0058	0.218	0.008	0.013	0.0012
Subtotals							
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>							
	0.013	0.003	0.0017	0.063	0.005	0.007	0.0007
Subtotals							
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>							
	-	-	-	-	-	0.000	0.000
Subtotals							
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen no cold-iron)</i>							
	0.012	0.002	0.0015	0.057	0.004	0.007	0.0006
Subtotals							
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)</i>							
	-	-	-	-	-	0.000	0.000
Subtotals							
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>							
	0.000	0.000	0.000	0.001	0.000	0.000	0.000
Subtotals							
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>							
	0.002	0.001	0.000	0.011	0.002	0.000	0.000
Subtotals							
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>							
	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Subtotals							
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>							
	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Subtotals							
<i>Locomotives - Rail Yard</i>							
	0.000	0.000	0.000	0.001	0.000	0.000	0.000
Subtotals							
<i>Rail Yard Equipment</i>							
	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Subtotals							
<i>Rail Yard - Locomotives + Equipment</i>							
	0.000	0.000	0.000	0.001	0.000	0.000	0.000
Subtotals							

Table A.3.2-Alt4NP-1. Acute Op. Hourly/Daily Emissions - POLB - MHTP - Alternative 4.

Activity/Source ID	Volume Source Pounds per Hour			
	Mercury	Nickel	Sulfates	Vanadium
<i>OGV - Harbor Transit - 1 4-5k TEU</i>				
	0.000006	0.001	0.097	0.001
Subtotals				
<i>OGV - Docking - 1 4-5k TEU</i>				
	0.000065	0.014	1.100	0.014
Subtotals				
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (aux gen no cold-iron)</i>				
	0.000036	0.008	0.609	0.008
Subtotals				
<i>OGV - Hoteling - 1 8-10k TEU - Berth F6 (boiler)</i>				
	-	0.009	0.054	0.001
Subtotals				
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (aux gen no cold-iron)</i>				
	0.000032	0.007	0.548	0.007
Subtotals				
<i>OGV - Hoteling - 1 6-7k TEU - Berth E26 (boiler)</i>				
	-	0.009	0.054	0.001
Subtotals				
<i>Tugs - Harbor Transit - 2@ 0.72 hrs of ops</i>				
	0.000	0.000	0.001	0.000
Subtotals				
<i>Tugs - Docking - 2@ 0.25 hrs of ops</i>				
	0.000	0.000	0.013	0.000
Subtotals				
<i>Haul Line Locomotive - 10 mph - Port to Ocean Blvd</i>				
	0.000	0.000	0.000	0.000
Subtotals				
<i>Haul Line Locomotive - 20 mph - Ocean Blvd to PCH</i>				
	0.000	0.000	0.000	0.000
Subtotals				
<i>Locomotives - Rail Yard</i>				
	0.000	0.000	0.001	0.000
Subtotals				
<i>Rail Yard Equipment</i>				
	0.000	0.000	0.000	0.000
Subtotals				
<i>Rail Yard - Locomotives + Equipment</i>				
	0.000	0.000	0.001	0.000
Subtotals				

Table A.3.2-Alt4NP-1. Acute Op. Hourly/Daily Emissions - POLB - MHTP - Alternative 4.

Volume Source Pounds per Hour

Activity/Source ID	TOG	CO	NO ₂	PM ₁₀	PM _{2.5}
<i>Terminal Equipment</i>					
	0.03	0.15	0.16	0.02	0.02
	0.06	0.33	0.36	0.04	0.04
	0.07	0.43	0.46	0.05	0.05
	0.10	0.59	0.63	0.07	0.07
	0.16	0.92	0.99	0.12	0.11
	0.23	1.33	1.42	0.17	0.15
	0.31	1.81	1.94	0.23	0.21
	0.41	2.36	2.53	0.30	0.28
	0.92	5.31	5.69	0.67	0.62
	1.63	9.45	10.11	1.20	1.10
Subtotals					
<i>Trucks - On-Terminal</i>					
	0.03	0.04	0.04	0.00	0.00
	0.06	0.09	0.09	0.00	0.00
	0.07	0.12	0.11	0.00	0.00
	0.10	0.17	0.15	0.01	0.01
	0.16	0.26	0.24	0.01	0.01
	0.23	0.37	0.35	0.01	0.01
	0.31	0.51	0.47	0.02	0.02
	0.41	0.66	0.61	0.02	0.02
	0.91	1.49	1.38	0.05	0.05
	1.62	2.64	2.46	0.10	0.09
Subtotals					
<i>Terminal - Equipment + Trucks</i>					
	0.05	0.19	0.20	0.02	0.02
	0.11	0.43	0.44	0.05	0.04
	0.15	0.55	0.57	0.06	0.05
	0.20	0.76	0.79	0.08	0.07
	0.32	1.18	1.23	0.13	0.12
	0.46	1.70	1.77	0.18	0.17
	0.62	2.31	2.41	0.25	0.23
	0.81	3.02	3.14	0.32	0.30
	1.83	6.80	7.07	0.73	0.67
	3.26	12.09	12.57	1.29	1.19
Subtotals					
<i>Pier D Entry Road</i>					
	0.068	0.146	0.070	0.003	0.003
Subtotals	0.34	0.73	0.35	0.02	0.02

Table A.3.2-Alt4NP-1. Acute Op. Hourly/Daily Emissions - POLB - MHTP - Alternative 4.

Volume Source Pounds per Hour

Activity/Source ID	Benzene	Formaldehyde	Toluene	Xylenes	Methanol	MEK	m-Xylene
<i>Terminal Equipment</i>	0.001	0.004	-	-	0.000	0.000	0.000
	0.001	0.008	-	-	0.000	0.001	0.000
	0.001	0.011	-	-	0.000	0.001	0.000
	0.002	0.015	-	-	0.000	0.002	0.001
	0.003	0.023	-	-	0.000	0.002	0.001
	0.005	0.034	-	-	0.000	0.003	0.001
	0.006	0.046	-	-	0.000	0.005	0.002
	0.008	0.060	-	-	0.000	0.006	0.002
	0.018	0.135	-	-	0.000	0.014	0.006
	0.033	0.240	-	-	0.000	0.025	0.010
	Subtotals	-	-	-	-	-	-
<i>Trucks - On-Terminal</i>	0.001	0.004	-	-	0.000	0.000	0.000
	0.001	0.008	-	-	0.000	0.001	0.000
	0.001	0.011	-	-	0.000	0.001	0.000
	0.002	0.015	-	-	0.000	0.002	0.001
	0.003	0.023	-	-	0.000	0.002	0.001
	0.005	0.034	-	-	0.000	0.003	0.001
	0.006	0.046	-	-	0.000	0.005	0.002
	0.008	0.060	-	-	0.000	0.006	0.002
	0.018	0.134	-	-	0.000	0.014	0.006
	0.032	0.239	-	-	0.000	0.024	0.010
	Subtotals	-	-	-	-	-	-
<i>Terminal - Equipment + Trucks</i>	0.0010179	0.0074818	-	-	0.0000153	0.0007635	0.0003105
	0.0022904	0.0168342	-	-	0.0000344	0.0017178	0.0006986
	0.0029418	0.0216225	-	-	0.0000441	0.0022064	0.0008973
	0.0040718	0.0299274	-	-	0.0000611	0.0030538	0.0012419
	0.0063621	0.0467615	-	-	0.0000954	0.0047716	0.0019404
	0.0091614	0.0673366	-	-	0.0001374	0.0068711	0.0027942
	0.0124697	0.0916526	-	-	0.0001870	0.0093523	0.0038033
	0.0162870	0.1197095	-	-	0.0002443	0.0122153	0.0049675
	0.0366458	0.2693465	-	-	0.0005497	0.0274843	0.0111770
	0.0651481	0.4788382	-	-	0.0009772	0.0488610	0.0198702
	Subtotals						
<i>Pier D Entry Road</i>	0.001	0.010	-	-	0.000	0.001	0.000
	Subtotals						

Table A.3.2-Alt4NP-1. Acute Op. Hourly/Daily Emissions - POLB - MHTP - Alternative 4.

Activity/Source ID	Volume Source Pounds per Hour						
	o-Xylene	p-Xylene	Styrene	Toluene	Ammonia	Arsenic	Copper
<i>Terminal Equipment</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.001	0.000	0.000	0.000
	0.000	0.000	0.000	0.001	0.000	0.000	0.000
	0.000	0.000	0.000	0.002	0.000	0.000	0.000
	0.001	0.000	0.000	0.002	0.001	0.000	0.000
	0.001	0.000	0.000	0.003	0.001	0.000	0.000
	0.001	0.000	0.000	0.005	0.001	0.000	0.000
	0.001	0.000	0.000	0.006	0.001	0.000	0.000
	0.003	0.001	0.001	0.014	0.003	0.000	0.000
	0.006	0.002	0.001	0.025	0.005	0.000	0.000
	Subtotals	-	-	-	-	-	-
<i>Trucks - On-Terminal</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.001	0.000	0.000	0.000
	0.000	0.000	0.000	0.001	0.000	0.000	0.000
	0.000	0.000	0.000	0.002	0.000	0.000	0.000
	0.001	0.000	0.000	0.002	0.001	0.000	0.000
	0.001	0.000	0.000	0.003	0.001	0.000	0.000
	0.001	0.000	0.000	0.005	0.001	0.000	0.000
	0.001	0.000	0.000	0.006	0.001	0.000	0.000
	0.003	0.001	0.001	0.014	0.003	0.000	0.000
	0.006	0.002	0.001	0.024	0.005	0.000	0.000
	Subtotals	-	-	-	-	-	-
<i>Terminal - Equipment + Trucks</i>	0.0001730	0.0000484	0.0000295	0.0007635	0.0001680	0.0000002	0.0000015
	0.0003894	0.0001088	0.0000664	0.0017178	0.0003779	0.0000005	0.0000034
	0.0005001	0.0001397	0.0000853	0.0022064	0.0004854	0.0000006	0.0000044
	0.0006922	0.0001934	0.0001181	0.0030538	0.0006718	0.0000008	0.0000061
	0.0010816	0.0003022	0.0001845	0.0047716	0.0010497	0.0000013	0.0000095
	0.0015574	0.0004352	0.0002657	0.0068711	0.0015116	0.0000018	0.0000137
	0.0021199	0.0005923	0.0003616	0.0093523	0.0020575	0.0000025	0.0000187
	0.0027688	0.0007736	0.0004723	0.0122153	0.0026874	0.0000033	0.0000244
	0.0062298	0.0017407	0.0010627	0.0274843	0.0060466	0.0000073	0.0000550
	0.0110752	0.0030945	0.0018893	0.0488610	0.0107494	0.0000130	0.0000977
	Subtotals						
<i>Pier D Entry Road</i>	0.000	0.000	0.000	0.001	0.000	0.000	0.000
Subtotals							

Table A.3.2-Alt4NP-1. Acute Op. Hourly/Daily Emissions - POLB - MHTP - Alternative 4.

Activity/Source ID	Volume Source Pounds per Hour			
	Mercury	Nickel	Sulfates	Vanadium
<i>Terminal Equipment</i>				
	0.000	0.000	0.000	0.000
	0.000	0.000	0.001	0.000
	0.000	0.000	0.001	0.000
	0.000	0.000	0.002	0.000
	0.000	0.000	0.003	0.000
	0.000	0.000	0.004	0.000
	0.000	0.000	0.006	0.000
	0.000	0.000	0.007	0.000
	0.000	0.000	0.017	0.000
	0.000	0.000	0.029	0.000
Subtotals	-	-	-	-
<i>Trucks - On-Terminal</i>				
	0.000	0.000	0.000	0.000
	0.000	0.000	0.001	0.000
	0.000	0.000	0.001	0.000
	0.000	0.000	0.002	0.000
	0.000	0.000	0.003	0.000
	0.000	0.000	0.004	0.000
	0.000	0.000	0.006	0.000
	0.000	0.000	0.007	0.000
	0.000	0.000	0.016	0.000
	0.000	0.000	0.029	0.000
Subtotals	-	-	-	-
<i>Terminal - Equipment + Trucks</i>				
	0.0000013	0.0000008	0.0009161	0.0000008
	0.0000030	0.0000018	0.0020613	0.0000017
	0.0000038	0.0000024	0.0026477	0.0000022
	0.0000053	0.0000033	0.0036646	0.0000031
	0.0000083	0.0000051	0.0057259	0.0000048
	0.0000119	0.0000073	0.0082453	0.0000069
	0.0000162	0.0000100	0.0112228	0.0000094
	0.0000212	0.0000130	0.0146583	0.0000122
	0.0000476	0.0000293	0.0329812	0.0000275
	0.0000847	0.0000521	0.0586332	0.0000489
Subtotals				
<i>Pier D Entry Road</i>				
	0.000	0.000	0.001	0.000
Subtotals				

Table A.3.2-Alt4NP-1. Acute Op. Hourly/Daily Emissions - POLB - MHTP - Alternative 4.

Volume Source Pounds per Hour

Activity/Source ID	TOG	CO	NO ₂	PM ₁₀	PM _{2.5}
<i>Pier D In Gate</i>					
	0.15	0.20	0.11	0.01	0.00
Subtotals	0.77	1.01	0.55	0.03	0.02
<i>Pier D Exit Road</i>					
	0.05	0.11	0.05	0.00	0.00
Subtotals	0.10	0.21	0.10	0.00	0.00
<i>Pier D Out Gate</i>					
	0.15	0.20	0.11	0.00	0.00
Subtotals	0.44	0.59	0.32	0.01	0.01
<i>Pier F Entry Road</i>					
	0.04	0.08	0.04	0.00	0.00
Subtotals	0.11	0.24	0.12	0.01	0.01
<i>Pier F Exit Road</i>					
	0.13	0.28	0.13	0.01	0.01
Subtotals	0.39	0.83	0.40	0.02	0.02
<i>Pier F Entry + Exit Road</i>					
	0.17	0.36	0.17	0.01	0.01
Subtotals	0.50	1.07	0.51	0.02	0.02
<i>Pier F In + Out Gates</i>					
	1.19	1.58	0.85	0.04	0.04
Subtotals	1.19	1.58	0.85	0.04	0.04

Table A.3.2-Alt4NP-1. Acute Op. Hourly/Daily Emissions - POLB - MHTP - Alternative 4.

Activity/Source ID	Volume Source Pounds per Hour						
	Benzene	Formaldehyde	Toluene	Xylenes	Methanol	MEK	m-Xylene
<i>Pier D In Gate</i>							
	0.003	0.023	-	-	0.000	0.002	0.001
Subtotals							
<i>Pier D Exit Road</i>							
	0.001	0.007	-	-	0.000	0.001	0.000
Subtotals							
<i>Pier D Out Gate</i>							
	0.003	0.022	-	-	0.000	0.002	0.001
Subtotals							
<i>Pier F Entry Road</i>							
	0.001	0.006	-	-	0.000	0.001	0.000
Subtotals							
<i>Pier F Exit Road</i>							
	0.003	0.019	-	-	0.000	0.002	0.001
Subtotals							
<i>Pier F Entry + Exit Road</i>							
	0.003	0.024	-	-	0.000	0.002	0.001
Subtotals							
<i>Pier F In + Out Gates</i>							
	0.024	0.175	-	-	0.000	0.018	0.007
Subtotals							

Table A.3.2-Alt4NP-1. Acute Op. Hourly/Daily Emissions - POLB - MHTP - Alternative 4.

Activity/Source ID	Volume Source Pounds per Hour						
	o-Xylene	p-Xylene	Styrene	Toluene	Ammonia	Arsenic	Copper
<i>Pier D In Gate</i>							
	0.001	0.000	0.000	0.002	0.001	0.000	0.000
Subtotals							
<i>Pier D Exit Road</i>							
	0.000	0.000	0.000	0.001	0.000	0.000	0.000
Subtotals							
<i>Pier D Out Gate</i>							
	0.001	0.000	0.000	0.002	0.000	0.000	0.000
Subtotals							
<i>Pier F Entry Road</i>							
	0.000	0.000	0.000	0.001	0.000	0.000	0.000
Subtotals							
<i>Pier F Exit Road</i>							
	0.000	0.000	0.000	0.002	0.000	0.000	0.000
Subtotals							
<i>Pier F Entry + Exit Road</i>							
	0.001	0.000	0.000	0.002	0.001	0.000	0.000
Subtotals							
<i>Pier F In + Out Gates</i>							
	0.004	0.001	0.001	0.018	0.004	0.000	0.000
Subtotals							

Table A.3.2-Alt4NP-1. Acute Op. Hourly/Daily Emissions - POLB - MHTP - Alternative 4.

<i>Activity/Source ID</i>	<i>Volume Source Pounds per Hour</i>			
	Mercury	Nickel	Sulfates	Vanadium
<i>Pier D In Gate</i>				
	0.000	0.000	0.003	0.000
Subtotals				
<i>Pier D Exit Road</i>				
	0.000	0.000	0.001	0.000
Subtotals				
<i>Pier D Out Gate</i>				
	0.000	0.000	0.003	0.000
Subtotals				
<i>Pier F Entry Road</i>				
	0.000	0.000	0.001	0.000
Subtotals				
<i>Pier F Exit Road</i>				
	0.000	0.000	0.002	0.000
Subtotals				
<i>Pier F Entry + Exit Road</i>				
	0.000	0.000	0.003	0.000
Subtotals				
<i>Pier F In + Out Gates</i>				
	0.000	0.000	0.021	0.000
Subtotals				

**Attachment A-3.3 –
Chronic Health Risk Analysis
Modeled Emissions Tables**

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- Table A.3.3-1. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Mitigated Alternative 1.
- Table A.3.3-2. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Unmitigated Alternative 1.
- Table A.3.3-3. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Mitigated Alternative 2.
- Table A.3.3-4. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Unmitigated Alternative 2.
- Table A.3.3-5. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Alternative 3.
- Table A.3.3-5. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Alternative 3.
- Table A.3.3-6. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Alternative 4.
- Table A.3.3-7. Year 2005 Annual Operational Emissions for Chronic HRA - POLB - MHTP - CEQA Baseline.

Table A.3.3-1. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Mitigated Alternative 1.

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Terminal Equipment	RTGs on Pier E - CAAP - Config A	5,051	2,249
Terminal Equipment	RTGs on Pier F - CAAP - Config A	746	332
Terminal Equipment	Top Picks on Pier E - CAAP - Config A	1,354	955
Terminal Equipment	Top Picks on Pier F - CAAP - Config A	240	169
Terminal Equipment	Side Picks on Pier E - CAAP - Config A	816	869
Terminal Equipment	Side Picks on Pier F - CAAP - Config A	227	242
Terminal Equipment	Yard Tractors on Pier E - CAAP - Config A	212	156
Terminal Equipment	Yard Tractors on Pier F - CAAP - Config A	67	49
Harborcraft	Tugboat assist - main engine - Config A	550	711
Harborcraft	Tugboat assist - aux engine - Config A	50	74
Ships Hotelling	Ships - Boilers - Hotelling - Config A	1,132	4,504
Ships Hotelling	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	3,390	2,365
Ships Hotelling	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships Hotelling	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships Hotelling	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	3,054	2,130
Ships Hotelling	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships Hotelling	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	2,748	1,917
Ships Hotelling	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Railyard Equipment	RTGs - CAAP - Existing Railyard	80	36
Railyard Equipment	Yard Tractors - CAAP - Existing Railyard	6	4
Locomotives	Line Haul Locomotive - Day Switching - Existing Railyard	157	60
Locomotives	Yard Locomotive - Day - Existing Railyard	61	18
Locomotives	Line Haul Locomotive - Night Switching - Existing Railyard	157	60
Locomotives	Yard Locomotive - Night - Existing Railyard	61	18
Locomotives	Line Haul Locomotive - Day 10 mph - Port to Ocean Blvd	26	10
Locomotives	Line Haul Locomotive - Night 10 mph - Port to Ocean Blvd	26	10
Locomotives	Line Haul Locomotive - Day 20 mph - Ocean Blvd to Alameda Corridor	59	23
Locomotives	Line Haul Locomotive - Night 20 mph - Ocean Blvd to Alameda Corridor	59	23
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	3,371	1,319
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	2,921	1,143
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	3,727	1,590
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Precautionary Area	3,119	1,012
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Precautionary Area	2,703	877
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Precautionary Area	4,033	1,308
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	207	145
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	187	130
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	203	142
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Precautionary Area	328	229
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Precautionary Area	295	206
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Precautionary Area	322	224

Table A.3.3-1. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Mitigated Alternative 1.

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships - Boilers - Precautionary Area	51	204
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	2,530	557
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	4,107	829
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	3,150	693
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	415	289
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	374	261
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	407	284
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships - Boilers - Harbor Transit - Config A	32	129
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Docking - Config A	1,511	305
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Docking - Config A	1,389	280
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Docking - Config A	1,862	376
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	489	108
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	794	160
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	609	134
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Docking - Config A	172	120
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Docking - Config A	155	108
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Docking - Config A	168	117
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	80	56
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	72	50
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	79	55
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	-	-
Ships in Transit	Ships - Boilers - Docking - Config A	13	53
Ships in Transit	Ships - Boilers - Turning - West (Proposed) Location	6	25
Trucks	Truck Idling on Terminal - Config A - CAAP	3,802	428
Trucks	Truck Driving on Terminal - Config A - CAAP	13,025	466
Trucks	Truck Driving on Terminal - Config E - CAAP	8,419	301
Trucks	Truck Idling on Terminal - Config E - CAAP	2,458	277
Trucks	Trucks - Mitigated Project (Alt 1) - 10th Street: Pico - 9th (NB only)	137	12
Trucks	Trucks - Mitigated Project (Alt 1) - 9th Street: Anaheim St - Santa Fe	92	9
Trucks	Trucks - Mitigated Project (Alt 1) - 9th Street: Caspian - Pico (SB only)	115	12
Trucks	Trucks - Mitigated Project (Alt 1) - 9th Street: Santa Fe to 10th	106	9

Table A.3.3-1. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Mitigated Alternative 1.

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Trucks	Trucks - Mitigated Project (Alt 1) - Alameda St: Eubank - Anaheim St	172	14
Trucks	Trucks - Mitigated Project (Alt 1) - Anaheim St: Alameda - SR-47	57	4
Trucks	Trucks - Mitigated Project (Alt 1) - Anaheim St: SR-47 - 9th St	311	26
Trucks	Trucks - Mitigated Project (Alt 1) - Harbor Plaza: Pier F Ave - Pier G Ave	326	29
Trucks	Trucks - Mitigated Project (Alt 1) - Harbor Plaza: Pier G Ave - Queens Way Bridge	191	17
Trucks	Trucks - Mitigated Project (Alt 1) - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	860	115
Trucks	Trucks - Mitigated Project (Alt 1) - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	128	17
Trucks	Trucks - Mitigated Project (Alt 1) - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	469	61
Trucks	Trucks - Mitigated Project (Alt 1) - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	501	58
Trucks	Trucks - Mitigated Project (Alt 1) - I-710 : n/o 9th Street Onramp (Northbound)	2,679	351
Trucks	Trucks - Mitigated Project (Alt 1) - I-710 : n/o Anaheim SB On Ramp (Southbound)	2,133	261
Trucks	Trucks - Mitigated Project (Alt 1) - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	366	43
Trucks	Trucks - Mitigated Project (Alt 1) - Ocean Blvd: Bridge - I-710 Offramp	234	22
Trucks	Trucks - Mitigated Project (Alt 1) - Ocean Blvd: Seaside Blvd OnRamp - Bridge	467	43
Trucks	Trucks - Mitigated Project (Alt 1) - Offramp: I-710 at 9th Street (Southbound)	172	14
Trucks	Trucks - Mitigated Project (Alt 1) - Onramp: 9th St - I-710 (Northbound)	271	22
Trucks	Trucks - Mitigated Project (Alt 1) - Pico Ave: Harbor Scenic Connector - Harbor Plaza	674	61
Trucks	Trucks - Mitigated Project (Alt 1) - Pico Ave: Pier B St - Pier D St	1,649	150
Trucks	Trucks - Mitigated Project (Alt 1) - Pico Ave: Pier D St - Terminal Entrance	458	41
Trucks	Trucks - Mitigated Project (Alt 1) - Pico Ave: Pier E St - Harbor Scenic Connector	134	12
Trucks	Trucks - Mitigated Project (Alt 1) - Pico Ave: Terminal Entrance - Pier E St	54	5
Trucks	Trucks - Mitigated Project (Alt 1) - Pier D Entry Road (off Pico)	1,355	69
Trucks	Trucks - Mitigated Project (Alt 1) - Pier D Exit Road (off Pier D St)	685	35
Trucks	Trucks - Mitigated Project (Alt 1) - Pier D St: w/o Pico Ave - w/o Pico Ave	1,559	129
Trucks	Trucks - Mitigated Project (Alt 1) - Pier E St Off Ramp : Pico Ave - Ocean Blvd	88	8
Trucks	Trucks - Mitigated Project (Alt 1) - Pier F Ave: Middle Harbor - Harbor Plaza	2,067	184
Trucks	Trucks - Mitigated Project (Alt 1) - Pier F Entry Road (off Pier F Ave)	360	18
Trucks	Trucks - Mitigated Project (Alt 1) - Pier F Exit Road (off Pier F Ave)	886	45
Trucks	Trucks - Mitigated Project (Alt 1) - Santa Fe: 9th St - Anaheim St	33	3
Trucks	Trucks - Mitigated Project (Alt 1) - Santa Fe: n/o Anaheim St - s/o Willow St	155	14
Trucks	Trucks - Proposed Project - Tire Wear - 10th Street: Pico - 9th (NB only)		4
Trucks	Trucks - Proposed Project - Tire Wear - 9th Street: Anaheim St - Santa Fe		3
Trucks	Trucks - Proposed Project - Tire Wear - 9th Street: Caspian - Pico (SB only)		4
Trucks	Trucks - Proposed Project - Tire Wear - 9th Street: Santa Fe to 10th		3
Trucks	Trucks - Proposed Project - Tire Wear - Alameda St: Eubank - Anaheim St		4
Trucks	Trucks - Proposed Project - Tire Wear - Anaheim St: Alameda - SR-47		1
Trucks	Trucks - Proposed Project - Tire Wear - Anaheim St: SR-47 - 9th St		7
Trucks	Trucks - Proposed Project - Tire Wear - Harbor Plaza: Pier F Ave - Pier G Ave		8
Trucks	Trucks - Proposed Project - Tire Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge		5
Trucks	Trucks - Proposed Project - Tire Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp		39
Trucks	Trucks - Proposed Project - Tire Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)		6
Trucks	Trucks - Proposed Project - Tire Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)		21
Trucks	Trucks - Proposed Project - Tire Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)		20
Trucks	Trucks - Proposed Project - Tire Wear - I-710 : n/o 9th Street Onramp (Northbound)		120
Trucks	Trucks - Proposed Project - Tire Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)		91
Trucks	Trucks - Proposed Project - Tire Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)		15
Trucks	Trucks - Proposed Project - Tire Wear - Ocean Blvd: Bridge - I-710 Offramp		7
Trucks	Trucks - Proposed Project - Tire Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge		13
Trucks	Trucks - Proposed Project - Tire Wear - Offramp: I-710 at 9th Street (Southbound)		3
Trucks	Trucks - Proposed Project - Tire Wear - Onramp: 9th St - I-710 (Northbound)		5
Trucks	Trucks - Proposed Project - Tire Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza		18
Trucks	Trucks - Proposed Project - Tire Wear - Pico Ave: Pier B St - Pier D St		44
Trucks	Trucks - Proposed Project - Tire Wear - Pico Ave: Pier D St - Terminal Entrance		12
Trucks	Trucks - Proposed Project - Tire Wear - Pico Ave: Pier E St - Harbor Scenic Connector		4
Trucks	Trucks - Proposed Project - Tire Wear - Pico Ave: Terminal Entrance - Pier E St		2

Table A.3.3-1. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Mitigated Alternative 1.

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Trucks	Trucks - Proposed Project - Tire Wear - Pier D Entry Road (off Pico)		8
Trucks	Trucks - Proposed Project - Tire Wear - Pier D Exit Road (off Pier D St)		4
Trucks	Trucks - Proposed Project - Tire Wear - Pier D St: w/o Pico Ave - w/o Pico Ave		32
Trucks	Trucks - Proposed Project - Tire Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd		2
Trucks	Trucks - Proposed Project - Tire Wear - Pier F Ave: Middle Harbor - Harbor Plaza		53
Trucks	Trucks - Proposed Project - Tire Wear - Pier F Entry Road (off Pier F Ave)		2
Trucks	Trucks - Proposed Project - Tire Wear - Pier F Exit Road (off Pier F Ave)		6
Trucks	Trucks - Proposed Project - Tire Wear - Santa Fe: 9th St - Anaheim St		1
Trucks	Trucks - Proposed Project - Tire Wear - Santa Fe: n/o Anaheim St - s/o Willow St		4
Trucks	Trucks - Proposed Project - Brake Wear - 10th Street: Pico - 9th (NB only)		3
Trucks	Trucks - Proposed Project - Brake Wear - 9th Street: Anaheim St - Santa Fe		2
Trucks	Trucks - Proposed Project - Brake Wear - 9th Street: Caspian - Pico (SB only)		3
Trucks	Trucks - Proposed Project - Brake Wear - 9th Street: Santa Fe to 10th		2
Trucks	Trucks - Proposed Project - Brake Wear - Alameda St: Eubank - Anaheim St		3
Trucks	Trucks - Proposed Project - Brake Wear - Anaheim St: Alameda - SR-47		1
Trucks	Trucks - Proposed Project - Brake Wear - Anaheim St: SR-47 - 9th St		5
Trucks	Trucks - Proposed Project - Brake Wear - Harbor Plaza: Pier F Ave - Pier G Ave		6
Trucks	Trucks - Proposed Project - Brake Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge		4
Trucks	Trucks - Proposed Project - Brake Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp		31
Trucks	Trucks - Proposed Project - Brake Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)		5
Trucks	Trucks - Proposed Project - Brake Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)		17
Trucks	Trucks - Proposed Project - Brake Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)		16
Trucks	Trucks - Proposed Project - Brake Wear - I-710 : n/o 9th Street Onramp (Northbound)		97
Trucks	Trucks - Proposed Project - Brake Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)		73
Trucks	Trucks - Proposed Project - Brake Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)		12
Trucks	Trucks - Proposed Project - Brake Wear - Ocean Blvd: Bridge - I-710 Offramp		5
Trucks	Trucks - Proposed Project - Brake Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge		11
Trucks	Trucks - Proposed Project - Brake Wear - Offramp: I-710 at 9th Street (Southbound)		3
Trucks	Trucks - Proposed Project - Brake Wear - Onramp: 9th St - I-710 (Northbound)		4
Trucks	Trucks - Proposed Project - Brake Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza		15
Trucks	Trucks - Proposed Project - Brake Wear - Pico Ave: Pier B St - Pier D St		36
Trucks	Trucks - Proposed Project - Brake Wear - Pico Ave: Pier D St - Terminal Entrance		10
Trucks	Trucks - Proposed Project - Brake Wear - Pico Ave: Pier E St - Harbor Scenic Connector		3
Trucks	Trucks - Proposed Project - Brake Wear - Pico Ave: Terminal Entrance - Pier E St		1
Trucks	Trucks - Proposed Project - Brake Wear - Pier D Entry Road (off Pico)		7
Trucks	Trucks - Proposed Project - Brake Wear - Pier D Exit Road (off Pier D St)		3
Trucks	Trucks - Proposed Project - Brake Wear - Pier D St: w/o Pico Ave - w/o Pico Ave		25
Trucks	Trucks - Proposed Project - Brake Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd		2
Trucks	Trucks - Proposed Project - Brake Wear - Pier F Ave: Middle Harbor - Harbor Plaza		43
Trucks	Trucks - Proposed Project - Brake Wear - Pier F Entry Road (off Pier F Ave)		2
Trucks	Trucks - Proposed Project - Brake Wear - Pier F Exit Road (off Pier F Ave)		4
Trucks	Trucks - Proposed Project - Brake Wear - Santa Fe: 9th St - Anaheim St		1
Trucks	Trucks - Proposed Project - Brake Wear - Santa Fe: n/o Anaheim St - s/o Willow St		3
Trucks	Trucks - Mitigated Project (Alt 1) - Ocean Blvd: Bridge	649	60
Trucks	Trucks - Mitigated Project (Alt 1) - Offramp: I-710 at 9th Street (Southbound BRIDGE)	255	21
Trucks	Trucks - Mitigated Project (Alt 1) - Onramp: 9th St - I-710 (Northbound BRIDGE)	419	35
Trucks	Trucks - Proposed Project - Tire Wear - Ocean Blvd: Bridge		18
Trucks	Trucks - Proposed Project - Tire Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)		5
Trucks	Trucks - Proposed Project - Tire Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)		8
Trucks	Trucks - Proposed Project - Brake Wear - Ocean Blvd: Bridge		15
Trucks	Trucks - Proposed Project - Brake Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)		4
Trucks	Trucks - Proposed Project - Brake Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)		7

Table A.3.3-2. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Unmitigated Alternative 1.

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Terminal Equipment	RTGs on Pier E - No CAAP - Config A	8,962	7,292
Terminal Equipment	RTGs on Pier F - No CAAP - Config A	1,324	1,077
Terminal Equipment	Top Picks on Pier E - No CAAP - Config A	1,354	955
Terminal Equipment	Top Picks on Pier F - No CAAP - Config A	240	169
Terminal Equipment	Side Picks on Pier E - No CAAP - Config A	816	869
Terminal Equipment	Side Picks on Pier F - No CAAP - Config A	227	242
Terminal Equipment	Yard Tractors on Pier E - No CAAP - Config A	234	230
Terminal Equipment	Yard Tractors on Pier F - No CAAP - Config A	74	73
Harborcraft	Tugboat assist - main engine - Config A	550	711
Harborcraft	Tugboat assist - aux engine - Config A	50	74
Ships Hotelling	Ships - Boilers - Hotelling - Config A	1,132	4,504
Ships Hotelling	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	4,822	3,363
Ships Hotelling	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships Hotelling	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships Hotelling	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	4,344	3,030
Ships Hotelling	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships Hotelling	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	3,910	2,727
Ships Hotelling	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Railyard Equipment	RTGs - No CAAP - Existing Railyard	142	115
Railyard Equipment	Yard Tractors - No CAAP - Existing Railyard	6	6
Locomotives	Line Haul Locomotive - Day Switching - Existing Railyard	157	60
Locomotives	Yard Locomotive - Day - Existing Railyard	61	18
Locomotives	Line Haul Locomotive - Night Switching - Existing Railyard	157	60
Locomotives	Yard Locomotive - Night - Existing Railyard	61	18
Locomotives	Line Haul Locomotive - Day 10 mph - Port to Ocean Blvd	26	10
Locomotives	Line Haul Locomotive - Night 10 mph - Port to Ocean Blvd	26	10
Locomotives	Line Haul Locomotive - Day 20 mph - Ocean Blvd to Alameda Corridor	59	23
Locomotives	Line Haul Locomotive - Night 20 mph - Ocean Blvd to Alameda Corridor	59	23
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	207	145
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	187	130
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	203	142
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Precautionary Area	328	229
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Precautionary Area	295	206
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Precautionary Area	322	224
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships - Boilers - Precautionary Area	51	204
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 2.7% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 2.7% S - Fairway @ 12 kts	3,371	3,768
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 2.7% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 2.7% S - Fairway @ 12 kts	2,921	3,266
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 2.7% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 2.7% S - Fairway @ 12 kts	3,727	4,543
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 2.7% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 2.7% S - Precautionary Area	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 2.7% S - Precautionary Area	3,119	2,890
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 2.7% S - Precautionary Area	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 2.7% S - Precautionary Area	2,703	2,505
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 2.7% S - Precautionary Area	-	-

Table A.3.3-2. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Unmitigated Alternative 1.

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 2.7% S - Precautionary Area	4,033	3,737
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 2.7% S - Precautionary Area	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	415	289
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	374	261
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	407	284
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships - Boilers - Harbor Transit - Config A	32	129
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 2.7% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 2.7% S - Harbor Transit - Config A	2,530	1,592
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 2.7% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 2.7% S - Harbor Transit - Config A	4,107	2,367
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 2.7% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 2.7% S - Harbor Transit - Config A	3,150	1,981
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 2.7% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Docking - Config A	172	120
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Docking - Config A	155	108
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Docking - Config A	168	117
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	80	56
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	72	50
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	79	55
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	-	-
Ships in Transit	Ships - Boilers - Docking - Config A	13	53
Ships in Transit	Ships - Boilers - Turning - West (Proposed) Location	6	25
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 2.7% S - Docking - Config A	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 2.7% S - Docking - Config A	1,511	871
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 2.7% S - Docking - Config A	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 2.7% S - Docking - Config A	1,389	801
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 2.7% S - Docking - Config A	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 2.7% S - Docking - Config A	1,862	1,073
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 2.7% S - Docking - Config A	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 2.7% S - Turning - West (Proposed) Location	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 2.7% S - Turning - West (Proposed) Location	489	308
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 2.7% S - Turning - West (Proposed) Location	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 2.7% S - Turning - West (Proposed) Location	794	458
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 2.7% S - Turning - West (Proposed) Location	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 2.7% S - Turning - West (Proposed) Location	609	383
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 2.7% S - Turning - West (Proposed) Location	-	-
Trucks	Truck Idling on Terminal - Config A - No CAAP - 0.35 hr idling - Unmitigated Alts 1 & 2	3,799	428
Trucks	Truck Idling on Terminal - Config E - No CAAP - 0.35 hr idling - Unmitigated Alts 1 & 2	2,455	277
Trucks	Truck Driving on Terminal - Config A - No CAAP - Unmitigated Alts 1 & 2	14,226	536
Trucks	Truck Driving on Terminal - Config E - No CAAP - Unmitigated Alts 1 & 2	9,195	346
Trucks	Trucks - Proposed Project - Tire Wear - 10th Street: Pico - 9th (NB only)		4
Trucks	Trucks - Proposed Project - Tire Wear - 9th Street: Anaheim St - Santa Fe		3
Trucks	Trucks - Proposed Project - Tire Wear - 9th Street: Caspian - Pico (SB only)		4
Trucks	Trucks - Proposed Project - Tire Wear - 9th Street: Santa Fe to 10th		3

Table A.3.3-2. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Unmitigated Alternative 1.

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Trucks	Trucks - Proposed Project - Tire Wear - Alameda St: Eubank - Anaheim St		4
Trucks	Trucks - Proposed Project - Tire Wear - Anaheim St: Alameda - SR-47		1
Trucks	Trucks - Proposed Project - Tire Wear - Anaheim St: SR-47 - 9th St		7
Trucks	Trucks - Proposed Project - Tire Wear - Harbor Plaza: Pier F Ave - Pier G Ave		8
Trucks	Trucks - Proposed Project - Tire Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge		5
Trucks	Trucks - Proposed Project - Tire Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp		39
Trucks	Trucks - Proposed Project - Tire Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)		6
Trucks	Trucks - Proposed Project - Tire Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)		21
Trucks	Trucks - Proposed Project - Tire Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)		20
Trucks	Trucks - Proposed Project - Tire Wear - I-710 : n/o 9th Street Onramp (Northbound)		120
Trucks	Trucks - Proposed Project - Tire Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)		91
Trucks	Trucks - Proposed Project - Tire Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)		15
Trucks	Trucks - Proposed Project - Tire Wear - Ocean Blvd: Bridge - I-710 Offramp		7
Trucks	Trucks - Proposed Project - Tire Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge		13
Trucks	Trucks - Proposed Project - Tire Wear - Offramp: I-710 at 9th Street (Southbound)		3
Trucks	Trucks - Proposed Project - Tire Wear - Onramp: 9th St - I-710 (Northbound)		5
Trucks	Trucks - Proposed Project - Tire Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza		18
Trucks	Trucks - Proposed Project - Tire Wear - Pico Ave: Pier B St - Pier D St		44
Trucks	Trucks - Proposed Project - Tire Wear - Pico Ave: Pier D St - Terminal Entrance		12
Trucks	Trucks - Proposed Project - Tire Wear - Pico Ave: Pier E St - Harbor Scenic Connector		4
Trucks	Trucks - Proposed Project - Tire Wear - Pico Ave: Terminal Entrance - Pier E St		2
Trucks	Trucks - Proposed Project - Tire Wear - Pier D Entry Road (off Pico)		8
Trucks	Trucks - Proposed Project - Tire Wear - Pier D Exit Road (off Pier D St)		4
Trucks	Trucks - Proposed Project - Tire Wear - Pier D St: w/o Pico Ave - w/o Pico Ave		32
Trucks	Trucks - Proposed Project - Tire Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd		2
Trucks	Trucks - Proposed Project - Tire Wear - Pier F Ave: Middle Harbor - Harbor Plaza		53
Trucks	Trucks - Proposed Project - Tire Wear - Pier F Entry Road (off Pier F Ave)		2
Trucks	Trucks - Proposed Project - Tire Wear - Pier F Exit Road (off Pier F Ave)		6
Trucks	Trucks - Proposed Project - Tire Wear - Santa Fe: 9th St - Anaheim St		1
Trucks	Trucks - Proposed Project - Tire Wear - Santa Fe: n/o Anaheim St - s/o Willow St		4
Trucks	Trucks - Proposed Project - Brake Wear - 10th Street: Pico - 9th (NB only)		3
Trucks	Trucks - Proposed Project - Brake Wear - 9th Street: Anaheim St - Santa Fe		2
Trucks	Trucks - Proposed Project - Brake Wear - 9th Street: Caspian - Pico (SB only)		3
Trucks	Trucks - Proposed Project - Brake Wear - 9th Street: Santa Fe to 10th		2
Trucks	Trucks - Proposed Project - Brake Wear - Alameda St: Eubank - Anaheim St		3
Trucks	Trucks - Proposed Project - Brake Wear - Anaheim St: Alameda - SR-47		1
Trucks	Trucks - Proposed Project - Brake Wear - Anaheim St: SR-47 - 9th St		5
Trucks	Trucks - Proposed Project - Brake Wear - Harbor Plaza: Pier F Ave - Pier G Ave		6
Trucks	Trucks - Proposed Project - Brake Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge		4
Trucks	Trucks - Proposed Project - Brake Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp		31
Trucks	Trucks - Proposed Project - Brake Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)		5
Trucks	Trucks - Proposed Project - Brake Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)		17
Trucks	Trucks - Proposed Project - Brake Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)		16
Trucks	Trucks - Proposed Project - Brake Wear - I-710 : n/o 9th Street Onramp (Northbound)		97
Trucks	Trucks - Proposed Project - Brake Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)		73
Trucks	Trucks - Proposed Project - Brake Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)		12
Trucks	Trucks - Proposed Project - Brake Wear - Ocean Blvd: Bridge - I-710 Offramp		5
Trucks	Trucks - Proposed Project - Brake Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge		11
Trucks	Trucks - Proposed Project - Brake Wear - Offramp: I-710 at 9th Street (Southbound)		3
Trucks	Trucks - Proposed Project - Brake Wear - Onramp: 9th St - I-710 (Northbound)		4
Trucks	Trucks - Proposed Project - Brake Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza		15
Trucks	Trucks - Proposed Project - Brake Wear - Pico Ave: Pier B St - Pier D St		36
Trucks	Trucks - Proposed Project - Brake Wear - Pico Ave: Pier D St - Terminal Entrance		10
Trucks	Trucks - Proposed Project - Brake Wear - Pico Ave: Pier E St - Harbor Scenic Connector		3
Trucks	Trucks - Proposed Project - Brake Wear - Pico Ave: Terminal Entrance - Pier E St		1

Table A.3.3-2. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Unmitigated Alternative 1.

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Trucks	Trucks - Proposed Project - Brake Wear - Pier D Entry Road (off Pico)		7
Trucks	Trucks - Proposed Project - Brake Wear - Pier D Exit Road (off Pier D St)		3
Trucks	Trucks - Proposed Project - Brake Wear - Pier D St: w/o Pico Ave - w/o Pico Ave		25
Trucks	Trucks - Proposed Project - Brake Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd		2
Trucks	Trucks - Proposed Project - Brake Wear - Pier F Ave: Middle Harbor - Harbor Plaza		43
Trucks	Trucks - Proposed Project - Brake Wear - Pier F Entry Road (off Pier F Ave)		2
Trucks	Trucks - Proposed Project - Brake Wear - Pier F Exit Road (off Pier F Ave)		4
Trucks	Trucks - Proposed Project - Brake Wear - Santa Fe: 9th St - Anaheim St		1
Trucks	Trucks - Proposed Project - Brake Wear - Santa Fe: n/o Anaheim St - s/o Willow St		3
Trucks	Trucks - Unmitigated Project (Alt 1) - 10th Street: Pico - 9th (NB only)	150	15
Trucks	Trucks - Unmitigated Project (Alt 1) - 9th Street: Anaheim St - Santa Fe	100	11
Trucks	Trucks - Unmitigated Project (Alt 1) - 9th Street: Caspian - Pico (SB only)	125	15
Trucks	Trucks - Unmitigated Project (Alt 1) - 9th Street: Santa Fe to 10th	116	12
Trucks	Trucks - Unmitigated Project (Alt 1) - Alameda St: Eubank - Anaheim St	187	18
Trucks	Trucks - Unmitigated Project (Alt 1) - Anaheim St: Alameda - SR-47	63	5
Trucks	Trucks - Unmitigated Project (Alt 1) - Anaheim St: SR-47 - 9th St	339	32
Trucks	Trucks - Unmitigated Project (Alt 1) - Harbor Plaza: Pier F Ave - Pier G Ave	356	36
Trucks	Trucks - Unmitigated Project (Alt 1) - Harbor Plaza: Pier G Ave - Queens Way Bridge	208	21
Trucks	Trucks - Unmitigated Project (Alt 1) - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	938	153
Trucks	Trucks - Unmitigated Project (Alt 1) - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	140	23
Trucks	Trucks - Unmitigated Project (Alt 1) - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	511	82
Trucks	Trucks - Unmitigated Project (Alt 1) - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	547	77
Trucks	Trucks - Unmitigated Project (Alt 1) - I-710 : n/o 9th Street Onramp (Northbound)	2,922	469
Trucks	Trucks - Unmitigated Project (Alt 1) - I-710 : n/o Anaheim SB On Ramp (Southbound)	2,326	345
Trucks	Trucks - Unmitigated Project (Alt 1) - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	399	56
Trucks	Trucks - Unmitigated Project (Alt 1) - Ocean Blvd: Bridge - I-710 Offramp	255	27
Trucks	Trucks - Unmitigated Project (Alt 1) - Ocean Blvd: Seaside Blvd OnRamp - Bridge	510	55
Trucks	Trucks - Unmitigated Project (Alt 1) - Offramp: I-710 at 9th Street (Southbound)	188	17
Trucks	Trucks - Unmitigated Project (Alt 1) - Onramp: 9th St - I-710 (Northbound)	295	28
Trucks	Trucks - Unmitigated Project (Alt 1) - Pico Ave: Harbor Scenic Connector - Harbor Plaza	735	77
Trucks	Trucks - Unmitigated Project (Alt 1) - Pico Ave: Pier B St - Pier D St	1,799	189
Trucks	Trucks - Unmitigated Project (Alt 1) - Pico Ave: Pier D St - Terminal Entrance	500	51
Trucks	Trucks - Unmitigated Project (Alt 1) - Pico Ave: Pier E St - Harbor Scenic Connector	146	15
Trucks	Trucks - Unmitigated Project (Alt 1) - Pico Ave: Terminal Entrance - Pier E St	58	6
Trucks	Trucks - Unmitigated Project (Alt 1) - Pier D Entry Road (off Pico)	1,479	81
Trucks	Trucks - Unmitigated Project (Alt 1) - Pier D Exit Road (off Pier D St)	748	41
Trucks	Trucks - Unmitigated Project (Alt 1) - Pier D St: w/o Pico Ave - w/o Pico Ave	1,702	159
Trucks	Trucks - Unmitigated Project (Alt 1) - Pier E St Off Ramp : Pico Ave - Ocean Blvd	96	10
Trucks	Trucks - Unmitigated Project (Alt 1) - Pier F Ave: Middle Harbor - Harbor Plaza	2,255	232
Trucks	Trucks - Unmitigated Project (Alt 1) - Pier F Entry Road (off Pier F Ave)	393	22
Trucks	Trucks - Unmitigated Project (Alt 1) - Pier F Exit Road (off Pier F Ave)	968	53
Trucks	Trucks - Unmitigated Project (Alt 1) - Santa Fe: 9th St - Anaheim St	36	4
Trucks	Trucks - Unmitigated Project (Alt 1) - Santa Fe: n/o Anaheim St - s/o Willow St	169	17
Trucks	Trucks - Proposed Project - Tire Wear - Ocean Blvd: Bridge		18
Trucks	Trucks - Proposed Project - Tire Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)		5
Trucks	Trucks - Proposed Project - Tire Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)		8
Trucks	Trucks - Proposed Project - Brake Wear - Ocean Blvd: Bridge		15
Trucks	Trucks - Proposed Project - Brake Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)		4
Trucks	Trucks - Proposed Project - Brake Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)		7
Trucks	Trucks - Unmitigated Project (Alt 1) - Ocean Blvd: Bridge	708	76
Trucks	Trucks - Unmitigated Project (Alt 1) - Offramp: I-710 at 9th Street (Southbound BRIDGE)	278	26
Trucks	Trucks - Unmitigated Project (Alt 1) - Onramp: 9th St - I-710 (Northbound BRIDGE)	458	43

Table A.3.3-3. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Mitigated Alternative 2.

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Terminal Equipment	RTGs on Pier E - CAAP - Config A	4,830	2,150
Terminal Equipment	RTGs on Pier F - CAAP - Config A	706	315
Terminal Equipment	Top Picks on Pier E - CAAP - Config A	1,294	913
Terminal Equipment	Top Picks on Pier F - CAAP - Config A	229	161
Terminal Equipment	Side Picks on Pier E - CAAP - Config A	780	831
Terminal Equipment	Side Picks on Pier F - CAAP - Config A	216	230
Terminal Equipment	Yard Tractors on Pier E - CAAP - Config A	203	149
Terminal Equipment	Yard Tractors on Pier F - CAAP - Config A	64	47
Harborcraft	Tugboat assist - main engine - Config A	550	711
Harborcraft	Tugboat assist - aux engine - Config A	50	74
Ships Hotelling	Ships - Boilers - Hotelling - Config A	1,132	4,504
Ships Hotelling	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	3,390	2,365
Ships Hotelling	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships Hotelling	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships Hotelling	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	3,054	2,130
Ships Hotelling	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships Hotelling	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	2,748	1,917
Ships Hotelling	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Railyard Equipment	RTGs - CAAP - Existing Railyard	77	34
Railyard Equipment	Yard Tractors - CAAP - Existing Railyard	5	4
Locomotives	Line Haul Locomotive - Day Swiching - Existing Railyard	150	57
Locomotives	Yard Locomotive - Day - Existing Railyard	58	17
Locomotives	Line Haul Locomotive - Night Swiching - Existing Railyard	150	57
Locomotives	Yard Locomotive - Night - Existing Railyard	58	17
Locomotives	Line Haul Locomotive - Day 10 mph - Port to Ocean Blvd	25	10
Locomotives	Line Haul Locomotive - Night 10 mph - Port to Ocean Blvd	25	10
Locomotives	Line Haul Locomotive - Day 20 mph - Ocean Blvd to Alameda Corridor	56	22
Locomotives	Line Haul Locomotive - Night 20 mph - Ocean Blvd to Alameda Corridor	56	22
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	3,371	1,319
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	2,921	1,143
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	3,727	1,590
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Precautionary Area	3,119	1,012
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Precautionary Area	2,703	877
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Precautionary Area	4,033	1,308
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	207	145
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	187	130
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	203	142
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Precautionary Area	328	229
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Precautionary Area	295	206
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Precautionary Area	322	224

Table A.3.3-3. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Mitigated Alternative 2.

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships - Boilers - Precautionary Area	51	204
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	2,530	557
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	4,107	829
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	3,150	693
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	415	289
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	374	261
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	407	284
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships - Boilers - Harbor Transit - Config A	32	129
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Docking - Config A	1,511	305
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Docking - Config A	1,389	280
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Docking - Config A	1,862	376
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	489	108
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	794	160
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	609	134
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Turning - West (Proposed) Location	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Docking - Config A	172	120
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Docking - Config A	155	108
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Docking - Config A	168	117
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	80	56
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	72	50
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	79	55
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Location	-	-
Ships in Transit	Ships - Boilers - Docking - Config A	13	53
Ships in Transit	Ships - Boilers - Turning - West (Proposed) Location	6	25
Trucks	Truck Idling on Terminal - Config A - CAAP	3,636	410
Trucks	Truck Driving on Terminal - Config A - CAAP	12,456	446
Trucks	Truck Driving on Terminal - Config E - CAAP	8,051	288
Trucks	Truck Idling on Terminal - Config E - CAAP	2,350	265
Trucks	Trucks - Mitigated Alt 2 - 10th Street: Pico - 9th (NB only)	132	12
Trucks	Trucks - Mitigated Alt 2 - 9th Street: Anaheim St - Santa Fe	88	8
Trucks	Trucks - Mitigated Alt 2 - 9th Street: Caspian - Pico (SB only)	110	11
Trucks	Trucks - Mitigated Alt 2 - 9th Street: Santa Fe to 10th	102	9

Table A.3.3-3. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Mitigated Alternative 2.

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Trucks	Trucks - Mitigated Alt 2 - Alameda St: Eubank - Anaheim St	167	14
Trucks	Trucks - Mitigated Alt 2 - Anaheim St: Alameda - SR-47	56	4
Trucks	Trucks - Mitigated Alt 2 - Anaheim St: SR-47 - 9th St	303	25
Trucks	Trucks - Mitigated Alt 2 - Harbor Plaza: Pier F Ave - Pier G Ave	310	27
Trucks	Trucks - Mitigated Alt 2 - Harbor Plaza: Pier G Ave - Queens Way Bridge	179	16
Trucks	Trucks - Mitigated Alt 2 - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	816	109
Trucks	Trucks - Mitigated Alt 2 - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	120	16
Trucks	Trucks - Mitigated Alt 2 - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	450	59
Trucks	Trucks - Mitigated Alt 2 - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	458	53
Trucks	Trucks - Mitigated Alt 2 - I-710 : n/o 9th Street Onramp (Northbound)	2,583	339
Trucks	Trucks - Mitigated Alt 2 - I-710 : n/o Anaheim SB On Ramp (Southbound)	1,947	238
Trucks	Trucks - Mitigated Alt 2 - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	344	40
Trucks	Trucks - Mitigated Alt 2 - Ocean Blvd: Bridge - I-710 Offramp	224	21
Trucks	Trucks - Mitigated Alt 2 - Ocean Blvd: Seaside Blvd OnRamp - Bridge	448	42
Trucks	Trucks - Mitigated Alt 2 - Offramp: I-710 at 9th Street (Southbound)	154	13
Trucks	Trucks - Mitigated Alt 2 - Onramp: 9th St - I-710 (Northbound)	262	22
Trucks	Trucks - Mitigated Alt 2 - Pico Ave: Harbor Scenic Connector - Harbor Plaza	645	59
Trucks	Trucks - Mitigated Alt 2 - Pico Ave: Pier B St - Pier D St	1,543	140
Trucks	Trucks - Mitigated Alt 2 - Pico Ave: Pier D St - Terminal Entrance	418	37
Trucks	Trucks - Mitigated Alt 2 - Pico Ave: Pier E St - Harbor Scenic Connector	127	12
Trucks	Trucks - Mitigated Alt 2 - Pico Ave: Terminal Entrance - Pier E St	52	5
Trucks	Trucks - Mitigated Alt 2 - Pier D Entry Road (off Pico)	1,295	66
Trucks	Trucks - Mitigated Alt 2 - Pier D Exit Road (off Pier D St)	655	33
Trucks	Trucks - Mitigated Alt 2 - Pier D St: w/o Pico Ave - w/o Pico Ave	1,505	124
Trucks	Trucks - Mitigated Alt 2 - Pier E St Off Ramp : Pico Ave - Ocean Blvd	84	7
Trucks	Trucks - Mitigated Alt 2 - Pier F Ave: Middle Harbor - Harbor Plaza	1,963	175
Trucks	Trucks - Mitigated Alt 2 - Pier F Entry Road (off Pier F Ave)	344	18
Trucks	Trucks - Mitigated Alt 2 - Pier F Exit Road (off Pier F Ave)	847	43
Trucks	Trucks - Mitigated Alt 2 - Santa Fe: 9th St - Anaheim St	31	3
Trucks	Trucks - Mitigated Alt 2 - Santa Fe: n/o Anaheim St - s/o Willow St	147	13
Trucks	Trucks - Reduced Fill - Tire Wear - 10th Street: Pico - 9th (NB only)		3
Trucks	Trucks - Reduced Fill - Tire Wear - 9th Street: Anaheim St - Santa Fe		3
Trucks	Trucks - Reduced Fill - Tire Wear - 9th Street: Caspian - Pico (SB only)		4
Trucks	Trucks - Reduced Fill - Tire Wear - 9th Street: Santa Fe to 10th		3
Trucks	Trucks - Reduced Fill - Tire Wear - Alameda St: Eubank - Anaheim St		4
Trucks	Trucks - Reduced Fill - Tire Wear - Anaheim St: Alameda - SR-47		1
Trucks	Trucks - Reduced Fill - Tire Wear - Anaheim St: SR-47 - 9th St		6
Trucks	Trucks - Reduced Fill - Tire Wear - Harbor Plaza: Pier F Ave - Pier G Ave		8
Trucks	Trucks - Reduced Fill - Tire Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge		5
Trucks	Trucks - Reduced Fill - Tire Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp		37
Trucks	Trucks - Reduced Fill - Tire Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)		5
Trucks	Trucks - Reduced Fill - Tire Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)		20
Trucks	Trucks - Reduced Fill - Tire Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)		19
Trucks	Trucks - Reduced Fill - Tire Wear - I-710 : n/o 9th Street Onramp (Northbound)		116
Trucks	Trucks - Reduced Fill - Tire Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)		83
Trucks	Trucks - Reduced Fill - Tire Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)		14
Trucks	Trucks - Reduced Fill - Tire Wear - Ocean Blvd: Bridge - I-710 Offramp		6
Trucks	Trucks - Reduced Fill - Tire Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge		13
Trucks	Trucks - Reduced Fill - Tire Wear - Offramp: I-710 at 9th Street (Southbound)		3
Trucks	Trucks - Reduced Fill - Tire Wear - Onramp: 9th St - I-710 (Northbound)		5
Trucks	Trucks - Reduced Fill - Tire Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza		17
Trucks	Trucks - Reduced Fill - Tire Wear - Pico Ave: Pier B St - Pier D St		42
Trucks	Trucks - Reduced Fill - Tire Wear - Pico Ave: Pier D St - Terminal Entrance		11
Trucks	Trucks - Reduced Fill - Tire Wear - Pico Ave: Pier E St - Harbor Scenic Connector		3
Trucks	Trucks - Reduced Fill - Tire Wear - Pico Ave: Terminal Entrance - Pier E St		1

Table A.3.3-3. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Mitigated Alternative 2.

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Trucks	Trucks - Reduced Fill - Tire Wear - Pier D Entry Road (off Pico)		8
Trucks	Trucks - Reduced Fill - Tire Wear - Pier D Exit Road (off Pier D St)		4
Trucks	Trucks - Reduced Fill - Tire Wear - Pier D St: w/o Pico Ave - w/o Pico Ave		30
Trucks	Trucks - Reduced Fill - Tire Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd		2
Trucks	Trucks - Reduced Fill - Tire Wear - Pier F Ave: Middle Harbor - Harbor Plaza		51
Trucks	Trucks - Reduced Fill - Tire Wear - Pier F Entry Road (off Pier F Ave)		2
Trucks	Trucks - Reduced Fill - Tire Wear - Pier F Exit Road (off Pier F Ave)		5
Trucks	Trucks - Reduced Fill - Tire Wear - Santa Fe: 9th St - Anaheim St		1
Trucks	Trucks - Reduced Fill - Tire Wear - Santa Fe: n/o Anaheim St - s/o Willow St		4
Trucks	Trucks - Reduced Fill - Brake Wear - 10th Street: Pico - 9th (NB only)		3
Trucks	Trucks - Reduced Fill - Brake Wear - 9th Street: Anaheim St - Santa Fe		2
Trucks	Trucks - Reduced Fill - Brake Wear - 9th Street: Caspian - Pico (SB only)		3
Trucks	Trucks - Reduced Fill - Brake Wear - 9th Street: Santa Fe to 10th		2
Trucks	Trucks - Reduced Fill - Brake Wear - Alameda St: Eubank - Anaheim St		3
Trucks	Trucks - Reduced Fill - Brake Wear - Anaheim St: Alameda - SR-47		1
Trucks	Trucks - Reduced Fill - Brake Wear - Anaheim St: SR-47 - 9th St		5
Trucks	Trucks - Reduced Fill - Brake Wear - Harbor Plaza: Pier F Ave - Pier G Ave		6
Trucks	Trucks - Reduced Fill - Brake Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge		4
Trucks	Trucks - Reduced Fill - Brake Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp		29
Trucks	Trucks - Reduced Fill - Brake Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)		4
Trucks	Trucks - Reduced Fill - Brake Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)		16
Trucks	Trucks - Reduced Fill - Brake Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)		15
Trucks	Trucks - Reduced Fill - Brake Wear - I-710 : n/o 9th Street Onramp (Northbound)		93
Trucks	Trucks - Reduced Fill - Brake Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)		67
Trucks	Trucks - Reduced Fill - Brake Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)		11
Trucks	Trucks - Reduced Fill - Brake Wear - Ocean Blvd: Bridge - I-710 Offramp		5
Trucks	Trucks - Reduced Fill - Brake Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge		10
Trucks	Trucks - Reduced Fill - Brake Wear - Offramp: I-710 at 9th Street (Southbound)		3
Trucks	Trucks - Reduced Fill - Brake Wear - Onramp: 9th St - I-710 (Northbound)		4
Trucks	Trucks - Reduced Fill - Brake Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza		14
Trucks	Trucks - Reduced Fill - Brake Wear - Pico Ave: Pier B St - Pier D St		34
Trucks	Trucks - Reduced Fill - Brake Wear - Pico Ave: Pier D St - Terminal Entrance		9
Trucks	Trucks - Reduced Fill - Brake Wear - Pico Ave: Pier E St - Harbor Scenic Connector		3
Trucks	Trucks - Reduced Fill - Brake Wear - Pico Ave: Terminal Entrance - Pier E St		1
Trucks	Trucks - Reduced Fill - Brake Wear - Pier D Entry Road (off Pico)		7
Trucks	Trucks - Reduced Fill - Brake Wear - Pier D Exit Road (off Pier D St)		3
Trucks	Trucks - Reduced Fill - Brake Wear - Pier D St: w/o Pico Ave - w/o Pico Ave		24
Trucks	Trucks - Reduced Fill - Brake Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd		2
Trucks	Trucks - Reduced Fill - Brake Wear - Pier F Ave: Middle Harbor - Harbor Plaza		41
Trucks	Trucks - Reduced Fill - Brake Wear - Pier F Entry Road (off Pier F Ave)		2
Trucks	Trucks - Reduced Fill - Brake Wear - Pier F Exit Road (off Pier F Ave)		4
Trucks	Trucks - Reduced Fill - Brake Wear - Santa Fe: 9th St - Anaheim St		1
Trucks	Trucks - Reduced Fill - Brake Wear - Santa Fe: n/o Anaheim St - s/o Willow St		3
Trucks	Trucks - Mitigated Alt 2 - Ocean Blvd: Bridge	622	58
Trucks	Trucks - Mitigated Alt 2 - Offramp: I-710 at 9th Street (Southbound BRIDGE)	228	19
Trucks	Trucks - Mitigated Alt 2 - Onramp: 9th St - I-710 (Northbound BRIDGE)	406	34
Trucks	Trucks - Reduced Fill - Tire Wear - Ocean Blvd: Bridge		18
Trucks	Trucks - Reduced Fill - Tire Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)		5
Trucks	Trucks - Reduced Fill - Tire Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)		8
Trucks	Trucks - Reduced Fill - Brake Wear - Ocean Blvd: Bridge		14
Trucks	Trucks - Reduced Fill - Brake Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)		4
Trucks	Trucks - Reduced Fill - Brake Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)		7

Table A.3.3-4. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Unmitigated Alternative 2

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Terminal Equipment	RTGs on Pier E - No CAAP - Config A	8,569	6,972
Terminal Equipment	RTGs on Pier F - No CAAP - Config A	1,253	1,020
Terminal Equipment	Top Picks on Pier E - No CAAP - Config A	1,294	913
Terminal Equipment	Top Picks on Pier F - No CAAP - Config A	229	161
Terminal Equipment	Side Picks on Pier E - No CAAP - Config A	780	831
Terminal Equipment	Side Picks on Pier F - No CAAP - Config A	216	230
Terminal Equipment	Yard Tractors on Pier E - No CAAP - Config A	224	220
Terminal Equipment	Yard Tractors on Pier F - No CAAP - Config A	71	70
Harborcraft	Tugboat assist - main engine - Config A	550	711
Harborcraft	Tugboat assist - aux engine - Config A	50	74
Ships Hotelling	Ships - Boilers - Hotelling - Config A	1,132	4,504
Ships Hotelling	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	4,822	3,363
Ships Hotelling	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships Hotelling	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships Hotelling	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	4,344	3,030
Ships Hotelling	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships Hotelling	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	3,910	2,727
Ships Hotelling	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Railyard Equipment	RTGs - No CAAP - Existing Railyard	136	110
Railyard Equipment	Yard Tractors - No CAAP - Existing Railyard	6	6
Locomotives	Line Haul Locomotive - Day Switching - Existing Railyard	150	57
Locomotives	Yard Locomotive - Day - Existing Railyard	58	17
Locomotives	Line Haul Locomotive - Night Switching - Existing Railyard	150	57
Locomotives	Yard Locomotive - Night - Existing Railyard	58	17
Locomotives	Line Haul Locomotive - Day 10 mph - Port to Ocean Blvd	25	10
Locomotives	Line Haul Locomotive - Night 10 mph - Port to Ocean Blvd	25	10
Locomotives	Line Haul Locomotive - Day 20 mph - Ocean Blvd to Alameda Corridor	56	22
Locomotives	Line Haul Locomotive - Night 20 mph - Ocean Blvd to Alameda Corridor	56	22
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	207	145
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	187	130
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	203	142
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Precautionary Area	328	229
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Precautionary Area	295	206
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Precautionary Area	322	224
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships - Boilers - Precautionary Area	51	204
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 2.7% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 2.7% S - Fairway @ 12 kts	3,371	3,768
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 2.7% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 2.7% S - Fairway @ 12 kts	2,921	3,266
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 2.7% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 2.7% S - Fairway @ 12 kts	3,727	4,543
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 2.7% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 2.7% S - Precautionary Area	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 2.7% S - Precautionary Area	3,119	2,890
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 2.7% S - Precautionary Area	-	-

Table A.3.3-4. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Unmitigated Alternative 2

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 2.7% S - Precautionary Area	2,703	2,505
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 2.7% S - Precautionary Area	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 2.7% S - Precautionary Area	4,033	3,737
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 2.7% S - Precautionary Area	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	415	289
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	374	261
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	407	284
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships - Boilers - Harbor Transit - Config A	32	129
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 2.7% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 2.7% S - Harbor Transit - Config A	2,530	1,592
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 2.7% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 2.7% S - Harbor Transit - Config A	4,107	2,367
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 2.7% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 2.7% S - Harbor Transit - Config A	3,150	1,981
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 2.7% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Docking - Config A	172	120
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Docking - Config A	155	108
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Docking - Config A	168	117
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Locatior	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Locatior	80	56
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Locatior	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Locatior	72	50
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Locatior	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Locatior	79	55
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Turning - West (Proposed) Locatior	-	-
Ships in Transit	Ships - Boilers - Docking - Config A	13	53
Ships in Transit	Ships - Boilers - Turning - West (Proposed) Location	6	25
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 2.7% S - Docking - Config A	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 2.7% S - Docking - Config A	1,511	871
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 2.7% S - Docking - Config A	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 2.7% S - Docking - Config A	1,389	801
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 2.7% S - Docking - Config A	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 2.7% S - Docking - Config A	1,862	1,073
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 2.7% S - Docking - Config A	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 2.7% S - Turning - West (Proposed) Locatior	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 2.7% S - Turning - West (Proposed) Locatior	489	308
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 2.7% S - Turning - West (Proposed) Locatior	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 2.7% S - Turning - West (Proposed) Locatior	794	458
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 2.7% S - Turning - West (Proposed) Locatior	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 2.7% S - Turning - West (Proposed) Locatior	609	383
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 2.7% S - Turning - West (Proposed) Locatior	-	-
Trucks	Truck Idling on Terminal - Config A - No CAAP - 0.35 hr idling - Unmitigated Alts 1 & 2	3,633	410
Trucks	Truck Idling on Terminal - Config E - No CAAP - 0.35 hr idling - Unmitigated Alts 1 & 2	2,348	265
Trucks	Truck Driving on Terminal - Config A - No CAAP - Unmitigated Alts 1 & 2	13,604	512
Trucks	Truck Driving on Terminal - Config E - No CAAP - Unmitigated Alts 1 & 2	8,793	331

Table A.3.3-4. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Unmitigated Alternative 2

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Trucks	Trucks - Reduced Fill - Tire Wear - 10th Street: Pico - 9th (NB only)		3
Trucks	Trucks - Reduced Fill - Tire Wear - 9th Street: Anaheim St - Santa Fe		3
Trucks	Trucks - Reduced Fill - Tire Wear - 9th Street: Caspian - Pico (SB only)		4
Trucks	Trucks - Reduced Fill - Tire Wear - 9th Street: Santa Fe to 10th		3
Trucks	Trucks - Reduced Fill - Tire Wear - Alameda St: Eubank - Anaheim St		4
Trucks	Trucks - Reduced Fill - Tire Wear - Anaheim St: Alameda - SR-47		1
Trucks	Trucks - Reduced Fill - Tire Wear - Anaheim St: SR-47 - 9th St		6
Trucks	Trucks - Reduced Fill - Tire Wear - Harbor Plaza: Pier F Ave - Pier G Ave		8
Trucks	Trucks - Reduced Fill - Tire Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge		5
Trucks	Trucks - Reduced Fill - Tire Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp		37
Trucks	Trucks - Reduced Fill - Tire Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)		5
Trucks	Trucks - Reduced Fill - Tire Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)		20
Trucks	Trucks - Reduced Fill - Tire Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)		19
Trucks	Trucks - Reduced Fill - Tire Wear - I-710 : n/o 9th Street Onramp (Northbound)		116
Trucks	Trucks - Reduced Fill - Tire Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)		83
Trucks	Trucks - Reduced Fill - Tire Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)		14
Trucks	Trucks - Reduced Fill - Tire Wear - Ocean Blvd: Bridge - I-710 Offramp		6
Trucks	Trucks - Reduced Fill - Tire Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge		13
Trucks	Trucks - Reduced Fill - Tire Wear - Offramp: I-710 at 9th Street (Southbound)		3
Trucks	Trucks - Reduced Fill - Tire Wear - Onramp: 9th St - I-710 (Northbound)		5
Trucks	Trucks - Reduced Fill - Tire Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza		17
Trucks	Trucks - Reduced Fill - Tire Wear - Pico Ave: Pier B St - Pier D St		42
Trucks	Trucks - Reduced Fill - Tire Wear - Pico Ave: Pier D St - Terminal Entrance		11
Trucks	Trucks - Reduced Fill - Tire Wear - Pico Ave: Pier E St - Harbor Scenic Connector		3
Trucks	Trucks - Reduced Fill - Tire Wear - Pico Ave: Terminal Entrance - Pier E St		1
Trucks	Trucks - Reduced Fill - Tire Wear - Pier D Entry Road (off Pico)		8
Trucks	Trucks - Reduced Fill - Tire Wear - Pier D Exit Road (off Pier D St)		4
Trucks	Trucks - Reduced Fill - Tire Wear - Pier D St: w/o Pico Ave - w/o Pico Ave		30
Trucks	Trucks - Reduced Fill - Tire Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd		2
Trucks	Trucks - Reduced Fill - Tire Wear - Pier F Ave: Middle Harbor - Harbor Plaza		51
Trucks	Trucks - Reduced Fill - Tire Wear - Pier F Entry Road (off Pier F Ave)		2
Trucks	Trucks - Reduced Fill - Tire Wear - Pier F Exit Road (off Pier F Ave)		5
Trucks	Trucks - Reduced Fill - Tire Wear - Santa Fe: 9th St - Anaheim St		1
Trucks	Trucks - Reduced Fill - Tire Wear - Santa Fe: n/o Anaheim St - s/o Willow St		4
Trucks	Trucks - Reduced Fill - Brake Wear - 10th Street: Pico - 9th (NB only)		3
Trucks	Trucks - Reduced Fill - Brake Wear - 9th Street: Anaheim St - Santa Fe		2
Trucks	Trucks - Reduced Fill - Brake Wear - 9th Street: Caspian - Pico (SB only)		3
Trucks	Trucks - Reduced Fill - Brake Wear - 9th Street: Santa Fe to 10th		2
Trucks	Trucks - Reduced Fill - Brake Wear - Alameda St: Eubank - Anaheim St		3
Trucks	Trucks - Reduced Fill - Brake Wear - Anaheim St: Alameda - SR-47		1
Trucks	Trucks - Reduced Fill - Brake Wear - Anaheim St: SR-47 - 9th St		5
Trucks	Trucks - Reduced Fill - Brake Wear - Harbor Plaza: Pier F Ave - Pier G Ave		6
Trucks	Trucks - Reduced Fill - Brake Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge		4
Trucks	Trucks - Reduced Fill - Brake Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp		29
Trucks	Trucks - Reduced Fill - Brake Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)		4
Trucks	Trucks - Reduced Fill - Brake Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)		16
Trucks	Trucks - Reduced Fill - Brake Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)		15
Trucks	Trucks - Reduced Fill - Brake Wear - I-710 : n/o 9th Street Onramp (Northbound)		93
Trucks	Trucks - Reduced Fill - Brake Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)		67
Trucks	Trucks - Reduced Fill - Brake Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)		11
Trucks	Trucks - Reduced Fill - Brake Wear - Ocean Blvd: Bridge - I-710 Offramp		5
Trucks	Trucks - Reduced Fill - Brake Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge		10
Trucks	Trucks - Reduced Fill - Brake Wear - Offramp: I-710 at 9th Street (Southbound)		3

Table A.3.3-4. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Unmitigated Alternative 2

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Trucks	Trucks - Reduced Fill - Brake Wear - Onramp: 9th St - I-710 (Northbound)		4
Trucks	Trucks - Reduced Fill - Brake Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza		14
Trucks	Trucks - Reduced Fill - Brake Wear - Pico Ave: Pier B St - Pier D St		34
Trucks	Trucks - Reduced Fill - Brake Wear - Pico Ave: Pier D St - Terminal Entrance		9
Trucks	Trucks - Reduced Fill - Brake Wear - Pico Ave: Pier E St - Harbor Scenic Connector		3
Trucks	Trucks - Reduced Fill - Brake Wear - Pico Ave: Terminal Entrance - Pier E St		1
Trucks	Trucks - Reduced Fill - Brake Wear - Pier D Entry Road (off Pico)		7
Trucks	Trucks - Reduced Fill - Brake Wear - Pier D Exit Road (off Pier D St)		3
Trucks	Trucks - Reduced Fill - Brake Wear - Pier D St: w/o Pico Ave - w/o Pico Ave		24
Trucks	Trucks - Reduced Fill - Brake Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd		2
Trucks	Trucks - Reduced Fill - Brake Wear - Pier F Ave: Middle Harbor - Harbor Plaza		41
Trucks	Trucks - Reduced Fill - Brake Wear - Pier F Entry Road (off Pier F Ave)		2
Trucks	Trucks - Reduced Fill - Brake Wear - Pier F Exit Road (off Pier F Ave)		4
Trucks	Trucks - Reduced Fill - Brake Wear - Santa Fe: 9th St - Anaheim St		1
Trucks	Trucks - Reduced Fill - Brake Wear - Santa Fe: n/o Anaheim St - s/o Willow St		3
Trucks	Trucks - Unmitigated Alt 2 - 10th Street: Pico - 9th (NB only)	144	15
Trucks	Trucks - Unmitigated Alt 2 - 9th Street: Anaheim St - Santa Fe	96	11
Trucks	Trucks - Unmitigated Alt 2 - 9th Street: Caspian - Pico (SB only)	120	14
Trucks	Trucks - Unmitigated Alt 2 - 9th Street: Santa Fe to 10th	112	11
Trucks	Trucks - Unmitigated Alt 2 - Alameda St: Eubank - Anaheim St	182	17
Trucks	Trucks - Unmitigated Alt 2 - Anaheim St: Alameda - SR-47	61	5
Trucks	Trucks - Unmitigated Alt 2 - Anaheim St: SR-47 - 9th St	330	31
Trucks	Trucks - Unmitigated Alt 2 - Harbor Plaza: Pier F Ave - Pier G Ave	338	34
Trucks	Trucks - Unmitigated Alt 2 - Harbor Plaza: Pier G Ave - Queens Way Bridge	196	20
Trucks	Trucks - Unmitigated Alt 2 - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	890	146
Trucks	Trucks - Unmitigated Alt 2 - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	131	21
Trucks	Trucks - Unmitigated Alt 2 - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	490	79
Trucks	Trucks - Unmitigated Alt 2 - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	500	70
Trucks	Trucks - Unmitigated Alt 2 - I-710 : n/o 9th Street Onramp (Northbound)	2,817	452
Trucks	Trucks - Unmitigated Alt 2 - I-710 : n/o Anaheim SB On Ramp (Southbound)	2,123	315
Trucks	Trucks - Unmitigated Alt 2 - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	375	53
Trucks	Trucks - Unmitigated Alt 2 - Ocean Blvd: Bridge - I-710 Offramp	244	26
Trucks	Trucks - Unmitigated Alt 2 - Ocean Blvd: Seaside Blvd OnRamp - Bridge	489	53
Trucks	Trucks - Unmitigated Alt 2 - Offramp: I-710 at 9th Street (Southbound)	168	16
Trucks	Trucks - Unmitigated Alt 2 - Onramp: 9th St - I-710 (Northbound)	286	27
Trucks	Trucks - Unmitigated Alt 2 - Pico Ave: Harbor Scenic Connector - Harbor Plaza	704	74
Trucks	Trucks - Unmitigated Alt 2 - Pico Ave: Pier B St - Pier D St	1,684	177
Trucks	Trucks - Unmitigated Alt 2 - Pico Ave: Pier D St - Terminal Entrance	457	47
Trucks	Trucks - Unmitigated Alt 2 - Pico Ave: Pier E St - Harbor Scenic Connector	139	15
Trucks	Trucks - Unmitigated Alt 2 - Pico Ave: Terminal Entrance - Pier E St	56	6
Trucks	Trucks - Unmitigated Alt 2 - Pier D Entry Road (off Pico)	1,414	78
Trucks	Trucks - Unmitigated Alt 2 - Pier D Exit Road (off Pier D St)	716	39
Trucks	Trucks - Unmitigated Alt 2 - Pier D St: w/o Pico Ave - w/o Pico Ave	1,642	153
Trucks	Trucks - Unmitigated Alt 2 - Pier E St Off Ramp : Pico Ave - Ocean Blvd	92	9
Trucks	Trucks - Unmitigated Alt 2 - Pier F Ave: Middle Harbor - Harbor Plaza	2,142	220
Trucks	Trucks - Unmitigated Alt 2 - Pier F Entry Road (off Pier F Ave)	375	21
Trucks	Trucks - Unmitigated Alt 2 - Pier F Exit Road (off Pier F Ave)	925	51
Trucks	Trucks - Unmitigated Alt 2 - Santa Fe: 9th St - Anaheim St	34	4
Trucks	Trucks - Unmitigated Alt 2 - Santa Fe: n/o Anaheim St - s/o Willow St	160	16
Trucks	Trucks - Reduced Fill - Tire Wear - Ocean Blvd: Bridge		18
Trucks	Trucks - Reduced Fill - Tire Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)		5
Trucks	Trucks - Reduced Fill - Tire Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)		8
Trucks	Trucks - Reduced Fill - Brake Wear - Ocean Blvd: Bridge		14

Table A.3.3-4. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Unmitigated Alternative 2

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Trucks	Trucks - Reduced Fill - Brake Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)		4
Trucks	Trucks - Reduced Fill - Brake Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)		7
Trucks	Trucks - Unmitigated Alt 2 - Ocean Blvd: Bridge	679	73
Trucks	Trucks - Unmitigated Alt 2 - Offramp: I-710 at 9th Street (Southbound BRIDGE)	249	23
Trucks	Trucks - Unmitigated Alt 2 - Onramp: 9th St - I-710 (Northbound BRIDGE)	443	41

Table A.3.3-5. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Alternative 3.

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Terminal Equipment	RTGs on Pier E - CAAP - Config A	4,151	1,848
Terminal Equipment	RTGs on Pier F - CAAP - Config A	869	387
Terminal Equipment	Top Picks on Pier E - CAAP - Config A	1,110	783
Terminal Equipment	Top Picks on Pier F - CAAP - Config A	276	195
Terminal Equipment	Side Picks on Pier E - CAAP - Config A	720	767
Terminal Equipment	Side Picks on Pier F - CAAP - Config A	259	276
Terminal Equipment	Yard Tractors on Pier E - CAAP - Config A	194	142
Terminal Equipment	Yard Tractors on Pier F - CAAP - Config A	76	56
Harborcraft	Tugboat assist - main engine - Config A	550	711
Harborcraft	Tugboat assist - aux engine - Config A	50	74
Ships Hotelling	Ships - Boilers - Hotelling - Config A	1,132	4,504
Ships Hotelling	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	3,390	2,365
Ships Hotelling	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships Hotelling	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships Hotelling	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	3,054	2,130
Ships Hotelling	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships Hotelling	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	2,748	1,917
Ships Hotelling	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Railyard Equipment	RTGs - CAAP - Existing Railyard	91	40
Railyard Equipment	Yard Tractors - CAAP - Existing Railyard	6	5
Locomotives	Line Haul Locomotive - Day Switching - Existing Railyard	152	58
Locomotives	Yard Locomotive - Day - Existing Railyard	59	17
Locomotives	Line Haul Locomotive - Night Switching - Existing Railyard	152	58
Locomotives	Yard Locomotive - Night - Existing Railyard	59	17
Locomotives	Line Haul Locomotive - Day 10 mph - Port to Ocean Blvd	25	10
Locomotives	Line Haul Locomotive - Night 10 mph - Port to Ocean Blvd	25	10
Locomotives	Line Haul Locomotive - Day 20 mph - Ocean Blvd to Alameda Corridor	57	22
Locomotives	Line Haul Locomotive - Night 20 mph - Ocean Blvd to Alameda Corridor	57	22
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	3,371	1,319
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	2,921	1,143
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	3,727	1,590
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Precautionary Area	3,119	1,012
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Precautionary Area	2,703	877
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Precautionary Area	4,033	1,308
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	207	145
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	187	130
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	203	142
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Precautionary Area	328	229
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Precautionary Area	295	206
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Precautionary Area	322	224

Table A.3.3-5. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Alternative 3.

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships - Boilers - Precautionary Area	51	204
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	2,530	557
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	4,107	829
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	3,150	693
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	415	289
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	374	261
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	407	284
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships - Boilers - Harbor Transit - Config A	32	129
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Docking - Config A	1,511	305
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Docking - Config A	1,389	280
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Docking - Config A	1,862	376
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Docking - Config A	172	120
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Docking - Config A	155	108
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Docking - Config A	168	117
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships - Boilers - Docking - Config A	13	53
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 0.2% S - Turning - East (Current) Location	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 0.2% S - Turning - East (Current) Location	489	108
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 0.2% S - Turning - East (Current) Location	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 0.2% S - Turning - East (Current) Location	794	160
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 0.2% S - Turning - East (Current) Location	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 0.2% S - Turning - East (Current) Location	609	134
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 0.2% S - Turning - East (Current) Location	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Turning - East (Current) Location	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Turning - East (Current) Location	80	56
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Turning - East (Current) Location	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Turning - East (Current) Location	72	50
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Turning - East (Current) Location	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Turning - East (Current) Location	79	55
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Turning - East (Current) Location	-	-
Ships in Transit	Ships - Boilers - Turning - East (Current) Location	6	25
Trucks	Truck Idling on Terminal - Config A - CAAP	3,675	414
Trucks	Truck Driving on Terminal - Config A - CAAP	12,590	451
Trucks	Truck Driving on Terminal - Config E - CAAP	8,137	291
Trucks	Truck Idling on Terminal - Config E - CAAP	2,376	268
Trucks	Trucks - No Federal Action - 10th Street: Pico - 9th (NB only)	133	12
Trucks	Trucks - No Federal Action - 9th Street: Anaheim St - Santa Fe	89	8
Trucks	Trucks - No Federal Action - 9th Street: Caspian - Pico (SB only)	112	11
Trucks	Trucks - No Federal Action - 9th Street: Santa Fe to 10th	104	9

Table A.3.3-5. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Alternative 3.

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Trucks	Trucks - No Federal Action - Alameda St: Eubank - Anaheim St	169	14
Trucks	Trucks - No Federal Action - Anaheim St: Alameda - SR-47	57	4
Trucks	Trucks - No Federal Action - Anaheim St: SR-47 - 9th St	305	26
Trucks	Trucks - No Federal Action - Harbor Plaza: Pier F Ave - Pier G Ave	312	27
Trucks	Trucks - No Federal Action - Harbor Plaza: Pier G Ave - Queens Way Bridge	180	16
Trucks	Trucks - No Federal Action - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	822	110
Trucks	Trucks - No Federal Action - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	121	16
Trucks	Trucks - No Federal Action - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	454	59
Trucks	Trucks - No Federal Action - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	464	54
Trucks	Trucks - No Federal Action - I-710 : n/o 9th Street Onramp (Northbound)	2,611	343
Trucks	Trucks - No Federal Action - I-710 : n/o Anaheim SB On Ramp (Southbound)	1,969	241
Trucks	Trucks - No Federal Action - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	346	40
Trucks	Trucks - No Federal Action - Ocean Blvd: Bridge - I-710 Offramp	225	21
Trucks	Trucks - No Federal Action - Ocean Blvd: Seaside Blvd OnRamp - Bridge	450	42
Trucks	Trucks - No Federal Action - Offramp: I-710 at 9th Street (Southbound)	156	13
Trucks	Trucks - No Federal Action - Onramp: 9th St - I-710 (Northbound)	265	22
Trucks	Trucks - No Federal Action - Pico Ave: Harbor Scenic Connector - Harbor Plaza	651	59
Trucks	Trucks - No Federal Action - Pico Ave: Pier B St - Pier D St	1,565	142
Trucks	Trucks - No Federal Action - Pico Ave: Pier D St - Terminal Entrance	425	38
Trucks	Trucks - No Federal Action - Pico Ave: Pier E St - Harbor Scenic Connector	129	12
Trucks	Trucks - No Federal Action - Pico Ave: Terminal Entrance - Pier E St	52	5
Trucks	Trucks - No Federal Action - Pier D Entry Road (off Pico)	1,309	67
Trucks	Trucks - No Federal Action - Pier D Exit Road (off Pier D St)	662	34
Trucks	Trucks - No Federal Action - Pier D St: w/o Pico Ave - w/o Pico Ave	1,522	126
Trucks	Trucks - No Federal Action - Pier E St Off Ramp : Pico Ave - Ocean Blvd	84	8
Trucks	Trucks - No Federal Action - Pier F Ave: Middle Harbor - Harbor Plaza	1,978	177
Trucks	Trucks - No Federal Action - Pier F Entry Road (off Pier F Ave)	347	18
Trucks	Trucks - No Federal Action - Pier F Exit Road (off Pier F Ave)	856	44
Trucks	Trucks - No Federal Action - Santa Fe: 9th St - Anaheim St	32	3
Trucks	Trucks - No Federal Action - Santa Fe: n/o Anaheim St - s/o Willow St	149	13
Trucks	Trucks - No Federal Action - Tire Wear - 10th Street: Pico - 9th (NB only)		3
Trucks	Trucks - No Federal Action - Tire Wear - 9th Street: Anaheim St - Santa Fe		3
Trucks	Trucks - No Federal Action - Tire Wear - 9th Street: Caspian - Pico (SB only)		4
Trucks	Trucks - No Federal Action - Tire Wear - 9th Street: Santa Fe to 10th		3
Trucks	Trucks - No Federal Action - Tire Wear - Alameda St: Eubank - Anaheim St		4
Trucks	Trucks - No Federal Action - Tire Wear - Anaheim St: Alameda - SR-47		1
Trucks	Trucks - No Federal Action - Tire Wear - Anaheim St: SR-47 - 9th St		6
Trucks	Trucks - No Federal Action - Tire Wear - Harbor Plaza: Pier F Ave - Pier G Ave		8
Trucks	Trucks - No Federal Action - Tire Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge		5
Trucks	Trucks - No Federal Action - Tire Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp		37
Trucks	Trucks - No Federal Action - Tire Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)		5
Trucks	Trucks - No Federal Action - Tire Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)		20
Trucks	Trucks - No Federal Action - Tire Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)		19
Trucks	Trucks - No Federal Action - Tire Wear - I-710 : n/o 9th Street Onramp (Northbound)		117
Trucks	Trucks - No Federal Action - Tire Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)		84
Trucks	Trucks - No Federal Action - Tire Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)		14
Trucks	Trucks - No Federal Action - Tire Wear - Ocean Blvd: Bridge - I-710 Offramp		6
Trucks	Trucks - No Federal Action - Tire Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge		13
Trucks	Trucks - No Federal Action - Tire Wear - Offramp: I-710 at 9th Street (Southbound)		3
Trucks	Trucks - No Federal Action - Tire Wear - Onramp: 9th St - I-710 (Northbound)		5
Trucks	Trucks - No Federal Action - Tire Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza		18
Trucks	Trucks - No Federal Action - Tire Wear - Pico Ave: Pier B St - Pier D St		42
Trucks	Trucks - No Federal Action - Tire Wear - Pico Ave: Pier D St - Terminal Entrance		11
Trucks	Trucks - No Federal Action - Tire Wear - Pico Ave: Pier E St - Harbor Scenic Connector		3
Trucks	Trucks - No Federal Action - Tire Wear - Pico Ave: Terminal Entrance - Pier E St		1

Table A.3.3-5. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Alternative 3.

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Trucks	Trucks - No Federal Action - Tire Wear - Pier D Entry Road (off Pico)		8
Trucks	Trucks - No Federal Action - Tire Wear - Pier D Exit Road (off Pier D St)		4
Trucks	Trucks - No Federal Action - Tire Wear - Pier D St: w/o Pico Ave - w/o Pico Ave		31
Trucks	Trucks - No Federal Action - Tire Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd		2
Trucks	Trucks - No Federal Action - Tire Wear - Pier F Ave: Middle Harbor - Harbor Plaza		51
Trucks	Trucks - No Federal Action - Tire Wear - Pier F Entry Road (off Pier F Ave)		2
Trucks	Trucks - No Federal Action - Tire Wear - Pier F Exit Road (off Pier F Ave)		5
Trucks	Trucks - No Federal Action - Tire Wear - Santa Fe: 9th St - Anaheim St		1
Trucks	Trucks - No Federal Action - Tire Wear - Santa Fe: n/o Anaheim St - s/o Willow St		4
Trucks	Trucks - No Federal Action - Brake Wear - 10th Street: Pico - 9th (NB only)		3
Trucks	Trucks - No Federal Action - Brake Wear - 9th Street: Anaheim St - Santa Fe		2
Trucks	Trucks - No Federal Action - Brake Wear - 9th Street: Caspian - Pico (SB only)		3
Trucks	Trucks - No Federal Action - Brake Wear - 9th Street: Santa Fe to 10th		2
Trucks	Trucks - No Federal Action - Brake Wear - Alameda St: Eubank - Anaheim St		3
Trucks	Trucks - No Federal Action - Brake Wear - Anaheim St: Alameda - SR-47		1
Trucks	Trucks - No Federal Action - Brake Wear - Anaheim St: SR-47 - 9th St		5
Trucks	Trucks - No Federal Action - Brake Wear - Harbor Plaza: Pier F Ave - Pier G Ave		6
Trucks	Trucks - No Federal Action - Brake Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge		4
Trucks	Trucks - No Federal Action - Brake Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp		30
Trucks	Trucks - No Federal Action - Brake Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)		4
Trucks	Trucks - No Federal Action - Brake Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)		16
Trucks	Trucks - No Federal Action - Brake Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)		15
Trucks	Trucks - No Federal Action - Brake Wear - I-710 : n/o 9th Street Onramp (Northbound)		94
Trucks	Trucks - No Federal Action - Brake Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)		68
Trucks	Trucks - No Federal Action - Brake Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)		11
Trucks	Trucks - No Federal Action - Brake Wear - Ocean Blvd: Bridge - I-710 Offramp		5
Trucks	Trucks - No Federal Action - Brake Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge		10
Trucks	Trucks - No Federal Action - Brake Wear - Offramp: I-710 at 9th Street (Southbound)		3
Trucks	Trucks - No Federal Action - Brake Wear - Onramp: 9th St - I-710 (Northbound)		4
Trucks	Trucks - No Federal Action - Brake Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza		14
Trucks	Trucks - No Federal Action - Brake Wear - Pico Ave: Pier B St - Pier D St		34
Trucks	Trucks - No Federal Action - Brake Wear - Pico Ave: Pier D St - Terminal Entrance		9
Trucks	Trucks - No Federal Action - Brake Wear - Pico Ave: Pier E St - Harbor Scenic Connector		3
Trucks	Trucks - No Federal Action - Brake Wear - Pico Ave: Terminal Entrance - Pier E St		1
Trucks	Trucks - No Federal Action - Brake Wear - Pier D Entry Road (off Pico)		7
Trucks	Trucks - No Federal Action - Brake Wear - Pier D Exit Road (off Pier D St)		3
Trucks	Trucks - No Federal Action - Brake Wear - Pier D St: w/o Pico Ave - w/o Pico Ave		25
Trucks	Trucks - No Federal Action - Brake Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd		2
Trucks	Trucks - No Federal Action - Brake Wear - Pier F Ave: Middle Harbor - Harbor Plaza		41
Trucks	Trucks - No Federal Action - Brake Wear - Pier F Entry Road (off Pier F Ave)		2
Trucks	Trucks - No Federal Action - Brake Wear - Pier F Exit Road (off Pier F Ave)		4
Trucks	Trucks - No Federal Action - Brake Wear - Santa Fe: 9th St - Anaheim St		1
Trucks	Trucks - No Federal Action - Brake Wear - Santa Fe: n/o Anaheim St - s/o Willow St		3
Trucks	Trucks - No Federal Action - Ocean Blvd: Bridge	626	58
Trucks	Trucks - No Federal Action - Offramp: I-710 at 9th Street (Southbound BRIDGE)	232	19
Trucks	Trucks - No Federal Action - Onramp: 9th St - I-710 (Northbound BRIDGE)	411	34
Trucks	Trucks - No Federal Action - Tire Wear - Ocean Blvd: Bridge		18
Trucks	Trucks - No Federal Action - Tire Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)		5
Trucks	Trucks - No Federal Action - Tire Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)		8
Trucks	Trucks - No Federal Action - Brake Wear - Ocean Blvd: Bridge		14
Trucks	Trucks - No Federal Action - Brake Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)		4
Trucks	Trucks - No Federal Action - Brake Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)		7

Table A.3.3-6. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Alternative 4.

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Terminal Equipment	RTGs on Pier E - No CAAP - Config A	2,867	2,333
Terminal Equipment	RTGs on Pier F - No CAAP - Config A	2,750	2,237
Terminal Equipment	Top Picks on Pier E - No CAAP - Config A	420	296
Terminal Equipment	Top Picks on Pier F - No CAAP - Config A	600	424
Terminal Equipment	Side Picks on Pier E - No CAAP - Config A	408	435
Terminal Equipment	Side Picks on Pier F - No CAAP - Config A	418	446
Terminal Equipment	Yard Tractors on Pier E - No CAAP - Config A	128	126
Terminal Equipment	Yard Tractors on Pier F - No CAAP - Config A	154	151
Harborcraft	Tugboat assist - main engine - Config A	550	711
Harborcraft	Tugboat assist - aux engine - Config A	50	74
Ships Hotelling	Ships - Boilers - Hotelling - Config A	1,205	4,795
Ships Hotelling	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	5,627	3,925
Ships Hotelling	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships Hotelling	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships Hotelling	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	4,624	3,225
Ships Hotelling	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Ships Hotelling	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	3,362	2,345
Ships Hotelling	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Hotelling - Config A	-	-
Railyard Equipment	RTGs - No CAAP - Existing Railyard	478	389
Railyard Equipment	Yard Tractors - No CAAP - Existing Railyard	21	21
Locomotives	Line Haul Locomotive - Day Switching - Existing Railyard	180	69
Locomotives	Yard Locomotive - Day - Existing Railyard	70	20
Locomotives	Line Haul Locomotive - Night Switching - Existing Railyard	180	69
Locomotives	Yard Locomotive - Night - Existing Railyard	70	20
Locomotives	Line Haul Locomotive - Day 10 mph - Port to Ocean Blvd	30	11
Locomotives	Line Haul Locomotive - Night 10 mph - Port to Ocean Blvd	30	11
Locomotives	Line Haul Locomotive - Day 20 mph - Ocean Blvd to Alameda Corridor	67	26
Locomotives	Line Haul Locomotive - Night 20 mph - Ocean Blvd to Alameda Corridor	67	26
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	207	145
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	151	105
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	223	155
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Precautionary Area	328	229
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Precautionary Area	239	166
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Precautionary Area	352	246
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Precautionary Area	-	-
Ships in Transit	Ships - Boilers - Precautionary Area	51	204
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 2.7% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 2.7% S - Fairway @ 12 kts	3,371	3,768
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 2.7% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 2.7% S - Fairway @ 12 kts	2,360	2,638
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 2.7% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 2.7% S - Fairway @ 12 kts	4,085	4,980
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 2.7% S - Fairway @ 12 kts	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 2.7% S - Precautionary Area	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 2.7% S - Precautionary Area	3,119	2,890
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 2.7% S - Precautionary Area	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 2.7% S - Precautionary Area	2,183	2,023
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 2.7% S - Precautionary Area	-	-

Table A.3.3-6. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Alternative 4.

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 2.7% S - Precautionary Area	4,421	4,096
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 2.7% S - Precautionary Area	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	415	289
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	302	210
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	446	311
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships - Boilers - Harbor Transit - Config A	32	129
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 2.7% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 2.7% S - Harbor Transit - Config A	2,530	1,592
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 2.7% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 2.7% S - Harbor Transit - Config A	3,317	1,912
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 2.7% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 2.7% S - Harbor Transit - Config A	3,453	2,172
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 2.7% S - Harbor Transit - Config A	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Docking - Config A	172	120
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Docking - Config A	125	87
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Docking - Config A	185	129
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Docking - Config A	-	-
Ships in Transit	Ships - Boilers - Docking - Config A	13	53
Ships in Transit	Ships 10,000 - 11,999 TEU - Aux Engines - 0.2% S - Turning - East (Current) Location	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Aux Engines - 0.2% S - Turning - East (Current) Location	80	56
Ships in Transit	Ships 7,000 - 7,999 TEU - Aux Engines - 0.2% S - Turning - East (Current) Location	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Aux Engines - 0.2% S - Turning - East (Current) Location	58	41
Ships in Transit	Ships 5,000 - 5,999 TEU - Aux Engines - 0.2% S - Turning - East (Current) Location	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Aux Engines - 0.2% S - Turning - East (Current) Location	86	60
Ships in Transit	Ships 3,000 - 3,999 TEU - Aux Engines - 0.2% S - Turning - East (Current) Location	-	-
Ships in Transit	Ships - Boilers - Turning - East (Current) Location	6	25
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 2.7% S - Turning - East (Current) Location	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 2.7% S - Turning - East (Current) Location	489	308
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 2.7% S - Turning - East (Current) Location	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 2.7% S - Turning - East (Current) Location	641	370
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 2.7% S - Turning - East (Current) Location	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 2.7% S - Turning - East (Current) Location	668	420
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 2.7% S - Turning - East (Current) Location	-	-
Ships in Transit	Ships 10,000 - 11,999 TEU - Mains - 2.7% S - Docking - Config A	-	-
Ships in Transit	Ships 8,000 - 9,999 TEU - Mains - 2.7% S - Docking - Config A	1,511	871
Ships in Transit	Ships 7,000 - 7,999 TEU - Mains - 2.7% S - Docking - Config A	-	-
Ships in Transit	Ships 6,000 - 6,999 TEU - Mains - 2.7% S - Docking - Config A	1,122	647
Ships in Transit	Ships 5,000 - 5,999 TEU - Mains - 2.7% S - Docking - Config A	-	-
Ships in Transit	Ships 4,000 - 4,999 TEU - Mains - 2.7% S - Docking - Config A	2,042	1,177
Ships in Transit	Ships 3,000 - 3,999 TEU - Mains - 2.7% S - Docking - Config A	-	-
Trucks	Truck Idling on Terminal - Config A - No CAAP - 0.70 hr idling - CEQA BL & No Project	4,945	557
Trucks	Truck Idling on Terminal - Config E - No CAAP - 0.70 hr idling - CEQA BL & No Project	4,854	547
Trucks	Truck Driving on Terminal - Config A - No CAAP - CEQA BL & No Project	7,619	287
Trucks	Truck Driving on Terminal - Config E - No CAAP - CEQA BL & No Project	7,480	282
Trucks	Trucks - No Project - 10th Street: Pico - 9th (NB only)	114	12
Trucks	Trucks - No Project - 9th Street: Anaheim St - Santa Fe	78	9
Trucks	Trucks - No Project - 9th Street: Caspian - Pico (SB only)	94	11
Trucks	Trucks - No Project - 9th Street: Santa Fe to 10th	87	9

Table A.3.3-6. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Alternative 4.

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Trucks	Trucks - No Project - Alameda St: Eubank - Anaheim St	178	17
Trucks	Trucks - No Project - Anaheim St: Alameda - SR-47	60	5
Trucks	Trucks - No Project - Anaheim St: SR-47 - 9th St	327	31
Trucks	Trucks - No Project - Harbor Plaza: Pier F Ave - Pier G Ave	405	41
Trucks	Trucks - No Project - Harbor Plaza: Pier G Ave - Queens Way Bridge	230	24
Trucks	Trucks - No Project - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1,060	173
Trucks	Trucks - No Project - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	157	26
Trucks	Trucks - No Project - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	582	93
Trucks	Trucks - No Project - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	485	68
Trucks	Trucks - No Project - I-710 : n/o 9th Street Onramp (Northbound)	2,706	434
Trucks	Trucks - No Project - I-710 : n/o Anaheim SB On Ramp (Southbound)	2,036	302
Trucks	Trucks - No Project - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	448	63
Trucks	Trucks - No Project - Ocean Blvd: Bridge - I-710 Offramp	245	26
Trucks	Trucks - No Project - Ocean Blvd: Seaside Blvd OnRamp - Bridge	491	53
Trucks	Trucks - No Project - Offramp: I-710 at 9th Street (Southbound)	133	12
Trucks	Trucks - No Project - Onramp: 9th St - I-710 (Northbound)	227	21
Trucks	Trucks - No Project - Pico Ave: Harbor Scenic Connector - Harbor Plaza	832	88
Trucks	Trucks - No Project - Pico Ave: Pier B St - Pier D St	1,333	140
Trucks	Trucks - No Project - Pico Ave: Pier D St - Terminal Entrance	368	38
Trucks	Trucks - No Project - Pico Ave: Pier E St - Harbor Scenic Connector	159	17
Trucks	Trucks - No Project - Pico Ave: Terminal Entrance - Pier E St	54	6
Trucks	Trucks - No Project - Pier D Entry Road (off Pico)	1,122	62
Trucks	Trucks - No Project - Pier D Exit Road (off Pier D St)	561	31
Trucks	Trucks - No Project - Pier D St: w/o Pico Ave - w/o Pico Ave	1,296	121
Trucks	Trucks - No Project - Pier E St Off Ramp : Pico Ave - Ocean Blvd	-	-
Trucks	Trucks - No Project - Pier F Ave: Middle Harbor - Harbor Plaza	2,566	264
Trucks	Trucks - No Project - Pier F Entry Road (off Pier F Ave)	452	25
Trucks	Trucks - No Project - Pier F Exit Road (off Pier F Ave)	1,101	60
Trucks	Trucks - No Project - Santa Fe: 9th St - Anaheim St	27	3
Trucks	Trucks - No Project - Santa Fe: n/o Anaheim St - s/o Willow St	131	13
Trucks	Trucks - No Project - Tire Wear - 10th Street: Pico - 9th (NB only)		3
Trucks	Trucks - No Project - Tire Wear - 9th Street: Anaheim St - Santa Fe		2
Trucks	Trucks - No Project - Tire Wear - 9th Street: Caspian - Pico (SB only)		3
Trucks	Trucks - No Project - Tire Wear - 9th Street: Santa Fe to 10th		2
Trucks	Trucks - No Project - Tire Wear - Alameda St: Eubank - Anaheim St		3
Trucks	Trucks - No Project - Tire Wear - Anaheim St: Alameda - SR-47		1
Trucks	Trucks - No Project - Tire Wear - Anaheim St: SR-47 - 9th St		6
Trucks	Trucks - No Project - Tire Wear - Harbor Plaza: Pier F Ave - Pier G Ave		9
Trucks	Trucks - No Project - Tire Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge		5
Trucks	Trucks - No Project - Tire Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp		44
Trucks	Trucks - No Project - Tire Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)		6
Trucks	Trucks - No Project - Tire Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)		24
Trucks	Trucks - No Project - Tire Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)		18
Trucks	Trucks - No Project - Tire Wear - I-710 : n/o 9th Street Onramp (Northbound)		111
Trucks	Trucks - No Project - Tire Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)		80
Trucks	Trucks - No Project - Tire Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)		17
Trucks	Trucks - No Project - Tire Wear - Ocean Blvd: Bridge - I-710 Offramp		6
Trucks	Trucks - No Project - Tire Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge		13
Trucks	Trucks - No Project - Tire Wear - Offramp: I-710 at 9th Street (Southbound)		2
Trucks	Trucks - No Project - Tire Wear - Onramp: 9th St - I-710 (Northbound)		4
Trucks	Trucks - No Project - Tire Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza		21
Trucks	Trucks - No Project - Tire Wear - Pico Ave: Pier B St - Pier D St		33
Trucks	Trucks - No Project - Tire Wear - Pico Ave: Pier D St - Terminal Entrance		9
Trucks	Trucks - No Project - Tire Wear - Pico Ave: Pier E St - Harbor Scenic Connector		4
Trucks	Trucks - No Project - Tire Wear - Pico Ave: Terminal Entrance - Pier E St		1

Table A.3.3-6. Year 2010 Annual Operational Emissions for Chronic HRA - POLB - MHTP - Alternative 4.

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Trucks	Trucks - No Project - Tire Wear - Pier D Entry Road (off Pico)		6
Trucks	Trucks - No Project - Tire Wear - Pier D Exit Road (off Pier D St)		3
Trucks	Trucks - No Project - Tire Wear - Pier D St: w/o Pico Ave - w/o Pico Ave		24
Trucks	Trucks - No Project - Tire Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd		-
Trucks	Trucks - No Project - Tire Wear - Pier F Ave: Middle Harbor - Harbor Plaza		61
Trucks	Trucks - No Project - Tire Wear - Pier F Entry Road (off Pier F Ave)		3
Trucks	Trucks - No Project - Tire Wear - Pier F Exit Road (off Pier F Ave)		6
Trucks	Trucks - No Project - Tire Wear - Santa Fe: 9th St - Anaheim St		1
Trucks	Trucks - No Project - Tire Wear - Santa Fe: n/o Anaheim St - s/o Willow St		3
Trucks	Trucks - No Project - Brake Wear - 10th Street: Pico - 9th (NB only)		2
Trucks	Trucks - No Project - Brake Wear - 9th Street: Anaheim St - Santa Fe		2
Trucks	Trucks - No Project - Brake Wear - 9th Street: Caspian - Pico (SB only)		2
Trucks	Trucks - No Project - Brake Wear - 9th Street: Santa Fe to 10th		2
Trucks	Trucks - No Project - Brake Wear - Alameda St: Eubank - Anaheim St		3
Trucks	Trucks - No Project - Brake Wear - Anaheim St: Alameda - SR-47		1
Trucks	Trucks - No Project - Brake Wear - Anaheim St: SR-47 - 9th St		5
Trucks	Trucks - No Project - Brake Wear - Harbor Plaza: Pier F Ave - Pier G Ave		7
Trucks	Trucks - No Project - Brake Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge		4
Trucks	Trucks - No Project - Brake Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp		35
Trucks	Trucks - No Project - Brake Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)		5
Trucks	Trucks - No Project - Brake Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)		19
Trucks	Trucks - No Project - Brake Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)		15
Trucks	Trucks - No Project - Brake Wear - I-710 : n/o 9th Street Onramp (Northbound)		90
Trucks	Trucks - No Project - Brake Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)		64
Trucks	Trucks - No Project - Brake Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)		13
Trucks	Trucks - No Project - Brake Wear - Ocean Blvd: Bridge - I-710 Offramp		5
Trucks	Trucks - No Project - Brake Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge		10
Trucks	Trucks - No Project - Brake Wear - Offramp: I-710 at 9th Street (Southbound)		2
Trucks	Trucks - No Project - Brake Wear - Onramp: 9th St - I-710 (Northbound)		3
Trucks	Trucks - No Project - Brake Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza		17
Trucks	Trucks - No Project - Brake Wear - Pico Ave: Pier B St - Pier D St		27
Trucks	Trucks - No Project - Brake Wear - Pico Ave: Pier D St - Terminal Entrance		7
Trucks	Trucks - No Project - Brake Wear - Pico Ave: Pier E St - Harbor Scenic Connector		3
Trucks	Trucks - No Project - Brake Wear - Pico Ave: Terminal Entrance - Pier E St		1
Trucks	Trucks - No Project - Brake Wear - Pier D Entry Road (off Pico)		5
Trucks	Trucks - No Project - Brake Wear - Pier D Exit Road (off Pier D St)		3
Trucks	Trucks - No Project - Brake Wear - Pier D St: w/o Pico Ave - w/o Pico Ave		19
Trucks	Trucks - No Project - Brake Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd		-
Trucks	Trucks - No Project - Brake Wear - Pier F Ave: Middle Harbor - Harbor Plaza		49
Trucks	Trucks - No Project - Brake Wear - Pier F Entry Road (off Pier F Ave)		2
Trucks	Trucks - No Project - Brake Wear - Pier F Exit Road (off Pier F Ave)		5
Trucks	Trucks - No Project - Brake Wear - Santa Fe: 9th St - Anaheim St		1
Trucks	Trucks - No Project - Brake Wear - Santa Fe: n/o Anaheim St - s/o Willow St		3
Trucks	Trucks - No Project - Ocean Blvd: Bridge	682	73
Trucks	Trucks - No Project - Offramp: I-710 at 9th Street (Southbound BRIDGE)	197	18
Trucks	Trucks - No Project - Onramp: 9th St - I-710 (Northbound BRIDGE)	351	33
Trucks	Trucks - No Project - Tire Wear - Ocean Blvd: Bridge		18
Trucks	Trucks - No Project - Tire Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)		4
Trucks	Trucks - No Project - Tire Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)		7
Trucks	Trucks - No Project - Brake Wear - Ocean Blvd: Bridge		14
Trucks	Trucks - No Project - Brake Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)		3
Trucks	Trucks - No Project - Brake Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)		5

Table A.3.3-7. Year 2005 Annual Operational Emissions for Chronic HRA - POLB - MHTP - CEQA Baseline.

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Terminal Equipment	CHE Pier E - 2005 Only	12,344	6,924
Terminal Equipment	CHE Pier F - 2005 Only	12,337	5,021
Harborcraft	Tugboat assist - main engine - CEQA Baseline Only	536	733
Harborcraft	Tugboat assist - aux engine - CEQA Baseline Only	48	77
Ships Hotelling	Ships - Aux Engines <3K TEU - Hotelling - CEQA Baseline Only	1,343	2,200
Ships Hotelling	Ships - Boilers - Hotelling - CEQA Baseline Only	1,680	6,684
Ships Hotelling	Ships - Aux Engines 3-5K TEU - Hotelling - CEQA Baseline Only	8,771	14,363
Ships Hotelling	Ships - Aux Engines >5K TEU - Hotelling - CEQA Baseline Only	7,651	12,529
Railyard Equipment	Railyard Equipment - 2005 Only	1,663	677
Locomotives	Line Haul Locomotive - Day Swiching - Existing Railyard	198	108
Locomotives	Yard Locomotive - Day - Existing Railyard	143	49
Locomotives	Line Haul Locomotive - Night Swiching - Existing Railyard	198	108
Locomotives	Yard Locomotive - Night - Existing Railyard	143	49
Locomotives	Line Haul Locomotive - Day 10 mph - Port to Ocean Blvd	33	18
Locomotives	Line Haul Locomotive - Night 10 mph - Port to Ocean Blvd	33	18
Locomotives	Line Haul Locomotive - Day 20 mph - Ocean Blvd to Alameda Corridor	74	41
Locomotives	Line Haul Locomotive - Night 20 mph - Ocean Blvd to Alameda Corridor	74	41
Ships in Transit	Ships - Mains - Fairway @ 12 kts - CEQA Baseline Only	4,698	8,452
Ships in Transit	Ships - Mains - Precautionary Area - CEQA Baseline Only	3,783	5,823
Ships in Transit	Ships - Aux Engines - Fairway @ 12 kts - CEQA Baseline Only	218	818
Ships in Transit	Ships - Aux Engines - Precautionary Area - CEQA Baseline Only	446	1,285
Ships in Transit	Ships - Boilers - Precautionary Area - CEQA Baseline Only	31	125
Ships in Transit	Ships - Mains - Harbor Transit - CEQA Baseline Only	3,842	3,694
Ships in Transit	Ships - Aux Engines - Harbor Transit - CEQA Baseline Only	611	1,759
Ships in Transit	Ships - Boilers - Harbor Transit - CEQA Baseline Only	14	54
Ships in Transit	Ships - Mains - Docking - CEQA Baseline Only	1,775	1,707
Ships in Transit	Ships - Mains - Turning - CEQA Baseline Only	743	714
Ships in Transit	Ships - Aux Engines - Docking - CEQA Baseline Only	253	729
Ships in Transit	Ships - Aux Engines - Turning - CEQA Baseline Only	118	340
Ships in Transit	Ships - Boilers - Docking - CEQA Baseline Only	6	22
Ships in Transit	Ships - Boilers - Turning - CEQA Baseline Only	3	10
Trucks	Truck Idling on Terminal - Config A - No CAAP - 0.70 hr idling - CEQA BL & No Project	5,940	888
Trucks	Truck Idling on Terminal - Config E - No CAAP - 0.70 hr idling - CEQA BL & No Project	9,407	1,407
Trucks	Truck Driving on Terminal - Config A - No CAAP - CEQA BL & No Project	6,643	2,125
Trucks	Truck Driving on Terminal - Config E - No CAAP - CEQA BL & No Project	10,522	3,365
Trucks	Trucks - CEQA Baseline - 10th Street: Pico - 9th (NB only)	125	94
Trucks	Trucks - CEQA Baseline - 9th Street: Anaheim St - Santa Fe	89	69
Trucks	Trucks - CEQA Baseline - 9th Street: Caspian - Pico (SB only)	99	80
Trucks	Trucks - CEQA Baseline - 9th Street: Santa Fe to 10th	91	67
Trucks	Trucks - CEQA Baseline - Alameda St: Eubank - Anaheim St	322	232
Trucks	Trucks - CEQA Baseline - Anaheim St: Alameda - SR-47	107	72
Trucks	Trucks - CEQA Baseline - Anaheim St: SR-47 - 9th St	598	431
Trucks	Trucks - CEQA Baseline - Harbor Plaza: Pier F Ave - Pier G Ave	666	494
Trucks	Trucks - CEQA Baseline - Harbor Plaza: Pier G Ave - Queens Way Bridge	337	252
Trucks	Trucks - CEQA Baseline - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp	1,674	1,447
Trucks	Trucks - CEQA Baseline - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)	258	223
Trucks	Trucks - CEQA Baseline - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)	953	823
Trucks	Trucks - CEQA Baseline - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)	685	572
Trucks	Trucks - CEQA Baseline - I-710 : n/o 9th Street Onramp (Northbound)	3,611	3,120
Trucks	Trucks - CEQA Baseline - I-710 : n/o Anaheim SB On Ramp (Southbound)	2,802	2,384
Trucks	Trucks - CEQA Baseline - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)	738	616
Trucks	Trucks - CEQA Baseline - Ocean Blvd: Bridge - I-710 Offramp	408	313
Trucks	Trucks - CEQA Baseline - Ocean Blvd: Seaside Blvd OnRamp - Bridge	815	626
Trucks	Trucks - CEQA Baseline - Offramp: I-710 at 9th Street (Southbound)	134	96
Trucks	Trucks - CEQA Baseline - Onramp: 9th St - I-710 (Northbound)	203	145

Table A.3.3-7. Year 2005 Annual Operational Emissions for Chronic HRA - POLB - MHTP - CEQA Baseline.

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Trucks	Trucks - CEQA Baseline - Pico Ave: Harbor Scenic Connector - Harbor Plaza	1,476	1,119
Trucks	Trucks - CEQA Baseline - Pico Ave: Pier B St - Pier D St	1,349	1,023
Trucks	Trucks - CEQA Baseline - Pico Ave: Pier D St - Terminal Entrance	428	321
Trucks	Trucks - CEQA Baseline - Pico Ave: Pier E St - Harbor Scenic Connector	345	261
Trucks	Trucks - CEQA Baseline - Pico Ave: Terminal Entrance - Pier E St	100	76
Trucks	Trucks - CEQA Baseline - Pier D Entry Road (off Pico)	1,085	473
Trucks	Trucks - CEQA Baseline - Pier D Exit Road (off Pier D St)	511	223
Trucks	Trucks - CEQA Baseline - Pier D St: w/o Pico Ave - w/o Pico Ave	1,249	894
Trucks	Trucks - CEQA Baseline - Pier E St Off Ramp : Pico Ave - Ocean Blvd	137	103
Trucks	Trucks - CEQA Baseline - Pier F Ave: Middle Harbor - Harbor Plaza	4,256	3,192
Trucks	Trucks - CEQA Baseline - Pier F Entry Road (off Pier F Ave)	661	289
Trucks	Trucks - CEQA Baseline - Pier F Exit Road (off Pier F Ave)	1,725	753
Trucks	Trucks - CEQA Baseline - Santa Fe: 9th St - Anaheim St	27	20
Trucks	Trucks - CEQA Baseline - Santa Fe: n/o Anaheim St - s/o Willow St	133	100
Trucks	Trucks - CEQA Baseline - Tire Wear - 10th Street: Pico - 9th (NB only)		2
Trucks	Trucks - CEQA Baseline - Tire Wear - 9th Street: Anaheim St - Santa Fe		2
Trucks	Trucks - CEQA Baseline - Tire Wear - 9th Street: Caspian - Pico (SB only)		2
Trucks	Trucks - CEQA Baseline - Tire Wear - 9th Street: Santa Fe to 10th		2
Trucks	Trucks - CEQA Baseline - Tire Wear - Alameda St: Eubank - Anaheim St		5
Trucks	Trucks - CEQA Baseline - Tire Wear - Anaheim St: Alameda - SR-47		1
Trucks	Trucks - CEQA Baseline - Tire Wear - Anaheim St: SR-47 - 9th St		9
Trucks	Trucks - CEQA Baseline - Tire Wear - Harbor Plaza: Pier F Ave - Pier G Ave		12
Trucks	Trucks - CEQA Baseline - Tire Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge		6
Trucks	Trucks - CEQA Baseline - Tire Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp		49
Trucks	Trucks - CEQA Baseline - Tire Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)		8
Trucks	Trucks - CEQA Baseline - Tire Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)		28
Trucks	Trucks - CEQA Baseline - Tire Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)		18
Trucks	Trucks - CEQA Baseline - Tire Wear - I-710 : n/o 9th Street Onramp (Northbound)		105
Trucks	Trucks - CEQA Baseline - Tire Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)		78
Trucks	Trucks - CEQA Baseline - Tire Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)		20
Trucks	Trucks - CEQA Baseline - Tire Wear - Ocean Blvd: Bridge - I-710 Offramp		8
Trucks	Trucks - CEQA Baseline - Tire Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge		16
Trucks	Trucks - CEQA Baseline - Tire Wear - Offramp: I-710 at 9th Street (Southbound)		2
Trucks	Trucks - CEQA Baseline - Tire Wear - Onramp: 9th St - I-710 (Northbound)		3
Trucks	Trucks - CEQA Baseline - Tire Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza		28
Trucks	Trucks - CEQA Baseline - Tire Wear - Pico Ave: Pier B St - Pier D St		25
Trucks	Trucks - CEQA Baseline - Tire Wear - Pico Ave: Pier D St - Terminal Entrance		8
Trucks	Trucks - CEQA Baseline - Tire Wear - Pico Ave: Pier E St - Harbor Scenic Connector		6
Trucks	Trucks - CEQA Baseline - Tire Wear - Pico Ave: Terminal Entrance - Pier E St		2
Trucks	Trucks - CEQA Baseline - Tire Wear - Pier D Entry Road (off Pico)		5
Trucks	Trucks - CEQA Baseline - Tire Wear - Pier D Exit Road (off Pier D St)		2
Trucks	Trucks - CEQA Baseline - Tire Wear - Pier D St: w/o Pico Ave - w/o Pico Ave		18
Trucks	Trucks - CEQA Baseline - Tire Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd		2
Trucks	Trucks - CEQA Baseline - Tire Wear - Pier F Ave: Middle Harbor - Harbor Plaza		77
Trucks	Trucks - CEQA Baseline - Tire Wear - Pier F Entry Road (off Pier F Ave)		3
Trucks	Trucks - CEQA Baseline - Tire Wear - Pier F Exit Road (off Pier F Ave)		8
Trucks	Trucks - CEQA Baseline - Tire Wear - Santa Fe: 9th St - Anaheim St		0
Trucks	Trucks - CEQA Baseline - Tire Wear - Santa Fe: n/o Anaheim St - s/o Willow St		2
Trucks	Trucks - CEQA Baseline - Brake Wear - 10th Street: Pico - 9th (NB only)		2
Trucks	Trucks - CEQA Baseline - Brake Wear - 9th Street: Anaheim St - Santa Fe		1
Trucks	Trucks - CEQA Baseline - Brake Wear - 9th Street: Caspian - Pico (SB only)		2
Trucks	Trucks - CEQA Baseline - Brake Wear - 9th Street: Santa Fe to 10th		1
Trucks	Trucks - CEQA Baseline - Brake Wear - Alameda St: Eubank - Anaheim St		4
Trucks	Trucks - CEQA Baseline - Brake Wear - Anaheim St: Alameda - SR-47		1
Trucks	Trucks - CEQA Baseline - Brake Wear - Anaheim St: SR-47 - 9th St		7

Table A.3.3-7. Year 2005 Annual Operational Emissions for Chronic HRA - POLB - MHTP - CEQA Baseline.

Source Category	Emission Description	Pounds per Year	
		VOC	PM10
Trucks	Trucks - CEQA Baseline - Brake Wear - Harbor Plaza: Pier F Ave - Pier G Ave		9
Trucks	Trucks - CEQA Baseline - Brake Wear - Harbor Plaza: Pier G Ave - Queens Way Bridge		5
Trucks	Trucks - CEQA Baseline - Brake Wear - Harbor Scenic Dr: - Pico Connector - Harbor Plaza Offramp		39
Trucks	Trucks - CEQA Baseline - Brake Wear - Harbor Scenic Dr: Ocean Connector - Pico Connector (Southbound)		6
Trucks	Trucks - CEQA Baseline - Brake Wear - Harbor Scenic Dr: Pico Connector - I-710 9th St Onramp (Northbound)		22
Trucks	Trucks - CEQA Baseline - Brake Wear - I-710 : Anaheim SB On Ramp - Pico SB Ramps (Southbound)		15
Trucks	Trucks - CEQA Baseline - Brake Wear - I-710 : n/o 9th Street Onramp (Northbound)		85
Trucks	Trucks - CEQA Baseline - Brake Wear - I-710 : n/o Anaheim SB On Ramp (Southbound)		63
Trucks	Trucks - CEQA Baseline - Brake Wear - I-710 : Pier B St On Ramp - Connector to Ocean WB (Southbound)		16
Trucks	Trucks - CEQA Baseline - Brake Wear - Ocean Blvd: Bridge - I-710 Offramp		6
Trucks	Trucks - CEQA Baseline - Brake Wear - Ocean Blvd: Seaside Blvd OnRamp - Bridge		13
Trucks	Trucks - CEQA Baseline - Brake Wear - Offramp: I-710 at 9th Street (Southbound)		2
Trucks	Trucks - CEQA Baseline - Brake Wear - Onramp: 9th St - I-710 (Northbound)		2
Trucks	Trucks - CEQA Baseline - Brake Wear - Pico Ave: Harbor Scenic Connector - Harbor Plaza		22
Trucks	Trucks - CEQA Baseline - Brake Wear - Pico Ave: Pier B St - Pier D St		20
Trucks	Trucks - CEQA Baseline - Brake Wear - Pico Ave: Pier D St - Terminal Entrance		6
Trucks	Trucks - CEQA Baseline - Brake Wear - Pico Ave: Pier E St - Harbor Scenic Connector		5
Trucks	Trucks - CEQA Baseline - Brake Wear - Pico Ave: Terminal Entrance - Pier E St		2
Trucks	Trucks - CEQA Baseline - Brake Wear - Pier D Entry Road (off Pico)		4
Trucks	Trucks - CEQA Baseline - Brake Wear - Pier D Exit Road (off Pier D St)		2
Trucks	Trucks - CEQA Baseline - Brake Wear - Pier D St: w/o Pico Ave - w/o Pico Ave		15
Trucks	Trucks - CEQA Baseline - Brake Wear - Pier E St Off Ramp : Pico Ave - Ocean Blvd		2
Trucks	Trucks - CEQA Baseline - Brake Wear - Pier F Ave: Middle Harbor - Harbor Plaza		62
Trucks	Trucks - CEQA Baseline - Brake Wear - Pier F Entry Road (off Pier F Ave)		3
Trucks	Trucks - CEQA Baseline - Brake Wear - Pier F Exit Road (off Pier F Ave)		7
Trucks	Trucks - CEQA Baseline - Brake Wear - Santa Fe: 9th St - Anaheim St		0
Trucks	Trucks - CEQA Baseline - Brake Wear - Santa Fe: n/o Anaheim St - s/o Willow St		2
Trucks	Trucks - CEQA Baseline - Ocean Blvd: Bridge	1,132	869
Trucks	Trucks - CEQA Baseline - Offramp: I-710 at 9th Street (Southbound BRIDGE)	199	142
Trucks	Trucks - CEQA Baseline - Onramp: 9th St - I-710 (Northbound BRIDGE)	315	225
Trucks	Trucks - CEQA Baseline - Tire Wear - Ocean Blvd: Bridge		22
Trucks	Trucks - CEQA Baseline - Tire Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)		3
Trucks	Trucks - CEQA Baseline - Tire Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)		5
Trucks	Trucks - CEQA Baseline - Brake Wear - Ocean Blvd: Bridge		18
Trucks	Trucks - CEQA Baseline - Brake Wear - Offramp: I-710 at 9th Street (Southbound BRIDGE)		2
Trucks	Trucks - CEQA Baseline - Brake Wear - Onramp: 9th St - I-710 (Northbound BRIDGE)		4

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**Attachment A-3.4 –
Construction Modeling
DPM Emissions Tables**

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- Table A.3.4-1. 2010 Annual Construction DPM Emissions - POLB - MHTP - Alternative 1
- Table A.3.4-2. 2010 Annual Construction DPM Emission Simulations - POLB - MHTP - Alternatives 1 or 2
- Table A.3.4-3. 2010 Annual Construction DPM Emissions - POLB - MHTP - Mitigated Alternative 3/NEPA Baseline
- Table A.3.4-4. Construction 2010 Annual DPM Emission Simulations - POLB - MHTP - Mitigated Alternative 3/NEPA Baseline
- Table A.3.4-5. Construction 70-year Average DPM Emission Simulations - POLB - MHTP - Alternative 1.
- Table A.3.4-6. Total DPM Emissions - POLB - MHTP - Alternative 1 Construction Activities
- Table A.3.4-7. Construction 70-year Average DPM Emission Simulations - POLB - MHTP - Alternative 2.
- Table A.3.4-8. Total DPM Emissions - POLB - MHTP - Alternative 2 Construction Activities.
- Table A.3.4-9. Construction DPM Emission Simulations - POLB - MHTP - Mitigated Alternative 3/NEPA Baseline.
- Table A.3.4-10. Total DPM Emissions - POLB - MHTP - Mitigated Alternative 3/NEPA Baseline Construction Activities.

Table A.3.4-1. 2010 Annual Construction DPM Emissions - POLB - MHTP - Alternative 1.

<i>Sources</i>	<i>Total Pounds DPM</i>
Total	23,590

Table A.3.4-2. 2010 Annual Construction DPM Emission Simulations - POLB - MHTP - Alternatives 1 or 2.

	Source #	Width (meters)	Area (m2)	# of Sources	Fraction of Total Source Area	DPM (PPY)
<i>Pier D</i>						
Subtotals			28,125	5	1.00	7,779
<i>Pier E</i>						
Subtotals			49,375	6	1.00	9,641
<i>Slip 1</i>						
Subtotals			31,250	2	1.00	6,170

Table A.3.4-3. 2010 Annual Construction DPM Emissions - POLB - MHTP - Mitigated Alternative 3/NEPA Baseline.

<i>Sources</i>	<i>Total Pounds DPM</i>
Pier E	267
Total	

Table A.3.4-4. Construction 2010 Annual DPM Emission Simulations - POLB - MHTP - Mitigated Alternative 3/NEPA Baseline.

Activity/Source ID	Source #	Width (meters)	Area (m ²)	# of Sources	Fraction of Total Source Area	DPM (PPY)
Pier E						
	S12	350	122,500	1	1.00	267
Subtotals			122,500	1	1.00	267

Table A.3.4-5. Construction 70-year Average DPM Emission Simulations - POLB - MHTP - Alternative 1.

Activity/Source ID	Source #	Width (meters)	Area (m ²)	# of Sources	Fraction of Total Source Area	DPM 70-Yr Ave (Tons)
<i>Construction Activities w/o Dredging</i>						
	S1	325	105,625	1	0.10	0.04
	S2	325	105,625	1	0.10	0.04
	S3	375	140,625	1	0.13	0.06
	S4	225	50,625	1	0.05	0.02
	S5	150	22,500	1	0.02	0.01
	S6	200	40,000	1	0.04	0.02
	S7	700	490,000	1	0.44	0.19
	S8	125	15,625	1	0.01	0.01
	S9	175	30,625	1	0.03	0.01
	S10	125	15,625	1	0.01	0.01
	S11	300	90,000	1	0.08	0.04
	S12	350	122,500	-	-	-
	S13	350	122,500	-	-	-
	S14	225	50,625	-	-	-
	S15	300	90,000	-	-	-
	S16	225	50,625	-	-	-
	S17	150	22,500	-	-	-
	S18	100	10,000	-	-	-
	S19	100	10,000	-	-	-
	S20	100	10,000	-	-	-
	S21	100	10,000	-	-	-
	S22	100	10,000	-	-	-
	S23	100	10,000	-	-	-
	S24	100	10,000	-	-	-
	S25	100	10,000	-	-	-
	S26	75	5,625	-	-	-
	S27	75	5,625	-	-	-
Subtotals			1,106,875	11	1.00	0.43
<i>Dredging Activities</i>						
	S28	125	15,625	1	0.09	0.02
	S29	125	15,625	1	0.09	0.02
	S30	125	15,625	1	0.09	0.02
	S31	125	15,625	1	0.09	0.02
	S32	125	15,625	1	0.09	0.02
	S33	125	15,625	1	0.09	0.02
	S34	125	15,625	1	0.09	0.02
	S35	125	15,625	1	0.09	0.02
	S36	125	15,625	1	0.09	0.02
	S37	125	15,625	1	0.09	0.02
	S38	125	15,625	1	0.09	0.02
Subtotals			171,875	11	1.00	0.17

Table A.3.4-6. Total DPM Emissions - POLB - MHTP - Alternative 1 Construction Activities.

<i>Construction Phase/Stage/Activity</i>	<i>Total Tons DPM</i>
Phase 1 - Stage 1	14.88
Phase 1 - Stage 2	3.10
Phase 1 - Stage 3	5.37
Phase 1 - Stage 4	1.70
Phase 1 - Stage 5	1.29
Phase 2 - Stage 1	4.46
Phase 2 - Stage 2	9.20
Phase 2 - Stage 3	1.84
Phase 2 - Stage 4	0.08
Total DPM Emissions, Tons	41.92
Total Dredging Activities	11.59
Total DPM Emissions, Tons (w/o Dredging Activities)	30.33
Dredging - 70-year Annual Average	0.17
Construction w/o Dredging Activities - 70-year Annual Average	0.43

Table A.3.4-7. Construction 70-year Average DPM Emission Simulations - POLB - MHTP - Alternative 2 Alternative.

Activity/Source ID	Source #	Width (meters)	Area (m ²)	# of Sources	Fraction of Total Source Area	DPM 70-Yr Ave (Tons)
<i>Construction Activities w/o Dredging</i>						
	S1	325	105,625	1	0.11	0.04
	S2	325	105,625	1	0.11	0.04
	S3	375	140,625	1	0.15	0.05
	S4	225	50,625	1	0.05	0.02
	S5	150	22,500	1	0.02	0.01
	S6	200	40,000	1	0.04	0.02
	S7	700	490,000	-	-	-
	S8	125	15,625	-	-	-
	S9	175	30,625	-	-	-
	S10	125	15,625	-	-	-
	S11	300	90,000	-	-	-
	S12	350	122,500	1	0.13	0.05
	S13	350	122,500	1	0.13	0.05
	S14	225	50,625	1	0.05	0.02
	S15	300	90,000	1	0.10	0.04
	S16	225	50,625	1	0.05	0.02
	S17	150	22,500	1	0.02	0.01
	S18	100	10,000	-	-	-
	S19	100	10,000	-	-	-
	S20	100	10,000	-	-	-
	S21	100	10,000	-	-	-
	S22	100	10,000	-	-	-
	S23	100	10,000	-	-	-
	S24	100	10,000	-	-	-
	S25	100	10,000	-	-	-
	S26	75	5,625	-	-	-
	S27	75	5,625	-	-	-
Subtotals			923,750	12	1.00	0.36
<i>Dredging Activities</i>						
	S28	125	15,625	1	0.10	0.01
	S29	125	15,625	1	0.10	0.01
	S30	125	15,625	1	0.10	0.01
	S31	125	15,625	1	0.10	0.01
	S32	125	15,625	1	0.10	0.01
	S33	125	15,625	1	0.10	0.01
	S34	125	15,625	1	0.10	0.01
	S35	125	15,625	1	0.10	0.01
	S36	125	15,625	1	0.10	0.01
	S37	125	15,625	1	0.10	0.01
	S38	125	15,625	-	-	-
Subtotals			156,250	10	1.00	0.10

Table A.3.4-8. Total DPM Emissions - POLB - MHTP - Alternative 2 Construction Activities.

<i>Construction Phase/Stage/Activity</i>	<i>Total Tons DPM</i>
Phase 1 - Stage 1	14.51
Phase 1 - Stage 2	3.10
Phase 1 - Stage 3	5.37
Phase 1 - Stage 4	1.70
Phase 1 - Stage 5	1.29
Phase 2 - Stage 1	2.13
Phase 2 - Stage 2	3.94
Phase 2 - Stage 3	-
Phase 2 - Stage 4	0.11
Total DPM Emissions, Tons	32.15
Total Dredging Activities	7.00
Total DPM Emissions, Tons (w/o Dredging Activities)	25.16
Dredging - 70-year Annual Average	0.10
Construction w/o Dredging Activities - 70-year Annual Average	0.36

Table A.3.4-9. Construction DPM Emission Simulations - POLB - MHTP - Mitigated Alternative 3/NEPA Baseline.

Activity/Source ID	Source #	Width (meters)	Area (m ²)	# of Sources	Fraction of Total Source Area	DPM 70-Yr Ave (Tons)
<i>Combined Construction Activities</i>	A	325	105,625	1	0.12	0.01
	B	325	105,625	1	0.12	0.01
	C	375	140,625	1	0.16	0.02
	D	225	50,625	1	0.06	0.01
	E	150	22,500	1	0.03	0.00
	F	200	40,000	1	0.05	0.00
	L	350	122,500	1	0.14	0.01
	N	225	50,625	1	0.06	0.01
	O	300	90,000	1	0.10	0.01
	P	225	50,625	1	0.06	0.01
	R	100	10,000	1	0.01	0.00
	S	100	10,000	1	0.01	0.00
	T	100	10,000	1	0.01	0.00
	U	100	10,000	1	0.01	0.00
	V	100	10,000	1	0.01	0.00
	W	100	10,000	1	0.01	0.00
	X	100	10,000	1	0.01	0.00
	Y	100	10,000	1	0.01	0.00
	Z	75	5,625	1	0.01	0.00
	AA	75	5,625	1	0.01	0.00
Subtotals			870,000	20	1.00	0.10

Table A.3.4-10. Total DPM Emissions - POLB - MHTP -
 Mitigated Alternative 3/NEPA Baseline Construction Activities.

<i>Construction Phase/Stage/Activity</i>	<i>Total DPM (Tons)</i>
Phase 1 - Stage 1	1.77
Phase 1 - Stage 2	0.05
Phase 1 - Stage 3	1.07
Phase 1 - Stage 4	1.70
Phase 1 - Stage 5	1.29
Phase 2 - Stage 1	1.33
Phase 2 - Stage 2	-
Phase 2 - Stage 3	-
Phase 2 - Stage 4	0.08
Total (Tons)	7.29
70-Year Annual Average Emissions (Tons)	0.10

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Appendix A-4

Draft Clean Air Act Conformity Determination for the Port of
Long Beach Middle Harbor Redevelopment Project

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Appendix A-4

Draft Clean Air Act Conformity Determination for the Port of Long Beach Middle Harbor Redevelopment Project

1.0 INTRODUCTION

This appendix includes a draft Clean Air Act (CAA) general conformity determination of the federal action as it relates to the Middle Harbor Redevelopment Project (Project), as proposed by the Port of Long Beach (POLB) in the “*Final Environmental Report (FEIR)/Final Environmental Impact Statement (FEIS) for the Middle Harbor Redevelopment Project*”.

In accordance with requirements of Section 176 (c) of the Clean Air Act (CAA) (42 U.S.C. 7506(c)), since the Project would take place in a nonattainment area, a general conformity determination must be performed by the lead federal agency to ensure that it conforms with the CAA before the action is approved. The U.S. Army Corps of Engineers (USACE) is the lead federal agency under the National Environmental Policy Act (NEPA). Included in this appendix is the conformity analysis for areas affected by the proposed federal actions, including a conformity determination for the South Coast Air Basin (SCAB) in southern California.

2.0 CLEAN AIR ACT CONFORMITY REQUIREMENTS

2.1 Introduction

Section 176(c) of the CAA requires that federal agency actions be consistent with the CAA and with any approved air quality management plan (state implementation plan [SIP]) that are required under Section 110 (a) of the CAA (42 U.S.C. 7410(a)). The U.S. Environmental Protection Agency (EPA) promulgated regulations codified in 40 Code of Federal Register (C.F.R.) Part 93, titled “*Determining Conformity of Federal Actions to State or Federal Implementation Plans*”. It contains two Subparts”: (1) Transportation Conformity (Subpart A), and (2) General Conformity (Subpart B). The following discussion discusses these two regulations as they apply to the Federal action portions of the Project and Alternative 2.

2.2 Transportation Conformity Requirements

The Transportation Conformity Rule was promulgated by EPA on November 24, 1993 at 40

C.F.R. Part 93 Subpart A to address federally assisted transportation plans, programs, and projects, which are developed, funded, or approved by the United States Department of Transportation (DOT), and by metropolitan planning organizations (MPOs) or other recipients of funds under title 23 U.S.C. or the Federal Transit Laws (49 U.S.C. Chapter 53). This subpart sets forth policy, criteria, and procedures for demonstrating and assuring conformity of such activities to an applicable implementation plan developed pursuant to Section 110 and Part D of the CAA. These regulations have subsequently been revised several times since they were first issued; most recently on August 15, 1997. On September 9, 1994, the South Coast Air Quality Management District (SCAQMD), which oversees air quality management in the SCAB of California, adopted these regulations by reference as new Rule 1902. The SCAQMD has amended Rule 1902 since its original issuance (most recently on August 14, 1998).

Although a seaport development project may require or rely on improvements in roadway or transit infrastructure, a determination of transportation conformity related to such improvements would typically be addressed by the Federal Highway Administration (FHWA) or the Federal Transit Administration (FTA) as part of a regional transportation plan or regional transportation improvement program and not as a stand-alone project. The Southern California Association of Governments (SCAG), which is the regional MPO, has indicated that the Project is not regionally significant and also indicated that the POLB’s growth in truck and automobile traffic is accounted for in the 2008 Regional Transportation Plan (RTP) (SCAG 2009, Attachment A-4.1). Federal agency actions affecting airports, harbors, or freight rail facilities would normally be subject to the General Conformity Rule and not the Transportation Conformity Rule. Consequently, it is not necessary to include on-road emissions associated with construction material deliveries and on-road debris hauling in the general conformity evaluation, since this portion of the Federal action is considered to conform to the SIP (40 C.F.R. § 93.158(a)(5)(ii)).

2.3 General Conformity Requirements

The General Conformity Rule was promulgated by EPA on November 30, 1993 at 40 C.F.R. Part 93 Subpart B “*Determining Conformity of General Federal Actions to State or Federal Implementation Plans*” for all federal activities except those covered under transportation conformity. The SCAQMD adopted these regulations on September 9, 1994 by reference as SCAQMD Rule 1901.

The general conformity regulations apply to a federal action in a nonattainment or maintenance area (an attainment area reclassified from a previous nonattainment status and required to prepare an air quality maintenance plan). Conformity requirements apply only to nonattainment and maintenance pollutants; emissions of attainment pollutants are exempt from conformity analyses. The conformity determination process is intended to demonstrate that a proposed Federal action:

- Will not cause or contribute to new violations of a national ambient air quality standard (NAAQS);
- Interfere with provisions in the applicable SIP for maintenance of any NAAQS;
- Will not increase the frequency or severity of existing violations of any standard; or
- Will not delay the timely attainment of any standard.

Analyses required by the general conformity rule focus on the net increase in emissions compared to ongoing historical conditions. Existing SIPs are presumed to have accounted for routine, ongoing federal agency activities. Conformity analyses are further limited to those direct and indirect emissions over which the federal agency has continuing program responsibility and control. General conformity analyses are not required to analyze emission sources that are beyond the responsibility and control of the federal agency. Conformity determinations are not required to address emissions that are not reasonably foreseeable or reasonably quantifiable.

2.4 General Conformity Analysis Procedure

The EPA General Conformity Regulations incorporate a stepwise process, beginning with an applicability analysis. According to EPA guidance (EPA 1994), before any approval is given for a

Federal action to go forward, the regulating Federal agency must apply the applicability requirements found at 40 C.F.R. § 93.153(b) to the Federal action and/or determine the regional significance of the Federal action to evaluate whether, on a pollutant-by-pollutant basis, a determination of general conformity is required. If the regulating Federal agency determines that the general conformity regulations do not apply to the Federal action, no further analysis or documentation is required. However, if the General Conformity regulations do apply to a Federal action, the regulating Federal agency taking the action must make its own conformity determination in accordance with the criteria and procedures in the implementing regulations; publish a draft determination of general conformity for public review; consider comments from interested parties; and then publish the final determination of general conformity.

3.0 DESCRIPTION OF THE FEDERAL ACTION

The Project is part of a continued effort to optimize and expand Port facilities to efficiently accommodate increasing volumes of cargo. The Project would consolidate and expand the existing 294-acre Project site, consisting of the Pier E terminal (170 acres), the Pier F terminal (101 acres), 18 acres of underutilized land north of the Gerald Desmond Bridge and Ocean Boulevard, and the Berth E24 subsided oil area (five acres), into a single, modern, 345-acre container terminal. The Project would include a berth depth of -55 feet mean lower low water level (MLLW) to accommodate the current and expected future generations of cargo vessels and to support modernized operations. The Project would incorporate environmental practices and equipment pursuant to the Port’s Green Port Policy and the San Pedro Bay Ports (SPBP) Clean Air Action Plan (CAAP).

The Project would be constructed over a 10-year timeframe (2009 through 2019) with final Project build out in 2019. It involves widening Slip 3 and excavation at Berth F201, filling Slip1 and portions of East Basin, demolition and reconstruction of wharves, construction of a new Berth E23, development of new container terminal facilities on the new landfills, improvement of adjacent backlands, and modifications to transportation systems on land.

The proposed Federal action that must be assessed for general conformity is the portion of the Project that requires the USACE to issue a

permit for discharges of fill material into waters of the U.S. and work, including dredging, and demolition/construction of structures in navigable waters of the U.S. for this Project. The Project Alternatives to the 345-Acre Alternative (the Project; Alternative 1) include a 315-Acre Alternative (Alternative 2), the Landside Improvements Alternative (Alternative 3), which is the same as the NEPA Baseline, and the No Project Alternative (Alternative 4). The Landside Improvements Alternative and No Project Alternative would have no in-water or over-water activities, and therefore would require no Federal permit from the USACE; nor would either alternative have any other Federal involvement. Thus, the General Conformity Regulation does not apply to Alternatives 3 and 4.

3.1 Location

The proposed Project site (Figure A-4-1) is located in the Middle Harbor, Northeast Harbor, and Southeast Harbor Planning Districts within the highly industrialized inner Port complex of the Port of Long Beach, Los Angeles County, California. The Project comprises Piers D, E, and F and is bordered by Pier D Street and Ocean Boulevard to the north, Pico Avenue to the south, and the Back Channel to the west. The Federal portion of the Project includes Slip 1, Slip 3, the eastern portion of East Basin, and Berths D28-31, E23-27, E11-13, F1-4, and F6-10. Modifications to the backlands associated with the berths do not require any Federal permit, funding, or involve any other Federal interest.

3.2 General Project Description

Section 1.6 of the Final EIR/EIS provides detailed descriptions of the Project, including construction activities, which would include the following components:

- Demolition of Berths D29-31, E12-13, E23-26, and F1-10;
- Excavation of approximately 710,000 cubic yards (cy) of material from Berths D29-31 and E24-26 to widen Slip 3 by about 117 feet, excavation of about 580,000 cy at Berth F201, and dredging approximately 680,000 cy to deepen portions of Slip 3 to -55 feet Mean Lower Low Water (MLLW). The excavation would create approximately 10.7 acres of marine habitat;
- Construction of rocky dikes along the excavated berths in Slip 3, at Berth F201, for extension of Berth E24, and to contain the stages of fill in Slip 1 and East Basin (1,404,000 tons of rock);
- Abandonment and relocation of the Tidelands oil well facilities and pipelines on the southwest portion of Pier E, and removal of the Baker Commodities, Inc. facilities on Pier D;
- Fill of approximately 25.6 acres in Slip 1, 5.4 acres at Berth E24, and 34.3 acres in East Basin using about 680,000 cy of material dredged from Slip 3, 1,290,000 cy of material excavated from Pier D and Berth F201, and an additional 6,730,000 cy of fill material imported from the outer Harbor District;
- Extension of Berth E24 southward and construction of a new Berth E23 south of E24. This includes demolition of approximately 550 linear feet (lf) of wharf and bulkhead at E24, and construction of 2,450 lf of new wharf;
- Construction of a new 66 kilovolt(kV) substation on Pier E;
- Realignment of the mainline track at Ocean Boulevard/Harbor Scenic Drive by removing about 4,000 feet of track, realigning 4,000 feet of track, and constructing about 6,000 feet of new track. Approximately 1,700 feet of Harbor Scenic Drive would also be relocated;
- Construction of Pier F storage yard and tracks (approximately 8,000 feet of new track);
- Redevelopment of Berths E25-26 by demolishing and reconstructing about 1,800 lf of existing wharf, and wharf improvements at Berth E27;
- Construction of container terminal facilities on the fill in Slip 1 and East Basin;
- Demolition of Seaside Railyard on Pier E and redevelop that area and adjacent terminal area (32 acres total) as container storage yard/backland area;
- Redevelopment of 18 acres north of the Gerald Desmond Bridge and Ocean Boulevard;
- Expansion of the Pier F intermodal railyard; and
- Redevelopment of the existing Pier F, including grading, paving, fencing, lighting, buildings and other infrastructure, utilities, tail track, and a loop road.

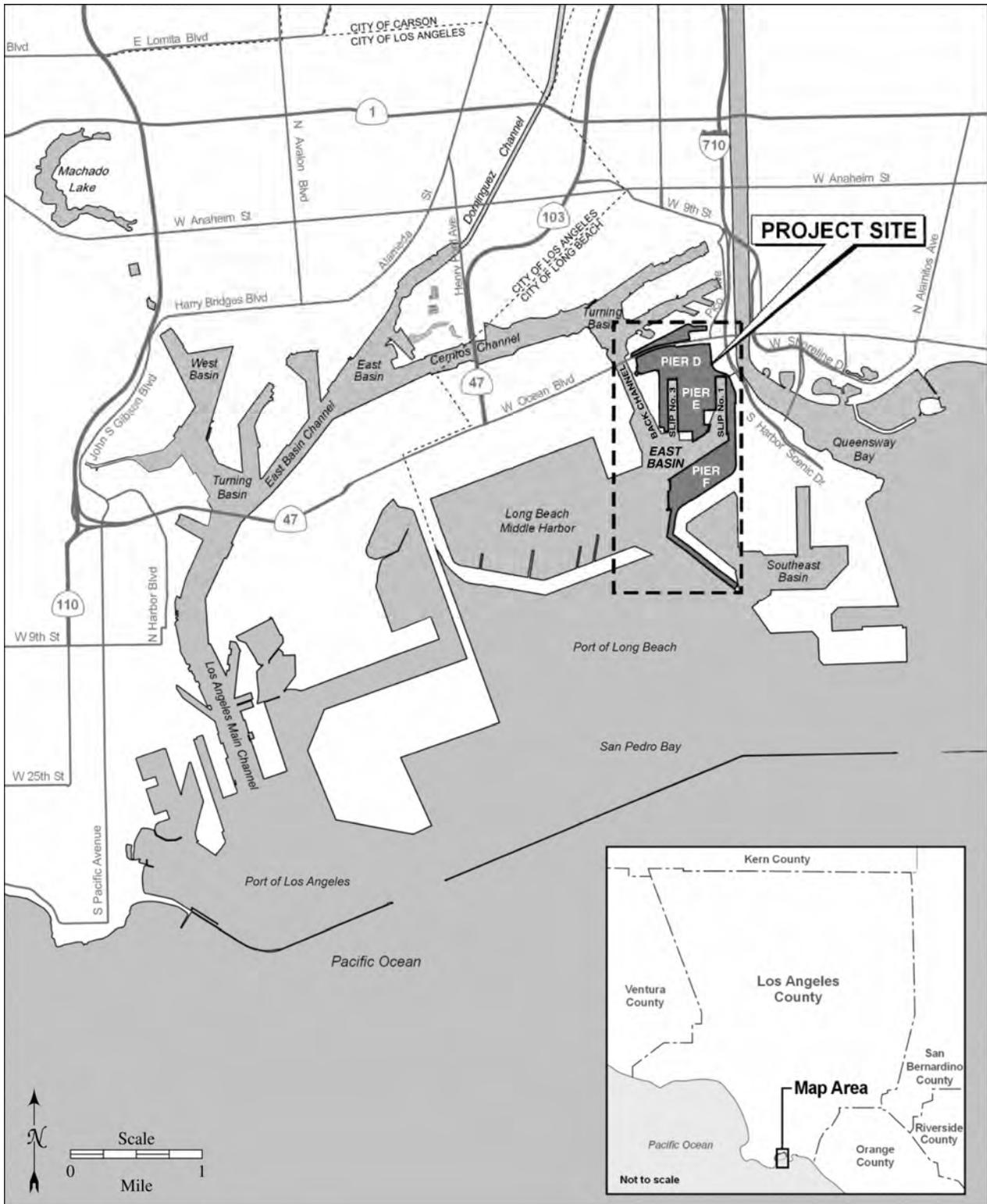


Figure A-4-1. Project Vicinity Map

The Federal action is for the USACE to issue a permit authorizing portions of the Project that include work and structures in navigable waters of the U.S. and discharges of fill material into waters of the U.S. Components of the Project that would need such USACE approval include wharf demolition and reconstruction at Berths E23-26, new wharf construction at Berth E23, dredging in Slip 3, placement of fill in Slip 1 and East Basin, and construction of rocky dikes for containment of fill and as part of wharf reconstruction. Any contaminated material used for fill would be placed in an engineered Confined Disposal Facility (CDF) within the proposed fill. The Port does not intend to use contaminated sediments as proposed landfill materials nor would these materials have a VOC concentration of 50 ppm or greater.

When optimized at maximum throughput capacity (by year 2025), the consolidated container terminal would be designed to accommodate approximately 3,320,000 twenty-foot equivalent units (TEUs) per year.

3.3 Alternatives Considered

During the NEPA process, the following alternatives to the Project (345-Acre Alternative) were carried forward for evaluation and thoroughly reviewed in the Final EIR/EIS (Figure A-4-2): Alternative 2 (315-Acre Alternative); Alternative 3 (Landside Improvements Alternative); and Alternative 4 (No Project Alternative).

3.3.1 The Proposed Project (345-Acre Alternative)

Under the proposed Project, the existing 294-acre Project site would be increased to 345-acres, which would require a net fill of 54.6 acres in waters of the U.S. The Project includes:

- Terminal consolidation, redevelopment, and expansion in areas of existing and newly created land, dredge and fill operations;
- Wharf construction to create three deep water berths with -55 feet MLLW depths;
- Rail infrastructure improvements (e.g., mainline track realignment at Ocean Boulevard/Harbor Scenic Drive, Pier F Avenue storage yard and tracks, Pier F tail

track, and expanding the existing Pier F intermodal railyard); and

- Construction of a 66kV substation that would support Middle Harbor container terminal operations, including supplying shore-to-ship power, and future power needs for other Port facilities.

When optimized at maximum throughput capacity (by year 2025), the consolidated container terminal would be designed to accommodate approximately 3,320,000 twenty-foot equivalent units (TEUs) per year.

3.3.2 Alternative 2 (315-Acre Alternative)

The 315-Acre Alternative would add a net fill area of approximately 24.7 acres to the existing 294-acre Project site by filling Slip 1 between Piers E and F (Berths E12-E14 and F1-F4). This alternative would include terminal expansion on adjacent areas of existing and newly created land, dredge and fill operations, and new wharf construction. Under this alternative, a new wharf would be constructed to handle increased cargo throughput and accommodate deep-draft container ships, and to replace existing, insufficient wharves. The new 2,900-foot wharf would consist of two deep water berths with -55 feet MLLW depth. Build out under this alternative would include the rail improvements identified for the Project (e.g., mainline track realignment at Ocean Boulevard/Harbor Scenic Drive, Pier F Avenue storage yard and tracks, Pier F tail track, and expanding the existing Pier F intermodal railyard). However, due to land constraints the area along the railyard would be limited in width under this alternative. The proposed 66kV Pier E Substation would be constructed, as described for the Project. When optimized at maximum throughput capacity (anticipated by approximately 2025), the consolidated container terminal would be designed to accommodate approximately 2,870,000 TEUs per year.

Since Alternative 2 could be selected by the USACE as the least environmentally damaging practicable alternative (LEDPA) that is also not contrary to the public interest, it is also evaluated as part of this general conformity analysis.

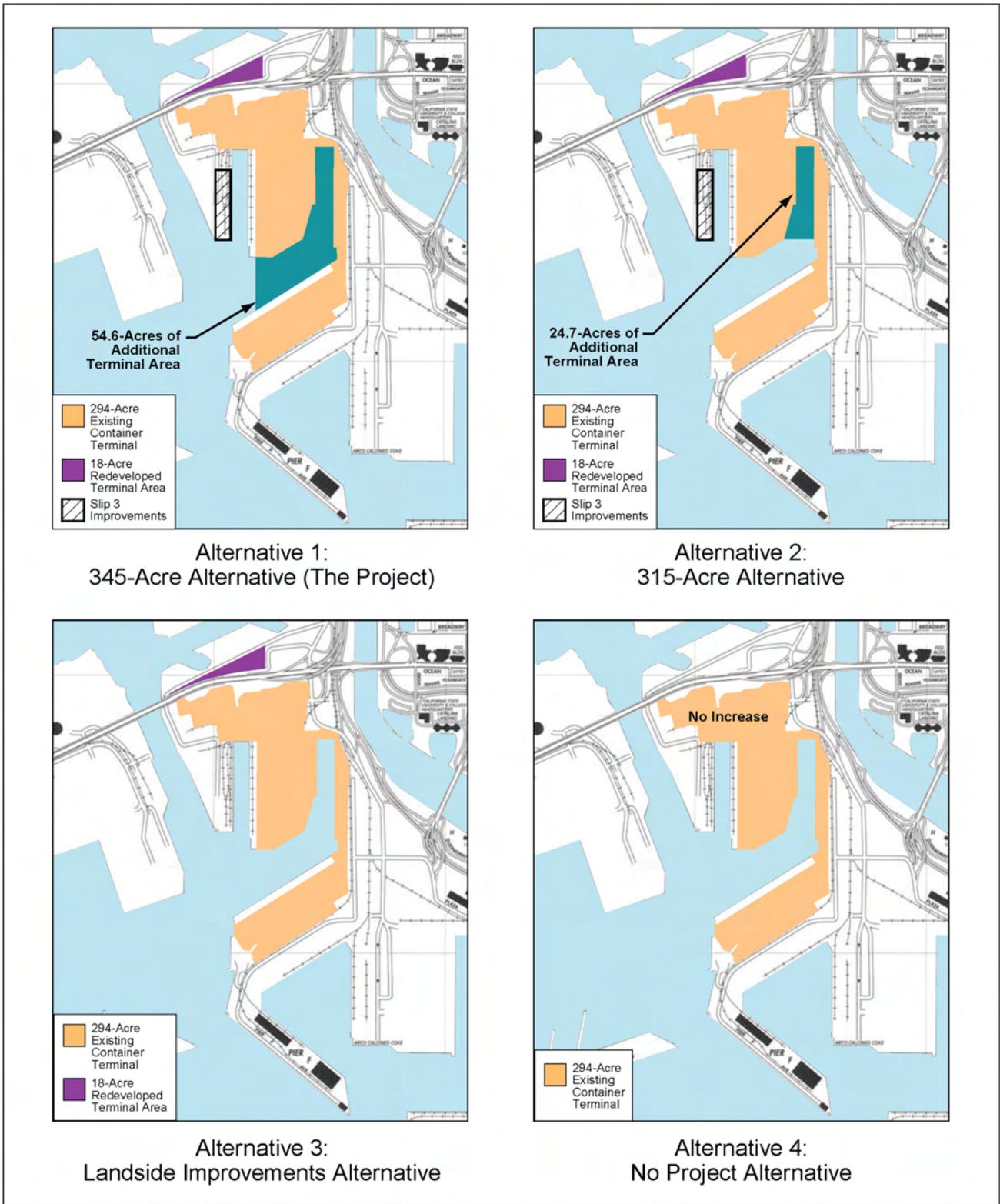


Figure A-4-2. Proposed Project and Alternatives Container Terminal Areas

3.3.3 Alternative 3 (Landside Improvements Alternative)

The Landside Improvements Alternative would redevelop existing terminal areas on Piers E and F and convert underutilized land north of the Gerald Desmond Bridge and Ocean Boulevard within the Project site to a container yard. The alternative would include construction of the following upland site improvements:

- Redevelopment and backland expansion on existing lands within the Project site (the Berth E23 oil area would be abandoned and redeveloped as container yard area); and
- Construction of a new 66 kV Pier E Substation; and construction of shore-to-ship infrastructure at Piers E and F to cold-iron vessels while at berth.

This alternative would also include construction of a mainline track realignment at Ocean Boulevard/Harbor Scenic Drive and the Pier F storage yard and tracks. The alternative would expand the existing Pier F intermodal railyard to six tracks. When optimized at maximum throughput capacity (anticipated by approximately 2025), the terminal would be designed to accommodate a combined total of about 2,910,000 TEUs per year. Under this alternative, there would be no in-water activities (e.g., dredging, filling Slip 1 and the East Basin, new wharf construction) as proposed for the Project, no wharf upgrades would occur (except the provisions for shore-to-ship power), and channel and berth deepening would not occur.

The Landside Improvements Alternative is equivalent to a No Federal Action Alternative because it only includes construction and operational activities that would not require issuance of a federal permit or involve any other Federal interest. As indicated above, the General Conformity Rules does not apply to this alternative.

3.3.3 Alternative 4 (No Project Alternative)

The No Project Alternative considers what would reasonably be expected to occur at the site if the Port did not implement or the USACE did not issue a permit for the proposed Project. The Port would take no further action to construct additional backlands or redevelop the 294 acres that currently exist. The USACE would not issue a permit for dredge and fill or wharf construction

activities. The No Project Alternative would maintain the current California United Terminals (CUT) and Long Beach Container Terminal (LBCT) at a combined size of 294 acres and in their current configuration. Forecasted increases in cargo would still occur as greater operational efficiencies are implemented.

Under this alternative no construction and, consequently, no construction-related impacts would occur. However, the two terminals would continue to generate operational impacts: cargo ships that currently berth and load/unload at the terminal would continue to do so; terminal equipment would continue to handle cargo containers; and trucks would continue to transport containers to outlying distribution facilities. The No Project Alternative would result in a maximum throughput of approximately 2,600,000 TEUs per year. Since no construction activities would occur under Alternative 4, the General Conformity Rules does not apply to this alternative.

As indicated above Alternatives 3 and 4, which do not include any in-water or over-water activities, do not require Federal approval by the USACE or involve any other Federal interest. Therefore, a General Conformity determination is not needed for Alternatives 3 and 4.

4.0 REGULATORY PROCEDURES

The general conformity regulations establish certain procedural requirements that must be followed when preparing a general conformity evaluation. This section addresses the major procedural issues and specifies how these requirements are met for evaluating the Federal action. The procedures required for the general conformity evaluation are similar but not identical to those for conducting an air quality impact analysis under NEPA regulations.

4.1 Use of Latest Planning Assumptions

The General Conformity regulations require the use of the latest planning assumptions for the area encompassing the Federal action, derived from the estimates of population, employment, travel, and congestion most recently approved by the MPO (40 C.F.R. § 93.159(a)). It should be noted that the latest planning assumptions available from the MPO at the time of this evaluation may differ from the planning assumptions used in establishing the applicable SIP emissions budgets. The approved 1997/1999 Air Quality Management Plan (AQMP) was developed with

data similar to those used in the 1998 Regional Transportation Plan (RTP), which were contemporaneous with the 1997/1999 AQMP. The approved 2008 RTP, which supersedes earlier RTPs, predicts an increase of goods movement in the SCAG region out to at least 2035, which partly reflects activities at POLB. The demonstration of attainment in the more recent 2003 and 2007 SIPs has not yet been approved by EPA, so the approved 1997/1999 SIP is still in force.

As noted previously, SCAG is the MPO for the region encompassing POLB. The SCAG region covers an area of over 38,000 square miles and includes the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. SCAG adopted the 2008 RTP on May 8, 2008 (SCAG 2008). On June 5, 2008, the FHWA issued a finding that the 2008 RTP conforms to the applicable SIP (i.e., transportation conformity determination). The growth forecast for the 2008 RTP estimated a region-wide population growth of approximately 30 percent between 2005 and 2035 and a nearly equivalent region-wide employment growth for the same period. The growth rates for population and employment in Los Angeles County are among the lowest for counties in the SCAG region.

The 2008 RTP indicates that container volume processed by the San Pedro Bay Ports (Port of Long Beach and Port of Los Angeles) grew by almost 60 percent between 2000 and 2006, and it is expected to nearly triple by 2035. While the 2008 RTP focuses on the land transport aspects of goods movement (e.g., freight rail, high-speed regional transport, and highway), it recognizes the huge contribution and potential to goods movement from maritime transport and other marine activities in the ports.

4.2 Use of Latest Emission Estimation Techniques

The General Conformity Regulations require the use of the latest and most accurate emission estimation techniques available, unless such techniques are inappropriate (40 C.F.R. § 93.159(b)). Prior written approval from SCAQMD or EPA is required to modify or substitute emissions estimation techniques. It should be noted that the latest and most accurate emission estimation techniques available and used at the time of this evaluation may differ from the emission estimation techniques used in establishing the applicable SIP emissions budgets. The emissions estimating process is

described in more detail in Appendix A-1 of the Final EIR/EIS (POLB/ USACE 2009).

4.3 Emission Scenarios

The General Conformity regulations require that the evaluation must reflect certain emission scenarios (40 C.F.R. §93.159(d)). Specifically, these scenarios must include emissions from the Federal action for the following years:

- (1) For nonattainment areas, the year mandated in the CAA for attainment and for maintenance areas, the farthest year, for which emissions are projected in the approved maintenance plan;
- (2) The year during which the total of direct and indirect emissions for the Federal action are projected to be the greatest on an annual basis; and
- (3) Any year, for which the applicable SIP specifies an emissions budget.

5.0 CONFORMITY APPLICABILITY ANALYSIS PROCESS

The first step in a general conformity evaluation is an analysis of whether the requirements apply to the Federal action that is proposed in a nonattainment or a maintenance area. Unless exempted by the regulations or otherwise presumed to conform, a Federal action requires a general conformity determination for each pollutant where the total of direct and indirect emissions caused by the Federal action would equal or exceed an annual *de minimis* emission rate. Notwithstanding the *de minimis* emission rate, if a Federal action is identified to be regionally significant, then the Federal agency must make a general conformity determination, as discussed in Section 5.6.

5.1 Attainment Status of the Project Location

The POLB is located within Los Angeles County, in the SCAB of southern California. The regulatory agencies with primary responsibility for air quality management in the SCAB include SCAQMD and California Air Resources Board (ARB), with oversight by EPA. Pursuant to the CAA, EPA established primary NAAQS to protect the public health with an adequate margin of safety and secondary NAAQS to protect the public welfare for seven "criteria" air pollutants. These pollutants are: particulate matter with an equivalent aerodynamic diameter less than or

equal to 10 micrometers (μm) in diameter (PM_{10}), particulate matter with an equivalent aerodynamic diameter less than or equal to $2.5 \mu\text{m}$ in diameter ($\text{PM}_{2.5}$), sulfur dioxide (SO_2), carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), and lead (Pb). EPA has delegated authority to SCAQMD to implement and enforce the NAAQS in the SCAB.

The POLB is in an area of the SCAB that is designated as being in nonattainment of the NAAQS for O_3 (eight-hour average), PM_{10} , and $\text{PM}_{2.5}$. Nonattainment areas are classified based on the severity of the nonattainment; ranging from marginal to extreme. The SCAB is classified as "severe" nonattainment for O_3 , "serious" nonattainment for PM_{10} , and nonattainment for $\text{PM}_{2.5}$. However, the SCAQMD has requested EPA to redesignate the SCAB as "extreme" nonattainment for O_3 . The area is in attainment for the remaining criteria pollutants. On July 24, 1998, the EPA redesignated this area from nonattainment to attainment/maintenance status for NO_2 (63 FR 39747). More recently, the area was redesignated by EPA from nonattainment to attainment/maintenance for CO (72 FR 26718), effective June 11, 2007. Thus, for purposes of the general conformity requirements, this evaluation addresses NO_2 , O_3 (8-hour average), CO , PM_{10} , and $\text{PM}_{2.5}$.

5.1.1 Designation of Applicable SIP

Section 110(a) of the Clean Air Act (42 U.S.C. § 7410(a)) requires each state to adopt and submit to EPA a plan which provides for the implementation, maintenance, and enforcement of each NAAQS. This plan is known as the SIP. Over time, the ARB has made and continues to make many such submittals to EPA to address issues as they arise related to the various NAAQS for the SCAB and other nonattainment areas in California. As EPA reviews these submittals, it can either approve or disapprove them in whole or in part. The compilation of a state's approved submittals constitutes that state's applicable SIP.

5.1.2 SIP Process in the South Coast Air Basin

ARB designates both air quality management districts and air pollution control districts within California for the purpose of implementing and enforcing ambient air quality standards on a regional or airshed basis. These district agencies must prepare regional plans (AQMPs) to support the broader SIP, as well as to meet the goals of the California Clean Air Act (CCAA).

Every three years, SCAQMD must prepare and submit to ARB an AQMP to demonstrate how the SCAB will attain and maintain the NAAQS and the California ambient air quality standards. The AQMP contains extensive emission inventories of all emission sources in the SCAB as well as various control measures applicable to most of these sources. Once ARB approves the AQMP, it is submitted to EPA for approval into the SIP. The current approved SIP for the SCAB is based on the AQMP which SCAQMD submitted to ARB in 1997 (SCAQMD 1996) and supplemental information. In August 2003, SCAQMD submitted to ARB an updated AQMP, the 2003 AQMP (SCAQMD 2003), and this formed the basis of a proposed SIP revision that was submitted by ARB to EPA on January 9, 2004. Although EPA partially approved the 2003 SIP in March, 2009, they did not approve the demonstration of attainment in that SIP. Consequently, for purposes of this conformity demonstration, the approved 1997/1999 SIP is still in force. In June 2007, SCAQMD submitted to ARB the Final 2007 SCAQMD AQMP (SCAQMD 2007), and this new Plan formed the basis of a proposed SIP revision that submitted by ARB to EPA on November 16, 2007. No action has been taken by EPA on this latest SIP revision submittal.

5.1.3 Status of Applicable SIP and Emissions Budgets by Pollutant

The Clean Air Act requires attainment of the NAAQS as expeditiously as practicable, but no later than the statutory dates for those criteria pollutants for which the SCAB is designated as nonattainment and for which a finding of general conformity must be determined for the Federal action. Upon redesignation of an area from nonattainment to attainment for each of the NAAQS, the area is considered to be a maintenance area for that standard, and as such, must meet all applicable requirements to maintain the standard.

To support the general conformity determination, this document demonstrates that the emissions of NO_x (as an O_3 precursor) caused by the Federal action will result in a level of emissions which, together with all other emissions in the nonattainment area, will not exceed the emissions budgets specified in the most recent federally approved SIP (40 C.F.R. § 93.158(a)(5)(i)(A)), or will not exceed the emissions budgets specified in the 2007 AQMP, see Section 5.2 below. Summaries of the currently approved SIPs for the SCAB are as follows:

- O₃: SIP approved by EPA on April 10, 2000 (65 FR 18903), based on the 1997 AQMP and a 1999 amendment to the 1997 AQMP.
- CO: SIP approved by EPA on May 11, 2007 (72 FR 26718), based on 2005 redesignation request and maintenance plan. In this SIP approval, EPA also redesignated the SCAB from nonattainment to attainment/maintenance for CO
- PM₁₀: SIP approved by EPA on April 18, 2003 (68 FR 19315), based on the 1997 AQMP, amendments to the 1997 AQMP submitted in 1998 and 1999, and further modifications to the 1997 AQMP submitted in a status report to EPA in 2002.
- PM_{2.5}: No EPA-approved SIP.
- NO₂: SIP approved by EPA on July 24, 1998 (63 FR 39747), based on the 1997 AQMP. In this SIP approval, EPA also redesignated the SCAB from nonattainment to attainment/maintenance for NO₂.

The SCAQMD released the Final 2007 AQMP on June 1, 2007, and as noted above this AQMP forms the basis of a proposed SIP revision submitted to EPA. This evaluation will make comparisons both to applicable emissions inventories in the current EPA-approved SIP and to applicable emissions inventories contained in the 2007 AQMP. For purposes of the general conformity determination, the applicable SIP will be the most recent EPA-approved SIP at the time of the release of the Final General Conformity Determination.

The construction emission estimates in the 1997/1999 SIP lead to higher growth of emissions in future years than the growth and control factors contained in the 2007 SIP, because of the implementation of measures contained in ARB's Diesel Risk Reduction Strategy. Therefore, the approach taken after consultation with the ARB was to compare the NO_x construction emissions from the proposed Project for the following two scenarios:

- The estimated future NO_x emissions from the 1997/1999 SIP for the total SCAB off-road equipment inventory.
- The estimated future NO_x emissions from the 1997/1999 SIP, adjusted by construction equipment ratios and equipment growth and control factors contained in the 2007 SIP.

5.2 Comparison to SIP Emissions Inventories

The most recent EPA-approved SIP at the time of the release of the final general conformity determination must be used for emission budget analyses. The 1997 AQMP together with its supplemental 1999 information form the basis for the current, EPA-approved O₃ SIP. However, since the EPA could approve all or part of the 2007 AQMP for O₃ before the final general conformity determination is published, the proposed Federal action emissions are considered with respect to both the currently approved 1997/1999 SIP emissions budgets and the 2007 AQMP emissions budgets.

5.2.1 NO_x Emissions from Other Sources at POLB

Notwithstanding the emissions attributable to the Federal action portions of the Project and Alternative 2, it is the determination of the USACE that any change in future emissions at POLB following implementation of the Federal action is not subject to the continuing program responsibility of the USACE and therefore is not required to be addressed in this evaluation. Once construction activities in and over the water are completed, the USACE will retain no authority over the Project's other construction and operational activities, particularly those occurring in the upland portions of the Project area. However, these future emissions will remain subject to the continuing program responsibility of the POLB, and numerous CEQA-related mitigation measures, including many focused on limiting air emissions, will have to be implemented, maintained, and monitored pursuant to the Mitigation Monitoring Reporting Program (MMRP) included in the certified Final EIR/EIS (Section 3.2.5).

5.3 Consistency with Requirements and Milestones in Applicable SIP

The General Conformity regulations state that notwithstanding the other requirements of the rule, a Federal action may not be determined to conform unless the total of direct and indirect emissions from the Federal action is in compliance or consistent with all relevant requirements and milestones in the applicable SIP (40 C.F.R. § 93.158(c)). This includes but is not limited to such issues as reasonable further progress schedules, assumptions specified in the attainment or

maintenance demonstration, prohibitions, numerical emission limits, and work practice standards. Section 6 briefly addresses how the two Federal action alternatives were assessed for SIP consistency for this evaluation.

5.3.1 Applicable Requirements from EPA

EPA has already promulgated, and will continue to promulgate, numerous requirements to support the goals of the CAA with respect to the attainment and maintenance of the NAAQS. Typically, these requirements take the form of rules regulating emissions from significant new sources, including emission standards for major stationary point sources and classes of mobile sources as well as permitting requirements for new major stationary point sources. Since states have the primary responsibility for implementing and enforcing requirements under the CAA and can impose stricter limitations than EPA, the EPA requirements often serve as guidance to the states in formulating their own air quality management strategies.

5.3.2 Applicable Requirements from ARB

In California, to support the attainment and maintenance of the NAAQS, the ARB is primarily responsible for regulating emissions from mobile sources. In fact, EPA has delegated its authority to ARB to establish emission standards for on-road and some non-road vehicles; separate from the EPA vehicle emission standards. However, the ARB is preempted by the CAA from regulating emissions from many non-road mobile sources, whose control falls back to EPA.

5.3.3 Applicable Requirements from SCAQMD

To support the attainment and maintenance of the NAAQS in the SCAB, SCAQMD is primarily responsible for regulating emissions from stationary sources. As noted above, the SCAQMD develops and updates its AQMP regularly to support the California SIP. While the AQMP contains rules and regulations geared to attain and maintain the NAAQS within the SCAB region, these rules and regulations also have the much more difficult goal of attaining and maintaining the California ambient air quality standards.

5.3.4 Consistency with Applicable Requirements

The POLB already complies with, and will continue to comply with the rules and regulations implemented and enforced by Federal, state, regional, and local agencies to protect and enhance ambient air quality in the SCAB. Due to the long persistence of challenges to attain the ambient air quality standards in the SCAB, the rules and regulations promulgated by ARB and SCAQMD are among the most stringent in the U.S. The POLB will continue to comply with all existing applicable air quality regulatory requirements for activities over which it has direct control and will meet in a timely manner all regulatory requirements that become applicable in the future. Likewise, POLB actively encourages all tenants and users of its facilities to comply with applicable air quality requirements. Additionally, the POLB, in conjunction with the POLA and with guidance from the SCAQMD, ARB, and EPA, has developed the San Pedro Bay Ports Clean Air Action Plan (CAAP); whose objective is to substantially reduce emissions and health risks from the operations of port-related ships, trains, trucks, terminal equipment and harbor craft (POLB and POLA 2006). The CAAP proposes to implement near-term measures largely through new lease agreements, the CEQA/NEPA process, and tariffs.

The nature and extent of the requirements with which the POLB complies and will continue to comply include, but are not limited to, the following:

- EPA Rule 40 C.F.R. Part 89, Control of Emissions from New and In-Use Non-road Compression-Ignition Engines: requires stringent emission standards for mobile non-road diesel engines of almost all types using a tiered phase in of standards.
- ARB Rule 13 C.C.R. § 1956.8, California Exhaust Emission Standards and Test Procedures for 1985 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles: requires significant reductions in emissions of NO_x, particulate matter, and non-methane organic compounds using exhaust treatment on heavy-duty diesel engines manufactured in model year 2007 and later years.
- SCAQMD Rule 402, Nuisance. This rule prohibits discharge of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable

number of persons or to the public; or that endanger the comfort, repose, health, or safety of any such persons or the public; or that cause, or have a natural tendency to cause, injury or damage to business or property.

- SCAQMD Rule 403, Fugitive Dust: identifies the minimum particulate controls for construction-related fugitive dust. For example, Rule 403 requires twice daily watering of all active grading or construction sites. Haul trucks leaving the facility must be covered and maintain at least two feet of freeboard (C.V.C. § 23114). Low emission street sweepers must be used at the end of each construction day if visible soil is carried onto adjacent public paved roads, as required by SCAQMD Rule 1186.1, Less-Polluting-Sweepers. Wheel washers must be used to clean off the trucks, particularly the tires, prior to them entering the public roadways.
- SCAQMD Rule 431.2, Sulfur Content of Liquid Fuels: requires that, after January 1, 2005, only low sulfur diesel fuel (containing 15 parts per million by weight sulfur) will be permitted for sale in the SCAB for any stationary- or mobile-source application.
- SCAQMD Rule 2202, On-Road Motor Vehicle Mitigation Options: requires employers in the SCAB with more than 250 employees to implement an approved rideshare program and attain an average vehicle ridership of at least 1.5.

Refer to Final EIR/EIS Section 3.2.1.3 for a detailed listing of applicable Federal, State, and local air quality regulations.

5.4 Exemptions from General Conformity Requirements

The general conformity requirements apply to a Federal action if the net Project emissions equal or exceed certain *de minimis* emission rates established in the General Conformity Regulations. The *de minimis* thresholds differ based on the severity of the nonattainment. The only exceptions to this applicability criterion are the exemptions summarized below. However, the emissions that will result from the Federal action portion of the Middle Harbor Redevelopment Project do not meet any of these exempt categories.

- Actions which would result in no emissions increase or an increase in

emissions that is clearly below the *de minimis* levels (40 C.F.R. § 93.153(c)(2)). Examples include administrative actions and routine maintenance and repair.

- Actions where the emissions are not reasonably foreseeable (40 C.F.R. § 93.153(c)(3)).
- Actions which implement a decision to conduct or carry out a conforming program (40 C.F.R. § 93.153 (c)(4)).
- Actions which include major new or modified sources requiring a permit under the New Source Review (NSR) program (40 C.F.R. § 93.153(d)(1)).
- Actions in response to emergencies or natural disasters (40 C.F.R. § 93.153(d)(2)).
- Actions which include air quality research not harming the environment (40 C.F.R. § 93.153(d)(3)).
- Actions which include modifications to existing sources to enable compliance with applicable environmental requirements (40 C.F.R. § 93.153(d)(4)).
- Actions which include emissions from remedial measures carried out under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) that comply with other applicable requirements (40 C.F.R. § 93.153(d)(5)).

In addition to these exemptions, the General Conformity Regulations allow each Federal agency to establish a list of activities that are presumed to conform (40 C.F.R. § 93.153(f)). The USACE has not established a presumed-to-conform list of activities at the time of this evaluation.

5.5 Methodology

The general conformity requirements will apply to the Federal action portions of the Project and Alternative 2 for each pollutant for which the total of direct and indirect emission rates caused by the Federal action equal or exceed the *de minimis* emission rates, which are presented in Table A-4.1. These emission rates are expressed in units of tons per year (TPY) and are compared to the total of direct and indirect emissions caused by the Federal action for the calendar year during which

Table A.4-1. De Minimis Emission Rates for Determining Applicability of General Conformity Requirements to the Federal Actions		
Pollutant	SCAB Attainment Status Designation	De Minimis Emission Rate (TPY)
Nitrogen Dioxide (NO ₂)	Attainment/Maintenance	100
Ozone (VOC or NO _x)	Non-Attainment/Extreme ^a	10 ^a
Carbon Monoxide (CO)	Attainment/Maintenance	100
Particulate Matter less than 10 μm (PM ₁₀)	Non-Attainment/ Serious	70
Particulate Matter less than 2.5 μm (PM _{2.5}) [and each precursor] ^b	Non-Attainment	100
<p>a. The region in which POLB occurs has been designated as a “severe” nonattainment area for the 8-hour O₃ NAAQS, which carries a 25 TPY <i>de minimis</i> emission rate for NO_x and VOC. However, the currently approved SIP (1997 AQMP, as amended in 1999), was developed to demonstrate attainment of the revoked 1-hour O₃ NAAQS by 2010. At that time, the region had been designated as an “extreme” nonattainment area for O₃ which carries a 10 TPY <i>de minimis</i> emission rate for NO_x and VOC. In addition, SCAQMD has requested redesignation to “extreme” nonattainment for the 8-hour O₃ NAAQS in the 2007 AQMP. Therefore, the applicability analysis will use 10 TPY as the <i>de minimis</i> emission rate for NO_x and VOC emissions.</p> <p>b. The PM_{2.5} precursors in the region include SO_x, NO_x, VOC, and ammonia.</p>		

the net emissions are expected to be the highest. Ozone is a secondary pollutant (i.e., it is not emitted directly into the atmosphere but is formed in the atmosphere from the photochemical reactions of volatile organic compounds (VOC), and oxides of nitrogen (NO_x) in the presence of sunlight). Consequently, its *de minimis* emissions rate is based on the emissions of its precursor pollutants (i.e., VOC and NO_x). If the emissions of either VOC or NO_x from the Federal action exceed the *de minimis* emission rate for O₃, then the Federal action is subject to a general conformity evaluation for O₃ (EPA 1994).

As indicated above, the region in which the Project is located has been designated as a “severe” non-attainment area for the 8-hour O₃ NAAQS, which results in a *de minimis* emission rate of 25 TPY for NO_x and VOC. However, the currently approved SIP (1997 AQMP, as amended in 1999) was developed to demonstrate attainment of the revoked 1-hour O₃ NAAQS by 2010. At that time, the region had been designated as an “extreme” non-attainment area for 1-hour O₃, which carries a 10 TPY *de minimis* emission rate for NO_x and VOC. In addition, as part of the 2007 AQMP, SCAQMD has requested re-designation to “extreme” nonattainment for the 8-hour O₃ NAAQS. The EPA will be publishing this redesignation shortly. Therefore, the conformity applicability analysis will use 10 TPY as the most stringent *de minimis* emission rate that might be applied to the Federal action for NO_x and VOC emissions.

The pollutant PM_{2.5} consists of primary particulate matter (i.e., direct emissions of PM_{2.5}) and secondary particulate matter (formed in the

atmosphere from precursor compounds) and may ultimately be composed of many separate chemical compounds. Generally, the main precursors of secondary PM_{2.5} include NO_x, and oxides of sulfur (SO_x), although VOCs also contribute to the formation of PM_{2.5}. Dynamic reactions between these precursor compounds emitted into the atmosphere by the sources of interest will affect the amount of PM_{2.5} attributable to the Project. Based on studies conducted by SCAQMD in the SCAB, the total mass of PM_{2.5} is more associated with combustion-related sources and secondary particles, while primary particles represent a relative small proportion of the total PM_{2.5} mass. In fact, ammonium nitrates and ammonium sulfates represent a dominant fraction of PM_{2.5} components in the SCAB. If the net emissions of any of these precursor compounds from the Federal action portion of the proposed Project exceed the *de minimis* emission rate for PM_{2.5}, then the Project is subject to a general conformity evaluation for PM_{2.5}.

5.5.1 Emission Estimates

The in-water and over-water construction emissions associated with the proposed federal actions, are subsets of the total construction emissions proposed under Alternatives 1 and 2, as presented in Appendix A-1, Attachment A.1.1 of this Final EIS/EIR. The emission construction estimates presented in this appendix are based on the Appendix A-1, as modified based on new information and additional detail regarding overall schedule, equipment sizes, and anticipated work days, and as applicable to the Federal action portion of the Project and Alternative 2. These data

were used to identify the yearly conformity-related emissions for Alternatives 1 and 2. These annual conformity-related emissions for Alternatives 1 and 2 were then divided into the four source categories for comparison to their applicable SIP emission categories. Appendix A-4, Attachment 2 presents the total yearly conformity-related emissions and the individual source category emissions for Alternatives 1 and 2.

5.6 Regional Significance

Even if the emissions from the Federal action are less than the applicable *de minimis* emission rates for the pollutants of concern, the General Conformity Regulation requires that if the action is determined to be regionally significant, it must undergo a conformity evaluation. A regionally significant action is defined as one for which the total of the direct and indirect emissions represent ten percent or more of the nonattainment or maintenance area's emissions inventories for all sources (as identified in the applicable SIP for stationary point, mobile, and area sources) for that pollutant (40 C.F.R. § 93.152). EPA guidance also indicates that any milestone emissions inventory in the applicable SIP should also be considered when evaluating regional significance (EPA 1994).

5.7 Applicability for Federal Action

The applicability of General Conformity Regulation requirements to the Project and its alternatives was determined by comparing the Federal action emissions during each calendar year to the *de minimis* emission rates identified in Table A-4-1. The second component of the analysis was to compare the proposed annual emissions to the nonattainment or maintenance area's emission inventory to determine whether they are regionally significant. Any proposed emissions that exceed these thresholds must undergo a complete general conformity evaluation.

6.0 GENERAL CONFORMITY DETERMINATION

6.1 Alternative 1 (Proposed Project)

6.1.1 Estimated Emissions and Comparison to Conformity *De Minimis* Thresholds

Emissions were calculated for VOC, CO, NO_x, SO_x, PM₁₀, and PM_{2.5} (including its precursors) for construction activities associated with the Federal action portion of the Project. For purposes of this

evaluation, emissions of NO₂ are assumed to equal emissions of NO_x. These emissions are associated with mobile and area sources expected to be used for on-site construction-related purposes. Off-site construction-related emission sources (e.g., construction worker commute trips, material delivery hauling trips, debris/spoils disposal hauling trips) are accounted for in the conforming 2004 RTP which is included in the SCAQMD 2007 AQMP (due to the extensive discussions of, and plans for growth in, goods movement in the SCAG region presented in that document). Those emissions are therefore excluded from consideration of general conformity (40 C.F.R. § 93.158(a)(5)(ii)).

According to USACE policy, the USACE lacks continuing program responsibility over the Project once the construction activities in and over navigable waters of the U.S./waters of the U.S. are completed (USACE 1994). Thus, proposed construction and operational emissions subsequent to the Federal action were not included in determining the total direct and indirect emissions associated with the Federal action.

The annual emissions estimated for construction activities are summarized in Table A-4-2 for each pollutant resulting from the Federal action portion of the proposed project. The construction activities are based on the information presented in the Final EIS/EIR (Section 1.0), and the details of the emission calculations are presented in Appendix A4, Attachment 1. Table A-4-2 shows that during the 2009-2019 construction period, the conformity *de minimis* thresholds would be exceeded only by NO_x emissions. With respect to PM_{2.5}, in addition to direct PM_{2.5} emissions, its precursors (i.e., total NO_x, SO_x, and VOC emissions) must be considered individually and are each subject to the 100 TPY *de minimis* threshold for PM_{2.5}. Table A-4-2 shows that emissions of these pollutants are less than 100 TPY for all Project years. Thus, no additional analysis is needed with respect to PM_{2.5} emissions.

Table A-4-2 shows that NO_x emissions from construction activities will exceed the 10 TPY NO_x conformity *de minimis* threshold during the following years: 2010-2015, 2017, and 2018; and the peak year of NO_x emissions (88.76 TPY) would occur in 2010. As shown in Table A-4-2, no other criteria pollutant would exceed its applicable *de minimis* threshold presented in Table A-4-1.

Year	Tons per Year					
	VOC	CO	NO _x ^a	SO _x	PM ₁₀	PM _{2.5}
2009	0.26	1.54	4.57	0.01	0.40	0.23
2010	4.57	29.71	88.76	0.83	6.03	3.97
2011	1.58	8.25	25.76	0.51	2.30	1.36
2012	1.41	4.61	12.89	0.80	5.40	2.11
2013	1.68	7.91	22.14	0.67	5.29	2.20
2014	1.79	11.52	34.30	0.22	4.71	2.06
2015	1.48	6.71	20.45	0.16	4.49	1.80
2016	0.28	1.86	5.85	0.10	0.33	0.24
2017	1.79	7.64	21.22	0.77	2.12	1.55
2018	3.31	17.79	54.19	0.26	13.02	4.47
2019	0.61	2.55	8.52	0.01	8.16	2.04
Conformity De Minimis Thresholds – SCAB	10	100	10	100	70	100

a Emissions that exceed the *de minimis* threshold are shown in bold.

6.1.2 Regional Significance

To assess the regional significance of the Federal action, Project emissions of CO, VOC, NO_x, PM₁₀, and PM_{2.5} were compared to the regional emissions inventories for all sources (as identified in the applicable SIP) to determine if Federal action emissions represent ten percent or more of the regional emissions budgets for those pollutants.

Table A-4-3 compares the Federal action totals from the proposed Project for direct and indirect construction emissions of VOC, CO, NO_x, PM₁₀, and PM_{2.5} during the peak year of construction (2010) to the regional emissions inventories of these pollutants as prepared by SCAQMD for the SCAB. Two comparisons are presented, using data taken from the 1997 AQMP (SCAQMD 1996), which contains the currently approved SIP budgets, and from the 2007 AQMP (SCAQMD 2007). Although the construction activities

produce emissions during each year from 2009 to 2019, the peak construction emissions (i.e., worst-case scenario) for the Federal action occur in 2010, so those emissions were considered in determining regional significance. Thus, if year 2010 Federal action emissions were found to be regionally insignificant, it could be concluded that the emissions for the remainder of the construction years, which have lower annual emissions, would also be regionally insignificant. Future regional emission inventories were developed in both the 1997/1999 SIP and the 2007 AQMP for only a limited number of years; fortunately, both the 1997 and 2007 AQMPs projected emissions for the 2010 year, which allowed a direct comparison between project emissions and regional emission budgets. As shown in Table A-4-3, annual emissions of all pollutants from the Federal action are much less than ten percent of the SCAB's emissions inventories. Therefore, Federal action emissions

Pollutant	Proposed Project Peak Annual Emissions (TPY) ¹	Approved SIP Emissions (TPY) ²	Percent of Approved SIP Emissions	2007 AQMP Emissions (TPY) ³	Percent of 2007 AQMP Emissions
Volatile Organic Compounds (VOCs)	4.6	281,068	0.0016%	208,933	0.0022%
Nitrogen Oxides (NO _x)	88.8	254,328	0.0344%	282,747	0.0309%
Carbon Monoxide (CO)	29.7	1,219,366	0.0023%	1,085,251	0.0026%
Sulfur Oxides (SO _x)	0.83	25,674	0.0050%	14,315	0.0091%
Particulate Matter (PM ₁₀)	6.0	168,864	0.0037%		
Particulate Matter (PM _{2.5})	4.0			36,996	0.0111%

Notes:
1 Emissions from Federal action include all construction emissions for the peak year of construction (2010).
2 Based on data in 1997 AQMP Appendix III (2010 annual average day emissions).
3 Based on data in 2007 AQMP Appendix III (2010 annual average day emissions).
4 No budgets were developed in the currently approved SIP for PM_{2.5} or in the 2007 AQMP for controlled PM₁₀.

are not considered to be regionally significant for VOC, CO, NO_x, PM₁₀, or PM_{2.5}.

Since the annual emissions of VOC, CO, SO_x, PM₁₀, and PM_{2.5} from the Federal action are less than the conformity *de minimis* thresholds and they are not regionally significant, the general conformity requirements do not apply to these pollutants, and no further evaluation is necessary. Because proposed Federal action's emissions of NO_x exceed the "extreme" O₃ nonattainment area conformity *de minimis* threshold of 10 TPY, the general conformity requirements apply to NO_x. Therefore, a general conformity evaluation of NO_x emissions was conducted for the Federal action portion of the Project as described below.

6.1.3 Comparison of NO_x Emissions to Show Conformance with O₃ SIP

There are four primary emission source categories that would be expected to result in NO_x emissions during the construction phase of the Federal action portion of the proposed Project:

- Heavy Trucks;
- Construction Equipment;
- Tug boats operating between 0-3 nautical miles (nm) from shore; and
- Tug boats operating between 3-100 nm from shore.

Table A-4-4 presents emissions from the Federal action portion of the proposed Project grouped into construction source categories that follow the 1997/1999 SIP, and compares them to the estimated emissions for these same categories,

as extracted from the 1997/1999 SIP. A review of the SCAB's emission inventory as identified in the 1997/1999 SIP shows that it is more basic than more recently developed emissions inventories for the region, and that it has less "resolution" as far as emission source categories. For example, while the emissions inventory in the 2007 AQMP provides a detailed breakdown of tugboat emissions (one for tugboats between 0-3 nm of shore, and another for tugboats within 3-100 nm from shore), such definitions are not found in the 1997/1999 SIP emissions inventory. Thus, the Federal action's emissions from the tug boats categories were combined to provide a better comparison to the 1997/1999 SIP. In addition, the 1997/1999 SIP had developed emission projections for only one year (2010) during the 2009-2019 construction period of the Federal action (this was the peak year).

A second comparison year (2015) during the construction period was developed by making a linear interpolation of emissions projected during the years 2010 and 2020 in the 1997/1999 SIP (this was considered to be a reasonable approach, because projected 2010 and 2020 emissions for each individual source category varied by less than 13 percent).

Table A-4-5 presents emissions from the Federal action portion of the proposed Project in terms of the individual construction source categories, and compares them to the projected emissions for these same categories, as extracted from the 2007 AQMP. ARB staff extracted emissions data for trucks and tug boats in each of these source categories from ARB's California Emission Forecasting System (CEFS) v1.06 (ARB, 2009).

Year and Source Type	Federal Action Emissions (TPY)	Approved SIP Emissions (TPY) ^{a,b}	Relative Contribution to SIP Budget
2010			
Heavy-Duty Diesel Trucks	6.89	55,874	0.0012%
Construction Equipment	24.93	43,493	0.060%
Commercial Boats/Ships (including Tugboats) ^c	55.55	19,002	0.29%
2015			
Heavy-Duty Diesel Trucks	5.18	59,438	0.0087%
Construction Equipment	11.60	44,032	0.026%
Commercial Boats/Ships ^c (including Tugboats)	3.67	20,722	0.018%
<i>Notes:</i> aSIP emissions in 2010 from the 1997 AQMP Appendix III, Attachment A, Table A-13. bSIP emissions in 2015 from the 1997 AQMP Appendix III, Attachment A, Tables A-13 and A-14. c Federal Action emissions include tugboat operations from the coast to 100 nm from shore.			

Table A-4-5. Comparison of the Federal Action Portion of Alternative 1 NO_x Emissions for Construction to 2007 AQMP Emission Budgets for Construction-Related Source Types			
Year and Source Type	Federal Action Emissions (TPY)	2007 SIP Emissions (TPY)^{a,b}	Relative Contribution to SIP Budget
2010			
Heavy-Duty Diesel Trucks	6.89	33,348	0.021%
Off-Road Equipment/Construction Equipment	26.33	62,736	0.042%
Tugboats operating 0-3 nm from shore	36.74	881.48	4.17%
Tugboats operating 3-100 nm from shore	18.81	542.90	3.46%
2011			
Heavy-Duty Diesel Trucks	3.23	31,200	0.010%
Off-Road Equipment/Construction Equipment	13.94	59,641	0.023%
Tugboats operating 0-3 nm from shore	5.93	834.39	0.711%
Tugboats operating 3-100 nm from shore	2.66	513.90	0.518%
2014			
Heavy-Duty Diesel Trucks	2.19	24,782	0.009%
Off-Road Equipment/Construction Equipment	9.91	50,089	0.020%
Tugboats operating 0-3 nm from shore	14.15	694.34	2.04%
Tugboats operating 3-100 nm from shore	8.05	427.60	1.88%
2015			
Heavy-Duty Diesel Trucks	5.18	22,860	0.023%
Off-Road Equipment/Construction Equipment	11.60	48,655	0.024%
Tugboats operating 0-3 nm from shore	3.67	647.22	0.57%
Tugboats operating 3-100 nm from shore	0.00	398.58	0.000%
<i>Notes:</i>			
a 2007 SIP emissions for trucks, tugboats 0-3 nm from the coast, and tugboats 3-100 nm extracted by Earl Withycomb (CARB) from CARB's California Emission Forecasting System (CEFS) v1.06.			
b 2007 SIP emissions for off-road equipment from the 2007 AQMP Appendix III, Attachment A, Tables A-4 through A-7, and public version of CEFS v1.06 (at http://www.arb.ca.gov/app/emsinv/fcemssumcat2007.php).			

SIP emissions for off-road equipment were obtained from the 2007 AQMP Appendix III, Attachment A and the public version of CEFS v 1.06. Direct comparisons between the Federal action's emissions and the 2007 SIP emissions were available during the construction period for four of the 2007 AQMP targeted years: 2010 (the projected peak year of construction emissions), 2011, 2014 and 2015.

The tables show that the NO_x emissions from construction activities resulting from the Federal action are small relative to the SIP emission budgets in the SCAB. For the 1997/1999 SIP, construction emissions are a maximum of 0.3 percent or less of the budget for the corresponding source categories. For the 2007 SIP, construction emissions would equal a maximum of 4.2 percent of the budget of certain specialized source categories available from the 2007 AQMP. Specifically, tugboats working on construction activities between 0-3 nm and 3-100 nm of the shore would emit between 0.5 and 4.2 percent of the SIP budgets for those two categories (tug boats within 0-3 nm of the shore and within 3-100 nm of the shore). Even this small consumption of these emission categories reflects the focused nature of these source categories; the other construction source categories (construction

equipment and trucks) would not exceed 0.1 percent of their respective categories.

For that reason, it is reasonable to assume that that the emissions from construction activities that would result from the Federal action can be accommodated in future emissions growth from the construction sector within the approved 1997/1999 SIP or alternatively within the 2007 AQMP. Therefore, it can be inferred that the construction NO_x emissions for the Federal action, taken together with NO_x emissions from all other construction sources in the SCAB, would not exceed the NO_x emission budgets for construction-related source types specified in the approved SIP or the 2007 AQMP. As a result, the Federal action associated with the Project/Alternative 1 would conform to the most recent federally approved SCAB SIP.

6.2 ALTERNATIVE 2 (315-ACRE ALTERNATIVE)

6.2.1 Estimated Emissions and Comparison to De Minimis Thresholds

Emissions were calculated for VOC, CO, NO_x, SO_x, PM₁₀, and PM_{2.5} (including its precursors) for the Federal action construction activities

associated with Alternative 2. The annual Federal action emissions estimated for proposed construction activities under Alternative 2 are summarized in Table A-4-6. The construction activities are based on the information presented in the Final EIS/EIR (Section 1.0), and the details of the emission calculations are presented in Appendix A4, Attachment 2.

Table A-4-6 shows that Federal action emissions from Alternative 2 would exceed the NO_x conformity *de minimis* threshold in 2010 through 2014 and would be less than the NO_x *de minimis* threshold in 2009 and 2015. The first few years of construction of Alternative 2 have the same construction activities as Alternative 1. Therefore, the peak annual NO_x emissions of 88.76 tons that would occur in 2010 are very similar to those estimated for Alternative 1. Emissions of all other pollutants from Federal action portion of Alternative 2 would remain below their applicable conformity *de minimis* thresholds during the entire construction period.

6.2.2 Regional Significance

Table A-4-7 compares the peak annual construction emissions of VOC, CO, NO_x, PM₁₀, and PM_{2.5} from the Federal action portion of Alternative 2 to the regional emissions inventories of these pollutants, as prepared by SCAQMD for the SCAB. As shown in Table A-4-7, annual Federal action emissions of all pollutants from Alternative 2 are much less than ten percent of the SCAB's emissions inventories. Therefore, Federal action emissions of any pollutant from Alternative 2 would not be regionally significant. Since the annual emissions of VOC, CO, SO_x, PM₁₀, and PM_{2.5} from the Federal action portion of Alternative 2 are less than the conformity *de minimis* thresholds and they are not regionally significant, the general conformity requirements do not apply to these pollutants, and no further evaluation is necessary. Since Federal action emissions of NO_x from Alternative 2 exceed the "extreme" O₃ nonattainment area conformity *de minimis* threshold of 10 TPY, the general conformity

Year	Tons per Year					
	VOC	CO	NO _x ^b	SO _x	PM10	PM2.5
2009	0.26	1.54	4.57	0.17	0.99	0.35
2010	4.57	29.71	88.76	2.69	12.78	5.35
2011	1.61	8.37	25.62	1.39	5.51	2.04
2012	2.37	8.52	25.36	5.06	18.46	5.52
2013	2.77	14.23	40.81	5.25	16.11	5.39
2014	2.14	14.50	42.31	0.78	1.72	1.71
2015	0.72	3.18	9.43	1.08	5.12	1.51
Conformity De Minimis Thresholds – SCAB	10	100	10	100	70	100

Notes:
a No construction activities under this alternative past year 2016.
b Emissions that exceed the *de minimis* threshold are shown in bold.

Pollutant	Alternative 2 Peak Annual Emissions (TPY) ¹	Approved SIP Emissions (TPY) ²	Percent of Approved SIP	2007 AQMP Emissions (TPY) ³	Percent of 2007 AQMP
Volatile Organic Compounds (VOCs)	4.6	281,068	0.0016	208,933	0.0022
Nitrogen Oxides (NO _x)	88.8	254,328	0.0349	282,747	0.0314
Carbon Monoxide (CO)	29.7	1,219,368	0.0024	1,085,251	0.0027
Sulfur Oxides (SO _x)	2.69	25,764	0.0050	14,315	0.0104
Particulate Matter (PM ₁₀)	12.78	168,864	0.0050	⁴	⁴
Particulate Matter (PM _{2.5})	5.35	⁴	⁴	36,996	0.0145

Notes:
1 Emissions from Federal action include all construction emissions for the peak year of construction (2010).
2 Based on data in 1997 AQMP Appendix III (2010 average annual day emissions).
3 Based on data in 2007 AQMP Appendix III (2010 average annual day emissions).
4 No budgets were developed in the currently approved SIP for PM_{2.5} or in the 2007 AQMP for controlled PM₁₀.

requirements apply to these emissions. Therefore, a general conformity evaluation of NO_x emissions proposed for Federal action Alternative 2 was conducted as described below.

6.2.3 Comparison of NO_x Emissions to Show Conformance with O₃ SIP

Similar to Alternative 1, the Federal action portion of Alternative 2 would result in NO_x emissions from

four primary emission source categories: heavy trucks; construction equipment; tugboats operating 0-3 nm from shore; and tugboats operating 3-100 nm shore. Tables A-4-8 and A-4-9 present the emissions from the Federal action portion of Alternative 2, group into these four individual construction source categories, and compares them to the projected emissions for these same categories, as extracted from the 1997/1999 SIP and 2007 AQMP.

Table A-4-8. Comparison of the Federal Action Portion of Alternative 2 NO_x Emissions for Construction to Approved 1997/1999 SIP Emission Budgets for Construction-Related Source Types

Year and Source Type	Federal Action Emissions (TPY)	Approved SIP Emissions (TPY) ^{a,b}	Relative Contribution to SIP Budget
2010			
Heavy-Duty Diesel Trucks	6.76	55,874	0.0012%
Construction Equipment	26.46	43,493	0.061%
Commercial Boats/Ships (including Tugboats) ^c	55.55	19,002	0.29%
2015			
Heavy-Duty Diesel Trucks	1.68	59,438	0.0028%
Construction Equipment	5.60	44,032	0.012%
Commercial Boats/Ships ^c (including Tugboats)	2.15	20,722	0.010%
<i>Notes:</i>			
aSIP emissions in 2010 from the 1997 AQMP Appendix III, Attachment A, Table A-13.			
bSIP emissions in 2015 from the 1997 AQMP Appendix III, Attachment A, Tables A-13 and A-14.			
c Federal Action emissions include tugboat operations from the coast to 100 nm from shore.			

Table A-4-9. Comparison of the Federal Action Portion of Alternative 2 NO_x Emissions for Construction to 2007 AQMP Emission Budgets for Construction-Related Source Types

Year and Source Type	Federal Action Emissions (TPY)	2007 SIP Emissions (TPY) ^{a,b}	Relative Contribution to SIP Budget
2010			
Heavy-Duty Diesel Trucks	6.76	33,348	0.020%
Off-Road Equipment/Construction Equipment	26.46	62,736	0.042%
Tugboats operating 0-3 nm from shore	36.74	881.48	4.17%
Tugboats operating 3-100 nm from shore	18.81	542.90	3.46%
2011			
Heavy-Duty Diesel Trucks	2.63	31,200	0.0084%
Off-Road Equipment/Construction Equipment	14.40	59,641	0.024%
Tugboats operating 0-3 nm from shore	5.93	834.39	0.71%
Tugboats operating 3-100 nm from shore	2.66	513.90	0.52%
2014			
Heavy-Duty Diesel Trucks	2.69	24,782	0.011%
Off-Road Equipment/Construction Equipment	10.70	50,089	0.021%
Tugboats operating 0-3 nm from shore	16.34	694.34	2.35%
Tugboats operating 3-100 nm from shore	12.58	427.60	2.94%
2015			
Heavy-Duty Diesel Trucks	1.68	22,860	0.0073%
Off-Road Equipment/Construction Equipment	5.60	48,655	0.012%
Tugboats operating 0-3 nm from shore	2.15	647.22	0.33%
Tugboats operating 3-100 nm from shore	0.00	398.58	0.000%
<i>Notes:</i>			
a 2007 SIP emissions for trucks, tugboats 0-3 nm from the coast, and tugboats 3-100 nm extracted by Earl Withycomb (CARB) from CARB's California Emission Forecasting System (CEFS) v1.06.			
b 2007 SIP emissions for off-road equipment from the 2007 AQMP Appendix III, Attachment A, Tables A-4 through A-7, and public version of CEFS v1.06 (at http://www.arb.ca.gov/app/emsinv/fcemssumcat2007.php).			

As discussed above for the proposed Project (Section 6.1), the 1997/1999 SIP emissions inventory is more basic with less specific source categories and few targeted attainment years during the construction period. Similar to the analysis conducted for the proposed Project, comparisons were conducted using this emission inventory in 2010 (the peak year of construction emissions) and 2015. Table A-4-8 shows that the construction emissions for the Federal action portion of Alternative 2 will consume a maximum of 0.3 percent of the 1997/1999 SIP emissions. .

Table A-4-9 evaluates emissions from the Federal action portion of Alternative 2 in comparison to the 2007 SIP emissions inventory for the years 2010, 2011, 2014, and 2015, similar to the approach used above for the Federal action portion of the proposed Project. Because the projected construction emissions for the 2010 peak year are very close to the Federal action portion of the proposed Project and Alternative 2, the maximum results are also very similar. The two tug boat emission source categories will have the highest consumption of their respective 2007 SIP budgets, ranging from 0.3 to 4.2 percent. Consumption of the 2007 SIP budgets for the other source categories are less than 0.1 percent.

Consequently, this analysis shows that NO_x emissions from the Federal action portion of Alternative 2, taken together with NO_x emissions from all other construction sources in the SCAB, would not exceed the NO_x emission budgets for construction-related source types specified in the approved SIP or the 2007 SIP. As a result, the Federal action associated with Alternative 2 would conform to the most recent federally-approved SCAB SIP.

7.0 MITIGATION

As part of a conformity evaluation, it may be necessary for the Federal agency to identify mitigation measures and mechanisms for their implementation and enforcement. For example, if a Federal action does not initially conform to the applicable SIP, mitigation measures could be pursued. If mitigation measures are used to support a positive conformity determination, the Federal agency must obtain a written commitment from the entity required to implement these measures and the Federal agency must include the mitigation measures as conditions in any permit or license granted for the Federal action (40 C.F.R. § 93.160). Mitigation measures may be used in combination with other criteria to demonstrate conformity. The Federal actions, as

evaluated in these analyses, assume various air quality mitigation measures as described in Chapter 3.2 of the *FEIS/FEIR* (USACE/POLB 2009) to meet California of Environmental Quality Act (CEQA) requirements are part of the Project and Alternative 2. Based on CEQA provisions that mitigation measures be required in, or incorporated into, a project (14 C.C.R. § 15091(a)(1)), the POLB will implement, maintain, monitor, and enforce these CEQA-related air quality mitigation measures pursuant to the MMRP included in the certified Final EIR. *FEIS/FEIR* Table 3.2-59 in Chapter 3.2 provides summaries of the CEQA-related mitigation measures that are proposed as part of these actions. The USACE recognizes that POLB, as the local responsible agency, will implement, maintain, monitor, and enforce numerous mitigation measures, including many focused on limiting air emissions, as required by the certified Final EIR; however, the USACE lacks continuing program responsibility, control, and enforcement capability over mitigation measures not related to Federal action Project construction activities in and over water as well as those continuing after construction activities in and over water are completed. As such, no mitigation, as defined under the General Conformity Regulations (40 C.F.R. § 93.160) or guidance (EPA 1994), are required to support a positive general conformity determination.

8.0 REPORTING

To support a decision concerning the Federal action portion of the proposed Project and Alternative 2, the USACE is issuing this draft general conformity determination for public review and comment. The USACE will also make public its final general conformity determination for an authorized Federal action for the selected Project alternative.

8.1 Draft General Conformity Determination

At a minimum, the USACE is providing copies of this draft general conformity determination to the appropriate regional offices of EPA, any affected Federal land manager, as well as to ARB, SCAQMD, and SCAG, providing opportunity for a 30-day review. The USACE is also placing a notice in a daily newspaper of general circulation in the SCAB announcing the availability of this draft general conformity determination and requesting written public comments for a 30-day period. For any member of the public requesting a copy of this draft general conformity determination, the USACE will provide such party a copy.

8.2 Final General Conformity Determination

At a minimum, the USACE will provide copies of its final general conformity determination to the appropriate regional offices of EPA, any affected Federal land manager, as well as to ARB, SCAQMD, and SCAG, within 30 days of its promulgation. The USACE will also place a notice in a daily newspaper of general circulation in the SCAB announcing the availability of its final general conformity determination within 30 days of its promulgation. As part of the general conformity evaluation, the USACE will document its responses to all comments received on the draft general conformity determination and will make both the comments and responses available upon request by any person within 30 days of the promulgation of the final general conformity determination.

8.3 Frequency of General Conformity

The general conformity regulations state that the status of a specific conformity determination lapses five years after the date of public notification for the final general conformity determination, unless the action has been completed or a continuous program has been commenced to implement the action (40 C.F.R. § 93.157(a)). Because the proposed Federal action envisions a development program extending beyond five years, it is important to note that the final general conformity determination will remain active only under this "continuous program to implement." As part of a phased program, the implementation of each element of the development of the Federal action does not require separate conformity determinations, even if they are begun more than five years after the final determination, as long as those elements are consistent with the original program which was determined to conform (EPA 2002). However, if this original conforming program is changed such that there is an increase in the total of direct and indirect emissions above the *de minimis* threshold levels, the USACE will conduct a new general conformity evaluation.

9.0 FINDINGS AND CONCLUSIONS

As part of the environmental review of the Federal actions for the proposed Project and Alternative 2, the USACE conducted a general conformity evaluation pursuant to 40 C.F.R. Part 93 Subpart B. The general conformity regulations apply at this time to any actions at POLB requiring USACE

approval because the SCAB where the POLB is situated is a nonattainment area for O₃, PM₁₀, and PM_{2.5}; and a maintenance area for NO₂ and CO. The USACE conducted the general conformity evaluation following all regulatory criteria and procedures and in coordination with EPA and SCAG. The USACE proposes that the Federal actions as designed, will conform to the approved SIP, based on the findings below:

- The Federal actions are not subject to a general conformity determination for CO, VOC (as an O₃ and PM_{2.5} precursor), PM₁₀, PM_{2.5}, or SO_x (as a PM_{2.5} precursor) because the net emissions associated with the Federal actions are less than the conformity *de minimis* thresholds and they are not regionally significant.
- The Federal actions conform to the SIP for NO_x (as an O₃ precursor) and for NO_x (as a PM_{2.5} precursor) because the net emissions associated with the Federal actions, taken together with all other NO_x emissions in the SCAB, would not exceed the emissions budgets in the approved SIP for the years subject to the general conformity evaluation.

Therefore, the USACE herewith concludes that the Federal actions associated with the proposed Project and Alternative 2 as designed would conform to the purpose of the approved SIP and they are consistent with all applicable requirements.

10.0 REFERENCES

- 40 CFR Part 93 Subpart A. Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects Developed, Funded or Approved Under Title 23
- U.S.C. or the Federal Transit Laws.
- 40 CFR Part 93 Subpart B. Determining Conformity of General Federal Actions to State or Federal Implementation Plans.
- 63 FR 39747. Approval and Promulgation of State Implementation Plans and Redesignation of the South Coast Air Basin in California to Attainment for Nitrogen Dioxide. July 24.
- 65 FR 18903. Approval and Promulgation of State Implementation Plans; California— South Coast. April 10.

- 68 FR 19315. Approval and Promulgation of State Implementation Plans; California— South Coast. April 18.
- 72 FR 26718. Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes: California. May 11.
- ARB. 2009. Personal communications with G. Bertolin, Science Applications International Corporation. South Coast AQMD Planning Liaison from the California Air Resources Board, E. Withycomb.
- South Coast Air Quality Management District (SCAQMD). 2007. Final 2007 Air Quality Management Plan. June. Website: <http://www.aqmd.gov/aqmp/07aqmp/index.html>.
- South Coast Air Quality Management District (SCAQMD). 1996. Final 1997 Air Quality Management Plan. November. Web site: <http://www.aqmd.gov/aqmp/97aqmp/index.html>.
- Southern California Association of Governments (SCAG). 2008. 2008 Regional Transportation Plan. Web site: http://www.scag.ca.gov/rtp2008/pdfs/finalrtp/f2008RTP_Complete.pdf.
- U.S. Army Corps of Engineers/Port of Long Beach (POLB/ USACE . 2008. Draft Environmental Impact Statement/Environmental Impact Report (EIR/EIS) for the Middle Harbor Redevelopment Project.
- U.S. Army Corps of Engineers (USACE). 1994. Memorandum For All Major Subordinate Commanders, and District Commanders, Subject: EPA's Clean Air Act (CAA) General Conformity Rule, from Lester Edelman, Chief Counsel, USACE (CECC-E). April 20.
- U.S. Environmental Protection Agency (EPA). 2002. General Conformity Guidance for Airports: Questions and Answers. September 25. Web site: http://www.epa.gov/ttn/oarpg/conform/airport_ga.pdf.
- U.S. Environmental Protection Agency (EPA). 1994. General Conformity Guidance: Questions and Answers. July 13. Web site: http://www.epa.gov/ttn/oarpg/conform/gcggqa_71394.pdf.

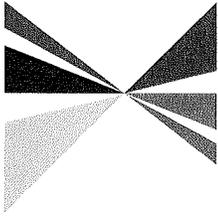
**Appendix A-4
Attachments**

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**ATTACHMENT A-4.1 –
SCAG LETTER**

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Mike Ten, South Pasadena

March 24, 2009

Mr. Rick Cameron
Director of Environmental Planning
Port of Long Beach
925 Harbor Plaza
Long Beach, California 90802

Port of Long Beach On-Road Activity Data

Dear Mr. Cameron,

Per a request from the Port of Long Beach, the following is intended to confirm the use of port transportation data in regional transportation and air quality management plans.

The Ports of Long Beach and Los Angeles (POLB/POLA) submit transportation data to the Southern California Association of Governments (SCAG) to account for current and projected port activity. Specifically, the POLB/POLA cargo growth is accounted for in each Regional Transportation Plan (RTP) update via traffic (truck and auto) volumes provided to SCAG.

Transportation activity data, including the port-related transportation activity data, have been provided to the South Coast Air Quality Management District and incorporated into the 2007 South Coast Air Quality Management Plan (AQMP). The Ports' data have been previously incorporated into the 1994, 1998, 2001, and 2004 RTPs and into the corresponding AQMPs.

If you have any questions in regard to this information, please contact Jonathan Nadler, Manager of Transportation Modeling, Air Quality and Conformity, at (213) 236-1884.

Sincerely,

Huasha Liu
Director, Planning Methods, Assessment and Compliance Department
Southern California Association of Governments

cc: Aaron O. Allen, Army Corps of Engineers

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**ATTACHMENT A-4.2 –
Alternative 1 Conformity Emission Calculations**

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Table A.4.1-Alt 1-1. Activity Data - Demolish Existing Facilities - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-2. Activity Data - Construct New Bulkhead - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-3. Activity Data - Excavation Fronting E24 - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-4. Activity Data - Construct New Armor Slope - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-5. Activity Data - Wharf Construction - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-6. Activity Data - Paving - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-7. Activity Data - Prepare for Toe Dike / Construct Dike (1st Lift) - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-8. Activity Data - Fill within Dike - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-9. Activity Data - Remaining Dike Lifts - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-10. Activity Data - Remaining Fill Lifts - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-11. Activity Data - Wharf Construction - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-12. Activity Data - Construct South Mooring Dolphin - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-13. Activity Data - Wick Drains - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-14. Activity Data - Surcharge (Initial Pump, Plus Clamshell or Truck) - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-15. Activity Data - Remove Surcharge to Slip 1 Fill Site - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-16. Activity Data - Paving - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-17. Activity Data - Lighting, Fence, Striping, Crane Power - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-18. Activity Data - Construct Retaining Structure at Pier D Oil Area - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-19. Activity Data - Excavate & Truck Material in Cell Bulkhead - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-20. Activity Data - Excavate Material Fronting Pier D - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-21. Activity Data - Remove Cellular Sheetpile - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-22. Activity Data - Rock Revetment - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-23. Activity Data - Hydraulic or Clamshell Dredge to -55 ft - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-24. Activity Data - Ground Improvements Pier D - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-25. Activity Data - Demo E12-13 Wharf - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-26. Activity Data - Lift #1 (~ -30) - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-27. Activity Data - Lift #2 (~ -15) - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-28. Activity Data - Lift #3 (~ 0) - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-29. Activity Data - Lift #4 (~ +15) - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-30. Activity Data - Initial Surcharge and Wick Drains - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-31. Activity Data - 2nd Surcharge and Wick Drains - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-32. Activity Data - 3rd Surcharge and Wick Drains - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-33. Activity Data - Utility Construction - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-34. Activity Data - Remove Surcharge - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-35. Activity Data - Container Yard Development - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-36. Total Construction Emissions - Demolish Existing Facilities - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-37. Total Construction Emissions - Construct New Bulkhead - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-38. Total Construction Emissions - Excavation Fronting E24 - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-39. Total Construction Emissions - Construct New Armor Slope - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-40. Total Construction Emissions - Wharf Construction - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-41. Total Construction Emissions - Paving - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-42. Total Construction Emissions - Prepare for Toe Dike / Construct Dike (1st Lift) - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-43. Total Construction Emissions - Fill Within Dike - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-44. Total Construction Emissions - Remaining Dike Lifts - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-45. Total Construction Emissions - Remaining Fill Lifts - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-46. Total Construction Emissions - Wharf Construction - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-47. Total Construction Emissions - Construct South Mooring Dolphin - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-48. Total Construction Emissions - Wick Drains - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-49. Total Construction Emissions - Surcharge (Initial Pump, Plus Clamshell or Truck) - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-50. Daily Construction Emissions - Remove Surcharge to Slip 1 Fill Site - POLB Middle Harbor - Alternative 1

Table A.4.1-Alt 1-51. Total Construction Emissions - Paving - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-52. Total Construction Emissions - Construct Retaining Structure at Pier D Oil Area - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-53. Total Construction Emissions - Excavate & Truck Material in Cell Bulkhead - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-54. Total Construction Emissions - Excavate Material Fronting Pier D - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-55. Total Construction Emissions - Remove Cellular Sheetpile - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-56. Total Construction Emissions - Rock Revetment - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-57. Total Construction Emissions - Hydraulic or Clamshell Dredge to -55 ft - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-58. Total Construction Emissions - Ground Improvements Pier D - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-59. Total Construction Emissions - Demo - E12-13 Wharf - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-60. Total Construction Emissions - Lift #1 (~ -30) - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-61. Total Construction Emissions - Lift #2 (~ -15) - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-62. Total Construction Emissions - Lift #3 (~ 0) - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-63. Total Construction Emissions - Lift #4 (~ +15) - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-64. Total Construction Emissions - Initial Surcharge and Wick Drains - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-65. Total Construction Emissions - 2nd Surcharge and Wick Drains - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-66. Total Construction Emissions - 3rd Surcharge and Wick Drains - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-67. Total Construction Emissions - 4th Surcharge and Wick Drains - POLB Middle Harbor - Alternative 1
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Table A.4.1-Alt 1-69. Total Construction Emissions - Container Yard Development - POLB Middle Harbor - Alternative 1
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Table A.1.1-70. Total Conformity-Related Emissions - POLB Middle Harbor Project - Phase 1 - Stage 1 (2 of 3)
Table A.1.1-70. Total Conformity-Related Emissions - POLB Middle Harbor Project - Phase 1 - Stage 1 (3 of 3)
Table A.4.1-Alt 1-71. Activity Data - Demolish Existing Facilities - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-72. Activity Data - Construct New Bulkhead - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-73. Activity Data - Excavation Fronting E25 and Dispose Slip 1 - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-74. Activity Data - Construct New Armor Slope - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-75. Activity Data - Wharf Construction - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-76. Activity Data - CY Development - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-77. Activity Data -Dredge to -55 ft - POLB Middle Harbor - Alternative 1
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Table A.4.1-Alt 1-80. Total Construction Emissions -Excavation Fronting E25 and Dispose Slip 1 - POLB Middle Harbor - Alternative 1
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Table A.4.1-Alt 1-87. Activity Data - Construct New Bulkhead - POLB Middle Harbor - Alternative 1
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Table A.4.1-Alt 1-89. Activity Data - Construct New Armor Slope - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-90. Activity Data - Wharf Construction - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-91. Activity Data - Construct E27 Bulkhead - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-92. Activity Data - CY Development - POLB Middle Harbor - Alternative 1
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Table A.4.1-Alt 1-95. Total Construction Emissions - Construct New Bulkhead - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-96. Total Construction Emissions - Excavation Fronting E26 and Dispose Slip 1 - POLB Middle Harbor - Alternative 1
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Table A.4.1-Alt 1-98. Total Construction Emissions - Wharf Construction - POLB Middle Harbor - Alternative 1

Table A.4.1-Alt 1-99. Total Construction Emissions - Construct E27 Bulkhead - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-100. Total Construction Emissions - CY Development - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-101. Total Construction Emissions - Hydraulic Dredging to -55ft - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-102. Total Emissions - POLB Middle Harbor Project - Phase 1 - Stage 3
Table A.4.1-Alt 1-103. Activity Data - Demolition - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-104. Activity Data - Railyard Construction - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-105. Activity Data - Container Yard Development (F1 - F4) - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-106. Activity Data - Demo Existing F1 -4, F6 Wharf - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-107. Activity Data - Construct East Basain Retaining Dike - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-108. Activity Data -Slip/Basin Fill & Surcharge East- POLB Middle Harbor - Alternative 1
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Table A.4.1-Alt 1-112. Total Construction Emissions - Demo Existing F1 - F4, F6 Wharf - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-113. Total Construction Emissions - Construct East Basin Retaining Dike - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-114. Total Construction Emissions - Slip/Basin Fill & Surcharge East - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-115. Total Construction Emissions - Roll Surcharge - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-116. Total Emissions - POLB Middle Harbor Project - Phase 2 - Stage 1
Table A.4.1-Alt 1-117. Activity Data - Dredge and Excavate at Quay Wall - POLB Middle Harbor - Alternative 1
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Table A.4.1-Alt 1-119. Activity Data - Construct Wharf, Armor, Fill - POLB Middle Harbor - Alternative 1 (1 of 2)
Table A.4.1-Alt 1-120. Activity Data - Construct Wharf, Armor, Fill - POLB Middle Harbor - Alternative 1 (2 of 2)
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Table A.4.1-Alt 1-123. Total Construction Emissions - Dredge and Excavate Quay Wall - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-124. Total Construction Emissions - Demo Existing F8-10 Wharf - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-125. Total Construction Emissions - Construct Wharf, Armor, Fill - POLB Middle Harbor - Alternative 1 (1 of 2)
Table A.4.1-Alt 1-125. Total Construction Emissions - Construct Wharf, Armor, Fill - POLB Middle Harbor - Alternative 1 (2 of 2)
Table A.4.1-Alt 1-126. Total Construction Emissions - Basin Fill and Surcharge West - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-127. Total Construction Emissions - Settlement Period - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-128. Total Emissions - POLB Middle Harbor Project - Phase 2 - Stage 2
Table A.4.1-Alt 1-129. Activity Data - Remove Surcharge - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-130. Activity Data - CY Development - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-131. Total Construction Emissions - Remove Surcharge- POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-132. Total Construction Emissions - CY Development - POLB Middle Harbor - Alternative 1
Table A.4.1-Alt 1-133. Total Emissions - POLB Middle Harbor Project - Phase 2 - Stage 3
Table A.4.1-Alt 1-134. Dike Rock Tug boat Usage
Table A.4.1 -Alt 1 -135 Worker Commuting Air Emissions for the POLB Middle Harbor Project Construction Activities.
Table A.4.1-Alt 1-136. Air Emission Factors for the POLB Middle Harbor Project Construction Activities.
Table A.4.1-Alt 1-137. Additional Air Emission Factors for the POLB Middle Harbor Project Construction Activities.
Table A-4-Alt1-138. Total Annual Conformity-Related Construction Emissions from Construction Equipment – Federal Action Component Alternative 1
Table A-4-Alt1-139. Total Annual Conformity-Related Construction Emissions from Trucks – Federal Action Component - Alternative 1
Table A-4-Alt1-140. Total Annual Conformity-Related Construction Emissions from Tug Boat Usage Within 3nm of the Coast – Federal Action Component -
Table A-4-Alt1-141. Total Annual Conformity-Related Construction Emissions from Tug Boat Usage Beyond 3nm of the Coast – Federal Action Component
Table A-4-Alt1-142. Total Annual Conformity-Related Construction Emissions – Federal Action Component - Alternative 1
Table A-4-Alt1-143 Total Annual NOx Emissions – Federal Action Component of POLB Middle Harbor Alternative 1
Table A-4-Alt1-144 ConstEquip Annual NOx Emissions - Federal Action Component of POLB Middle Harbor Alternative 1
Table A-4-Alt1-145 Trucks Annual NOx Emissions – Federal Action Component of POLB Middle Harbor Alternative 1
Table A-4-Alt1-146 Tugs-within3nm Annual NOx Emissions – Federal Action Component of POLB Middle Harbor Alternative 1
Table A-4-Alt1-147 Tugs-Beyond3nm Annual NOx Emissions – Federal Action Component of POLB Middle Harbor Alternative 1

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Table A.4.1-Alt 1-1. Activity Data - Demolish Existing Facilities - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	82	36,670
Excavator	428	0.57	1	244	8	1,952	82	160,038
Flatbed Truck	230	0.25	1	58	8	460	82	37,720
End Dump Truck	310	0.30	4	372	8	2,976	82	244,032
WHARF DEMOLITION MARINE								
Derrick Barge	600	0.43	1	258	8	2,064	82	169,042
	200	0.50	1	100	8	800	82	65,600
Work Tug	750	0.20	1	150	8	1,200	82	98,280
	150	0.50	1	75	8	600	82	49,200
Hydra-Crane	130	0.43	1	56	8	447	82	36,626
Excavator	428	0.57	1	244	8	1,952	82	159,843
Flatbed Truck	230	0.25	1	58	8	460	82	37,674
End Dump Truck	310	0.30	3	279	8	2,232	82	182,801
SHEET PILE BULKHEAD DEMOLITION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	82	94,382
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	82	171,990
Excavator	428	0.57	1	244	8	1,952	82	159,843
Flatbed Truck	230	0.25	1	58	8	460	82	37,674
Welding Machine	26	0.50	1	13	8	104	82	8,518
Generator	13	0.74	1	10	8	77	82	6,303

Table A.4.1-Alt 1-2. Activity Data - Construct New Bulkhead - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	15	17,286
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	15	31,500
Flatbed Truck	230	0.25	1	58	8	460	15	6,900
Welding Machine	26	0.45	1	12	8	94	15	1,404
Generator	13	0.74	1	10	8	77	15	1,154

Table A.4.1-Alt 1-3. Activity Data - Excavation Fronting E24 - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	70	0
	500	0.00	1	0	24	0	70	0
Bottom Dump Scow	250	0.05	1	13	24	300	70	21,000
Tug Boat	2,500	0.30	1	750	6	4,500	70	315,000
	400	0.25	1	100	6	600	70	42,000
Work Tug	750	0.20	1	150	12	1,800	70	126,000
	150	0.25	1	38	12	450	70	31,500
Crew/Survey Boat	400	0.30	1	120	24	2,880	70	201,600
	80	0.50	1	40	24	960	70	67,200
LAND EX								
Excavator	428	0.57	1	244	8	1,952	70	136,618
Loader	170	0.68	1	116	8	925	70	64,736
End Dump Truck	310	0.25	4	310	8	2,480	70	173,600

Table A.4.1-Alt 1-4. Activity Data - Construct New Armor Slope - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	50	103,200
	200	0.50	1	100	8	800	50	40,000
Front End Loader	400	0.68	1	272	8	2,176	50	108,800
Tug Boat	1,200	0.20	1	240	8	1,920	50	96,000
	150	0.50	1	75	8	600	50	30,000
Tug Boat Rock Transport - Within 3 nm	2,500	0.20	1	500	4	2,000	50	100,000
	400	0.50	1	200	4	800	50	40,000
Tug Boat Rock Transport - Beyond 3 nm	2,500	0.80	1	2,000	2.3	4,600	50	230,000
	400	0.50	1	200	2.3	460	50	23,000
Crew/Survey Boat	400	0.30	1	120	8	960	50	48,000
	80	0.50	1	40	8	320	50	16,000

Table A.4.1-Alt 1-5. Activity Data - Wharf Construction - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	152	0.43	1	65	8	523	39	20,598
Crane - 200 Ton	335	0.43	1	144	8	1,152	39	45,398
Drill/Power Pack HPSI	270	0.75	1	203	8	1,620	39	63,818
Piledriving Hammer	211	0.50	1	106	8	844	39	33,248
Loader-Wheel	300	0.30	1	90	8	720	39	28,364
Jet Pump	33	0.74	1	24	8	195	39	7,696
End Dump Truck	310	0.25	1	78	8	620	39	24,180
Truck-Flatbed	230	0.25	1	58	8	460	39	17,940
Truck-Lowboy	350	0.25	1	88	8	700	39	27,300
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	335	0.43	1	144	8	1,152	45	52,018
Derrick Barge	380	0.43	1	163	8	1,307	45	59,006
	195	0.50	1	98	8	780	45	35,100
Piledriving Hammer	211	0.50	1	106	8	844	45	38,097
End Dump Truck	310	0.25	1	78	8	620	45	27,900
Tugboat	1,000	0.50	1	500	8	4,000	45	180,556
	100	0.50	1	50	8	400	45	18,000
Truck-Flatbed	230	0.25	1	58	8	460	45	20,700
DRIVE PILES - MISC ACTIVITIES								
Excavator	428	0.57	1	244	8	1,952	175	341,544
Loader-Wheel	180	0.30	1	54	8	432	175	75,600
Hydraulic Crane	152	0.43	1	65	8	523	175	91,504
Crane - 150 Ton	335	0.43	1	144	8	1,152	175	201,670
REINFORCED CONCRETE WHARF								
Hydraulic Crane	152	0.43	1	65	8	523	175	91,504
Crane - 150 Ton	335	0.43	1	144	8	1,152	175	201,670
Crane Barge - 150 ton	335	0.43	1	144	8	1,152	175	201,670
	107	0.50	1	54	8	428	175	74,900
Concrete Pump	210	0.74	1	155	8	1,243	175	217,560
Concrete Trucks	285	0.25	4.5	321	8	2,565	175	448,875
Sandblaster w/air compressor	50	0.00	1	0	8	0	175	0
Truck-Flatbed	230	0.25	1	58	8	460	175	80,500
Tugboat	1,000	0.20	1	200	8	1,600	175	280,000
	100	0.40	1	40	8	320	175	56,000
Concrete Saw	35	0.10	1	4	8	28	175	4,900
Truck Crane - 65 ton	365	0.20	1	73	8	584	175	102,200
Boom Truck	350	0.20	1	70	8	560	175	98,000
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	88	100,835
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	88	183,750
Flatbed Truck	230	0.25	1	58	8	460	88	40,250
Welding Machine	26	0.45	1	12	8	94	88	8,190
Generator	13	0.74	1	10	8	77	88	6,734

Table A.4.1-Alt 1-6. Activity Data - Paving - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.40	1	75	8	598	6	3,471
Grader	215	0.40	1	86	8	688	6	3,990
Roller	151	0.40	3	181	8	1,450	6	8,408
Vibration Roller	154	0.40	3	185	8	1,478	6	8,575
Water Truck	210	0.30	1	63	8	504	6	2,923
Road Sweeper	190	0.40	1	76	8	608	6	3,526

Table A.4.1-Alt 1-7. Activity Data - Prepare for Toe Dike / Construct Dike (1st Lift) - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	60	123,840
	200	0.50	1	100	8	800	60	48,000
Front End Loader	400	0.68	1	272	8	2,176	60	130,560
Tug Boat	1,200	0.20	1	240	8	1,920	60	115,200
	150	0.50	1	75	8	600	60	36,000
Tug Boat Rock Transport - Within 3 nm	2,500	0.49	1	1,225	6	7,105	60	426,300
	400	0.50	1	200	6	1,160	60	69,600
Tug Boat Rock Transport - Beyond 3 nm	2,500	0.73	1	1,825	8.2	14,965	60	897,900
	400	0.50	1	200	9.2	1,840	60	110,400
Crew/Survey Boat	400	0.30	1	120	8	960	60	57,600
	80	0.50	1	40	8	320	60	19,200

Table A.4.1-Alt 1-8. Activity Data - Fill within Dike - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	18	0
	500	0.00	1	0	24	0	18	0
Bottom Dump Scow	250	0.05	1	13	24	300	18	5,400
Tug Boat	2,500	0.30	1	750	6	4,500	18	81,000
	400	0.25	1	100	6	600	18	10,800
Work Tug	750	0.20	1	150	12	1,800	18	32,400
	150	0.25	1	38	12	450	18	8,100
Crew/Survey Boat	400	0.30	1	120	24	2,880	18	51,840
	80	0.50	1	40	24	960	18	17,280

Table A.4.1-Alt 1-9. Activity Data - Remaining Dike Lifts - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	60	123,840
	200	0.50	1	100	8	800	60	48,000
Front End Loader	400	0.68	1	272	8	2,176	60	130,560
Tug Boat	1,200	0.20	1	240	8	1,920	60	115,200
	150	0.50	1	75	8	600	60	36,000
Tug Boat Rock Transport - Within 3 nm	2,500	0.49	1	1,225	6	7,105	60	426,300
	400	0.50	1	200	6	1,160	60	69,600
Tug Boat Rock Transport - Beyond 3 nm	2,500	0.73	1	1,825	8.2	14,965	60	897,900
	400	0.50	1	200	9.2	1,840	60	110,400
Crew/Survey Boat	400	0.30	1	120	8	960	60	57,600
	80	0.50	1	40	8	320	60	19,200

Table A.4.1-Alt 1-10. Activity Data - Remaining Fill Lifts - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	60	0
	500	0.00	1	0	24	0	60	0
Bottom Dump Scow	250	0.05	1	13	24	300	60	18,000
Tug Boat	2,500	0.30	1	750	6	4,500	60	270,000
	400	0.25	1	100	6	600	60	36,000
Work Tug	750	0.20	1	150	12	1,800	60	108,000
	150	0.25	1	38	12	450	60	27,000
Crew/Survey Boat	400	0.30	1	120	24	2,880	60	172,800
	80	0.50	1	40	24	960	60	57,600

Table A.4.1-Alt 1-11. Activity Data - Wharf Construction - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	152	0.43	1	65	8	523	33	17,429
Crane - 200 Ton	335	0.43	1	144	8	1,152	33	38,413
Drill/Power Pack HPSI	270	0.75	1	203	8	1,620	33	54,000
Piledriving Hammer	211	0.50	1	106	8	844	33	28,133
Loader-Wheel	300	0.30	1	90	8	720	33	24,000
Jet Pump	33	0.74	1	24	8	195	33	6,512
End Dump Truck	310	0.25	1	78	8	620	33	20,460
Truck-Flatbed	230	0.25	1	58	8	460	33	15,180
Truck-Lowboy	350	0.25	1	88	8	700	33	23,100
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	335	0.43	1	144	8	1,152	38	44,015
Derrick Barge	380	0.43	1	163	8	1,307	38	49,928
	195	0.50	1	98	8	780	38	29,640
Piledriving Hammer	211	0.50	1	106	8	844	38	32,236
End Dump Truck	310	0.25	1	78	8	620	38	23,560
Tugboat	1,000	0.50	1	500	8	4,000	38	152,778
	100	0.50	1	50	8	400	38	15,200
Truck-Flatbed	230	0.25	1	58	8	460	38	17,480
DRIVE PILES - MISC ACTIVITIES								
Excavator	428	0.57	1	244	8	1,952	126	245,912
Loader-Wheel	180	0.30	1	54	8	432	126	54,432
Hydraulic Crane	152	0.43	1	65	8	523	126	65,883
Crane - 150 Ton	335	0.43	1	144	8	1,152	126	145,202
REINFORCED CONCRETE WHARF								
Hydraulic Crane	152	0.43	1	65	8	523	126	65,883
Crane - 150 Ton	335	0.43	1	144	8	1,152	126	145,202
Crane Barge - 150 ton	335	0.43	1	144	8	1,152	126	145,202
	107	0.50	1	54	8	428	126	53,928
Concrete Pump	210	0.74	1	155	8	1,243	126	156,643
Concrete Trucks	285	0.25	5	321	8	2,565	126	323,190
Sandblaster w/air compressor	50	0.00	1	0	8	0	126	0
Truck-Flatbed	230	0.25	1	58	8	460	126	57,960
Tugboat	1,000	0.20	1	200	8	1,600	126	201,600
	100	0.40	1	40	8	320	126	40,320
Concrete Saw	35	0.10	1	4	8	28	126	3,528
Truck Crane - 65 ton	365	0.20	1	73	8	584	126	73,584
Boom Truck	350	0.20	1	70	8	560	126	70,560
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	38	43,561
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	38	79,380
Flatbed Truck	230	0.25	1	58	8	460	38	17,388
Welding Machine	26	0.45	1	12	8	94	38	3,538
Generator	13	0.74	1	10	8	77	38	2,909

Table A.4.1-Alt 1-12. Activity Data - Construct South Mooring Dolphin - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	335	0.43	1	144	8	1,152	6	6,453
Derrick Barge	380	0.43	1	163	8	1,307	6	7,320
	195	0.50	1	98	8	780	6	4,680
Piledriving Hammer	211	0.50	1	106	8	844	6	4,726
End Dump Truck	310	0.25	1	78	8	620	6	3,720
Tugboat	1,000	0.50	1	500	8	4,000	6	22,400
	100	0.50	1	50	8	400	6	2,400
Truck-Flatbed	230	0.25	1	58	8	460	6	2,760

Table A.4.1-Alt 1-13. Activity Data - Wick Drains - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	428	0.30	1	128	8	1,027	9	9,245

Table A.4.1-Alt 1-14. Activity Data - Surcharge (Initial Pump, Plus Clamshell or Truck) - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROLL SURCHARGE								
Scrapers	475	0.60	9	2,565	8	20,520	8	164,160
Dozers	285	0.35	2	200	8	1,596	8	12,768
Loader	170	0.30	3	153	8	1,224	8	9,792
End Dump Truck	310	0.25	6	465	8	3,720	8	29,760
Water Truck	310	0.25	1	78	8	620	8	4,960

Table A.4.1-Alt 1-15. Activity Data - Remove Surcharge to Slip 1 Fill Site - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROLL SURCHARGE								
Scrapers	475	0.60	9	2,565	8	20,520	4	82,080
Dozers	285	0.35	2	200	8	1,596	4	6,384
Loader	170	0.30	3	153	8	1,224	4	4,896
End Dump Truck	310	0.25	6	465	8	3,720	4	14,880
Water Truck	310	0.25	1	78	8	620	4	2,480

Table A.4.1-Alt 1-16. Activity Data - Paving - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.40	1	75	8	598	30	17,952
Grader	215	0.40	1	86	8	688	30	20,640
Roller	151	0.40	3	181	8	1,450	30	43,488
Vibration Roller	154	0.40	3	185	8	1,478	30	44,352
Water Truck	210	0.30	1	63	8	504	30	15,120
Road Sweeper	190	0.40	1	76	8	608	30	18,240

Table A.4.1-Alt 1-17. Activity Data - Lighting, Fence, Striping, Crane Power - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.25	1	58	8	460		0
Truck Crane	130	0.20	1	26	8	208		0
Auger	125	0.50	1	63	8	500		0

Table A.4.1-Alt 1-18. Activity Data - Construct Retaining Structure at Pier D Oil Area - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	16	18,876
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	16	34,398
Flatbed Truck	230	0.25	1	58	8	460	16	7,535
Welding Machine	26	0.45	1	12	8	94	16	1,533
Generator	13	0.74	1	10	8	77	16	1,261

Table A.4.1-Alt 1-19. Activity Data - Excavate & Truck Material in Cell Bulkhead - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
LAND EX								
Excavator	428	0.57	1	244	8	1,952	24	46,840
Loader	170	0.68	1	116	8	925	24	22,195
End Dump Truck	310	0.25	4	310	8	2,480	24	59,520

Table A.4.1-Alt 1-20. Activity Data - Excavate Material Fronting Pier D - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
LAND EX								
Excavator	428	0.57	1	244	8	1,952	39	76,116
Loader	170	0.68	1	116	8	925	39	36,067
End Dump Truck	310	0.25	4	310	8	2,480	39	96,720
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	65	0
	500	0.00	1	0	24	0	65	0
Bottom Dump Scow	250	0.05	1	13	24	300	65	19,500
Tug Boat	2,500	0.30	1	750	6	4,500	65	292,500
	400	0.25	1	100	6	600	65	39,000
Work Tug	750	0.20	1	150	12	1,800	65	117,000
	150	0.25	1	38	12	450	65	29,250
Crew/Survey Boat	400	0.30	1	120	24	2,880	65	187,200
	80	0.50	1	40	24	960	65	62,400

Table A.4.1-Alt 1-21. Activity Data - Remove Cellular Sheetpile - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
SHEET PILE BULKHEAD DEMOLITION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	65	74,906
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	65	136,500
Excavator	428	0.57	1	244	8	1,952	65	126,859
Flatbed Truck	230	0.25	1	58	8	460	65	29,900
Welding Machine	26	0.50	1	13	8	104	65	6,760
Generator	13	0.74	1	10	8	77	65	5,002

Table A.4.1-Alt 1-22. Activity Data - Rock Revetment - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	48	99,072
	200	0.50	1	100	8	800	48	38,400
Front End Loader	400	0.68	1	272	8	2,176	48	104,448
Tug Boat	1,200	0.20	1	240	8	1,920	48	92,160
	150	0.50	1	75	8	600	48	28,800
Tug Boat Rock Transport - Within 3 nm	2,500	0.49	1	1,225	6	7,105	48	341,040
	400	0.50	1	200	6	1,160	48	55,680
Tug Boat Rock Transport - Beyond 3 nm	2,500	0.73	1	1,825	8.2	14,965	48	718,320
	400	0.50	1	200	9.2	1,840	48	88,320
Crew/Survey Boat	400	0.30	1	120	8	960	48	46,080
	80	0.50	1	40	8	320	48	15,360

Table A.4.1-Alt 1-23. Activity Data - Hydraulic or Clamshell Dredge to -55 ft - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	18	0
	500	0.00	1	0	24	0	18	0
Bottom Dump Scow	250	0.05	1	13	24	300	18	5,400
Tug Boat	2,500	0.30	1	750	6	4,500	18	81,000
	400	0.25	1	100	6	600	18	10,800
Work Tug	750	0.20	1	150	12	1,800	18	32,400
	150	0.25	1	38	12	450	18	8,100
Crew/Survey Boat	400	0.30	1	120	24	2,880	18	51,840
	80	0.50	1	40	24	960	18	17,280

Table A.4.1-Alt 1-24. Activity Data - Ground Improvements Pier D - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
STONE COLUMN INSTALLATION EQ								
Stone Column Crane - 100 Ton	335	0.43	3	432	8	3,457	68	234,168
Vibratory Probe & Power Pack	350	0.75	3	788	8	6,300	68	426,720
Auger Crane - 100 Ton	335	0.43	1	144	8	1,152	68	78,056
Auger & Hydraulic Power Pack	350	0.75	1	263	8	2,100	68	142,240
Welding Machine	26	0.50	1	13	8	104	68	7,044
Generator	13	0.74	1	10	8	77	68	5,213
Excavator	428	0.25	1	107	8	856	68	57,980
Loader	170	0.30	4	204	8	1,632	68	110,541
End Dump Truck	310	0.25	4	310	8	2,480	68	167,979
MARINE ROCK DELIVERY EQ								
Derrick Barge	800	0.30	1	240	8	1,920	34	65,024
Front End Loader	400	0.30	1	120	8	960	34	32,512
Tug Boat	1,650	0.30	1	495	8	3,960	34	134,112
Tug Boat	2,500	0.50	1	1,250	8	10,000	34	338,667

Table A.4.1-Alt 1-25. Activity Data - Demo E12-13 Wharf - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	109	48,834
Excavator	428	0.57	1	244	8	1,952	109	213,123
Flatbed Truck	230	0.25	1	58	8	460	109	50,232
End Dump Truck	310	0.30	4	372	8	2,976	109	324,979
WHARF DEMOLITION MARINE								
Derrick Barge	600	0.43	1	258	8	2,064	109	225,389
	200	0.50	1	100	8	800	109	87,200
Work Tug	750	0.20	1	150	8	1,200	109	131,040
	150	0.50	1	75	8	600	109	65,400
Hydra-Crane	130	0.43	1	56	8	447	109	48,834
Excavator	428	0.57	1	244	8	1,952	109	213,123
Flatbed Truck	230	0.25	1	58	8	460	109	50,232
End Dump Truck	310	0.30	3	279	8	2,232	109	243,734

Table A.4.1-Alt 1-26. Activity Data - Lift #1 (- -30) - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	27	55,728
	200	0.50	1	100	8	800	27	21,600
Front End Loader	400	0.68	1	272	8	2,176	27	58,752
Tug Boat	1,200	0.20	1	240	8	1,920	27	51,840
	150	0.50	1	75	8	600	27	16,200
Tug Boat Rock Transport - Within 3 nm	2,500	0.49	1	1,225	6	7,105	27	191,835
	400	0.50	1	200	6	1,160	27	31,320
Tug Boat Rock Transport - Beyond 3 nm	2,500	0.73	1	1,825	8.2	14,965	27	404,055
	400	0.50	1	200	9.2	1,840	27	49,680
Crew/Survey Boat	400	0.30	1	120	8	960	27	25,920
	80	0.50	1	40	8	320	27	8,640

Table A.4.1-Alt 1-27. Activity Data - Lift #2 (- -15) - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	16	33,024
	200	0.50	1	100	8	800	16	12,800
Front End Loader	400	0.68	1	272	8	2,176	16	34,816
Tug Boat	1,200	0.20	1	240	8	1,920	16	30,720
	150	0.50	1	75	8	600	16	9,600
Tug Boat Rock Transport - Within 3 nm	2,500	0.49	1	1,225	6	7,105	16	113,680
	400	0.50	1	200	6	1,160	16	18,560
Tug Boat Rock Transport - Beyond 3 nm	2,500	0.73	1	1,825	8.2	14,965	16	239,440
	400	0.50	1	200	9.2	1,840	16	29,440
Crew/Survey Boat	400	0.30	1	120	8	960	16	15,360
	80	0.50	1	40	8	320	16	5,120

Table A.4.1-Alt 1-28. Activity Data - Lift #3 (- 0) - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	14	28,896
	200	0.50	1	100	8	800	14	11,200
Front End Loader	400	0.68	1	272	8	2,176	14	30,464
Tug Boat	1,200	0.20	1	240	8	1,920	14	26,880
	150	0.50	1	75	8	600	14	8,400
Tug Boat Rock Transport - Within 3 nm	2,500	0.49	1	1,225	6	7,105	14	99,470
	400	0.50	1	200	6	1,160	14	16,240
Tug Boat Rock Transport - Beyond 3 nm	2,500	0.73	1	1,825	8.2	14,965	14	209,510
	400	0.50	1	200	9.2	1,840	14	25,760
Crew/Survey Boat	400	0.30	1	120	8	960	14	13,440
	80	0.50	1	40	8	320	14	4,480

Table A.4.1-Alt 1-29. Activity Data - Lift #4 (- +15) - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	12	24,768
	200	0.50	1	100	8	800	12	9,600
Front End Loader	400	0.68	1	272	8	2,176	12	26,112
Tug Boat	1,200	0.20	1	240	8	1,920	12	23,040
	150	0.50	1	75	8	600	12	7,200
Tug Boat Rock Transport - Within 3 nm	2,500	0.49	1	1,225	6	7,105	12	85,260
	400	0.50	1	200	6	1,160	12	13,920
Tug Boat Rock Transport - Beyond 3 nm	2,500	0.73	1	1,825	8.2	14,965	12	179,580
	400	0.50	1	200	9.2	1,840	12	22,080
Crew/Survey Boat	400	0.30	1	120	8	960	12	11,520
	80	0.50	1	40	8	320	12	3,840

Table A.4.1-Alt 1-30. Activity Data - Initial Surcharge and Wick Drains - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	428	0.30	1	128	8	1,027	12	12,326
ROLL SURCHARGE								
Scrapers	475	0.60	9	2,565	8	20,520	12	246,240
Dozers	285	0.35	2	200	8	1,596	12	19,152
Loader	170	0.30	3	153	8	1,224	12	14,688
End Dump Truck	310	0.25	6	465	8	3,720	12	44,640
Water Truck	310	0.25	1	78	8	620	12	7,440

Table A.4.1-Alt 1-31. Activity Data - 2nd Surcharge and Wick Drains - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	428	0.30	1	128	8	1,027	30	30,816
ROLL SURCHARGE								
Scrapers	475	0.60	9	2,565	8	20,520	18	369,360
Dozers	285	0.35	2	200	8	1,596	18	28,728
Loader	170	0.30	3	153	8	1,224	18	22,032
End Dump Truck	310	0.25	6	465	8	3,720	18	66,960
Water Truck	310	0.25	1	78	8	620	18	11,160

Table A.4.1-Alt 1-32. Activity Data - 3rd Surcharge and Wick Drains - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	428	0.30	1	128	8	1,027	30	30,816
ROLL SURCHARGE								
Scrapers	475	0.60	9	2,565	8	20,520	24	492,480
Dozers	285	0.35	2	200	8	1,596	24	38,304
Loader	170	0.30	3	153	8	1,224	24	29,376
End Dump Truck	310	0.25	6	465	8	3,720	24	89,280
Water Truck	310	0.25	1	78	8	620	24	14,880

Table A.4.1-Alt 1-33. Activity Data - Utility Construction - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	428	0.30	1	128	8	1,027	27	27,734
ROLL SURCHARGE								
Scrapers	475	0.60	9	2,565	8	20,520	45	923,400
Dozers	285	0.35	2	200	8	1,596	45	71,820
Loader	170	0.30	3	153	8	1,224	45	55,080
End Dump Truck	310	0.25	6	465	8	3,720	45	167,400
Water Truck	310	0.25	1	78	8	620	45	27,900

Table A.4.1-Alt 1-34. Activity Data - Remove Surcharge - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROLL SURCHARGE								
Scrapers	475	0.60	9	2,565	8	20,520	36	738,720
Dozers	285	0.35	2	200	8	1,596	36	57,456
Loader	170	0.30	3	153	8	1,224	36	44,064
End Dump Truck	310	0.25	6	465	8	3,720	36	133,920
Water Truck	310	0.25	1	78	8	620	36	22,320

Table A.4.1-Alt 1-35. Activity Data - Container Yard Development - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200		0
Auger	125	0.50	1	63	8	500		0
Crane	130	0.43	1	56	8	447		0
Grader	215	0.61	3	393	8	3,148		0
End Dump Truck	310	0.25	1	78	8	620		0
Flat Bed Truck	230	0.25	2	115	8	920		0
Concrete Truck	250	1	4	600	8	4,800		0
Front End Loader	400	0.40	2	320	8	2,560		0
Trencher	200	0.20	1	40	8	320		0
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.40	1	75	8	598	223	133,204
Grader	215	0.40	1	86	8	688	223	153,149
Roller	151	0.40	3	181	8	1,450	223	322,681
Vibration Roller	154	0.40	3	185	8	1,478	223	329,092
Water Truck	210	0.30	1	63	8	504	223	112,190
Road Sweeper	190	0.40	1	76	8	608	223	135,341

Table A.4.1-Alt 1-36. Total Construction Emissions - Demolish Existing Facilities - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
WHARF DEMOLITION LANDSIDE							
Hydra-Crane	0.01	0.04	0.11	0.00	0.01	0.01	0.01
Excavator	0.04	0.15	0.49	0.00	0.03	0.03	0.02
Flatbed Truck	0.01	0.03	0.12	0.00	0.01	0.01	0.01
End Dump Truck	0.05	0.23	0.75	0.00	0.04	0.04	0.04
Subtotal	0.11	0.44	1.48	0.00	0.08	0.08	0.08
WHARF DEMOLITION MARINE							
Derrick Barge	0.04	0.25	0.52	0.00	0.03	0.03	0.03
	0.01	0.05	0.20	0.00	0.01	0.01	0.01
Work Tug	0.02	0.20	0.55	0.00	0.02	0.02	0.02
	0.01	0.05	0.15	0.00	0.01	0.01	0.01
Hydra-Crane	0.01	0.04	0.11	0.00	0.01	0.01	0.01
Excavator	0.04	0.15	0.49	0.00	0.03	0.03	0.02
Flatbed Truck	0.01	0.03	0.12	0.00	0.01	0.01	0.01
End Dump Truck	0.04	0.17	0.56	0.00	0.03	0.03	0.03
Subtotal	0.18	0.93	2.71	0.00	0.14	0.14	0.13
SHEET PILE BULKHEAD DEMOLITION							
Crane - 100 Ton	0.02	0.09	0.29	0.00	0.02	0.02	0.01
Vibratory Hammer & Power Pack	0.04	0.16	0.53	0.00	0.03	0.03	0.03
Excavator	0.04	0.15	0.49	0.00	0.03	0.03	0.02
Flatbed Truck	0.01	0.03	0.12	0.00	0.01	0.01	0.01
Welding Machine	0.01	0.01	0.05	0.00	0.00	0.00	0.00
Generator	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Subtotal	0.11	0.45	1.51	0.00	0.08	0.08	0.08

Table A.4.1-Alt 1-37. Total Construction Emissions - Construct New Bulkhead - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
RETAINING BULKHEAD CONSTRUCTION							
Crane - 100 Ton	0.00	0.02	0.05	0.00	0.00	0.00	0.00
Vibratory Hammer & Power Pack	0.01	0.03	0.10	0.00	0.01	0.01	0.00
Flatbed Truck	0.00	0.01	0.02	0.00	0.00	0.00	0.00
Welding Machine	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Generator	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Subtotal	0.01	0.06	0.19	0.00	0.01	0.01	0.01

Table A.4.1-Alt 1-38. Total Construction Emissions - Excavation Fronting E24 - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
CLAMSHELL DREDGING							
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.00	0.02	0.06	0.00	0.00	0.00	0.00
Tug Boat	0.07	0.65	1.76	0.00	0.05	0.05	0.05
	0.01	0.04	0.13	0.00	0.01	0.01	0.01
Work Tug	0.03	0.26	0.70	0.00	0.02	0.02	0.02
	0.01	0.03	0.10	0.00	0.01	0.01	0.01
Crew/Survey Boat	0.04	0.28	1.66	0.10	0.07	0.07	0.06
	0.01	0.18	0.24	0.00	0.02	0.02	0.02
Subtotal	0.17	1.45	4.66	0.11	0.18	0.18	0.17
LAND EX							
Excavator	0.03	0.13	0.42	0.00	0.02	0.02	0.02
Loader	0.01	0.06	0.20	0.00	0.02	0.02	0.01
End Dump Truck	0.04	0.16	0.54	0.00	0.03	0.03	0.03
Subtotal	0.08	0.35	1.16	0.00	0.07	0.07	0.06

Table A.4.1-Alt 1-39. Total Construction Emissions - Construct New Armor Slope - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS							
Derrick Barge	0.02	0.15	0.32	0.00	0.02	0.02	0.02
	0.01	0.03	0.12	0.00	0.01	0.01	0.01
Front End Loader	0.02	0.10	0.34	0.00	0.02	0.02	0.02
Tug Boat	0.02	0.20	0.54	0.00	0.02	0.02	0.01
	0.01	0.03	0.09	0.00	0.01	0.01	0.01
Tug Boat Rock Transport - Within 3 nm	0.02	0.21	0.56	0.00	0.02	0.02	0.02
	0.01	0.04	0.12	0.00	0.01	0.01	0.01
Tug Boat Rock Transport - Beyond 3 nm	0.05	0.47	1.29	0.00	0.04	0.04	0.04
	0.01	0.02	0.07	0.00	0.00	0.00	0.00
Crew/Survey Boat	0.01	0.07	0.39	0.02	0.02	0.02	0.01
	0.00	0.04	0.06	0.00	0.01	0.01	0.00
Subtotal	0.18	1.36	3.90	0.03	0.15	0.15	0.14

Table A.4.1-Alt 1-40. Total Construction Emissions - Wharf Construction - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
DRIVE 24-IN OCTAGONAL PILES - LAND							
Hydraulic Crane	0.00	0.02	0.06	0.00	0.00	0.00	0.00
Crane - 200 Ton	0.01	0.04	0.14	0.00	0.01	0.01	0.01
Drill/Power Pack HPSI	0.01	0.06	0.20	0.00	0.01	0.01	0.01
Piledriving Hammer	0.01	0.03	0.10	0.00	0.01	0.01	0.01
Loader-Wheel	0.01	0.03	0.09	0.00	0.00	0.00	0.00
Jet Pump	0.01	0.01	0.04	0.00	0.00	0.00	0.00
End Dump Truck	0.01	0.02	0.07	0.00	0.00	0.00	0.00
Truck-Flatbed	0.00	0.01	0.06	0.00	0.00	0.00	0.00
Truck-Lowboy	0.01	0.03	0.08	0.00	0.00	0.00	0.00
Subtotal	0.06	0.25	0.85	0.00	0.05	0.05	0.04
DRIVE 24-IN OCTAGONAL PILES - WATER							
Crane - 200 Ton	0.01	0.05	0.16	0.00	0.01	0.01	0.01
Derrick Barge	0.01	0.05	0.18	0.00	0.01	0.01	0.01
	0.01	0.03	0.11	0.00	0.01	0.01	0.01
Piledriving Hammer	0.01	0.03	0.12	0.00	0.01	0.01	0.01
End Dump Truck	0.01	0.03	0.09	0.00	0.00	0.00	0.00
Tugboat	0.04	0.37	1.01	0.00	0.03	0.03	0.03
	0.00	0.05	0.07	0.00	0.01	0.01	0.01
Truck-Flatbed	0.00	0.02	0.06	0.00	0.00	0.00	0.00
Subtotal	0.10	0.62	1.79	0.00	0.07	0.07	0.07
DRIVE PILES - MISC ACTIVITIES							
Excavator	0.08	0.32	1.05	0.00	0.06	0.06	0.05
Loader-Wheel	0.02	0.06	0.23	0.00	0.01	0.01	0.01
Hydraulic Crane	0.02	0.09	0.28	0.00	0.02	0.02	0.02
Crane - 150 Ton	0.04	0.19	0.62	0.00	0.03	0.03	0.03
Subtotal	0.16	0.65	2.19	0.00	0.12	0.12	0.11
REINFORCED CONCRETE WHARF							
Hydraulic Crane	0.02	0.19	0.62	0.00	0.05	0.05	0.04
Crane - 150 Ton	0.04	0.19	0.62	0.00	0.03	0.03	0.03
Crane Barge - 150 ton	0.04	0.19	0.62	0.00	0.03	0.03	0.03
	0.02	0.20	0.27	0.00	0.02	0.02	0.02
Concrete Pump	0.05	0.18	0.67	0.00	0.04	0.04	0.03
Concrete Trucks	0.10	0.42	1.39	0.00	0.07	0.07	0.07
Sandblaster w/air compressor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck-Flatbed	0.02	0.07	0.25	0.00	0.01	0.01	0.01
Tugboat	0.06	0.58	1.57	0.00	0.05	0.05	0.04
	0.01	0.15	0.20	0.00	0.02	0.02	0.02
Concrete Saw	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Truck Crane - 65 ton	0.02	0.09	0.32	0.00	0.02	0.02	0.02
Boom Truck	0.02	0.09	0.30	0.00	0.02	0.02	0.01
Subtotal	0.41	2.34	6.86	0.01	0.36	0.36	0.34
RETAINING BULKHEAD CONSTRUCTION							
Crane - 100 Ton	0.02	0.09	0.31	0.00	0.02	0.02	0.02
Vibratory Hammer & Power Pack	0.04	0.17	0.57	0.00	0.03	0.03	0.03
Flatbed Truck	0.01	0.03	0.12	0.00	0.01	0.01	0.01
Welding Machine	0.01	0.01	0.05	0.00	0.00	0.00	0.00
Generator	0.00	0.01	0.04	0.00	0.00	0.00	0.00
Subtotal	0.08	0.32	1.08	0.00	0.06	0.06	0.06

Table A.4.1-Alt 1-41. Total Construction Emissions - Paving - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
NEW CONTAINER YARD CONSTRUCTION - PAVING							
AC Paver	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Roller	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Vibration Roller	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Water Truck	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Road Sweeper	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Subtotal	0.01	0.03	0.10	0.00	0.01	0.01	0.01

Table A.4.1-Alt 1-42. Total Construction Emissions - Prepare for Toe Dike / Construct Dike (1st Lift) - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS							
Derrick Barge	0.03	0.18	0.38	0.00	0.02	0.02	0.02
	0.01	0.04	0.15	0.00	0.01	0.01	0.01
Front End Loader	0.03	0.12	0.40	0.00	0.02	0.02	0.02
Tug Boat	0.03	0.24	0.64	0.00	0.02	0.02	0.02
	0.01	0.03	0.11	0.00	0.01	0.01	0.01
Tug Boat Rock Transport - Within 3 nm	0.09	0.88	2.38	0.00	0.07	0.07	0.07
	0.02	0.06	0.21	0.00	0.01	0.01	0.01
Tug Boat Rock Transport - Beyond 3 nm	0.20	1.85	5.02	0.00	0.15	0.15	0.14
	0.02	0.10	0.34	0.00	0.02	0.02	0.02
Crew/Survey Boat	0.01	0.08	0.47	0.03	0.02	0.02	0.02
	0.00	0.05	0.07	0.00	0.01	0.01	0.01
Subtotal	0.45	3.63	10.20	0.04	0.35	0.35	0.33

Table A.4.1-Alt 1-43. Total Construction Emissions - Fill Within Dike - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
CLAMSHELL DREDGING							
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.00	0.00	0.02	0.00	0.00	0.00	0.00
Tug Boat	0.02	0.17	0.45	0.00	0.01	0.01	0.01
	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Work Tug	0.01	0.07	0.18	0.00	0.01	0.01	0.00
	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Crew/Survey Boat	0.01	0.07	0.43	0.03	0.02	0.02	0.02
	0.00	0.05	0.06	0.00	0.01	0.01	0.01
Subtotal	0.04	0.37	1.20	0.03	0.05	0.05	0.04

Table A.4.1-Alt 1-44. Total Construction Emissions - Remaining Dike Lifts - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS							
Derrick Barge	0.03	0.18	0.38	0.00	0.02	0.02	0.02
	0.01	0.04	0.15	0.00	0.01	0.01	0.01
Front End Loader	0.03	0.12	0.40	0.00	0.02	0.02	0.02
Tug Boat	0.03	0.24	0.64	0.00	0.02	0.02	0.02
	0.01	0.03	0.11	0.00	0.01	0.01	0.01
Tug Boat Rock Transport - Within 3 nm	0.09	0.88	2.38	0.00	0.07	0.07	0.07
	0.02	0.06	0.21	0.00	0.01	0.01	0.01
Tug Boat Rock Transport - Beyond 3 nm	0.20	1.85	5.02	0.00	0.15	0.15	0.14
	0.02	0.10	0.34	0.00	0.02	0.02	0.02
Crew/Survey Boat	0.01	0.08	0.47	0.03	0.02	0.02	0.02
	0.00	0.05	0.07	0.00	0.01	0.01	0.01
Subtotal	0.45	3.63	10.20	0.04	0.35	0.35	0.33

Table A.4.1-Alt 1-45. Total Construction Emissions - Remaining Fill Lifts - POLB Middle Harbor - Alternative 1

	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
CLAMSHELL DREDGING							
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.00	0.01	0.06	0.00	0.00	0.00	0.00
Tug Boat	0.06	0.56	1.51	0.00	0.04	0.04	0.04
	0.01	0.03	0.11	0.00	0.01	0.01	0.01
Work Tug	0.02	0.22	0.60	0.00	0.02	0.02	0.02
	0.01	0.03	0.08	0.00	0.01	0.01	0.01
Crew/Survey Boat	0.03	0.24	1.42	0.09	0.06	0.06	0.05
	0.01	0.15	0.21	0.00	0.02	0.02	0.02
Subtotal	0.14	1.24	3.99	0.09	0.15	0.15	0.14

Table A.4.1-Alt 1-46. Total Construction Emissions - Wharf Construction - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
DRIVE 24-IN OCTAGONAL PILES - LAND							
Hydraulic Crane	0.00	0.02	0.05	0.00	0.00	0.00	0.00
Crane - 200 Ton	0.01	0.04	0.12	0.00	0.01	0.01	0.01
Drill/Power Pack HPSI	0.01	0.05	0.17	0.00	0.01	0.01	0.01
Piledriving Hammer	0.01	0.02	0.09	0.00	0.00	0.00	0.00
Loader-Wheel	0.01	0.02	0.07	0.00	0.00	0.00	0.00
Jet Pump	0.00	0.01	0.04	0.00	0.00	0.00	0.00
End Dump Truck	0.00	0.02	0.06	0.00	0.00	0.00	0.00
Truck-Flatbed	0.00	0.01	0.05	0.00	0.00	0.00	0.00
Truck-Lowboy	0.01	0.02	0.07	0.00	0.00	0.00	0.00
Subtotal	0.05	0.21	0.72	0.00	0.04	0.04	0.04
DRIVE 24-IN OCTAGONAL PILES - WATER							
Crane - 200 Ton	0.01	0.04	0.14	0.00	0.01	0.01	0.01
Derrick Barge	0.01	0.05	0.15	0.00	0.01	0.01	0.01
	0.01	0.02	0.09	0.00	0.00	0.00	0.00
Piledriving Hammer	0.01	0.03	0.10	0.00	0.01	0.01	0.00
End Dump Truck	0.01	0.02	0.07	0.00	0.00	0.00	0.00
Tugboat	0.03	0.31	0.85	0.00	0.03	0.03	0.02
	0.00	0.04	0.06	0.00	0.01	0.01	0.00
Truck-Flatbed	0.00	0.01	0.05	0.00	0.00	0.00	0.00
Subtotal	0.08	0.53	1.52	0.00	0.06	0.06	0.06
DRIVE PILES - MISC ACTIVITIES							
Excavator	0.05	0.23	0.76	0.00	0.04	0.04	0.04
Loader-Wheel	0.01	0.05	0.17	0.00	0.01	0.01	0.01
Hydraulic Crane	0.01	0.06	0.20	0.00	0.02	0.02	0.01
Crane - 150 Ton	0.03	0.13	0.45	0.00	0.02	0.02	0.02
Subtotal	0.11	0.47	1.58	0.00	0.09	0.09	0.08
REINFORCED CONCRETE WHARF							
Hydraulic Crane	0.01	0.06	0.20	0.00	0.02	0.02	0.01
Crane - 150 Ton	0.03	0.13	0.45	0.00	0.02	0.02	0.02
Crane Barge - 150 ton	0.03	0.13	0.45	0.00	0.02	0.02	0.02
	0.01	0.14	0.20	0.00	0.02	0.02	0.02
Concrete Pump	0.03	0.13	0.48	0.00	0.03	0.03	0.02
Concrete Trucks	0.07	0.30	1.00	0.00	0.05	0.05	0.05
Sandblaster w/air compressor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck-Flatbed	0.01	0.05	0.18	0.00	0.01	0.01	0.01
Tugboat	0.04	0.41	1.13	0.00	0.03	0.03	0.03
	0.01	0.11	0.15	0.00	0.01	0.01	0.01
Concrete Saw	0.00	0.01	0.02	0.00	0.00	0.00	0.00
Truck Crane - 65 ton	0.02	0.07	0.23	0.00	0.01	0.01	0.01
Boom Truck	0.02	0.07	0.22	0.00	0.01	0.01	0.01
Subtotal	0.30	1.61	4.69	0.01	0.24	0.24	0.22
RETAINING BULKHEAD CONSTRUCTION							
Crane - 100 Ton	0.01	0.04	0.13	0.00	0.01	0.01	0.01
Vibratory Hammer & Power Pack	0.02	0.07	0.25	0.00	0.01	0.01	0.01
Flatbed Truck	0.00	0.01	0.05	0.00	0.00	0.00	0.00
Welding Machine	0.00	0.01	0.02	0.00	0.00	0.00	0.00
Generator	0.00	0.00	0.02	0.00	0.00	0.00	0.00
Subtotal	0.04	0.14	0.47	0.00	0.03	0.03	0.02

Table A.4.1-Alt 1-47. Total Construction Emissions - Construct South Mooring Dolphin - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
DRIVE 24-IN OCTAGONAL PILES - WATER							
Crane - 200 Ton	0.00	0.01	0.02	0.00	0.00	0.00	0.00
Derrick Barge	0.00	0.01	0.02	0.00	0.00	0.00	0.00
	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Piledriving Hammer	0.00	0.00	0.01	0.00	0.00	0.00	0.00
End Dump Truck	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Tugboat	0.00	0.05	0.13	0.00	0.00	0.00	0.00
	0.00	0.01	0.01	0.00	0.00	0.00	0.00
Truck-Flatbed	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Subtotal	0.01	0.08	0.23	0.00	0.01	0.01	0.01

Table A.4.1-Alt 1-48. Total Construction Emissions - Wick Drains - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
WICK DRAINS							
Wick Drain Rig - Excavator Mounted	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Subtotal	0.00	0.01	0.03	0.00	0.00	0.00	0.00

Table A.4.1-Alt 1-49. Total Construction Emissions - Surcharge (Initial Pump, Plus Clamshell or Truck) - POLB Middle Harbor - Alternative

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
ROLL SURCHARGE							
Scrapers	0.04	0.15	0.51	0.00	0.03	0.03	0.02
Dozers	0.00	0.01	0.04	0.00	0.00	0.00	0.00
Loader	0.00	0.01	0.03	0.00	0.00	0.00	0.00
End Dump Truck	0.01	0.03	0.09	0.00	0.00	0.00	0.00
Water Truck	0.00	0.00	0.02	0.00	0.00	0.00	0.00
Subtotal	0.05	0.21	0.68	0.00	0.04	0.04	0.03

Table A.4.1-Alt 1-50. Daily Construction Emissions - Remove Surcharge to Slip 1 Fill Site - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
ROLL SURCHARGE							
Scrapers	0.02	0.08	0.25	0.00	0.01	0.01	0.01
Dozers	0.00	0.01	0.02	0.00	0.00	0.00	0.00
Loader	0.00	0.00	0.02	0.00	0.00	0.00	0.00
End Dump Truck	0.00	0.01	0.05	0.00	0.00	0.00	0.00
Water Truck	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Subtotal	0.02	0.10	0.34	0.00	0.02	0.02	0.02

Table A.4.1-Alt 1-51. Total Construction Emissions - Paving - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
NEW CONTAINER YARD CONSTRUCTION - PAVING							
AC Paver	0.00	0.01	0.06	0.00	0.00	0.00	0.00
Grader	0.00	0.02	0.06	0.00	0.00	0.00	0.00
Roller	0.01	0.04	0.13	0.00	0.01	0.01	0.01
Vibration Roller	0.01	0.04	0.14	0.00	0.01	0.01	0.01
Water Truck	0.00	0.01	0.05	0.00	0.00	0.00	0.00
Road Sweeper	0.00	0.02	0.06	0.00	0.00	0.00	0.00
Subtotal	0.04	0.14	0.49	0.00	0.03	0.03	0.03

Table A.4.1-Alt 1-52. Total Construction Emissions - Construct Retaining Structure at Pier D Oil Area - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
RETAINING BULKHEAD CONSTRUCTION							
Crane - 100 Ton	0.00	0.02	0.06	0.00	0.00	0.00	0.00
Vibratory Hammer & Power Pack	0.01	0.03	0.11	0.00	0.01	0.01	0.01
Flatbed Truck	0.00	0.01	0.02	0.00	0.00	0.00	0.00
Welding Machine	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Generator	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Subtotal	0.02	0.06	0.20	0.00	0.01	0.01	0.01

Table A.4.1-Alt 1-53. Total Construction Emissions - Excavate & Truck Material in Cell Bulkhead - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
LAND EX							
Excavator	0.01	0.04	0.14	0.00	0.01	0.01	0.01
Loader	0.00	0.02	0.07	0.00	0.01	0.01	0.00
End Dump Truck	0.01	0.06	0.18	0.00	0.01	0.01	0.01
Subtotal	0.03	0.12	0.40	0.00	0.02	0.02	0.02

Table A.4.1-Alt 1-54. Total Construction Emissions - Excavate Material Fronting Pier D - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
LAND EX							
Excavator	0.02	0.07	0.23	0.00	0.01	0.01	0.01
Loader	0.01	0.03	0.11	0.00	0.01	0.01	0.01
End Dump Truck	0.02	0.09	0.30	0.00	0.02	0.02	0.01
Subtotal	0.05	0.19	0.64	0.00	0.04	0.04	0.03
CLAMSHELL DREDGING							
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.00	0.02	0.06	0.00	0.00	0.00	0.00
Tug Boat	0.06	0.60	1.64	0.00	0.05	0.05	0.05
	0.01	0.04	0.12	0.00	0.01	0.01	0.01
Work Tug	0.03	0.24	0.65	0.00	0.02	0.02	0.02
	0.01	0.03	0.09	0.00	0.01	0.01	0.01
Crew/Survey Boat	0.03	0.26	1.54	0.10	0.06	0.06	0.06
	0.01	0.16	0.23	0.00	0.02	0.02	0.02
Subtotal	0.16	1.35	4.33	0.10	0.17	0.17	0.16

Table A.4.1-Alt 1-55. Total Construction Emissions - Remove Cellular Sheetpile - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
SHEET PILE BULKHEAD DEMOLITION							
Crane - 100 Ton	0.02	0.07	0.23	0.00	0.01	0.01	0.01
Vibratory Hammer & Power Pack	0.03	0.13	0.42	0.00	0.02	0.02	0.02
Excavator	0.03	0.12	0.39	0.00	0.02	0.02	0.02
Flatbed Truck	0.01	0.02	0.09	0.00	0.00	0.00	0.00
Welding Machine	0.00	0.01	0.04	0.00	0.00	0.00	0.00
Generator	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Subtotal	0.09	0.36	1.20	0.00	0.07	0.07	0.06

Table A.4.1-Alt 1-56. Total Construction Emissions - Rock Revetment - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS							
Derrick Barge	0.02	0.15	0.31	0.00	0.02	0.02	0.02
	0.01	0.03	0.12	0.00	0.01	0.01	0.01
Front End Loader	0.02	0.10	0.32	0.00	0.02	0.02	0.02
Tug Boat	0.02	0.19	0.52	0.00	0.02	0.02	0.01
	0.01	0.03	0.09	0.00	0.01	0.01	0.01
Tug Boat Rock Transport - Within 3 nm	0.08	0.70	1.91	0.00	0.06	0.06	0.05
	0.01	0.05	0.17	0.00	0.01	0.01	0.01
Tug Boat Rock Transport - Beyond 3 nm	0.16	1.48	4.02	0.00	0.12	0.12	0.11
	0.02	0.08	0.27	0.00	0.01	0.01	0.01
Crew/Survey Boat	0.01	0.06	0.38	0.02	0.02	0.02	0.01
	0.00	0.04	0.06	0.00	0.01	0.01	0.00
Subtotal	0.36	2.91	8.16	0.03	0.28	0.28	0.26

Table A.4.1-Alt 1-57. Total Construction Emissions - Hydraulic or Clamshell Dredge to -55 ft - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
CLAMSHELL DREDGING							
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.00	0.00	0.02	0.00	0.00	0.00	0.00
Tug Boat	0.02	0.17	0.45	0.00	0.01	0.01	0.01
	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Work Tug	0.01	0.07	0.18	0.00	0.01	0.01	0.00
	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Crew/Survey Boat	0.01	0.07	0.43	0.03	0.02	0.02	0.02
	0.00	0.05	0.06	0.00	0.01	0.01	0.01
Subtotal	0.04	0.37	1.20	0.03	0.05	0.05	0.04

Table A.4.1-Alt 1-58. Total Construction Emissions - Ground Improvements Pier D - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
STONE COLUMN INSTALLATION EQ							
Stone Column Crane - 100 Ton	0.05	0.22	0.72	0.00	0.04	0.04	0.04
Vibratory Probe & Power Pack	0.09	0.40	1.32	0.00	0.07	0.07	0.06
Auger Crane - 100 Ton	0.02	0.07	0.24	0.00	0.01	0.01	0.01
Auger & Hydraulic Power Pack	0.03	0.13	0.44	0.00	0.02	0.02	0.02
Welding Machine	0.00	0.01	0.04	0.00	0.00	0.00	0.00
Generator	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Excavator	0.01	0.05	0.18	0.00	0.01	0.01	0.01
Loader	0.02	0.11	0.34	0.00	0.03	0.03	0.02
End Dump Truck	0.04	0.16	0.52	0.00	0.03	0.03	0.03
Subtotal	0.28	1.15	3.83	0.01	0.22	0.22	0.20
MARINE ROCK DELIVERY EQ							
Derrick Barge	0.02	0.05	0.32	0.00	0.01	0.01	0.01
Front End Loader	0.01	0.03	0.10	0.00	0.01	0.01	0.00
Tug Boat	0.03	0.28	0.75	0.00	0.02	0.02	0.02
Tug Boat	0.08	0.70	1.89	0.00	0.06	0.06	0.05
Subtotal	0.13	1.06	3.07	0.00	0.09	0.09	0.09

Table A.4.1-Alt 1-59. Total Construction Emissions - Demo - E12-13 Wharf - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
WHARF DEMOLITION LANDSIDE							
Hydra-Crane	0.01	0.05	0.15	0.00	0.01	0.01	0.01
Excavator	0.05	0.20	0.66	0.00	0.04	0.04	0.03
Flatbed Truck	0.01	0.04	0.16	0.00	0.01	0.01	0.01
End Dump Truck	0.07	0.30	1.00	0.00	0.05	0.05	0.05
Subtotal	0.14	0.59	1.97	0.00	0.11	0.11	0.10
WHARF DEMOLITION MARINE							
Derrick Barge	0.05	0.33	0.70	0.00	0.04	0.04	0.03
	0.02	0.07	0.27	0.00	0.01	0.01	0.01
Work Tug	0.03	0.27	0.73	0.00	0.02	0.02	0.02
	0.01	0.06	0.20	0.00	0.02	0.02	0.01
Hydra-Crane	0.01	0.05	0.15	0.00	0.01	0.01	0.01
Excavator	0.05	0.20	0.66	0.00	0.04	0.04	0.03
Flatbed Truck	0.01	0.04	0.16	0.00	0.01	0.01	0.01
End Dump Truck	0.05	0.23	0.75	0.00	0.04	0.04	0.04
Subtotal	0.23	1.25	3.62	0.01	0.18	0.18	0.17

Table A.4.1-Alt 1-60. Total Construction Emissions - Lift #1 (~ -30) - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS							
Derrick Barge	0.01	0.08	0.17	0.00	0.01	0.01	0.01
	0.00	0.02	0.07	0.00	0.00	0.00	0.00
Front End Loader	0.01	0.05	0.18	0.00	0.01	0.01	0.01
Tug Boat	0.01	0.11	0.29	0.00	0.01	0.01	0.01
	0.00	0.02	0.05	0.00	0.00	0.00	0.00
Tug Boat Rock Transport - Within 3 nm	0.04	0.39	1.07	0.00	0.03	0.03	0.03
	0.01	0.03	0.10	0.00	0.01	0.01	0.00
Tug Boat Rock Transport - Beyond 3 nm	0.09	0.83	2.26	0.00	0.07	0.07	0.06
	0.01	0.05	0.15	0.00	0.01	0.01	0.01
Crew/Survey Boat	0.00	0.04	0.21	0.01	0.01	0.01	0.01
	0.00	0.02	0.03	0.00	0.00	0.00	0.00
Subtotal	0.20	1.64	4.59	0.02	0.16	0.16	0.15

Table A.4.1-Alt 1-61. Total Construction Emissions - Lift #2 (~ -15) - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS							
Derrick Barge	0.01	0.05	0.10	0.00	0.01	0.01	0.01
	0.00	0.01	0.04	0.00	0.00	0.00	0.00
Front End Loader	0.01	0.03	0.11	0.00	0.01	0.01	0.01
Tug Boat	0.01	0.06	0.17	0.00	0.01	0.01	0.00
	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Tug Boat Rock Transport - Within 3 nm	0.03	0.23	0.64	0.00	0.02	0.02	0.02
	0.00	0.02	0.06	0.00	0.00	0.00	0.00
Tug Boat Rock Transport - Beyond 3 nm	0.05	0.49	1.34	0.00	0.04	0.04	0.04
	0.01	0.03	0.09	0.00	0.00	0.00	0.00
Crew/Survey Boat	0.00	0.02	0.13	0.01	0.01	0.01	0.00
	0.00	0.01	0.02	0.00	0.00	0.00	0.00
Subtotal	0.12	0.97	2.72	0.01	0.09	0.09	0.09

Table A.4.1-Alt 1-62. Total Construction Emissions - Lift #3 (~ 0) - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS							
Derrick Barge	0.01	0.04	0.09	0.00	0.00	0.00	0.00
	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Front End Loader	0.01	0.03	0.09	0.00	0.01	0.01	0.00
Tug Boat	0.01	0.06	0.15	0.00	0.00	0.00	0.00
	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Tug Boat Rock Transport - Within 3 nm	0.02	0.20	0.56	0.00	0.02	0.02	0.02
	0.00	0.02	0.05	0.00	0.00	0.00	0.00
Tug Boat Rock Transport - Beyond 3 nm	0.05	0.43	1.17	0.00	0.03	0.03	0.03
	0.01	0.02	0.08	0.00	0.00	0.00	0.00
Crew/Survey Boat	0.00	0.02	0.11	0.01	0.00	0.00	0.00
	0.00	0.01	0.02	0.00	0.00	0.00	0.00
Subtotal	0.10	0.85	2.38	0.01	0.08	0.08	0.08

Table A.4.1-Alt 1-63. Total Construction Emissions - Lift #4 (~ +15) - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS							
Derrick Barge	0.01	0.04	0.08	0.00	0.00	0.00	0.00
	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Front End Loader	0.01	0.02	0.08	0.00	0.00	0.00	0.00
Tug Boat	0.01	0.05	0.13	0.00	0.00	0.00	0.00
	0.00	0.01	0.02	0.00	0.00	0.00	0.00
Tug Boat Rock Transport - Within 3 nm	0.02	0.18	0.48	0.00	0.01	0.01	0.01
	0.00	0.01	0.04	0.00	0.00	0.00	0.00
Tug Boat Rock Transport - Beyond 3 nm	0.04	0.37	1.00	0.00	0.03	0.03	0.03
	0.00	0.02	0.07	0.00	0.00	0.00	0.00
Crew/Survey Boat	0.00	0.02	0.09	0.01	0.00	0.00	0.00
	0.00	0.01	0.01	0.00	0.00	0.00	0.00
Subtotal	0.09	0.73	2.04	0.01	0.07	0.07	0.07

Table A.4.1-Alt 1-64. Total Construction Emissions - Initial Surcharge and Wick Drains - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
WICK DRAINS							
Wick Drain Rig - Excavator Mounted	0.00	0.01	0.04	0.00	0.00	0.00	0.00
Subtotal	0.00	0.01	0.04	0.00	0.00	0.00	0.00
ROLL SURCHARGE							
Scrapers	0.05	0.23	0.76	0.00	0.04	0.04	0.04
Dozers	0.00	0.02	0.06	0.00	0.00	0.00	0.00
Loader	0.00	0.01	0.05	0.00	0.00	0.00	0.00
End Dump Truck	0.01	0.04	0.14	0.00	0.01	0.01	0.01
Water Truck	0.00	0.01	0.02	0.00	0.00	0.00	0.00
Subtotal	0.07	0.31	1.03	0.00	0.06	0.06	0.05

Table A.4.1-Alt 1-65. Total Construction Emissions - 2nd Surcharge and Wick Drains - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
WICK DRAINS							
Wick Drain Rig - Excavator Mounted	0.01	0.03	0.10	0.00	0.01	0.01	0.00
Subtotal	0.01	0.03	0.10	0.00	0.01	0.01	0.00
ROLL SURCHARGE							
Scrapers	0.08	0.34	1.14	0.00	0.06	0.06	0.06
Dozers	0.01	0.03	0.09	0.00	0.00	0.00	0.00
Loader	0.00	0.02	0.07	0.00	0.01	0.01	0.00
End Dump Truck	0.01	0.06	0.21	0.00	0.01	0.01	0.01
Water Truck	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Subtotal	0.11	0.46	1.54	0.00	0.08	0.08	0.08

Table A.4.1-Alt 1-66. Total Construction Emissions - 3rd Surcharge and Wick Drains - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
WICK DRAINS							
Wick Drain Rig - Excavator Mounted	0.01	0.03	0.10	0.00	0.01	0.01	0.00
Subtotal	0.01	0.03	0.10	0.00	0.01	0.01	0.00
ROLL SURCHARGE							
Scrapers	0.11	0.46	1.52	0.00	0.08	0.08	0.07
Dozers	0.01	0.04	0.12	0.00	0.01	0.01	0.01
Loader	0.01	0.03	0.09	0.00	0.01	0.01	0.01
End Dump Truck	0.02	0.08	0.28	0.00	0.01	0.01	0.01
Water Truck	0.00	0.01	0.05	0.00	0.00	0.00	0.00
Subtotal	0.15	0.62	2.05	0.00	0.11	0.11	0.10

Table A.4.1-Alt 1-67. Total Construction Emissions - 4th Surcharge and Wick Drains - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
WICK DRAINS							
Wick Drain Rig - Excavator Mounted	0.01	0.03	0.09	0.00	0.00	0.00	0.00
Subtotal	0.01	0.03	0.09	0.00	0.00	0.00	0.00
ROLL SURCHARGE							
Scrapers	0.20	0.86	2.85	0.00	0.15	0.15	0.14
Dozers	0.02	0.07	0.22	0.00	0.01	0.01	0.01
Loader	0.01	0.05	0.17	0.00	0.01	0.01	0.01
End Dump Truck	0.04	0.16	0.52	0.00	0.03	0.03	0.03
Water Truck	0.01	0.03	0.09	0.00	0.00	0.00	0.00
Subtotal	0.27	1.16	3.84	0.01	0.21	0.21	0.19

Table A.4.1-Alt 1-68. Total Construction Emissions - Remove Surcharge - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
ROLL SURCHARGE							
Scrapers	0.16	0.68	2.28	0.00	0.12	0.12	0.11
Dozers	0.01	0.05	0.18	0.00	0.01	0.01	0.01
Loader	0.01	0.04	0.14	0.00	0.01	0.01	0.01
End Dump Truck	0.03	0.12	0.41	0.00	0.02	0.02	0.02
Water Truck	0.00	0.02	0.07	0.00	0.00	0.00	0.00
Subtotal	0.22	0.92	3.08	0.00	0.17	0.17	0.15

Table A.4.1-Alt 1-69. Total Construction Emissions - Container Yard Development - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
NEW CONTAINER YARD UTILITIES							
Pipelayer	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auger	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	0.00	0.00	0.00	0.00
End Dump Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flat Bed Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trencher	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal	0.00						
NEW CONTAINER YARD CONSTRUCTION - PAVING							
AC Paver	0.03	0.11	0.41	0.00	0.02	0.02	0.02
Grader	0.03	0.13	0.47	0.00	0.03	0.03	0.02
Roller	0.07	0.31	1.00	0.00	0.08	0.08	0.07
Vibration Roller	0.07	0.32	1.02	0.00	0.08	0.08	0.07
Water Truck	0.02	0.09	0.35	0.00	0.02	0.02	0.02
Road Sweeper	0.03	0.11	0.42	0.00	0.02	0.02	0.02
Subtotal	0.26	1.07	3.66	0.01	0.25	0.25	0.23

**Table A.1.1-70. Total Conformity-Related Emissions - POLB Middle Harbor Project - Phase 1 - Stage 1
(1 of 3)**

Activity	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
Demolish Existing Facilities							
Wharf Demolition Landside	0.11	0.44	1.48	0.00	0.08	0.08	0.08
Wharf Demolition Marine	0.18	0.93	2.71	0.00	0.14	0.14	0.13
Sheet Pile Bulkhead Demolition	0.11	0.45	1.51	0.00	0.08	0.08	0.08
Construct New Bulkhead							
Retaining Bulkhead Construction	0.01	0.06	0.19	0.00	0.01	0.01	0.01
Excavation Fronting E24							
Clamshell Dredging	0.17	1.45	4.66	0.11	0.18	0.18	0.17
Land Ex	0.08	0.35	1.16	0.00	0.07	0.07	0.06
Construct New Armor Slope							
Rock Placement, Push Off & Tub & Orange Peels	0.18	1.36	3.90	0.03	0.15	0.15	0.14
Wharf Construction							
Drive 24-In Octagonal Piles - Land	0.06	0.25	0.85	0.00	0.05	0.05	0.04
Drive 24-In Octagonal Piles - Water	0.10	0.62	1.79	0.00	0.07	0.07	0.07
Drive Piles - Misc Activities	0.16	0.65	2.19	0.00	0.12	0.12	0.11
Reinforced Concrete Wharf	0.41	2.34	6.86	0.01	0.36	0.36	0.34
Retaining Bulkhead Construction	0.08	0.32	1.08	0.00	0.06	0.06	0.06
Utility Construction							
New Container Yard Utilities	-	-	-	-	-	-	-
Paving							
New Container Yard Construction - Paving	0.01	0.03	0.10	0.00	0.01	0.01	0.01
Lighting, Striping, Crane Power							
New Container Yard Construction - Electrical	-	-	-	-	-	-	-
Prepare for Toe Dike/Construct Dike (1st Lift)							
Rock Placement, Push Off & Tub & Orange Peels	0.45	3.63	10.20	0.04	0.35	0.35	0.33
Fill within Dike							
Clamshell Dredging	0.04	0.37	1.20	0.03	0.05	0.05	0.04
Remaining Dike Lifts							
Rock Placement, Push Off & Tub & Orange Peels	0.45	3.63	10.20	0.04	0.35	0.35	0.33
Remaining Fill Lifts							
Clamshell Dredging	0.14	1.24	3.99	0.09	0.15	0.15	0.14
Wharf Construction							
Drive 24-In Octagonal Piles - Land	0.05	0.21	0.72	0.00	0.04	0.04	0.04
Drive 24-In Octagonal Piles - Water	0.08	0.53	1.52	0.00	0.06	0.06	0.06
Drive Piles - Misc Activities	0.11	0.47	1.58	0.00	0.09	0.09	0.08
Reinforced Concrete Wharf	0.30	1.61	4.69	0.01	0.24	0.24	0.22
Retaining Bulkhead Construction	0.04	0.14	0.47	0.00	0.03	0.03	0.02
Construct South Mooring Dolphin							
Drive 24-In Octagonal Piles - Water	0.01	0.08	0.23	0.00	0.01	0.01	0.01
Wick Drains							
Wick Drains	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Remove Surcharge							
Roll Surcharge	0.05	0.21	0.68	0.00	0.04	0.04	0.03
Remove Surcharge to Slip 1 Fill Site							
Roll Surcharge	0.02	0.10	0.34	0.00	0.02	0.02	0.02
Utility Construction							
New Container Yard Utilities	-	-	-	-	-	-	-

**Table A.1.1-70. Total Conformity-Related Emissions - POLB Middle Harbor Project - Phase 1 - Stage 1
(2 of 3)**

Paving							
New Container Yard Construction - Paving	0.04	0.14	0.49	0.00	0.03	0.03	0.03
Lighting, Fence, Stripine, Crane Power							
New Container Yard Construction - Electrical	-	-	-	-	-	-	-
Construct Retaining Structure at Pier D Oil Area							
Retaining Bulkhead Construction	0.02	0.06	0.20	0.00	0.01	0.01	0.01
Excavate Trucking Material in Cell Bulkhead							
Land Ex	0.03	0.12	0.40	0.00	0.02	0.02	0.02
Excavate Material Fronting Pier D							
Land Ex	0.05	0.19	0.64	0.00	0.04	0.04	0.03
Clamshell Dredging	0.16	1.35	4.33	0.10	0.17	0.17	0.16
Remove Cellular Sheetpile							
Sheet Pile Bulkhead Demolition	0.09	0.36	1.20	0.00	0.07	0.07	0.06
Rock Revetment							
Rock Placement, Push Off & Tub & Orange Peels	0.36	2.91	8.16	0.03	0.28	0.28	0.26
Hydraulic or Clamshell Dredge to -55ft							
Clamshell Dredging	0.04	0.37	1.20	0.03	0.05	0.05	0.04
Ground Improvements Pier D							
Stone Column Installation Eq	0.28	1.15	3.83	0.01	0.22	0.22	0.20
Marine Rock Delivery Eq	0.13	1.06	3.07	0.00	0.09	0.09	0.09
Demo - E12-13 Wharf							
Wharf Demolition Landside	0.14	0.59	1.97	0.00	0.11	0.11	0.10
Wharf Demolition Marine	0.23	1.25	3.62	0.01	0.18	0.18	0.17
Lift #1 (~ -30)							
Rock Placement, Push Off & Tub & Orange Peels	0.20	1.64	4.59	0.02	0.16	0.16	0.15
Lift #2 (~ -15)							
Rock Placement, Push Off & Tub & Orange Peels	0.12	0.97	2.72	0.01	0.09	0.09	0.09
Lift #3 (~ 0)							
Rock Placement, Push Off & Tub & Orange Peels	0.10	0.85	2.38	0.01	0.08	0.08	0.08
Lift #4 (~ +15)							
Rock Placement, Push Off & Tub & Orange Peels	0.09	0.73	2.04	0.01	0.07	0.07	0.07
Initial Surcharge and Wick Drains							
Wick Drains	0.00	0.01	0.04	0.00	0.00	0.00	0.00
Roll Surcharge	0.07	0.31	1.03	0.00	0.06	0.06	0.05
2 nd Surcharge and Wick Drains							
Wick Drains	0.01	0.03	0.10	0.00	0.01	0.01	0.00
Roll Surcharge	0.11	0.46	1.54	0.00	0.08	0.08	0.08
3rd Surcharge and Wick Drains							
Wick Drains	0.01	0.03	0.10	0.00	0.01	0.01	0.00
Roll Surcharge	0.15	0.62	2.05	0.00	0.11	0.11	0.10
4th Surcharge and Wick Drains							
Wick Drains	0.01	0.03	0.09	0.00	0.00	0.00	0.00
Roll Surcharge	0.27	1.16	3.84	0.01	0.21	0.21	0.19
Remove Surcharge							
Roll Surcharge	0.22	0.92	3.08	0.00	0.17	0.17	0.15
Container Yard Development							
New Container Yard Utilities	-	-	-	-	-	-	-
New Container Yard Construction - Paving	0.26	1.07	3.66	0.01	0.25	0.25	0.23
New Container Yard Construction - Electrical	-	-	-	-	-	-	-

**Table A.1.1-70. Total Conformity-Related Emissions - POLB Middle Harbor Project - Phase 1 - Stage 1
(3 of 3)**

Haul off dump trucks for spoil							
Triple Track Installation Demo Eq	-	-	-	-	-	-	-
Triple Track Utility Relocation Eq	-	-	-	-	-	-	-
Triple Track Grading Eq	-	-	-	-	-	-	-
Triple Track Retaining Wall Eq	-	-	-	-	-	-	-
Triple Track Trackwork Eq	-	-	-	-	-	-	-
Triple Track Miscellaneous Eq	-	-	-	-	-	-	-
Vibratory Compactor							
Grading	-	-	-	-	-	-	-
Survey	-	-	-	-	-	-	-
Civil	-	-	-	-	-	-	-
Electrical	-	-	-	-	-	-	-
Transformer Setup	-	-	-	-	-	-	-
Test	-	-	-	-	-	-	-
Paving	-	-	-	-	-	-	-
Fence Installation	-	-	-	-	-	-	-
Overhead Subtransmission Line Construction							
Installation of 160 LWS poles and removal of wood poles	-	-	-	-	-	-	-
Wire Replacement/Attachment and Termination	-	-	-	-	-	-	-
Final Connection of New Lines	-	-	-	-	-	-	-
Other Emissions							
Fugitive Dust	-	-	-	-			
Commuter Emissions	-	-	-	-	-	-	-
Total Emissions	6.59	39.85	120.65	0.63	5.39	5.39	4.99

(1) These data represent 90% control of fugitive dust only.

Table A.4.1-Alt 1-71. Activity Data - Demolish Existing Facilities - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
SHEET PILE BULKHEAD DEMOLITION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	60	69,144
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	60	126,000
Excavator	428	0.57	1	244	8	1,952	60	117,101
Flatbed Truck	230	0.25	1	58	8	460	60	27,600
Welding Machine	26	0.50	1	13	8	104	60	6,240
Generator	13	0.74	1	10	8	77	60	4,618
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	60	26,832
Excavator	428	0.57	1	244	8	1,952	60	117,101
Flatbed Truck	230	0.25	1	58	8	460	60	27,600
End Dump Truck	310	0.30	4	372	8	2,976	60	178,560
WHARF DEMOLITION MARINE								
Derrick Barge	600	0.43	1	258	8	2,064	60	123,840
	200	0.50	1	100	8	800	60	48,000
Work Tug	750	0.20	1	150	8	1,200	60	72,000
	150	0.50	1	75	8	600	60	36,000
Hydra-Crane	130	0.43	1	56	8	447	60	26,832
Excavator	428	0.57	1	244	8	1,952	60	117,101
Flatbed Truck	230	0.25	1	58	8	460	60	27,600
End Dump Truck	310	0.30	3	279	8	2,232	60	133,920

Table A.4.1-Alt 1-72. Activity Data - Construct New Bulkhead - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	9	10,372
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	9	18,900
Flatbed Truck	230	0.25	1	58	8	460	9	4,140
Welding Machine	26	0.45	1	12	8	94	9	842
Generator	13	0.74	1	10	8	77	9	693

Table A.4.1-Alt 1-73. Activity Data - Excavation Fronting E25 and Dispose Slip 1 - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	30	0
	500	0.00	1	0	24	0	30	0
Bottom Dump Scow	250	0.05	1	13	24	300	30	9,000
Tug Boat	2,500	0.30	1	750	6	4,500	30	135,000
	400	0.25	1	100	6	600	30	18,000
Work Tug	750	0.20	1	150	12	1,800	30	54,000
	150	0.25	1	38	12	450	30	13,500
Crew/Survey Boat	400	0.30	1	120	24	2,880	30	86,400
	80	0.50	1	40	24	960	30	28,800

Table A.4.1-A1t 1-74. Activity Data - Construct New Armor Slope - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	60	123,840
	200	0.50	1	100	8	800	60	48,000
Front End Loader	400	0.68	1	272	8	2,176	60	130,560
Tug Boat	1,200	0.20	1	240	8	1,920	60	115,200
	150	0.50	1	75	8	600	60	36,000
Tug Boat Rock Transport - Within 3 nm	2,500	0.20	1	500	4	2,000	60	120,000
	400	0.50	1	200	4	800	60	48,000
Tug Boat Rock Transport - Beyond 3 nm	2,500	0.80	1	2,000	2.3	4,600	60	276,000
	400	0.50	1	200	2.3	460	60	27,600
Crew/Survey Boat	400	0.30	1	120	8	960	60	57,600
	80	0.50	1	40	8	320	60	19,200

Table A.4.1-A1t 1-75. Activity Data - Wharf Construction - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	152	0.43	1	65	8	523	36	19,014
Crane - 200 Ton	335	0.43	1	144	8	1,152	36	41,905
Drill/Power Pack HPSI	270	0.75	1	203	8	1,620	36	58,909
Piledriving Hammer	211	0.50	1	106	8	844	36	30,691
Loader-Wheel	300	0.30	1	90	8	720	36	26,182
Jet Pump	33	0.74	1	24	8	195	36	7,104
End Dump Truck	310	0.25	1	78	8	620	36	22,320
Truck-Flatbed	230	0.25	1	58	8	460	36	16,560
Truck-Lowboy	350	0.25	1	88	8	700	36	25,200
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	335	0.43	1	144	8	1,152	42	48,017
Derrick Barge	380	0.43	1	163	8	1,307	42	54,467
	195	0.50	1	98	8	780	42	32,760
Piledriving Hammer	211	0.50	1	106	8	844	42	35,167
End Dump Truck	310	0.25	1	78	8	620	42	26,040
Tugboat	1,000	0.50	1	500	8	4,000	42	166,667
	100	0.50	1	50	8	400	42	16,800
Truck-Flatbed	230	0.25	1	58	8	460	42	19,320
DRIVE PILES - MISC ACTIVITIES								
Excavator	428	0.57	1	244	8	1,952	175	341,544
Loader-Wheel	180	0.30	1	54	8	432	175	75,600
Hydraulic Crane	152	0.43	1	65	8	523	175	91,504
Crane - 150 Ton	335	0.43	1	144	8	1,152	175	201,670
REINFORCED CONCRETE WHARF								
Hydraulic Crane	152	0.43	1	65	8	523	175	91,504
Crane - 150 Ton	335	0.43	1	144	8	1,152	175	201,670
Crane Barge - 150 ton	335	0.43	1	144	8	1,152	175	201,670
	107	0.50	1	54	8	428	175	74,900
Concrete Pump	210	0.74	1	155	8	1,243	175	217,560
Concrete Trucks	285	0.25	5	321	8	2,565	175	448,875
Sandblaster w/air compressor	50	0.00	1	0	8	0	175	0
Truck-Flatbed	230	0.25	1	58	8	460	175	80,500
Tugboat	1,000	0.20	1	200	8	1,600	175	280,000
	100	0.40	1	40	8	320	175	56,000
Concrete Saw	35	0.10	1	4	8	28	175	4,900
Truck Crane - 65 ton	365	0.20	1	73	8	584	175	102,200
Boom Truck	350	0.20	1	70	8	560	175	98,000

Table A.4.1-A1t 1-76. Activity Data - CY Development - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.40	1	75	8	598	21	12,791
Grader	215	0.40	1	86	8	688	21	14,706
Roller	151	0.40	3	181	8	1,450	21	30,985
Vibration Roller	154	0.40	3	185	8	1,478	21	31,601
Water Truck	210	0.30	1	63	8	504	21	10,773
Road Sweeper	190	0.40	1	76	8	608	21	12,996

Table A.4.1-A1t 1-77. Activity Data - Dredge to -55 ft - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	20	0
	500	0.00	1	0	24	0	20	0
Bottom Dump Scow	250	0.05	1	13	24	300	20	6,000
Tug Boat	2,500	0.30	1	750	6	4,500	20	90,000
	400	0.25	1	100	6	600	20	12,000
Work Tug	750	0.20	1	150	12	1,800	20	36,000
	150	0.25	1	38	12	450	20	9,000
Crew/Survey Boat	400	0.30	1	120	24	2,880	20	57,600
	80	0.50	1	40	24	960	20	19,200

Table A.4.1-Ait 1-78. Total Construction Emissions - Demolish Existing Facilities - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
SHEET PILE BULKHEAD DEMOLITION							
Crane - 100 Ton	0.02	0.06	0.21	0.00	0.01	0.01	0.01
Vibratory Hammer & Power Pack	0.03	0.12	0.39	0.00	0.02	0.02	0.02
Excavator	0.03	0.11	0.36	0.00	0.02	0.02	0.02
Flatbed Truck	0.01	0.02	0.09	0.00	0.00	0.00	0.00
Welding Machine	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Generator	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Subtotal	0.08	0.33	1.11	0.00	0.06	0.06	0.06
WHARF DEMOLITION LANDSIDE							
Hydra-Crane	0.01	0.03	0.08	0.00	0.01	0.01	0.01
Excavator	0.03	0.11	0.36	0.00	0.02	0.02	0.02
Flatbed Truck	0.01	0.02	0.09	0.00	0.00	0.00	0.00
End Dump Truck	0.04	0.17	0.55	0.00	0.03	0.03	0.03
Subtotal	0.08	0.32	1.08	0.00	0.06	0.06	0.06
WHARF DEMOLITION MARINE							
Derrick Barge	0.03	0.18	0.38	0.00	0.02	0.02	0.02
	0.01	0.04	0.15	0.00	0.01	0.01	0.01
Work Tug	0.02	0.15	0.40	0.00	0.01	0.01	0.01
	0.01	0.03	0.11	0.00	0.01	0.01	0.01
Hydra-Crane	0.01	0.03	0.08	0.00	0.01	0.01	0.01
Excavator	0.03	0.11	0.36	0.00	0.02	0.02	0.02
Flatbed Truck	0.01	0.02	0.09	0.00	0.00	0.00	0.00
End Dump Truck	0.03	0.12	0.41	0.00	0.02	0.02	0.02
Subtotal	0.13	0.68	1.99	0.00	0.10	0.10	0.09

Table A.4.1-Ait 1-79. Total Construction Emissions - Construct New Bulkhead - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
RETAINING BULKHEAD CONSTRUCTION							
Crane - 100 Ton	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Vibratory Hammer & Power Pack	0.00	0.02	0.06	0.00	0.00	0.00	0.00
Flatbed Truck	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Welding Machine	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal	0.01	0.03	0.11	0.00	0.01	0.01	0.01

Table A.4.1-Alt 1-80. Total Construction Emissions -Excavation Fronting E25 and Dispose Slip 1 - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
CLAMSHELL DREDGING							
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Tug Boat	0.03	0.28	0.76	0.00	0.02	0.02	0.02
	0.00	0.02	0.06	0.00	0.00	0.00	0.00
Work Tug	0.01	0.11	0.30	0.00	0.01	0.01	0.01
	0.00	0.01	0.04	0.00	0.00	0.00	0.00
Crew/Survey Boat	0.02	0.12	0.71	0.04	0.03	0.03	0.03
	0.01	0.08	0.10	0.00	0.01	0.01	0.01
Subtotal	0.07	0.62	2.00	0.05	0.08	0.08	0.07

Table A.4.1-Alt 1-81. Total Construction Emissions - Construct New Armor Slope - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS							
Derrick Barge	0.03	0.18	0.38	0.00	0.02	0.02	0.02
	0.01	0.04	0.15	0.00	0.01	0.01	0.01
Front End Loader	0.03	0.12	0.40	0.00	0.02	0.02	0.02
Tug Boat	0.03	0.24	0.64	0.00	0.02	0.02	0.02
	0.01	0.03	0.11	0.00	0.01	0.01	0.01
Tug Boat Rock Transport - Within 3 nm	0.03	0.25	0.67	0.00	0.02	0.02	0.02
	0.01	0.04	0.15	0.00	0.01	0.01	0.01
Tug Boat Rock Transport - Beyond 3 nm	0.06	0.57	1.54	0.00	0.05	0.05	0.04
	0.01	0.03	0.09	0.00	0.00	0.00	0.00
Crew/Survey Boat	0.01	0.08	0.47	0.03	0.02	0.02	0.02
	0.00	0.05	0.07	0.00	0.01	0.01	0.01
Subtotal	0.22	1.63	4.68	0.03	0.18	0.18	0.17

Table A.4.1-Alt 1-82. Total Construction Emissions - Wharf Construction - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
DRIVE 24-IN OCTAGONAL PILES - LAND							
Hydraulic Crane	0.00	0.02	0.06	0.00	0.00	0.00	0.00
Crane - 200 Ton	0.01	0.04	0.13	0.00	0.01	0.01	0.01
Drill/Power Pack HPSI	0.01	0.05	0.18	0.00	0.01	0.01	0.01
Piledriving Hammer	0.01	0.03	0.09	0.00	0.01	0.01	0.00
Loader-Wheel	0.01	0.02	0.08	0.00	0.00	0.00	0.00
Jet Pump	0.00	0.01	0.04	0.00	0.00	0.00	0.00
End Dump Truck	0.00	0.02	0.07	0.00	0.00	0.00	0.00
Truck-Flatbed	0.00	0.01	0.05	0.00	0.00	0.00	0.00
Truck-Lowboy	0.01	0.02	0.08	0.00	0.00	0.00	0.00
Subtotal	0.06	0.23	0.78	0.00	0.04	0.04	0.04
DRIVE 24-IN OCTAGONAL PILES - WATER							
Crane - 200 Ton	0.01	0.04	0.15	0.00	0.01	0.01	0.01
Derrick Barge	0.01	0.05	0.17	0.00	0.01	0.01	0.01
	0.01	0.03	0.10	0.00	0.01	0.01	0.00
Piledriving Hammer	0.01	0.03	0.11	0.00	0.01	0.01	0.01
End Dump Truck	0.01	0.02	0.08	0.00	0.00	0.00	0.00
Tugboat	0.04	0.34	0.93	0.00	0.03	0.03	0.03
	0.00	0.04	0.06	0.00	0.01	0.01	0.01
Truck-Flatbed	0.00	0.02	0.06	0.00	0.00	0.00	0.00
Subtotal	0.09	0.58	1.66	0.00	0.07	0.07	0.06
DRIVE PILES - MISC ACTIVITIES							
Excavator	0.08	0.32	1.05	0.00	0.06	0.06	0.05
Loader-Wheel	0.02	0.06	0.23	0.00	0.01	0.01	0.01
Hydraulic Crane	0.02	0.09	0.28	0.00	0.02	0.02	0.02
Crane - 150 Ton	0.04	0.19	0.62	0.00	0.03	0.03	0.03
Subtotal	0.16	0.65	2.19	0.00	0.12	0.12	0.11
REINFORCED CONCRETE WHARF							
Hydraulic Crane	0.02	0.09	0.28	0.00	0.02	0.02	0.02
Crane - 150 Ton	0.04	0.19	0.62	0.00	0.03	0.03	0.03
Crane Barge - 150 ton	0.04	0.19	0.62	0.00	0.03	0.03	0.03
	0.02	0.20	0.27	0.00	0.02	0.02	0.02
Concrete Pump	0.05	0.18	0.67	0.00	0.04	0.04	0.03
Concrete Trucks	0.10	0.42	1.39	0.00	0.07	0.07	0.07
Sandblaster w/air compressor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck-Flatbed	0.02	0.07	0.25	0.00	0.01	0.01	0.01
Tugboat	0.06	0.58	1.57	0.00	0.05	0.05	0.04
	0.01	0.15	0.20	0.00	0.02	0.02	0.02
Concrete Saw	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Truck Crane - 65 ton	0.02	0.09	0.32	0.00	0.02	0.02	0.02
Boom Truck	0.02	0.09	0.30	0.00	0.02	0.02	0.01
Subtotal	0.41	2.23	6.52	0.01	0.34	0.34	0.31

Table A.4.1-Alt 1-83. Total Construction Emissions - DCY Development - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
NEW CONTAINER YARD CONSTRUCTION - PAVING							
AC Paver	0.00	0.01	0.04	0.00	0.00	0.00	0.00
Grader	0.00	0.01	0.05	0.00	0.00	0.00	0.00
Roller	0.01	0.03	0.10	0.00	0.01	0.01	0.01
Vibration Roller	0.01	0.03	0.10	0.00	0.01	0.01	0.01
Water Truck	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Road Sweeper	0.00	0.01	0.04	0.00	0.00	0.00	0.00
Subtotal	0.03	0.10	0.35	0.00	0.02	0.02	0.02

Table A.4.1-Alt 1-84. Total Construction Emissions - Dredge to -55 ft - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
CLAMSHELL DREDGING							
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.00	0.00	0.02	0.00	0.00	0.00	0.00
Tug Boat	0.02	0.19	0.50	0.00	0.01	0.01	0.01
	0.00	0.01	0.04	0.00	0.00	0.00	0.00
Work Tug	0.01	0.07	0.20	0.00	0.01	0.01	0.01
	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Crew/Survey Boat	0.01	0.08	0.47	0.03	0.02	0.02	0.02
	0.00	0.05	0.07	0.00	0.01	0.01	0.01
Subtotal	0.05	0.41	1.33	0.03	0.05	0.05	0.05

Table A.4.1-Alt 1-85. Total Construction Emissions - POLB Middle Harbor Project - Phase 1 - Stage 2

Activity	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
Demolish Existing Facilities							
Sheet Pile Bulkhead Demolition	0	0	1	0	0	0	0
Wharf Demolition Landside	0	0	1	0	0	0	0
Wharf Demolition Marine	0	1	2	0	0	0	0
Construct New Bulkhead (Install Transition Bulkhead)							
Retaining Bulkhead Construction	0	0	0	0	0	0	0
Excavation Fronting E25 and Dispose Slip 1							
Clamshell Dredging	0	1	2	0	0	0	0
Construct New Armor Slope							
Rock Placement, Push Off & Tub & Orange Peels	0	2	5	0	0	0	0
Wharf Construction							
Drive 24-In Octagonal Piles - Land	0	0	1	0	0	0	0
Drive 24-In Octagonal Piles - Water	0	1	2	0	0	0	0
Drive Piles - Misc Activities	0	1	2	0	0	0	0
Reinforced Concrete Wharf	0	2	7	0	0	0	0
CY Development							
New Container Yard Construction - Paving	0	0	0	0	0	0	0
Dredge to -55 ft							
Clamshell Dredging	0	0	1	0	0	0	0
Other Peak Daily Emissions							
Fugitive Emissions	-	-	-	-			
Commuter Emissions	0	0	0	0	0	0	0
Dredging Activities							
Dredging Activities	0	1	3	0	0	0	0
Peak Daily Emissions	0	2	6	0			
Mitigated Peak Daily Emissions (1)	0	2	6	0			
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55

Table A.4.1-A1t 1-86. Activity Data - Demolish Existing Facilities - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	120	53,664
Excavator	428	0.57	1	244	8	1,952	120	234,202
Flatbed Truck	230	0.25	1	58	8	460	120	55,200
End Dump Truck	310	0.30	4	372	8	2,976	120	357,120
WHARF DEMOLITION MARINE								
Derrick Barge	600	0.43	1	258	8	2,064	120	247,680
	200	0.50	1	100	8	800	120	96,000
Work Tug	750	0.20	1	150	8	1,200	120	144,000
	150	0.50	1	75	8	600	120	72,000
Hydra-Crane	130	0.43	1	56	8	447	120	53,664
Excavator	428	0.57	1	244	8	1,952	120	234,202
Flatbed Truck	230	0.25	1	58	8	460	120	55,200
End Dump Truck	310	0.30	3	279	8	2,232	120	267,840
SHEET PILE BULKHEAD DEMOLITION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	120	138,288
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	120	252,000
Excavator	428	0.57	1	244	8	1,952	120	234,202
Flatbed Truck	230	0.25	1	58	8	460	120	55,200
Welding Machine	26	0.50	1	13	8	104	120	12,480
Generator	13	0.74	1	10	8	77	120	9,235

Table A.4.1-A1t 1-87. Activity Data - Construct New Bulkhead - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	12	13,829
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	12	25,200
Flatbed Truck	230	0.25	1	58	8	460	12	5,520
Welding Machine	26	0.45	1	12	8	94	12	1,123
Generator	13	0.74	1	10	8	77	12	924

Table A.4.1-A1t 1-88. Activity Data - Excavation Fronting E26 and Dispose Slip 1 - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	27	0
	500	0.00	1	0	24	0	27	0
Bottom Dump Scow	250	0.05	1	13	24	300	27	8,100
Tug Boat	2,500	0.30	1	750	6	4,500	27	121,500
	400	0.25	1	100	6	600	27	16,200
Work Tug	750	0.20	1	150	12	1,800	27	48,600
	150	0.25	1	38	12	450	27	12,150
Crew/Survey Boat	400	0.30	1	120	24	2,880	27	77,760
	80	0.50	1	40	24	960	27	25,920

Table A.4.1-A1t 1-89. Activity Data - Construct New Armor Slope - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	90	185,760
	200	0.50	1	100	8	800	90	72,000
Front End Loader	400	0.68	1	272	8	2,176	90	195,840
Tug Boat	1,200	0.20	1	240	8	1,920	90	172,800
	150	0.50	1	75	8	600	90	54,000
Tug Boat Rock Transport - Within 3 nm	2,500	0.49	1	1,225	6	7,105	90	639,450
	400	0.50	1	200	6	1,160	90	104,400
Tug Boat Rock Transport - Beyond 3 nm	2,500	0.73	1	1,825	8.2	14,965	90	1,346,850
	400	0.50	1	200	9.2	1,840	90	165,600
Crew/Survey Boat	400	0.30	1	120	8	960	90	86,400
	80	0.50	1	40	8	320	90	28,800

Table A.4.1-A1t 1-90. Activity Data - Wharf Construction - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	152	0.43	1	65	8	523	67	34,859
Crane - 200 Ton	335	0.43	1	144	8	1,152	67	76,827
Drill/Power Pack HPSI	270	0.75	1	203	8	1,620	67	108,000
Piledriving Hammer	211	0.50	1	106	8	844	67	56,267
Loader-Wheel	300	0.30	1	90	8	720	67	48,000
Jet Pump	33	0.74	1	24	8	195	67	13,024
End Dump Truck	310	0.25	1	78	8	620	67	41,540
Truck-Flatbed	230	0.25	1	58	8	460	67	30,820
Truck-Lowboy	350	0.25	1	88	8	700	67	46,900
DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	335	0.43	1	144	8	1,152	76	88,031
Derrick Barge	380	0.43	1	163	8	1,307	76	99,856
	195	0.50	1	98	8	780	76	59,280
Piledriving Hammer	211	0.50	1	106	8	844	76	64,472
End Dump Truck	310	0.25	1	78	8	620	76	47,120
Tugboat	1,000	0.50	1	500	8	4,000	76	305,556
	100	0.50	1	50	8	400	76	30,400
Truck-Flatbed	230	0.25	1	58	8	460	76	34,960
DRIVE PILES - MISC ACTIVITIES								
Excavator	428	0.57	1	244	8	1,952	245	478,162
Loader-Wheel	180	0.30	1	54	8	432	245	105,840
Hydraulic Crane	152	0.43	1	65	8	523	245	128,106
Crane - 150 Ton	335	0.43	1	144	8	1,152	245	282,338
REINFORCED CONCRETE WHARF								
Hydraulic Crane	152	0.43	1	65	8	523	245	128,106
Crane - 150 Ton	335	0.43	1	144	8	1,152	245	282,338
Crane Barge - 150 ton	335	0.43	1	144	8	1,152	245	282,338
	107	0.50	1	54	8	428	245	104,860
Concrete Pump	210	0.74	1	155	8	1,243	245	304,584
Concrete Trucks	285	0.25	5	321	8	2,565	245	628,425
Sandblaster w/air compressor	50	0.00	1	0	8	0	245	0
Truck-Flatbed	230	0.25	1	58	8	460	245	112,700
Tugboat	1,000	0.20	1	200	8	1,600	245	392,000
	100	0.40	1	40	8	320	245	78,400
Concrete Saw	35	0.10	1	4	8	28	245	6,860
Truck Crane - 65 ton	365	0.20	1	73	8	584	245	143,080
Boom Truck	350	0.20	1	70	8	560	245	137,200

Table A.4.1-A1t 1-91. Activity Data - Construct E27 Bulkhead - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	40	46,096
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	40	84,000
Flatbed Truck	230	0.25	1	58	8	460	40	18,400
Welding Machine	26	0.45	1	12	8	94	40	3,744
Generator	13	0.74	1	10	8	77	40	3,078

Table A.4.1-A1t 1-92. Activity Data - CY Development - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200		0
Auger	125	0.50	1	63	8	500		0
Crane	130	0.43	1	56	8	447		0
Grader	215	0.61	3	393	8	3,148		0
End Dump Truck	310	0.25	1	78	8	620		0
Flat Bed Truck	230	0.25	2	115	8	920		0
Concrete Truck	250	0.60	4	600	8	4,800		0
Front End Loader	400	0.40	2	320	8	2,560		0
Trencher	200	0.20	1	40	8	320		0
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.40	1	75	8	598	105	62,832
Grader	215	0.40	1	86	8	688	105	72,240
Roller	151	0.40	3	181	8	1,450	105	152,208
Vibration Roller	154	0.40	3	185	8	1,478	105	155,232
Water Truck	210	0.30	1	63	8	504	105	52,920
Road Sweeper	190	0.40	1	76	8	608	105	63,840
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.25	1	58	8	460		0
Truck Crane	130	0.20	1	26	8	208		0
Auger	125	0.50	1	63	8	500		0

Table A.4.1-A1t 1-93. Activity Data - Hydraulic Dredging to -55ft - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	30	0
	500	0.00	1	0	24	0	30	0
Bottom Dump Scow	250	0.05	1	13	24	300	30	9,000
Tug Boat	2,500	0.30	1	750	6	4,500	30	135,000
	400	0.25	1	100	6	600	30	18,000
Work Tug	750	0.20	1	150	12	1,800	30	54,000
	150	0.25	1	38	12	450	30	13,500
Crew/Survey Boat	400	0.30	1	120	24	2,880	30	86,400
	80	0.50	1	40	24	960	30	28,800

Table A.4.1-Alt 1-94. Total Construction Emissions - Demolish Existing Facilities - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
WHARF DEMOLITION LANDSIDE							
Hydra-Crane	0.01	0.05	0.17	0.00	0.01	0.01	0.01
Excavator	0.05	0.22	0.72	0.00	0.04	0.04	0.04
Flatbed Truck	0.01	0.05	0.17	0.00	0.01	0.01	0.01
End Dump Truck	0.08	0.33	1.10	0.00	0.06	0.06	0.05
Subtotal	0.15	0.64	2.16	0.00	0.12	0.12	0.11
WHARF DEMOLITION MARINE							
Derrick Barge	0.05	0.36	0.76	0.00	0.04	0.04	0.04
	0.02	0.08	0.30	0.00	0.02	0.02	0.01
Work Tug	0.03	0.30	0.81	0.00	0.02	0.02	0.02
	0.02	0.07	0.22	0.00	0.02	0.02	0.02
Hydra-Crane	0.01	0.05	0.17	0.00	0.01	0.01	0.01
Excavator	0.05	0.22	0.72	0.00	0.04	0.04	0.04
Flatbed Truck	0.01	0.05	0.17	0.00	0.01	0.01	0.01
End Dump Truck	0.06	0.25	0.83	0.00	0.04	0.04	0.04
Subtotal	0.26	1.37	3.97	0.01	0.20	0.20	0.19
SHEET PILE BULKHEAD DEMOLITION							
Crane - 100 Ton	0.03	0.13	0.43	0.00	0.02	0.02	0.02
Vibratory Hammer & Power Pack	0.06	0.23	0.78	0.00	0.04	0.04	0.04
Excavator	0.05	0.22	0.72	0.00	0.04	0.04	0.04
Flatbed Truck	0.01	0.05	0.17	0.00	0.01	0.01	0.01
Welding Machine	0.01	0.02	0.07	0.00	0.01	0.01	0.01
Generator	0.01	0.02	0.05	0.00	0.00	0.00	0.00
Subtotal	0.16	0.66	2.22	0.00	0.12	0.12	0.11

Table A.4.1-Alt 1-95. Total Construction Emissions - Construct New Bulkhead - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
RETAINING BULKHEAD CONSTRUCTION							
Crane - 100 Ton	0.00	0.01	0.04	0.00	0.00	0.00	0.00
Vibratory Hammer & Power Pack	0.01	0.02	0.08	0.00	0.00	0.00	0.00
Flatbed Truck	0.00	0.00	0.02	0.00	0.00	0.00	0.00
Welding Machine	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Generator	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Subtotal	0.01	0.04	0.15	0.00	0.01	0.01	0.01

Table A.4.1-Alt 1-96. Total Construction Emissions - Excavation Fronting E26 and Dispose Slip 1 - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
CLAMSHELL DREDGING							
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Tug Boat	0.03	0.25	0.68	0.00	0.02	0.02	0.02
	0.00	0.02	0.05	0.00	0.00	0.00	0.00
Work Tug	0.01	0.10	0.27	0.00	0.01	0.01	0.01
	0.00	0.01	0.04	0.00	0.00	0.00	0.00
Crew/Survey Boat	0.01	0.11	0.64	0.04	0.03	0.03	0.02
	0.01	0.07	0.09	0.00	0.01	0.01	0.01
Subtotal	0.07	0.56	1.80	0.04	0.07	0.07	0.06

Table A.4.1-Alt 1-97. Total Construction Emissions - Construct New Armor Slope - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS							
Derrick Barge	0.04	0.27	0.57	0.00	0.03	0.03	0.03
	0.02	0.06	0.22	0.00	0.01	0.01	0.01
Front End Loader	0.04	0.18	0.60	0.00	0.03	0.03	0.03
Tug Boat	0.04	0.36	0.97	0.00	0.03	0.03	0.03
	0.01	0.05	0.17	0.00	0.01	0.01	0.01
Tug Boat Rock Transport - Within 3 nm	0.14	1.32	3.58	0.00	0.11	0.11	0.10
	0.02	0.10	0.32	0.00	0.02	0.02	0.02
Tug Boat Rock Transport - Beyond 3 nm	0.30	2.77	7.53	0.01	0.22	0.22	0.21
	0.04	0.15	0.51	0.00	0.03	0.03	0.03
Crew/Survey Boat	0.02	0.12	0.71	0.04	0.03	0.03	0.03
	0.01	0.08	0.10	0.00	0.01	0.01	0.01
Subtotal	0.67	5.45	15.29	0.06	0.53	0.53	0.49

Table A.4.1-Alt 1-98. Total Construction Emissions - Wharf Construction - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
DRIVE 24-IN OCTAGONAL PILES - LAND							
Hydraulic Crane	0.01	0.03	0.11	0.00	0.01	0.01	0.01
Crane - 200 Ton	0.02	0.07	0.24	0.00	0.01	0.01	0.01
Drill/Power Pack HPSI	0.02	0.10	0.33	0.00	0.02	0.02	0.02
Piledriving Hammer	0.01	0.05	0.17	0.00	0.01	0.01	0.01
Loader-Wheel	0.01	0.04	0.15	0.00	0.01	0.01	0.01
Jet Pump	0.01	0.02	0.07	0.00	0.01	0.01	0.01
End Dump Truck	0.01	0.04	0.13	0.00	0.01	0.01	0.01
Truck-Flatbed	0.01	0.03	0.10	0.00	0.01	0.01	0.00
Truck-Lowboy	0.01	0.04	0.14	0.00	0.01	0.01	0.01
Subtotal	0.11	0.42	1.44	0.00	0.08	0.08	0.08
DRIVE 24-IN OCTAGONAL PILES - WATER							
Crane - 200 Ton	0.02	0.08	0.27	0.00	0.01	0.01	0.01
Derrick Barge	0.02	0.09	0.31	0.00	0.02	0.02	0.02
	0.01	0.05	0.18	0.00	0.01	0.01	0.01
Piledriving Hammer	0.01	0.05	0.20	0.00	0.01	0.01	0.01
End Dump Truck	0.01	0.04	0.15	0.00	0.01	0.01	0.01
Tugboat	0.07	0.63	1.71	0.00	0.05	0.05	0.05
	0.01	0.08	0.11	0.00	0.01	0.01	0.01
Truck-Flatbed	0.01	0.03	0.11	0.00	0.01	0.01	0.01
Subtotal	0.16	1.06	3.03	0.00	0.13	0.13	0.12
DRIVE PILES - MISC ACTIVITIES							
Excavator	0.11	0.44	1.48	0.00	0.08	0.08	0.07
Loader-Wheel	0.02	0.09	0.33	0.00	0.02	0.02	0.02
Hydraulic Crane	0.03	0.12	0.40	0.00	0.03	0.03	0.03
Crane - 150 Ton	0.06	0.26	0.87	0.00	0.05	0.05	0.04
Subtotal	0.22	0.91	3.07	0.00	0.17	0.17	0.16
REINFORCED CONCRETE WHARF							
Hydraulic Crane	0.03	0.12	0.40	0.00	0.03	0.03	0.03
Crane - 150 Ton	0.06	0.26	0.87	0.00	0.05	0.05	0.04
Crane Barge - 150 ton	0.06	0.26	0.87	0.00	0.05	0.05	0.04
	0.02	0.27	0.38	0.00	0.03	0.03	0.03
Concrete Pump	0.07	0.25	0.94	0.00	0.05	0.05	0.05
Concrete Trucks	0.14	0.58	1.94	0.00	0.10	0.10	0.10
Sandblaster w/air compressor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck-Flatbed	0.02	0.09	0.35	0.00	0.02	0.02	0.02
Tugboat	0.09	0.81	2.19	0.00	0.06	0.06	0.06
	0.02	0.20	0.29	0.00	0.03	0.03	0.02
Concrete Saw	0.00	0.01	0.04	0.00	0.00	0.00	0.00
Truck Crane - 65 ton	0.03	0.13	0.44	0.00	0.02	0.02	0.02
Boom Truck	0.03	0.13	0.42	0.00	0.02	0.02	0.02
Subtotal	0.58	3.13	9.13	0.01	0.47	0.47	0.44

Table A.4.1-Alt 1-99. Total Construction Emissions - Construct E27 Bulkhead - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
RETAINING BULKHEAD CONSTRUCTION							
Crane - 100 Ton	0.01	0.04	0.14	0.00	0.01	0.01	0.01
Vibratory Hammer & Power Pack	0.02	0.08	0.26	0.00	0.01	0.01	0.01
Flatbed Truck	0.00	0.02	0.06	0.00	0.00	0.00	0.00
Welding Machine	0.00	0.01	0.02	0.00	0.00	0.00	0.00
Generator	0.00	0.01	0.02	0.00	0.00	0.00	0.00
Subtotal	0.04	0.15	0.50	0.00	0.03	0.03	0.03

Table A.4.1-Alt 1-100. Total Construction Emissions - CY Development - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
NEW CONTAINER YARD UTILITIES							
Pipelayer	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auger	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	0.00	0.00	0.00	0.00
End Dump Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flat Bed Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trencher	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal	0.00						
NEW CONTAINER YARD CONSTRUCTION - PAVING							
AC Paver	0.01	0.05	0.19	0.00	0.01	0.01	0.01
Grader	0.02	0.06	0.22	0.00	0.01	0.01	0.01
Roller	0.03	0.15	0.47	0.00	0.04	0.04	0.03
Vibration Roller	0.03	0.15	0.48	0.00	0.04	0.04	0.03
Water Truck	0.01	0.04	0.16	0.00	0.01	0.01	0.01
Road Sweeper	0.01	0.05	0.20	0.00	0.01	0.01	0.01
Subtotal	0.12	0.50	1.73	0.00	0.12	0.12	0.11
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL							
Flat Bed Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck Crane	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auger	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal	0.00						

Table A.4.1-Alt 1-101. Total Construction Emissions - Hydraulic Dredging to -55ft - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
CLAMSHELL DREDGING							
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Tug Boat	0.03	0.28	0.76	0.00	0.02	0.02	0.02
	0.00	0.02	0.06	0.00	0.00	0.00	0.00
Work Tug	0.01	0.11	0.30	0.00	0.01	0.01	0.01
	0.00	0.04	0.05	0.00	0.00	0.00	0.00
Crew/Survey Boat	0.02	0.12	0.71	0.04	0.03	0.03	0.03
	0.01	0.08	0.10	0.00	0.01	0.01	0.01
Subtotal	0.07	0.64	2.00	0.05	0.08	0.08	0.07

Table A.4.1-Alt 1-102. Total Emissions - POLB Middle Harbor Project - Phase 1 - Stage 3

Activity	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
Demolish Existing Facilities							
Wharf Demolition Landside	0	1	2	0	0	0	0
Wharf Demolition Marine	0	1	4	0	0	0	0
Sheet Pile Bulkhead Demolition	0	1	2	0	0	0	0
Construct New Bulkhead							
Retaining Bulkhead Construction	0	0	0	0	0	0	0
Excavation Fronting E26 and Dispose Slip 1							
Clamshell Dredging	0	1	2	0	0	0	0
Construct New Armor Slope							
Rock Placement, Push Off & Tub & Orange Peels	1	5	15	0	1	1	0
Wharf Construction							
Drive 24-In Octagonal Piles - Land	0	0	1	0	0	0	0
Drive 24-In Octagonal Piles - Water	0	1	3	0	0	0	0
Drive Piles - Misc Activities	0	1	3	0	0	0	0
Reinforced Concrete Wharf	1	3	9	0	0	0	0
Construct E27 Bulkhead							
Retaining Bulkhead Construction	0	0	0	0	0	0	0
CY Development							
Vibratory Hammer & Power Pack	0	0	0	0	0	0	0
Flatbed Truck	0	1	2	0	0	0	0
Welding Machine	0	0	0	0	0	0	0
Hydraulic Dredge to -55ft							
Clamshell Dredging	0	1	2	0	0	0	0
Other Peak Daily Emissions							
Fugitive Dust	-	-	-	-			
Commuter Emissions	0	0	0	0	0	0	0
Dredging Activities							
Dredging Activities	0	1	4	0	0	0	0
Peak Daily Emissions	1	6	19	0			
Mitigated Peak Daily Emissions	1	6	19	0			
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55

(1) These data represent 90% control of fugitive dust only.

Table A.4.1-Alt 1-103. Activity Data - Demolition - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	140	62,608
Excavator	428	0.57	1	244	8	1,952	140	273,235
Flatbed Truck	230	0.25	1	58	8	460	140	64,400
End Dump Truck	310	0.30	4	372	8	2,976	140	416,640

Table A.4.1-Alt 1-104. Activity Data - Railyard Construction - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
INTERMODAL YARD CONSTRUCTION								
Backhoe	102	0.40	1	41	8	326		
Excavator	428	0.40	1	171	8	1,370		
Ballast Spreader	100	0.40	1	40	8	320		
Ballast Tamper	100	0.40	1	40	8	320		
Generator Set	23	0.74	2	34	8	272		
Roller	151	0.40	1	60	8	483		
Grader	215	0.40	1	86	8	688		
Truck Mounted Crane	130	0.30	1	39	8	312		
Forklift	103	0.30	1	31	8	247		
Flatbed Truck	230	0.25	2	115	8	920		
End Dump Truck	310	0.25	2	155	8	1,240		
Water Truck	210	0.25	1	53	8	420		

Table A.4.1-Alt 1-105. Activity Data - Container Yard Development (F1 - F4) - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200		0
Auger	125	0.50	1	63	8	500		0
Crane	130	0.43	1	56	8	447		0
Grader	215	0.61	3	393	8	3,148		0
End Dump Truck	310	0.25	1	78	8	620		0
Flat Bed Truck	230	0.25	2	115	8	920		0
Concrete Truck	250	0.60	4	600	8	4,800		0
Front End Loader	400	0.40	2	320	8	2,560		0
Trencher	200	0.20	1	40	8	320		0
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.40	1	75	8	598	112	67,021
Grader	215	0.40	1	86	8	688	112	77,056
Roller	151	0.40	3	181	8	1,450	112	162,355
Vibration Roller	154	0.40	3	185	8	1,478	112	165,581
Water Truck	210	0.30	1	63	8	504	112	56,448
Road Sweeper	190	0.40	1	76	8	608	112	68,096
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.25	1	58	8	460	112	
Truck Crane	130	0.20	1	26	8	208	112	
Auger	125	0.50	1	63	8	500	112	

Table A.4.1-Alt 1-106. Activity Data - Demo Existing F1 -4, F6 Wharf - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	182	81,390
Excavator	428	0.57	1	244	8	1,952	182	355,206
Flatbed Truck	230	0.25	1	58	8	460	182	83,720
End Dump Truck	310	0.30	4	372	8	2,976	182	541,632
WHARF DEMOLITION MARINE								
Derrick Barge	600	0.43	1	258	8	2,064	182	375,648
	200	0.50	1	100	8	800	182	145,600
Work Tug	750	0.20	1	150	8	1,200	182	218,400
	150	0.50	1	75	8	600	182	109,200
Hydra-Crane	130	0.43	1	56	8	447	182	81,390
Excavator	428	0.57	1	244	8	1,952	182	355,206
Flatbed Truck	230	0.25	1	58	8	460	182	83,720
End Dump Truck	310	0.30	3	279	8	2,232	182	406,224

Table A.4.1-Alt 1-107. Activity Data - Construct East Basain Retaining Dike - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	90	185,760
	200	0.50	1	100	8	800	90	72,000
Front End Loader	400	0.68	1	272	8	2,176	90	195,840
Tug Boat	1,200	0.20	1	240	8	1,920	90	172,800
	150	0.50	1	75	8	600	90	54,000
Tug Boat Rock Transport - Within 3 nm	2,500	0.49	1	1,225	6	7,105	90	639,450
	400	0.50	1	200	6	1,160	90	104,400
Tug Boat Rock Transport - Beyond 3 nm	2,500	0.73	1	1,825	8.2	14,965	90	1,346,850
	400	0.50	1	200	9.2	1,840	90	165,600
Crew/Survey Boat	400	0.30	1	120	8	960	90	86,400
	80	0.50	1	40	8	320	90	28,800

Table A.4.1-Alt 1-108. Activity Data -Slip/Basin Fill & Surcharge East- POLB Middle Harbor - Alternative 1

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
CUTTER SUCTION DREDGING- Spill Barge (no booster)								
Cutter Suction Dredge	8,400	0.00	1	0	24	0	34	0
	4,800	0.00	1	0	24	0	34	0
Work Tug	750	0.25	2	375	12	4,500	34	154,350
	150	0.50	1	75	12	900	34	30,600
Derrick Barge	600	0.10	1	60	24	1,440	34	49,392
	200	0.50	1	100	24	2,400	34	81,600
Spill Barge	300	0.20	1	60	24	1,440	34	49,392
	50	0.50	1	25	24	600	34	20,400
Crew/Survey Boat	400	0.30	1	120	24	2,880	34	98,784
	80	0.50	1	40	24	960	34	32,640
CUTTER SUCTION DREDGING- Land Disposal (no booster)								
Cutter Suction Dredge	8,400	0.00	1	0	24	0	34	0
	4,800	0.00	1	0	24	0	34	0
Work Tug	750	0.25	2	375	12	4,500	34	154,350
	150	0.50	1	75	12	900	34	30,600
Derrick Barge	600	0.10	1	60	24	1,440	34	49,392
	200	0.50	1	100	24	2,400	34	81,600
Hydra-crane	130	0.43	1	56	24	1,342	34	46,017
Dozer	285	0.30	3	257	24	6,156	34	211,151
Crew/Survey Boat	400	0.20	1	80	24	1,920	34	65,856
	80	0.50	1	40	24	960	34	32,640
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	428	0.30	1	128	8	1,027	147	150,998

Table A.4.1-Alt 1-109. Activity Data - Roll Surcharge - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
ROLL SURCHARGE								
Scrapers	475	0.60	9	2,565	8	20,520	42	861,840
Dozers	285	0.35	2	200	8	1,596	42	67,032
Loader	170	0.30	3	153	8	1,224	42	51,408
End Dump Truck	310	0.25	6	465	8	3,720	42	156,240
Water Truck	310	0.25	1	78	8	620	42	26,040

Table A.4.1-Alt 1-110. Total Construction Emissions - Demolition - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
WHARF DEMOLITION LANDSIDE							
Hydra-Crane	0.01	0.06	0.19	0.00	0.02	0.02	0.01
Excavator	0.06	0.25	0.84	0.00	0.05	0.05	0.04
Flatbed Truck	0.01	0.05	0.20	0.00	0.01	0.01	0.01
End Dump Truck	0.09	0.39	1.29	0.00	0.07	0.07	0.06
Subtotal	0.18	0.75	2.52	0.00	0.14	0.14	0.13

Table A.4.1-Alt 1-111. Total Construction Emissions - Container Yard Development - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
NEW CONTAINER YARD UTILITIES							
Pipelayer	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auger	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	0.00	0.00	0.00	0.00
End Dump Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flat Bed Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trencher	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal	0.00						
NEW CONTAINER YARD CONSTRUCTION - PAVING							
AC Paver	0.01	0.06	0.21	0.00	0.01	0.01	0.01
Grader	0.02	0.06	0.24	0.00	0.01	0.01	0.01
Roller	0.04	0.16	0.50	0.00	0.04	0.04	0.04
Vibration Roller	0.04	0.16	0.51	0.00	0.04	0.04	0.04
Water Truck	0.01	0.05	0.17	0.00	0.01	0.01	0.01
Road Sweeper	0.02	0.06	0.21	0.00	0.01	0.01	0.01
Subtotal	0.13	0.54	1.84	0.00	0.12	0.12	0.11
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL							
Flat Bed Truck	0.01	0.04	0.16	0.00	0.01	0.01	0.01
Truck Crane	0.01	0.02	0.07	0.00	0.01	0.01	0.01
Auger	0.01	0.05	0.17	0.00	0.01	0.01	0.01
Subtotal	0.03	0.12	0.40	0.00	0.03	0.03	0.03

Table A.4.1-Alt 1-112. Total Construction Emissions - Demo Existing F1 - F4, F6 Wharf - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
WHARF DEMOLITION LANDSIDE							
Hydra-Crane	0.02	0.08	0.25	0.00	0.02	0.02	0.02
Excavator	0.08	0.33	1.10	0.00	0.06	0.06	0.05
Flatbed Truck	0.02	0.07	0.26	0.00	0.01	0.01	0.01
End Dump Truck	0.12	0.50	1.67	0.00	0.09	0.09	0.08
Subtotal	0.23	0.98	3.28	0.01	0.18	0.18	0.17
WHARF DEMOLITION MARINE							
Derrick Barge	0.08	0.55	1.16	0.00	0.06	0.06	0.06
	0.03	0.12	0.45	0.00	0.02	0.02	0.02
Work Tug	0.05	0.45	1.22	0.00	0.04	0.04	0.03
	0.02	0.10	0.34	0.00	0.03	0.03	0.02
Hydra-Crane	0.02	0.08	0.25	0.00	0.02	0.02	0.02
Excavator	0.08	0.33	1.10	0.00	0.06	0.06	0.05
Flatbed Truck	0.02	0.07	0.26	0.00	0.01	0.01	0.01
End Dump Truck	0.09	0.38	1.25	0.00	0.07	0.07	0.06
Subtotal	0.39	2.08	6.03	0.01	0.31	0.31	0.28

Table A.4.1-Alt 1-113. Total Construction Emissions - Construct East Basin Retaining Dike - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS							
Derrick Barge	0.04	0.27	0.57	0.00	0.03	0.03	0.03
	0.02	0.06	0.22	0.00	0.01	0.01	0.01
Front End Loader	0.04	0.18	0.60	0.00	0.03	0.03	0.03
Tug Boat	0.04	0.36	0.97	0.00	0.03	0.03	0.03
	0.01	0.05	0.17	0.00	0.01	0.01	0.01
Tug Boat Rock Transport - Within 3 nm	0.14	1.32	3.58	0.00	0.11	0.11	0.10
	0.02	0.10	0.32	0.00	0.02	0.02	0.02
Tug Boat Rock Transport - Beyond 3 nm	0.30	2.77	7.53	0.01	0.22	0.22	0.21
	0.04	0.15	0.51	0.00	0.03	0.03	0.03
Crew/Survey Boat	0.02	0.12	0.71	0.04	0.03	0.03	0.03
	0.01	0.08	0.10	0.00	0.01	0.01	0.01
Subtotal	0.67	5.45	15.29	0.06	0.53	0.53	0.49

Table A.4.1-Alt 1-114. Total Construction Emissions - Slip/Basin Fill & Surcharge East - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
CUTTER SUCTION DREDGING- Spill Barge (no booster)							
Cutter Suction Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Work Tug	0.03	0.32	0.86	0.00	0.03	0.03	0.02
	0.01	0.03	0.09	0.00	0.01	0.01	0.01
Derrick Barge	0.01	0.07	0.15	0.00	0.01	0.01	0.01
	0.02	0.07	0.25	0.00	0.01	0.01	0.01
Spill Barge	0.01	0.05	0.15	0.00	0.01	0.01	0.01
	0.01	0.03	0.11	0.00	0.01	0.01	0.01
Crew/Survey Boat	0.02	0.14	0.81	0.05	0.03	0.03	0.03
	0.01	0.09	0.12	0.00	0.01	0.01	0.01
Subtotal	0.12	0.79	2.56	0.05	0.12	0.12	0.11
CUTTER SUCTION DREDGING- Land Disposal (no booster)							
Cutter Suction Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Work Tug	0.03	0.32	0.86	0.00	0.03	0.03	0.02
	0.01	0.03	0.09	0.00	0.01	0.01	0.01
Derrick Barge	0.01	0.07	0.15	0.00	0.01	0.01	0.01
	0.02	0.07	0.25	0.00	0.01	0.01	0.01
Hydra-crane	0.01	0.04	0.14	0.00	0.01	0.01	0.01
Dozer	0.14	0.36	1.16	0.00	0.10	0.10	0.10
Crew/Survey Boat	0.01	0.09	0.54	0.03	0.02	0.02	0.02
	0.01	0.09	0.12	0.00	0.01	0.01	0.01
Subtotal	0.24	1.06	3.33	0.04	0.20	0.20	0.18
WICK DRAINS							
Wick Drain Rig - Excavator Mounted	0.03	0.14	0.47	0.00	0.02	0.02	0.02
Subtotal	0.03	0.14	0.47	0.00	0.02	0.02	0.02

Table A.4.1-Alt 1-115. Total Construction Emissions - Roll Surcharge - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
ROLL SURCHARGE							
Scrapers	0.19	0.80	2.66	0.00	0.14	0.14	0.13
Dozers	0.01	0.06	0.21	0.00	0.01	0.01	0.01
Loader	0.01	0.05	0.16	0.00	0.01	0.01	0.01
End Dump Truck	0.03	0.14	0.48	0.00	0.03	0.03	0.02
Water Truck	0.01	0.02	0.08	0.00	0.00	0.00	0.00
Subtotal	0.26	1.08	3.59	0.01	0.20	0.20	0.18

Table A.4.1-Alt 1-116. Total Emissions - POLB Middle Harbor Project - Phase 2 - Stage 1

Activity	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
Demolition							
Wharf Demolition Landside	0	1	3	0	0	0	0
Railyard							
Intermodal Yard Construction	0	0	0	0	0	0	0
Container Yard Development							
New Container Yard Utilities	0	0	0	0	0	0	0
New Container Yard Construction - Paving	0	1	2	0	0	0	0
New Container Yard Construction - Electrical	0	0	0	0	0	0	0
Demo Existing F1 - F4, F6 Wharf							
Wharf Demolition Landside	0	1	3	0	0	0	0
Wharf Demolition Marine	0	2	6	0	0	0	0
Construct East Basin Retaining Dike							
Rock Placement, Push Off & Tub & Orange Peels	1	5	15	0	1	1	0
Slip/Basin Fill & Surcharge East							
Cutter Suction Dredging- Spill Barge (No Booster)	0	1	3	0	0	0	0
Cutter Suction Dredging- Land Disposal (No Booster)	0	1	3	0	0	0	0
Wick Drains	0	0	0	0	0	0	0
Roll Surcharge							
Roll Surcharge	0	1	4	0	0	0	0
Other Peak Daily Emissions							
Fugitive Dust	-	-	-	-			
Commuter Emissions	0	0	0	0	0	0	0
Dredging Activities							
Clamshell Dredging	0	2	6	0	0	0	0
Peak Daily Emissions	1	5	16	0			
Mitigated Peak Daily Emissions (1)	1	5	16	0			
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55

Table A.4.1-Alt 1-117. Activity Data - Dredge and Excavate at Quay Wall - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
CLAMSHELL DREDGING								
Clamshell Dredge	2,500	0.00	1	0	24	0	84	0
	500	0.00	1	0	24	0	84	0
Bottom Dump Scow	250	0.05	1	13	24	300	84	25,200
Tug Boat	2,500	0.30	1	750	6	4,500	84	378,000
	400	0.25	1	100	6	600	84	50,400
Work Tug	750	0.20	1	150	12	1,800	84	151,200
	150	0.25	1	38	12	450	84	37,800
Crew/Survey Boat	400	0.30	1	120	24	2,880	84	241,920
	80	0.50	1	40	24	960	84	80,640

Table A.4.1-Alt 1-118. Activity Data - Demo Existing F8-10 Wharf - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
WHARF DEMOLITION LANDSIDE								
Hydra-Crane	130	0.43	1	56	8	447	182	81,390
Excavator	428	0.57	1	244	8	1,952	182	355,206
Flatbed Truck	230	0.25	1	58	8	460	182	83,720
End Dump Truck	310	0.30	4	372	8	2,976	182	541,632
WHARF DEMOLITION MARINE								
Derrick Barge	600	0.43	1	258	8	2,064	182	375,648
	200	0.50	1	100	8	800	182	145,600
Work Tug	750	0.20	1	150	8	1,200	182	218,400
	150	0.50	1	75	8	600	182	109,200
Hydra-Crane	130	0.43	1	56	8	447	182	81,390
Excavator	428	0.57	1	244	8	1,952	182	355,206
Flatbed Truck	230	0.25	1	58	8	460	182	83,720
End Dump Truck	310	0.30	3	279	8	2,232	182	406,224

Table A.4.1-Alt 1-119. Activity Data - Construct Wharf, Armor, Fill - POLB Middle Harbor - Alternative 1 (1 of 2)

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
LAND EX								
Excavator	428	0.57	1	244	8	1,952	168	327,882
Loader	170	0.68	1	116	8	925	168	155,366
End Dump Truck	310	0.25	4	310	8	2,480	168	416,640
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS								
Derrick Barge	600	0.43	1	258	8	2,064	168	346,752
	200	0.50	1	100	8	800	168	134,400
Front End Loader	400	0.68	1	272	8	2,176	168	365,568
Tug Boat	1,200	0.20	1	240	8	1,920	168	322,560
	150	0.50	1	75	8	600	168	100,800
Tug Boat Rock Transport - Within 3 nm	2,500	0.49	1	1,225	6	7,105	168	1,193,640
	400	0.50	1	200	6	1,160	168	194,880
Tug Boat Rock Transport - Beyond 3 nm	2,500	0.73	1	1,825	8.2	14,965	168	2,514,120
	400	0.50	1	200	9.2	1,840	168	309,120
Crew/Survey Boat	400	0.30	1	120	8	960	168	161,280
	80	0.50	1	40	8	320	168	53,760
RETAINING BULKHEAD CONSTRUCTION								
Crane - 100 Ton	335	0.43	1	144	8	1,152	168	193,603
Vibratory Hammer & Power Pack	350	0.75	1	263	8	2,100	168	352,800
Flatbed Truck	230	0.25	1	58	8	460	168	77,280
Welding Machine	26	0.45	1	12	8	94	168	15,725
Generator	13	0.74	1	10	8	77	168	12,929
DRIVE 24-IN OCTAGONAL PILES - LAND								
Hydraulic Crane	152	0.43	1	65	8	523	126	65,883
Crane - 200 Ton	335	0.43	1	144	8	1,152	126	145,202
Drill/Power Pack HPSI	270	0.75	1	203	8	1,620	126	204,120
Piledriving Hammer	211	0.50	1	106	8	844	126	106,344
Loader-Wheel	300	0.30	1	90	8	720	126	90,720
Jet Pump	33	0.74	1	24	8	195	126	24,615
End Dump Truck	310	0.25	1	78	8	620	126	78,120
Truck-Flatbed	230	0.25	1	58	8	460	126	57,960
Truck-Lowboy	350	0.25	1	88	8	700	126	88,200

Table A.4.1-Alt 1-120. Activity Data - Construct Wharf, Armor, Fill - POLB Middle Harbor - Alternative 1 (2 of 2)

DRIVE 24-IN OCTAGONAL PILES - WATER								
Crane - 200 Ton	335	0.43	1	144	8	1,152	126	145,202
Derrick Barge	380	0.43	1	163	8	1,307	126	164,707
	195	0.50	1	98	8	780	126	98,280
Piledriving Hammer	211	0.50	1	106	8	844	126	106,344
End Dump Truck	310	0.25	1	78	8	620	126	78,120
Tugboat	1,000	0.50	1	500	8	4,000	126	504,000
	100	0.50	1	50	8	400	126	50,400
Truck-Flatbed	230	0.25	1	58	8	460	126	57,960
DRIVE PILES - MISC ACTIVITIES								
Excavator	428	0.57	1	244	8	1,952	126	245,912
Loader-Wheel	180	0.30	1	54	8	432	126	54,432
Hydraulic Crane	152	0.43	1	65	8	523	126	65,883
Crane - 150 Ton	335	0.43	1	144	8	1,152	126	145,202
REINFORCED CONCRETE WHARF								
Hydraulic Crane	152	0.43	1	65	8	523	210	109,805
Crane - 150 Ton	335	0.43	1	144	8	1,152	210	242,004
Crane Barge - 150 ton	335	0.43	1	144	8	1,152	210	242,004
	107	0.50	1	54	8	428	210	89,880
Concrete Pump	210	0.74	1	155	8	1,243	210	261,072
Concrete Trucks	285	0.25	5	321	8	2,565	210	538,650
Sandblaster w/air compressor	50	0.00	1	0	8	0	210	0
Truck-Flatbed	230	0.25	1	58	8	460	210	96,600
Tugboat	1,000	0.20	1	200	8	1,600	210	336,000
	100	0.40	1	40	8	320	210	67,200
Concrete Saw	35	0.10	1	4	8	28	210	5,880
Truck Crane - 65 ton	365	0.20	1	73	8	584	210	122,640
Boom Truck	350	0.20	1	70	8	560	210	117,600

Table A.4.1-Alt 1-121. Activity Data - Basin Fill and Surcharge West - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
CUTTER SUCTION DREDGING- Spill Barge (no booster)								
Cutter Suction Dredge	8,400	0.00	1	0	24	0	74	0
	4,800	0.00	1	0	24	0	74	0
Work Tug	750	0.25	2	375	12	4,500	74	330,750
	150	0.50	2	150	12	1,800	74	133,200
Derrick Barge	600	0.10	1	60	24	1,440	74	105,840
	200	0.50	1	100	24	2,400	74	177,600
Spill Barge	300	0.20	1	60	24	1,440	74	105,840
	50	0.50	1	25	24	600	74	44,400
Crew/Survey Boat	400	0.30	1	120	24	2,880	74	211,680
	80	0.50	1	40	24	960	74	71,040
CUTTER SUCTION DREDGING- Land Disposal (no booster)								
Cutter Suction Dredge	8,400	0.00	1	0	24	0	74	0
	4,800	0.00	1	0	24	0	74	0
Work Tug	750	0.25	2	375	12	4,500	74	330,750
	150	0.50	2	150	12	1,800	74	133,200
Derrick Barge	600	0.10	1	60	24	1,440	74	105,840
	200	0.50	1	100	24	2,400	74	177,600
Hydra-crane	130	0.43	1	56	24	1,342	74	98,608
Dozer	285	0.30	3	257	24	6,156	74	452,466
Crew/Survey Boat	400	0.20	1	80	24	1,920	74	141,120
	80	0.50	1	40	24	960	74	71,040
WICK DRAINS								
Wick Drain Rig - Excavator Mounted	428	0.30	1	128	8	1,027	245	251,664

Table A.4.1-Alt 1-122. Activity Data - Settlement Period - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Power Rating (Hp)	Load Factor	# Active	Hourly Hp-Hrs	Hours Per Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
ROLL SURCHARGE								
Scrapers	475	0.60	9	2,565	8	20,520	182	3,734,640
Dozers	285	0.35	2	200	8	1,596	182	290,472
Loader	170	0.30	3	153	8	1,224	182	222,768
End Dump Truck	310	0.25	6	465	8	3,720	182	677,040
Water Truck	310	0.25	1	78	8	620	182	112,840

Table A.4.1-Alt 1-123. Total Construction Emissions - Dredge and Excavate Quay Wall - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
CLAMSHELL DREDGING							
Clamshell Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bottom Dump Scow	0.01	0.02	0.08	0.00	0.00	0.00	0.00
Tug Boat	0.10	0.77	2.07	0.00	0.06	0.06	0.05
	0.01	0.05	0.16	0.00	0.01	0.01	0.01
Work Tug	0.04	0.31	0.83	0.00	0.02	0.02	0.02
	0.01	0.04	0.12	0.00	0.01	0.01	0.01
Crew/Survey Boat	0.04	0.34	1.99	0.13	0.08	0.08	0.07
	0.02	0.21	0.29	0.00	0.03	0.03	0.02
Subtotal	0.23	1.73	5.53	0.13	0.21	0.21	0.19

Table A.4.1-Alt 1-124. Total Construction Emissions - Demo Existing F8-10 Wharf - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
WHARF DEMOLITION LANDSIDE							
Hydra-Crane	0.02	0.08	0.25	0.00	0.02	0.02	0.02
Excavator	0.08	0.33	1.10	0.00	0.06	0.06	0.05
Flatbed Truck	0.02	0.07	0.26	0.00	0.01	0.01	0.01
End Dump Truck	0.12	0.50	1.67	0.00	0.09	0.09	0.08
Subtotal	0.23	0.98	3.28	0.01	0.18	0.18	0.17
WHARF DEMOLITION MARINE							
Derrick Barge	0.08	0.55	1.16	0.00	0.06	0.06	0.06
	0.03	0.12	0.45	0.00	0.02	0.02	0.02
Work Tug	0.06	0.45	1.20	0.00	0.03	0.03	0.03
	0.02	0.10	0.34	0.00	0.03	0.03	0.02
Hydra-Crane	0.02	0.08	0.25	0.00	0.02	0.02	0.02
Excavator	0.08	0.33	1.10	0.00	0.06	0.06	0.05
Flatbed Truck	0.02	0.07	0.26	0.00	0.01	0.01	0.01
End Dump Truck	0.09	0.38	1.25	0.00	0.07	0.07	0.06
Subtotal	0.40	2.07	6.00	0.01	0.31	0.31	0.28

Table A.4.1-Alt 1-125. Total Construction Emissions - Construct Wharf, Armor, Fill - POLB Middle Harbor - Alternative 1 (1 of 2)

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
LAND EX							
Excavator	0.07	0.30	1.01	0.00	0.05	0.05	0.05
Loader	0.03	0.15	0.48	0.00	0.04	0.04	0.03
End Dump Truck	0.09	0.39	1.29	0.00	0.07	0.07	0.06
Subtotal	0.20	0.84	2.78	0.00	0.16	0.16	0.15
ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS							
Derrick Barge	0.08	0.51	1.07	0.00	0.06	0.06	0.05
	0.03	0.11	0.41	0.00	0.02	0.02	0.02
Front End Loader	0.08	0.34	1.13	0.00	0.06	0.06	0.06
Tug Boat	0.09	0.66	1.77	0.00	0.05	0.05	0.05
	0.02	0.10	0.31	0.00	0.02	0.02	0.02
Tug Boat Rock Transport - Within 3 nm	0.33	2.43	6.54	0.01	0.18	0.18	0.17
	0.04	0.18	0.60	0.00	0.03	0.03	0.03
Tug Boat Rock Transport - Beyond 3 nm	0.69	5.13	13.77	0.02	0.38	0.38	0.36
	0.07	0.29	0.95	0.00	0.05	0.05	0.05
Crew/Survey Boat	0.03	0.23	1.33	0.08	0.05	0.05	0.05
	0.01	0.14	0.20	0.00	0.02	0.02	0.02
Subtotal	1.47	10.10	28.07	0.12	0.93	0.93	0.87
RETAINING BULKHEAD CONSTRUCTION							
Crane - 100 Ton	0.04	0.18	0.60	0.00	0.03	0.03	0.03
Vibratory Hammer & Power Pack	0.08	0.33	1.09	0.00	0.06	0.06	0.05
Flatbed Truck	0.02	0.06	0.24	0.00	0.01	0.01	0.01
Welding Machine	0.01	0.03	0.09	0.00	0.01	0.01	0.01
Generator	0.01	0.02	0.07	0.00	0.01	0.01	0.01
Subtotal	0.16	0.62	2.08	0.00	0.12	0.12	0.11
DRIVE 24-IN OCTAGONAL PILES - LAND							
Hydraulic Crane	0.01	0.06	0.20	0.00	0.02	0.02	0.01
Crane - 200 Ton	0.03	0.13	0.45	0.00	0.02	0.02	0.02
Drill/Power Pack HPSI	0.05	0.19	0.63	0.00	0.03	0.03	0.03
Piledriving Hammer	0.02	0.09	0.33	0.00	0.02	0.02	0.02
Loader-Wheel	0.02	0.08	0.28	0.00	0.02	0.02	0.01
Jet Pump	0.02	0.04	0.14	0.00	0.01	0.01	0.01
End Dump Truck	0.02	0.07	0.24	0.00	0.01	0.01	0.01
Truck-Flatbed	0.01	0.05	0.18	0.00	0.01	0.01	0.01
Truck-Lowboy	0.02	0.08	0.27	0.00	0.01	0.01	0.01
Subtotal	0.20	0.80	2.72	0.00	0.16	0.16	0.14

Table A.4.1-Alt 1-125. Total Construction Emissions - Construct Wharf, Armor, Fill - POLB Middle Harbor - Alternative 1 (2 of 2)

DRIVE 24-IN OCTAGONAL PILES - WATER							
Crane - 200 Ton	0.03	0.13	0.45	0.00	0.02	0.02	0.02
Derrick Barge	0.04	0.15	0.51	0.00	0.03	0.03	0.03
	0.02	0.08	0.30	0.00	0.02	0.02	0.01
Piledriving Hammer	0.02	0.09	0.33	0.00	0.02	0.02	0.02
End Dump Truck	0.02	0.07	0.24	0.00	0.01	0.01	0.01
Tugboat	0.14	1.03	2.76	0.00	0.08	0.08	0.07
	0.01	0.13	0.18	0.00	0.02	0.02	0.02
Truck-Flatbed	0.01	0.05	0.18	0.00	0.01	0.01	0.01
Subtotal	0.29	1.74	4.95	0.01	0.20	0.20	0.19
DRIVE PILES - MISC ACTIVITIES							
Excavator	0.05	0.23	0.76	0.00	0.04	0.04	0.04
Loader-Wheel	0.01	0.05	0.17	0.00	0.01	0.01	0.01
Hydraulic Crane	0.01	0.06	0.20	0.00	0.02	0.02	0.01
Crane - 150 Ton	0.03	0.13	0.45	0.00	0.02	0.02	0.02
Subtotal	0.11	0.47	1.58	0.00	0.09	0.09	0.08
REINFORCED CONCRETE WHARF							
Hydraulic Crane	0.02	0.11	0.34	0.00	0.03	0.03	0.02
Crane - 150 Ton	0.05	0.22	0.75	0.00	0.04	0.04	0.04
Crane Barge - 150 ton	0.05	0.22	0.75	0.00	0.04	0.04	0.04
	0.02	0.23	0.33	0.00	0.03	0.03	0.03
Concrete Pump	0.06	0.22	0.81	0.00	0.04	0.04	0.04
Concrete Trucks	0.12	0.50	1.66	0.00	0.09	0.09	0.08
Sandblaster w/air compressor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck-Flatbed	0.02	0.08	0.30	0.00	0.02	0.02	0.01
Tugboat	0.09	0.69	1.84	0.00	0.05	0.05	0.05
	0.01	0.18	0.24	0.00	0.02	0.02	0.02
Concrete Saw	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Truck Crane - 65 ton	0.03	0.11	0.38	0.00	0.02	0.02	0.02
Boom Truck	0.03	0.11	0.36	0.00	0.02	0.02	0.02
Subtotal	0.19	1.17	3.16	0.00	0.13	0.13	0.12

Table A.4.1-Alt 1-126. Total Construction Emissions - Basin Fill and Surcharge West - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
CUTTER SUCTION DREDGING- Spill Barge (no booster)							
Cutter Suction Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Work Tug	0.09	0.67	1.81	0.00	0.05	0.05	0.05
	0.03	0.13	0.41	0.00	0.03	0.03	0.03
Derrick Barge	0.02	0.16	0.33	0.00	0.02	0.02	0.02
	0.04	0.15	0.55	0.00	0.03	0.03	0.03
Spill Barge	0.02	0.10	0.33	0.00	0.02	0.02	0.02
	0.03	0.07	0.24	0.00	0.02	0.02	0.02
Crew/Survey Boat	0.04	0.30	1.74	0.11	0.07	0.07	0.07
	0.02	0.19	0.26	0.00	0.02	0.02	0.02
Subtotal	0.29	1.76	5.67	0.11	0.26	0.26	0.24
CUTTER SUCTION DREDGING- Land Disposal (no booster)							
Cutter Suction Dredge	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Work Tug	0.09	0.67	1.81	0.00	0.05	0.05	0.05
	0.03	0.13	0.41	0.00	0.03	0.03	0.03
Derrick Barge	0.02	0.16	0.33	0.00	0.02	0.02	0.02
	0.04	0.15	0.55	0.00	0.03	0.03	0.03
Hydra-crane	0.02	0.09	0.30	0.00	0.02	0.02	0.02
Dozer	0.10	0.42	1.40	0.00	0.07	0.07	0.07
Crew/Survey Boat	0.02	0.20	1.16	0.07	0.05	0.05	0.04
	0.02	0.19	0.26	0.00	0.02	0.02	0.02
Subtotal	0.34	2.00	6.22	0.08	0.30	0.30	0.28
WICK DRAINS							
Wick Drain Rig - Excavator Mounted	0.06	0.23	0.78	0.00	0.04	0.04	0.04
Subtotal	0.06	0.23	0.78	0.00	0.04	0.04	0.04

Table A.4.1-Alt 1-127. Total Construction Emissions - Settlement Period - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
ROLL SURCHARGE							
Scrapers	0.82	3.46	11.53	0.02	0.62	0.62	0.57
Dozers	0.06	0.27	0.90	0.00	0.05	0.05	0.04
Loader	0.05	0.21	0.69	0.00	0.05	0.05	0.05
End Dump Truck	0.15	0.63	2.09	0.00	0.11	0.11	0.10
Water Truck	0.02	0.10	0.35	0.00	0.02	0.02	0.02
Subtotal	1.11	4.67	15.55	0.02	0.85	0.85	0.78

Table A.4.1-Alt 1-128. Total Emissions - POLB Middle Harbor Project - Phase 2 - Stage 2

Activity	Pounds per Day						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
Construction new Terminal Buildings							
Building Construction	0	0	0	0	0	0	0
Dredge and Excavate Quay Wall							
Clamshell Dredging	0	2	6	0	0	0	0
Demo Existing F8-10 Wharf							
Wharf Demolition Landside	0	1	3	0	0	0	0
Wharf Demolition Marine	0	2	6	0	0	0	0
Construct Wharf, Armor, Fill							
Land Ex	0	1	3	0	0	0	0
Rock Placement, Push Off & Tub & Orange Peels	1	10	28	0	1	1	1
Retaining Bulkhead Construction	0	1	2	0	0	0	0
Drive 24-In Octagonal Piles - Land	0	1	3	0	0	0	0
Drive 24-In Octagonal Piles - Water	0	2	5	0	0	0	0
Drive Piles - Misc Activities	0	0	2	0	0	0	0
Reinforced Concrete Wharf	0	1	3	0	0	0	0
Basin Fill and Surcharge West							
Cutter Suction Dredging- Spill Barge (No Booster)	0	2	6	0	0	0	0
Cutter Suction Dredging- Land Disposal (No Booster)	0	2	6	0	0	0	0
Wick Drains	0	0	1	0	0	0	0
Settlement Period							
Roll Surcharge	1	5	16	0	1	1	1
Other Peak Daily Emissions							
Fugitive Dust	-	-	-	-			
Commuter Emissions	0	0	0	0	0	0	0
Dredging Activities							
Clamshell Dredging	1	5	17	0	1	1	1
Peak Daily Emissions	3	20	58	0			
Mitigated Peak Daily Emissions (1)	3	20	58	0			
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55

Table A.4.1-Alt 1-129. Activity Data - Remove Surcharge - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
ROLL SURCHARGE								
Scrapers	475	0.60	9	2,565	8	20,520	91	1,867,320
Dozers	285	0.35	2	200	8	1,596	91	145,236
Loader	170	0.30	3	153	8	1,224	91	111,384
End Dump Truck	310	0.25	6	465	8	3,720	91	338,520
Water Truck	310	0.25	1	78	8	620	91	56,420

Table A.4.1-Alt 1-130. Activity Data - CY Development - POLB Middle Harbor - Alternative 1

<i>Location/Equipment Type</i>	<i>Power Rating (Hp)</i>	<i>Load Factor</i>	<i># Active</i>	<i>Hourly Hp-Hrs</i>	<i>Hours Per Day</i>	<i>Daily Hp-Hrs</i>	<i>Work Days</i>	<i>Total Hp-Hrs</i>
NEW CONTAINER YARD UTILITIES								
Pipelayer	300	0.50	1	150	8	1,200		0
Auger	125	0.50	1	63	8	500		0
Crane	130	0.43	1	56	8	447		0
Grader	215	0.61	3	393	8	3,148		0
End Dump Truck	310	0.25	1	78	8	620		0
Flat Bed Truck	230	0.25	2	115	8	920		0
Concrete Truck	250	1	4	600	8	4,800		0
Front End Loader	400	0.40	2	320	8	2,560		0
Trencher	200	0.20	1	40	8	320		0
NEW CONTAINER YARD CONSTRUCTION - PAVING								
AC Paver	187	0.40	1	75	8	598	45	27,060
Grader	215	0.40	1	86	8	688	45	31,111
Roller	151	0.40	3	181	8	1,450	45	65,551
Vibration Roller	154	0.40	3	185	8	1,478	45	66,853
Water Truck	210	0.30	1	63	8	504	45	22,791
Road Sweeper	190	0.40	1	76	8	608	45	27,494
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL								
Flat Bed Truck	230	0.25	1	58	8	460		0
Truck Crane	130	0.20	1	26	8	208		0
Auger	125	0.50	1	63	8	500		0

Table A.4.1-Alt 1-131. Total Construction Emissions - Remove Surcharge- POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
ROLL SURCHARGE							
Scrapers	0.41	1.73	5.76	0.01	0.31	0.31	0.28
Dozers	0.03	0.13	0.45	0.00	0.02	0.02	0.02
Loader	0.02	0.11	0.34	0.00	0.03	0.03	0.02
End Dump Truck	0.07	0.31	1.04	0.00	0.06	0.06	0.05
Water Truck	0.01	0.05	0.17	0.00	0.01	0.01	0.01
Subtotal	0.56	2.34	7.77	0.01	0.43	0.43	0.39

Table A.4.1-Alt 1-132. Total Construction Emissions - CY Development - POLB Middle Harbor - Alternative 1

Location/Equipment Type	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
NEW CONTAINER YARD UTILITIES							
Pipelayer	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auger	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	0.00	0.00	0.00	0.00
End Dump Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flat Bed Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trencher	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal	0.00						
NEW CONTAINER YARD CONSTRUCTION - PAVING							
AC Paver	0.01	0.02	0.08	0.00	0.00	0.00	0.00
Grader	0.01	0.03	0.10	0.00	0.01	0.01	0.00
Roller	0.01	0.06	0.20	0.00	0.02	0.02	0.01
Vibration Roller	0.01	0.06	0.21	0.00	0.02	0.02	0.01
Water Truck	0.01	0.02	0.07	0.00	0.00	0.00	0.00
Road Sweeper	0.01	0.02	0.08	0.00	0.00	0.00	0.00
Subtotal	0.05	0.22	0.74	0.00	0.05	0.05	0.05
NEW CONTAINER YARD CONSTRUCTION - ELECTRICAL							
Flat Bed Truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck Crane	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Auger	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal	0.00						

Table A.4.1-Alt 1-133. Total Emissions - POLB Middle Harbor Project - Phase 2 - Stage 3

Activity	Tons						
	VOC	CO	NOx	SOx	PM	PM10	PM2.5
Remove Surcharge							
Roll Surcharge	1	2	8	0	0	0	0
CY Development							
New Container Yard Utilities	0	0	0	0	0	0	0
New Container Yard Construction - Paving	0	0	1	0	0	0	0
New Container Yard Construction - Electrical	0	0	0	0	0	0	0
Other Peak Daily Emissions							
Fugitive Dust	-	-	-	-			
Commuter Emissions	0	0	0	0	0	0	0
Peak Daily Emissions	1	3	9	0			
Mitigated Peak Daily Emissions	1	3	9	0			
SCAQMD Daily Significance Thresholds	75	550	100	150	NA	150	55

Table A.4.1-Alt 1-134. Dike Rock Tug boat Usage

11-Mar-09 JGM		Rock Placement Equipment Spread As included in Equipment List												
		HP	LF	Hours/Day		Hp-hrs/day								
		ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS												
Derrick Barge		600	0.43			8	2,864							
		200	0.50			8								
Front End Loader		400	0.68			8	2,176							
Tug Boat		1,200	0.20			8	2,520							
		150	0.50			8								
Tug Boat		2,500	0.40			8	9,600							
		400	0.50			8								
Crew/Survey Boat		400	0.30			8	1,280							
		80	0.50			8								
							18,440	Total Hp-hrs per day of rock placement						
		Rock Placement Equipment Spread with More Detailed Breakdown of Towboat work cycle												
		HP	LF	Hours/Day		Hp-hrs/day								
7	ROCK PLACEMENT, PUSH OFF & TUB & ORANGE PEELS										Hp-hrs with 3mi of mainland	Hp-hrs within 3 miles of catalina	Hp hrs between mainland & catalina	
Derrick Barge		600	0.43			8	2,864				2,864			
		200	0.50			8								
Front End Loader		400	0.68			8	2,176				2,176			
Tender Tug Boat		1,200	0.20			8	2,520				2,520			
		150	0.50			8								
Ocean Tow- Tug Boat								% within 3 miles of mainland	% within 3 miles of catalina	% between 3 miles off catalina and 3 miles off mainland				
		ME		Aux										
0200- 0300 warmup & in harbor transit		2,500	0.20	400	0.50	1	700	100%	0%	0%	700	0	0	
0300-0700 tow light barges to Catalina		2,500	0.80	400	0.50	4	8,800	11.5%	11.5%	76.9%	1,015	1,015	6,769	
0700-1100 standby during loading		2,500	0.00	400	0.50	4	800	0%	100%	0%	0	800	0	
1100-1200 make-up tow		2,500	0.20	400	0.50	1	700	0%	100%	0%	0	700	0	
1200-1800 tow loaded barges		2,500	0.80	400	0.50	6	13,200	11.5%	11.5%	76.9%	1,523	1,523	10,154	
1800-1900 place barges on moorings		2,500	0.20	400	0.50	1	700	100%	0%	0%	700	0	0	
1900-2000 transit in harbor & secure		2,500	0.20	400	0.50	1	700	100%	0%	0%	700	0	0	
Crew/Survey Boat		400	0.30			8	1,280				1,280			
		80	0.50			8								
							34,440				13,478	4,038	16,923	
												tow distance - bw to pebbly beac		
												% within 3 mi of mainland		
												% within 3 mi of catalina		
												% between		

Composite load factor for large tug used in transport within 3 nm =	0.49	@5.8 hrs	Travel
Composite load factor for large tug used in transport beyond 3 nm =	0.73	@8.2 hrs	Travel

Table A.4.1 -Alt 1 -135 Worker Commuting Air Emissions for the POLB Middle Harbor Project Construction Activities.

<i>Project Year</i>	<i>Emissions (pounds per day)</i>							<i>References</i>
	<i>VOC</i>	<i>CO</i>	<i>NOx</i>	<i>SOx</i>	<i>PM</i>	<i>PM10</i>	<i>PM2.5</i>	
2007	1.60	26.20	1.80	0.02	3.00	3.00	2.76	(1)
2008	4.90	82.40	5.50	0.10	10.50	10.50	9.66	(1)
2009	2.50	40.00	4.00	0.03	4.90	4.90	4.51	(1)
2010	1.50	25.10	1.60	0.02	3.90	3.90	3.59	(1)
2011	1.00	17.50	1.10	0.01	2.70	2.70	2.48	(1)
2012	1.90	33.20	2.20	0.03	5.20	5.20	4.78	(1)
2013	1.70	28.80	1.90	0.02	4.50	4.50	4.14	(1)
2014	0.40	6.90	0.70	0.01	1.50	1.50	1.38	(1)
2015	0.40	6.90	0.70	0.01	1.50	1.50	1.38	(1)
2016	0.30	4.80	0.50	0.01	1.00	1.00	0.92	(1)

Notes: (1) Calculated with the use of the ARB URBEMIS 2002 8.7 emissions model (2002) and based on peak daily trips for a given year.

Table A.4.1-Alt 1-136. Air Emission Factors for the POLB Middle Harbor Project Construction Activities.

Project Year/Source Type	Fuel Type	Emission Factors (Grams/Horsepower-Hour)							References
		VOC	CO	NOx	SOx	PM	PM10	PM2.5	
Tier 3 or less Standards									
Off-Road Equipment - 25-50 Hp	D	0.60	1.53	5.00	0.004	0.45	0.45	0.41	(1)
Off-Road Equipment - 51-120 Hp	D	0.20	2.37	3.30	0.004	0.30	0.30	0.28	(1)
Off-Road Equipment - 121-175 Hp	D	0.20	0.87	2.80	0.004	0.22	0.22	0.20	(1)
Off-Road Equipment - 176-250 Hp	D	0.20	0.75	2.80	0.004	0.15	0.15	0.14	(1)
Off-Road Equipment - 251-500 Hp	D	0.20	0.84	2.80	0.004	0.15	0.15	0.14	(1)
Off-Road Equipment - 501-750 Hp	D	0.20	1.33	2.80	0.004	0.15	0.15	0.14	(1)
Off-Road Equipment - >750 Hp	D	0.30	0.76	4.50	0.004	0.13	0.13	0.12	(1)
Year 2007									
Off-Road Equipment - 25-50 Hp	D	0.60	1.53	5.00	0.00	0.45	0.45	0.41	(1)
Off-Road Equipment - 51-120 Hp	D	0.20	2.37	3.30	0.00	0.30	0.30	0.28	(1)
Off-Road Equipment - 121-175 Hp	D	0.20	0.87	2.80	0.00	0.22	0.22	0.20	(1)
Off-Road Equipment - 176-250 Hp	D	0.20	0.75	2.80	0.00	0.15	0.15	0.14	(1)
Off-Road Equipment - 251-500 Hp	D	0.20	0.84	2.80	0.00	0.15	0.15	0.14	(1)
Off-Road Equipment - 501-750 Hp	D	0.20	1.33	2.80	0.00	0.15	0.15	0.14	(1)
Off-Road Equipment - >750 Hp	D	0.30	0.76	4.50	0.00	0.13	0.13	0.12	(1)
On-road Truck - Idle (Gms/Hr)	D	5.00	30.04	67.52	0.04	1.39	1.39	1.28	(2)
On-road Truck - 5 mph (Gms/Mi)	D	2.43	24.99	16.10	0.02	0.66	0.66	0.61	(2)
On-road Truck - 25 mph (Gms/Mi)	D	0.81	6.99	9.81	0.02	0.03	0.03	0.03	(2)
On-road Truck - 55 mph (Gms/Mi)	D	0.40	4.94	12.73	0.02	0.16	0.16	0.15	(2)
Dredge Materials Haul Truck - Composite (Gms/Mi)	D	0.97	8.79	10.44	0.02	0.09	0.09	0.09	(3)
Other On-Road Trucks - Composite (Gms/Mi)	D	0.58	6.35	12.31	0.02	0.16	0.16	0.15	(4)
Year 2009									
Off-Road Equipment - 25-50 Hp	D	0.60	1.53	5.00	0.00	0.45	0.45	0.41	(1)
Off-Road Equipment - 51-120 Hp	D	0.20	2.37	3.30	0.00	0.30	0.30	0.28	(1)
Off-Road Equipment - 121-175 Hp	D	0.20	0.87	2.80	0.00	0.22	0.22	0.20	(1)
Off-Road Equipment - 176-250 Hp	D	0.20	0.75	2.80	0.00	0.15	0.15	0.14	(1)
Off-Road Equipment - 251-500 Hp	D	0.20	0.84	2.80	0.00	0.15	0.15	0.14	(1)
Off-Road Equipment - 501-750 Hp	D	0.20	1.33	2.80	0.00	0.15	0.15	0.14	(1)
Off-Road Equipment - >750 Hp	D	0.30	0.76	4.50	0.00	0.13	0.13	0.12	(1)
On-road Truck - Idle (Gms/Hr)	D	4.97	29.86	68.08	0.04	1.30	1.30	1.20	(2)
On-road Truck - 5 mph (Gms/Mi)	D	2.08	21.19	13.68	0.02	0.59	0.59	0.55	(2)
On-road Truck - 25 mph (Gms/Mi)	D	0.70	5.94	8.33	0.02	0.07	0.07	0.06	(2)
On-road Truck - 55 mph (Gms/Mi)	D	0.35	4.19	10.81	0.02	0.15	0.15	0.14	(2)
Dredge Materials Haul Truck - Composite (Gms/Mi)	D	0.84	7.46	8.87	0.02	0.12	0.12	0.11	(3)
Other On-Road Trucks - Composite (Gms/Mi)	D	0.50	5.39	10.46	0.02	0.16	0.16	0.14	(4)
Year 2011									
Off-Road Equipment - 25-50 Hp	D	0.60	1.53	5.00	0.00	0.45	0.45	0.41	(1)
Off-Road Equipment - 51-120 Hp	D	0.20	2.37	3.30	0.00	0.30	0.30	0.28	(1)
Off-Road Equipment - 121-175 Hp	D	0.20	0.87	2.80	0.00	0.22	0.22	0.20	(1)
Off-Road Equipment - 176-250 Hp	D	0.20	0.75	2.80	0.00	0.15	0.15	0.14	(1)
Off-Road Equipment - 251-500 Hp	D	0.20	0.84	2.80	0.00	0.15	0.15	0.14	(1)
Off-Road Equipment - 501-750 Hp	D	0.20	1.33	2.80	0.00	0.15	0.15	0.14	(1)
Off-Road Equipment - >750 Hp	D	0.30	0.76	4.50	0.00	0.13	0.13	0.12	(1)
On-road Truck - Idle (Gms/Hr)	D	4.95	29.68	68.64	0.04	1.21	1.21	1.11	(2)
On-road Truck - 5 mph (Gms/Mi)	D	1.73	17.40	11.27	0.02	0.53	0.53	0.48	(2)
On-road Truck - 25 mph (Gms/Mi)	D	0.59	4.89	6.85	0.02	0.11	0.11	0.10	(2)
On-road Truck - 55 mph (Gms/Mi)	D	0.30	3.43	8.90	0.02	0.14	0.14	0.13	(2)
Dredge Materials Haul Truck - Composite (Gms/Mi)	D	0.70	6.14	7.29	0.02	0.15	0.15	0.14	(3)
Other On-Road Trucks - Composite (Gms/Mi)	D	0.43	4.42	8.60	0.02	0.15	0.15	0.14	(4)
Year 2013									
Off-Road Equipment - 25-50 Hp	D	0.60	1.53	5.00	0.00	0.45	0.45	0.41	(1)
Off-Road Equipment - 51-120 Hp	D	0.20	2.37	3.30	0.00	0.30	0.30	0.28	(1)
Off-Road Equipment - 121-175 Hp	D	0.20	0.87	2.80	0.00	0.22	0.22	0.20	(1)

Off-Road Equipment - 176-250 Hp	D	0.20	0.75	2.80	0.00	0.15	0.15	0.14	(1)
Off-Road Equipment - 251-500 Hp	D	0.20	0.84	2.80	0.00	0.15	0.15	0.14	(1)
Off-Road Equipment - 501-750 Hp	D	0.20	1.33	2.80	0.00	0.15	0.15	0.14	(1)
Off-Road Equipment - >750 Hp	D	0.30	0.76	4.50	0.00	0.13	0.13	0.12	(1)
On-road Truck - Idle (Gms/Hr)	D	4.92	29.50	69.20	0.04	1.12	1.12	1.03	(2)
On-road Truck - 5 mph (Gms/Mi)	D	1.37	13.60	8.85	0.02	0.46	0.46	0.42	(2)
On-road Truck - 25 mph (Gms/Mi)	D	0.48	3.83	5.37	0.02	0.15	0.15	0.14	(2)
On-road Truck - 55 mph (Gms/Mi)	D	0.24	2.68	6.98	0.02	0.13	0.13	0.12	(2)
Dredge Materials Haul Truck - Composite (Gms/Mi)	D	0.57	4.81	5.72	0.02	0.18	0.18	0.17	(3)
Other On-Road Trucks - Composite (Gms/Mi)	D	0.35	3.45	6.75	0.02	0.15	0.15	0.14	(4)
Year 2014									
Off-Road Equipment - 25-50 Hp	D	0.60	1.53	5.00	0.00	0.45	0.45	0.41	(1)
Off-Road Equipment - 51-120 Hp	D	0.20	2.37	3.30	0.00	0.30	0.30	0.28	(1)
Off-Road Equipment - 121-175 Hp	D	0.20	0.87	2.80	0.00	0.22	0.22	0.20	(1)
Off-Road Equipment - 176-250 Hp	D	0.20	0.75	2.80	0.00	0.15	0.15	0.14	(1)
Off-Road Equipment - 251-500 Hp	D	0.20	0.84	2.80	0.00	0.15	0.15	0.14	(1)
Off-Road Equipment - 501-750 Hp	D	0.20	1.33	2.80	0.00	0.15	0.15	0.14	(1)
Off-Road Equipment - >750 Hp	D	0.30	0.76	4.50	0.00	0.13	0.13	0.12	(1)
On-road Truck - Idle (Gms/Hr)	D	4.90	29.41	69.48	0.04	1.08	1.08	0.99	(2)
On-road Truck - 5 mph (Gms/Mi)	D	1.20	11.70	7.64	0.02	0.42	0.42	0.39	(2)
On-road Truck - 25 mph (Gms/Mi)	D	0.43	3.31	4.63	0.02	0.17	0.17	0.16	(2)
On-road Truck - 55 mph (Gms/Mi)	D	0.22	2.30	6.02	0.02	0.13	0.13	0.12	(2)
Dredge Materials Haul Truck - Composite (Gms/Mi)	D	0.50	4.15	4.93	0.02	0.20	0.20	0.18	(3)
Other On-Road Trucks - Composite (Gms/Mi)	D	0.31	2.97	5.82	0.02	0.15	0.15	0.14	(4)
Year 2015									
Off-Road Equipment - 25-50 Hp	D	0.60	1.53	5.00	0.00	0.45	0.45	0.41	(1)
Off-Road Equipment - 51-120 Hp	D	0.20	2.37	3.30	0.00	0.30	0.30	0.28	(1)
Off-Road Equipment - 121-175 Hp	D	0.20	0.87	2.80	0.00	0.22	0.22	0.20	(1)
Off-Road Equipment - 176-250 Hp	D	0.20	0.75	2.80	0.00	0.15	0.15	0.14	(1)
Off-Road Equipment - 251-500 Hp	D	0.20	0.84	2.80	0.00	0.15	0.15	0.14	(1)
Off-Road Equipment - 501-750 Hp	D	0.20	1.33	2.80	0.00	0.15	0.15	0.14	(1)
Off-Road Equipment - >750 Hp	D	0.30	0.76	4.50	0.00	0.13	0.13	0.12	(1)
On-road Truck - Idle (Gms/Hr)	D	4.89	29.32	69.76	0.04	1.03	1.03	0.95	(2)
On-road Truck - 5 mph (Gms/Mi)	D	1.02	9.80	6.43	0.02	0.39	0.39	0.36	(2)
On-road Truck - 25 mph (Gms/Mi)	D	0.37	2.78	3.89	0.02	0.19	0.19	0.17	(2)
On-road Truck - 55 mph (Gms/Mi)	D	0.19	1.92	5.06	0.02	0.12	0.12	0.11	(2)
Dredge Materials Haul Truck - Composite (Gms/Mi)	D	0.44	3.48	4.14	0.02	0.21	0.21	0.19	(3)
Other On-Road Trucks - Composite (Gms/Mi)	D	0.27	2.49	4.89	0.02	0.15	0.15	0.14	(4)
Year 2016									
Off-Road Equipment - 25-50 Hp	D	0.60	1.53	5.00	0.00	0.45	0.45	0.41	(1)
Off-Road Equipment - 51-120 Hp	D	0.20	2.37	3.30	0.00	0.30	0.30	0.28	(1)
Off-Road Equipment - 121-175 Hp	D	0.20	0.87	2.80	0.00	0.22	0.22	0.20	(1)
Off-Road Equipment - 176-250 Hp	D	0.20	0.75	2.80	0.00	0.15	0.15	0.14	(1)
Off-Road Equipment - 251-500 Hp	D	0.20	0.84	2.80	0.00	0.15	0.15	0.14	(1)
Off-Road Equipment - 501-750 Hp	D	0.20	1.33	2.80	0.00	0.15	0.15	0.14	(1)
Off-Road Equipment - >750 Hp	D	0.30	0.76	4.50	0.00	0.13	0.13	0.12	(1)
On-road Truck - Idle (Gms/Hr)	D	4.88	29.23	70.04	0.04	0.99	0.99	0.91	(2)
On-road Truck - 5 mph (Gms/Mi)	D	0.84	7.90	5.22	0.02	0.36	0.36	0.33	(2)
On-road Truck - 25 mph (Gms/Mi)	D	0.32	2.25	3.15	0.02	0.21	0.21	0.19	(2)
On-road Truck - 55 mph (Gms/Mi)	D	0.16	1.54	4.10	0.02	0.12	0.12	0.11	(2)
Dredge Materials Haul Truck - Composite (Gms/Mi)	D	0.37	2.82	3.36	0.02	0.22	0.22	0.21	(3)
Other On-Road Trucks - Composite (Gms/Mi)	D	0.23	2.00	3.97	0.02	0.15	0.15	0.13	(4)
All Years									
Tugboat (Gm/Hp-Hr)	D	0.25	1.85	9.73	0.01	0.32	0.32	0.30	(5)
Fugitive Dust (Lbs/acre-day)	---	---	---	---	---	27.50	13.75	1.40	(6)
Building Demolition (Lbs/1000 cf)	---	---	---	---	---	0.84	0.42	0.04	(7)
Small Harbor Craft	D	0.16	1.27	7.46	0.47	0.30	0.30	0.28	(8)

- Notes: (1) Equal to the cleanest of EPA Tier 2 or 3 nonroad emission standards. For example, since there are no Tier 3 standards for PM, data presented = Tier 2 standards. Additionally, since there are no Tier 2/3 standards for CO, data presented derived from nonroad certification data. Source: *Exhaust and Crankcase Emission Factors for Nonroad Engine Modeling -- Compression-Ignition* (USEPA 2004).
- (2) Heavy duty diesel truck running emission factors developed from EMFAC2007 (ARB 2006). Units in grams/mile calculated for each future project year.
- (3) Composite factors based on a round trip of 90% at 25 mph and 10% at 5 mph. Units in grams/mile. Although not shown in these calculations, emissions from 5 minutes of idling mode included for each truck round trip.
- (4) For on-road trucks other than dredge material haul trucks, composite factor based on a round trip of 75% at 55 mph, 20% at 25 mph, and 5% at 5 mph. Units in grams/mile. Although not shown in these calculations, emissions from 5 minutes of idling mode included for each truck round trip.
- (5) Data obtained from Table A.1.2-CB-1 of this EIR/S, then divided by 1.34 to convert to units of Gm/Hp-Hr. Equal to average of Ports assist tug fleet in year 2010.
- (6) Units in lbs/acre-day from section 11.2.3 of AP-42 (EPA 1995). Emissions reduced by 75% from uncontrolled levels to represent compliance with SCAQMD Rule 403 - Fugitive Dust.
- (7) CEQA Air Quality Handbook, Table A9-9-H (SCAQMD 1993). Units in lbs/1000 cubic feet (cf) of demolished building.
- (8) EPA (2006)

Table A.4.1-Alt 1-137. Additional Air Emission Factors for the POLB Middle Harbor Project Construction Activities.

Project Year/Source Type	Emission Factors (Gm/Hp-Hr)						
	ROG	CO	NOx	SOx	DPM	PM10	PM2.5
Tugboats - Diesel Main Engines Year 2005	0.25	1.85	10.16	0.05	0.34	0.34	0.32
Tugboats - Diesel Main Engines Year 2006	0.25	1.85	10.07	0.05	0.34	0.34	0.32
Tugboats - Diesel Main Engines Year 2007	0.25	1.85	9.99	0.01	0.33	0.33	0.31
Tugboats - Diesel Main Engines Year 2008	0.25	1.85	9.90	0.01	0.33	0.33	0.31
Tugboats - Diesel Main Engines Year 2009	0.25	1.85	9.81	0.01	0.33	0.33	0.31
Tugboats - Diesel Main Engines Year 2010	0.20	1.87	5.07	0.00	0.15	0.15	0.14
Tugboats - Diesel Main Engines Year 2011	0.20	1.87	5.07	0.00	0.15	0.15	0.14
Tugboats - Diesel Main Engines Year 2012	0.20	1.87	5.07	0.00	0.15	0.15	0.14
Tugboats - Diesel Main Engines Year 2013	0.20	1.87	5.07	0.00	0.15	0.15	0.14
Tugboats - Diesel Main Engines Year 2014	0.25	1.85	4.97	0.01	0.14	0.14	0.13
Tugboats - Diesel Main Engines Year 2015	0.25	1.85	3.78	0.01	0.09	0.09	0.09
Tugboats - Diesel Main Engines Year 2016	0.25	1.85	3.69	0.01	0.09	0.09	0.08
Tugboats - Diesel Main Engines Year 2017	0.25	1.85	3.59	0.01	0.09	0.09	0.08
Tugboats - Diesel Main Engines Year 2018	0.25	1.85	3.50	0.01	0.08	0.08	0.08
Tugboats - Diesel Main Engines Year 2019	0.25	1.85	3.41	0.01	0.08	0.08	0.07
Tugboats - Diesel Main Engines Year 2020	0.25	1.85	3.32	0.01	0.08	0.08	0.07
Tugboats - Diesel Main Engines Year 2025	0.25	1.85	3.32	0.01	0.08	0.08	0.07

~Tier 2 levels

Table A-4-Alt1-138. Total Annual Conformity-Related Construction Emissions from Construction Equipment – Federal Action Component - Alternative 1

Year	Tons					
	VOC	CO	NOx	SOx	PM10	PM2.5
2009	0.12	0.55	1.67	0.00	0.29	0.13
2010	1.87	8.43	26.32	0.17	3.74	1.84
2011	1.00	4.26	13.94	0.38	1.83	0.93
2012	0.83	2.17	5.97	0.45	4.86	1.59
2013	0.71	1.91	5.21	0.36	4.48	1.43
2014	0.76	3.15	9.91	0.01	3.83	1.23
2015	0.92	3.77	11.60	0.12	4.05	1.39
2016	0.06	0.26	0.78	0.00	0.13	0.06
2017	0.70	1.98	5.65	0.31	1.26	0.72
2018	1.74	7.41	24.14	0.03	11.92	3.44
2019	0.51	2.15	7.14	0.01	8.08	1.97
Conformity De Minimis Thresholds - SCAB	10	100	10	100	70	100

Table A-4-Alt1-139. Total Annual Conformity-Related Construction Emissions from Trucks – Federal Action Component - Alternative 1

Year	Tons					
	VOC	CO	NOx	SOx	PM10	PM2.5
2009	0.05	0.22	0.74	0.00	0.04	0.04
2010	0.49	2.02	6.89	0.11	0.37	0.34
2011	0.23	0.96	3.23	0.07	0.17	0.16
2012	0.24	0.48	1.26	0.16	0.22	0.22
2013	0.31	0.74	2.12	0.18	0.28	0.27
2014	0.16	0.63	2.19	0.00	0.12	0.11
2015	0.39	1.55	5.18	0.03	0.30	0.28
2016	0.04	0.17	0.57	0.00	0.03	0.03
2017	0.33	0.59	1.42	0.25	0.31	0.30
2018	0.33	1.35	4.56	0.01	0.24	0.22
2019	0.10	0.41	1.37	0.00	0.07	0.07
Conformity De Minimis Thresholds - SCAB	10	100	10	100	70	100

Table A-4-Alt1-140. Total Annual Conformity-Related Construction Emissions from Tug Boat Usage Within 3nm of the Coast – Federal Action Component - Alternative 1

Year	Tons					
	VOC	CO	NOx	SOx	PM10	PM2.5
2009	0.05	0.38	1.09	0.01	0.04	0.04
2010	1.43	12.43	36.74	0.53	1.34	1.25
2011	0.24	2.06	5.93	0.06	0.21	0.19
2012	0.27	1.37	4.03	0.19	0.26	0.25
2013	0.32	2.34	6.77	0.12	0.28	0.27
2014	0.55	4.82	14.15	0.20	0.52	0.49
2015	0.16	1.39	3.67	0.01	0.14	0.13
2016	0.19	1.42	4.50	0.10	0.17	0.16
2017	0.50	3.14	8.89	0.20	0.40	0.38
2018	0.75	5.55	16.03	0.21	0.58	0.54
2019	-	-	-	-	-	-
Conformity De Minimis Thresholds - SCAB	10	100	10	100	70	100

Table A-4-Alt1-141. Total Annual Conformity-Related Construction Emissions from Tug Boat Usage Beyond 3nm of the Coast – Federal Action Component Alternative 1

Year	Tons					
	VOC	CO	NOx	SOx	PM10	PM2.5
2009	0.04	0.39	1.07	0.00	0.03	0.03
2010	0.78	6.84	18.81	0.02	0.58	0.54
2011	0.11	0.97	2.66	0.00	0.08	0.08
2012	0.07	0.59	1.63	0.00	0.05	0.05
2013	0.34	2.92	8.05	0.01	0.25	0.23
2014	0.34	2.92	8.05	0.01	0.25	0.23
2015	-	-	-	-	-	-
2016	-	-	-	-	-	-
2017	0.27	1.93	5.26	0.01	0.15	0.14
2018	0.49	3.48	9.46	0.01	0.28	0.26
2019	-	-	-	-	-	-
Conformity De Minimis Thresholds - SCAB	10	100	10	100	70	100

Table A-4-Alt1-142. Total Annual Conformity-Related Construction Emissions – Federal Action Component - Alternative 1

Year	Tons					
	VOC	CO	NOx	SOx	PM10	PM2.5
2009	0.26	1.54	4.57	0.01	0.40	0.23
2010	4.57	29.71	88.76	0.83	6.03	3.97
2011	1.58	8.25	25.77	0.51	2.30	1.36
2012	1.41	4.61	12.89	0.80	5.40	2.11
2013	1.68	7.91	22.14	0.67	5.29	2.20
2014	1.79	11.52	34.30	0.22	4.71	2.06
2015	1.48	6.71	20.45	0.16	4.49	1.80
2016	0.28	1.86	5.85	0.10	0.33	0.24
2017	1.79	7.64	21.22	0.77	2.12	1.55
2018	3.31	17.79	54.19	0.26	13.02	4.47
2019	0.61	2.55	8.52	0.01	8.16	2.04
Conformity De Minimis Thresholds - SCAB	10	100	10	100	70	100

Table A-4-AIT1-143 Total Annual NOx Emissions – Federal
Action Component of POLB Middle Harbor Alternative 1

Activity	2009		2009		2010		2010		2010		2010		2010		2010	
	Nov		Dec		Jan		Feb		Mar		Apr		May		Jun	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd
Ph 1-1 Demolish Existing Facilities																
Wharf Demolition Landside				0.66					0.82							
Wharf Demolition Marine				1.21					1.51							
Sheet Pile Bulkhead Demolition				0.67					0.84							
Construct New Bulkhead																
Retaining Bulkhead Construction						0.19										
Excavation Fronting E24																
Clamshell Dredging														4.66		
Land Ex														1.16		
Construct New Armor Slope																
Rock Placement, Push Off & Tub & Orange Peels														3.90		
Wharf Construction																
Drive 24-In Octagonal Piles - Land																
Drive 24-In Octagonal Piles - Water																
Drive Piles - Misc Activities																
Reinforced Concrete Wharf																
Retaining Bulkhead Construction																
Utility Construction																
New Container Yard Utilities																
Paving																
New Container Yard Construction - Paving																
Lighting, Striping, Crane Power																
New Container Yard Construction - Electrical																
Prepare for Toe Dike / Construct Dike (1st Lift)																
Rock Placement, Push Off & Tub & Orange Peels				2.04				8.16								
Fill within Dike																
Clamshell Dredging													1.20			
Remaining Dike Lifts																
Rock Placement, Push Off & Tub & Orange Peels																
Remaining Fill Lifts																
Clamshell Dredging																
Wharf Construction																
Drive 24-In Octagonal Piles - Land																
Drive 24-In Octagonal Piles - Water																
Drive Piles - Misc Activities																
Reinforced Concrete Wharf																
Retaining Bulkhead Construction																
Construct South Mooring Dolphin																
Drive 24-In Octagonal Piles - Water																
Wick Drains																
Wick Drains																