

*PowerPoint Presentation by Andrea Hricko, Appellant on  
behalf of Concerned Academics from USC and UCLA,  
Professor Emerita, USC Keck School of Medicine  
Dec. 3, 2019*

Before the City of Long Beach City Council

On appeal of the Long Beach Planning Commission approval of MND  
and more - for the Long Beach Cruise Terminal Improvement Project

# Issues

NOTE: References and Appendices to back up what we found in public documents and electronic links follow the text.

NOTE: We received more than 1500 pages of public records through a request to the City of Long Beach that took four months for a response.

1. Despite claims to the contrary, City of Long Beach staff did not appropriately consult with POLB on strategy for the CEQA analysis and plans for Carnival to bring in the biggest cruise ship in the world

- POLB Env Mgmt staff (personally) told me that the City of Long Beach was handling the environmental review differently than the POLB would have
  - E.g, POLB said there had been no need for a CEQA “baseline” analysis comparing the Splendor and the Panorama
    - The public and government agencies had spent weeks commenting on the baseline issue as raised by City planning staff
- I forwarded to POLB mgmt staff the City of LB announcement of a Planning Commission hearing to adopt the MND
  - Port of LB - 3 very top env mgmt staff - told me that they had not seen it before
    - That is not proper “consultation,” and it resulted in an opaque process and lack of ability to engage on this issue with the POLB

## 2. We argue that the City of LB did faulty comparisons to claim pollution reductions

- City of LB staff compared plug-in Carnival Panorama to polluting Carnival Splendor that the cruise ship company had just returned to Long Beach [*for unknown reasons*] after years away
  - Claims that the Panorama would reduce pollution
  - Bringing back the polluting Splendor after 4 years away seems like a great way for Carnival to show pollution would go down - bring in a really dirty ship to compare the new plug-in ship to!
  - Organizations and academics challenged baseline -- as did California Air Resources Board which said:
    - Under new CARB rules, the Splendor would have had to leave by January 2020 anyway, so the comparison of Splendor and Panorama made no sense

### 3. Carnival confused planning staff for months by saying Panorama had a Tier III engine

- City planning staff did not learn until May 28, 2019 that in fact the Panorama was Tier II
  - Consultants told City staff on that date that all their emissions calculations were based on Tier III
  - Did those calculations really all get redone for the release of the MND a few weeks late in June 2019?
- Confusion over when “keel was laid”
  - Under IMO Marpol Annex VI rules, keels laid after January 1, 2016 had to be for Tier III engines
  - Keel was “ceremoniously laid” in January 2018 when construction of ship began
  - In August 2019, Carnival produced a document showing the Panorama keel was actually laid on December 22, 2015 - 10 days before Tier III engine rule went into effect
    - This raises questions about whether the cruise ship line cares about the environment; we note that Carnival has the world’s worst environmental record of any cruise line

# Tier II versus Tier III - hugely more polluting

- Established classification of engines required for vessels based on year built

Year Built	Engine Tier	NOx Emissions
Pre-2000	Tier 0	uncontrolled
2000	Tier 1	9.8-17 g/Kwh
2011	Tier 2	15% cleaner than Tier 1
2016	Tier 3	75% cleaner than Tier 2

Emission Control Area (ECA) only

# POLB should have known re keel controversy and “grandfathering in” of Tier III-exempt ships

- This issue of Carnival and when its keel was laid is never discussed in the MND
- The Ports’ CAAP 2017 update explained the glut in Tier II engines that will affect the Ports’ air quality for decades to come
- *“Although Tier 3 engines are required for ships calling the ECA with keels laid starting on January 1, 2016, there were a significant number of ship keels laid prior to 2016 and yet to be constructed, essentially creating a large pool of grandfathered or Tier 3-exempt new ships. Looking at the number of keels laid but not constructed (as of August 2016) between 2005 and 2015, there are more than 1,400 grandfathered keels that are available for new ships with more than 1,200 of those laid in 2015.” (42)*
- Again, were the consultants’ emission calculations all redone between May 28, 2019 and release of the MND a few weeks later? How can we be sure?

## 4. Mitigation Measures: e.g., failure to demand Tier 3 engine tug boats be used

- MND states that Tier 3 engine tugboats are not always available in Southern California
  - In public records I received, emails stated clearly that Carnival would NOT commit to Tier 3 engine tugs
  - Tugs are very polluting and Tier III should be required
  - MND says use Tier III “if available”
  - The City should MAKE Carnival be sure they are available
  - Appendix K of City’s staff report quotes the law firm of DLA Piper on behalf of Carnival saying that if Carnival does not use Tier III tugs, it can buy or lease emission credits
    - BUT in public records I received, the same law firm said that the cost of the emissions credits would be excessive and not feasible (See Appendix)
- Port of LB announced receipt of \$50 million for near zero equipment
  - Including zero emission tugboats
  - Why can POLB not purchase these tugboats for this and future projects?



## 5. Analysis of dredge materials in 2018 shows “moderate contamination” - where to dispose? Totally at odds with disposal decision in 2009!

- 8/10 metals from Cruise Ship Terminal sediment had higher levels in 2018 than 2009
- Levels of PCBs are much higher today
- The levels of metals and chlorinated pesticides in 2009 were considered too contaminated to dispose at LA-2, so the sediments were treated and disposed of on land
  - Nevertheless, HIGHER LEVELS OF CONTAMINANTS in 2018 are deemed “okay for ocean disposal to LA-2”
  - WHY?
  - HOW CAN THESE DIVERGENT DECISIONS BE RECONCILED?
- THE 2009 SAMPLING RESULTS WERE IN CHAPTER AND APPENDIX ON DREDGING IN THE MND - NOT HIDDEN AWAY



# What the regional water quality board says about current contamination

- “Given the limited number of ER-L exceedances (arsenic, copper, lead, nickel, zinc, 4,4'- DDD, 4,4'-DDE, total DDT and total PCB Congeners) and no Effects Range-Median (ER-M) exceedances, the sediments are suitable for placement at LA-2 ODMDS.”
  - Board minimized results, saying “limited number of ER-L exceedances”
    - In fact, 10 metals were sampled and 5 exceeded ER-Ls (lower threshold levels)
    - Not mentioned:
      - Arsenic levels were 1.2-5x times higher than current LA-2 ocean reference levels
      - Lead levels were 14-16x higher than LA-2 ocean reference levels
    - No detectable PCBs at LA-2; levels of PCBs in Carnival samples exceed EL-L
  - In light of such a radically different decision in 2009 than 2018, we recommend that a neutral body be selected to review the 2018 decision on suitability for ocean disposal of sediment that is dredged
    - 2009 EPA and Army Corps decisionmakers were under the Obama Administration
    - 2018 EPA and Army Corps decisionmakers are under the Trump Administration
    - Are we sure that allowing ocean dumping is a scientific decision rather than a political one?

**6. Bottom line:  
this project  
must have a full  
EIR!**

In public record responses, several staff members and even someone from Carnival asked if: “we should move to a full EIR?” or “how long would it take to move to a full EIR”?



A full EIR is needed to address issues of:

Air quality analyses

Ocean disposal of  
contaminated  
sediments

## 7. Most current issue: Carnival Panorama is docking at the Cruise Terminal this month!

- But what about all the safety and stability issues Carnival raised –
  - Such as moorings?
  - This is from the City's website about the Project:

2. **Mooring Dolphins and Catwalks.** Two high-capacity, pile-founded mooring dolphins and associated catwalks are proposed on both sides of the wharf deck to allow for adequate mooring capacity and stability. The proposed dolphins would be structurally designed similar to the existing dolphins located off the northern and southern ends of the deck. All dolphins would connect back to the wharf deck via catwalk bridge elements.

## Carnival Panorama Itineraries

The below listed Carnival Panorama cruise prices on itineraries are only indicative and Per Person (in US dollars, based on double occupancy). These are the cheapest Carnival Cruise Line fares on the ship's lowest category cabins available for booking. Cruise fares typically change with departure dates approaching, last minute deals, discounts, promotions, independent travel agency offers.

Date	Cruise Name	Departure Port	Price from
2019 Dec 11	<b>3 days, round-trip Baja Mexico</b>	 Los Angeles	\$439
2019 Dec 14	<b>7 days, round-trip Mexican Riviera</b>	 Los Angeles	\$634
2019 Dec 21	<b>7 days, round-trip Mexican Riviera</b>	  Los Angeles	\$1014
2019 Dec 28	<b>7 days, round-trip Mexican Riviera</b>	  Los Angeles	\$974

# Appendices and Reference Materials/Links

# Appendix A - documentation of keel laying

August 5, 2019

Richard D. Cameron  
Deputy Executive Director - Planning and Development  
The Port of Long Beach  
415 W. Ocean Blvd.  
Long Beach, CA 90802-6194

Dear Mr. Cameron,

We want to thank you, Mr. Cordero and Mr. Hagegaba for meeting with us last week. We really appreciate all of the support for our project at the Long Beach Cruise Terminal. This is a very important strategic initiative for Carnival Cruise Line and we look forward to working with you to complete this project on a timely basis.

We also wanted to address the confusion related to the official keel laying date for the Carnival Panorama. Attached is a document from RINA (the Classification Society for the ship during construction) that documents the official keel laying date as December 22, 2015 (in accordance to Chapter II – Regulation 1 of Solas / 4 as amended).

We understand that certain public information reflects the keel laying date as January 10, 2016. This date reflected a traditional ceremonial event for the benefit of the Carnival Cruise Line and shipyard teams. It is also designed to provide a promotional opportunity to gain consumer and travel agent exposure for the new ship.



## STATEMENT

No. 201500798

To whom it may concern

The undersigned declare that on 22 December 2015 did attend in FINCANTIERI SpA – Monfalcone Shipyard - to the "Steel Cutting Plate" for the New Building Hull 6272 (RI 94467)

Issued at Trieste on 28 December 2015

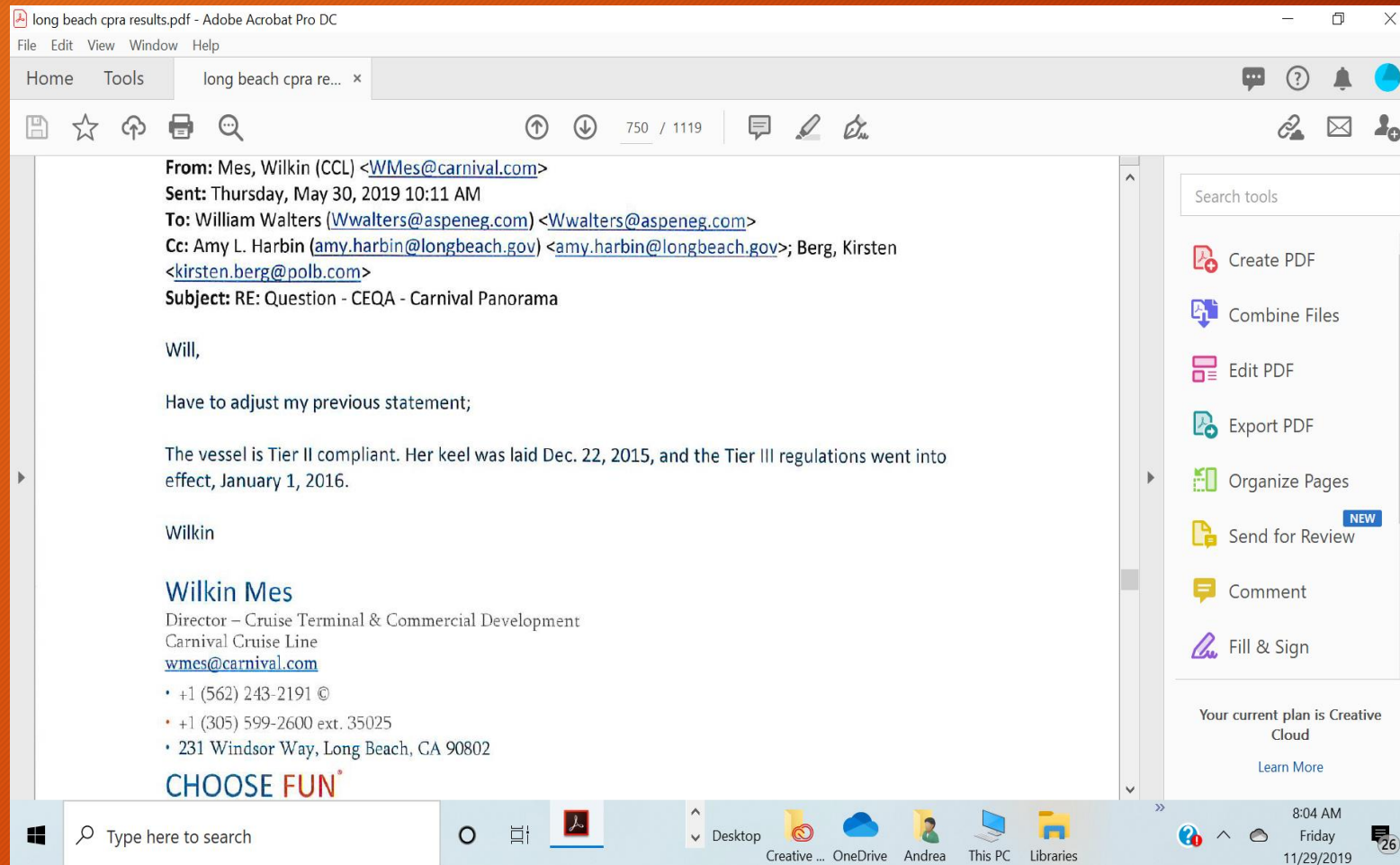


  
RINA



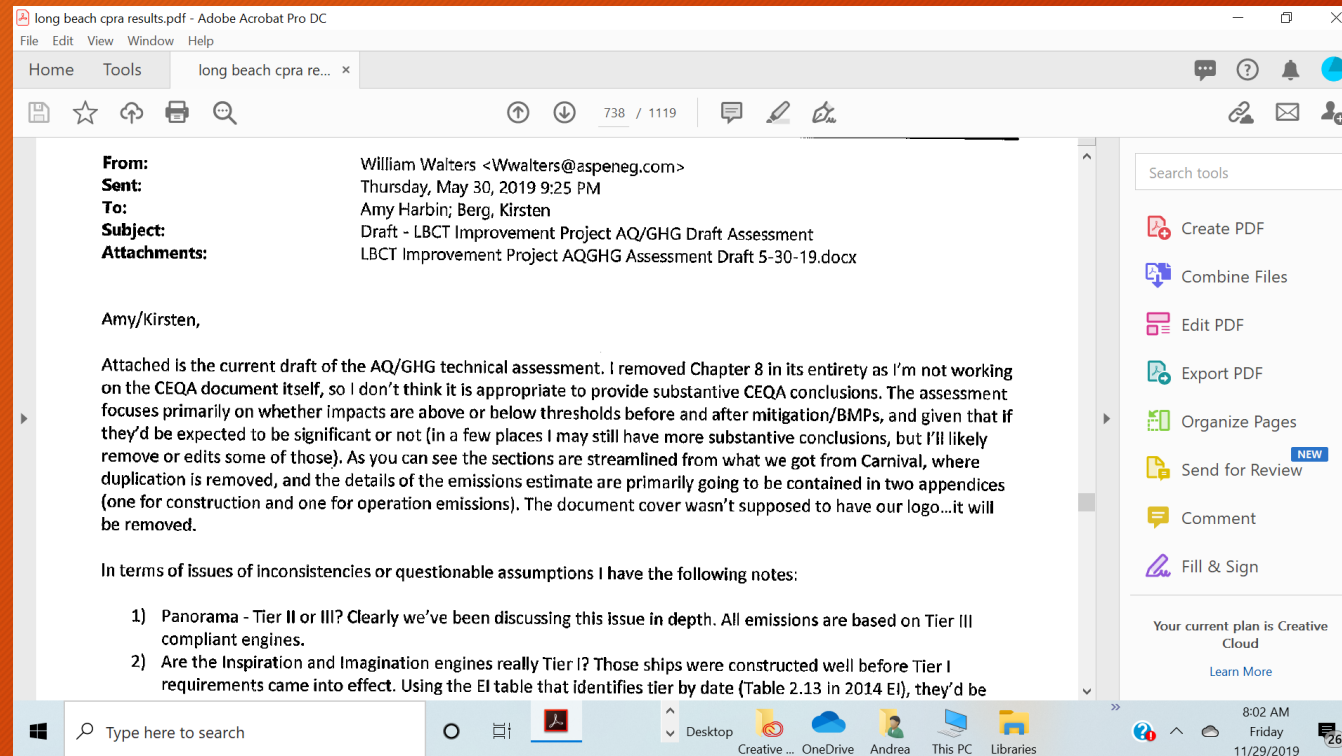


# Appendix B1 - Email from Carnival to City of LB on May 30, 2019 re Tier II or Tier III engine? *“Have to adjust my previous statement. The vessel is Tier II compliant.”*



# Appendix B2: Panorama - Tier II or Tier III - May 30, 2019 *From City of LB consultant*

- From consultant: “All emissions are based on Tier III compliant engines.”



# Appendix C1 - Chemistry results of sediment testing

**Table 2.** Results from Chemical Analysis sediment characterization study, October 2018

Analyte	Composite-a	Composite-b	Screening Threshold 1 (ERL)	Screening Threshold 2 (ERM)
<b>Metals (mg/kg)</b>				
Arsenic	9.51	12.1	8.2	70
Cadmium	1.17	1.15	1.2	9.6
Chromium	34.1	38.6	81	370
Copper	85.4	61.5	34	270
Lead	80.4	72.3	46.7	218
Nickel	23.8	30	20.9	51.6
Selenium	4.3	2.8	N/A	N/A
Silver	0.561	0.566	1.0	3.7
Zinc	211	174	150	410
Mercury	0.14	0.168	0.15	0.71
<b>Chlorinated Pesticides (µg/kg)</b>				
4,4'-DDD	15	18	2	20
4,4'-DDE	21	23	2.2	27
Total DDTs	40.4	53	1.58	46.1
<b>PCBs (µg/kg)</b>				
Total PCBs	115	107	22.7	180

DDE = dichloro-diphenyl-dichloroethylene; DDT = dichloro-diphenyl-trichloroethane;  
 PAHs = polycyclic aromatic hydrocarbons; PCBs = polychlorinated biphenyls;  
 ERL = Effects Range Low; ERM = Effects Range Median

# Appendix C2: Another chart showing 2018 results

**Table 9. 2018 Long Beach Cruise Terminal Bulk Sediment Chemistry Results.**

Valid Analyte Name	Units	Composite Samples		C1-b	LA2 Reference	NOAA Screening	
		<i>a</i>	<i>b</i>			Salt ERL <sup>1</sup>	Salt ERM <sup>1</sup>
<b>SEDIMENT CONVENTIONALS</b>							
Total Solids	%	51.1	58	55.7	56.5		
Total Ammonia	mg/kg dry	1.4	2.4	1.3	2.5		
Oil and Grease	mg/kg dry	700	560	800	83		
TRPH	mg/kg dry	330	410	590	24		
Dissolved Sulfides	mg/kg	<0.017	<0.017	<0.017	<0.017		
Total Sulfides	mg/kg dry	300	190	220	0.53		
Total Organic Carbon	%	2.2	1.5	1.4	0.36		
Total Volatile Solids	%	3.7	3.4	3.8	1.7		
<b>METALS</b>							
Arsenic	mg/kg dry	<b>9.51</b>	<b>12.1</b>	<b>9.26</b>	2.3	8.2	70
Cadmium	mg/kg dry	1.17	1.15	<b>1.24</b>	0.112J	1.2	9.6
Chromium	mg/kg dry	34.1	38.6	39.3	20.3	81	370
Copper	mg/kg dry	<b>85.4</b>	<b>61.5</b>	<b>57</b>	9.16	34	270
Lead	mg/kg dry	<b>80.4</b>	<b>72.3</b>	<b>75.7</b>	5.16	46.7	218
Mercury	mg/kg dry	0.14	<b>0.168</b>	<b>0.168</b>	0.0159J	0.15	0.71
Nickel	mg/kg dry	<b>23.8</b>	<b>30</b>	<b>25.5</b>	10.6	20.9	51.6
Selenium	mg/kg dry	4.3	2.8	3.06	0.744		
Silver	mg/kg dry	0.561	0.566	0.631	0.0855J	1	3.7
Zinc	mg/kg dry	<b>211</b>	<b>174</b>	<b>189</b>	44.4	150	410

# References

- 2017 Ports' Clean Air Action Plan discussion of keels:  
[https://www.lacity.org/sites/g/files/wph1221/f/final-2017-clean-air-action-plan-update\\_0.pdf](https://www.lacity.org/sites/g/files/wph1221/f/final-2017-clean-air-action-plan-update_0.pdf)
- Footnote 42 re keels: Starcrest Consulting Group. “San Pedro Bay Ocean-Going Vessel International Maritime Organization Engine Tier Forecasts, 2015-2050.” Draft. June 2017.
- Sarah Rees - AQMD Presentation on glut of keels pre-2016:  
<http://www.aqmd.gov/docs/default-source/default-document-library/governing-board/2018-board-retreat-item-8-potential-international-partnerships-with-ports.pdf?sfvrsn=6>

- Emissions from Tier II engines versus Tier III:
- <https://www.dieselnet.com/standards/inter/imo.php>

Water Quality Board statement on dredging sediment testing:

[https://www.waterboards.ca.gov/losangeles/board\\_decisions/tentative\\_orders/individual/non-npdes/Port\\_of\\_Long%20Beach\\_Cruise\\_Terminal/TentativeWDRPOLBCruiTerminal.pdf](https://www.waterboards.ca.gov/losangeles/board_decisions/tentative_orders/individual/non-npdes/Port_of_Long%20Beach_Cruise_Terminal/TentativeWDRPOLBCruiTerminal.pdf)

- Ceremonial keel laying for Panorama in January 2018:
- <https://www.cruisehive.com/carnival-panorama-keel-laid-at-shipyard/22178>
  
- **2019 Soils Report from Appendix E of MND:**  
[http://www.longbeach.gov/globalassets/lbds/media-library/documents/planning/environmental/environmental-reports/pending/long-beach-cruise-terminal-improvement-project/appendix-e\\_phase-i-esa\\_soils-report\\_aug2019](http://www.longbeach.gov/globalassets/lbds/media-library/documents/planning/environmental/environmental-reports/pending/long-beach-cruise-terminal-improvement-project/appendix-e_phase-i-esa_soils-report_aug2019)

- \$50 million for zero emission equipment granted to POLB:
- <https://safety4sea.com/port-of-long-beach-granted-50-million-for-zero-emissions-project/> to include Harley Marine electric-drive tugboats
- Environmental record of Carnival Cruise lines, examples: Information on Carnival's environmental record; see for example:  
<https://www.npr.org/2019/06/04/729622653/carnival-cruise-lines-hit-with-20-million-penalty-for-environmental-crimes>;
- <https://www.usatoday.com/story/travel/news/2019/06/04/carnival-cruise-lines-pleads-guilty-continued-pollution-fined-20-m/1337198001/>;
- [https://www.google.com/search?q=carnival+cruise+lines+and+environmental+and+europe&rlz=1C1SQJL\\_enUS826US826&oq=carnival+cruise+lines+and+environmental+and+europe&aqs=chrome..69i57j33.7445j0j7&sourceid=chrome&ie=UTF-8](https://www.google.com/search?q=carnival+cruise+lines+and+environmental+and+europe&rlz=1C1SQJL_enUS826US826&oq=carnival+cruise+lines+and+environmental+and+europe&aqs=chrome..69i57j33.7445j0j7&sourceid=chrome&ie=UTF-8)



# Appendix D1: Sediment testing results, Cruise Terminal, 2018

- Link to Appendix E
- [http://www.longbeach.gov/globalassets/lbds/media-library/documents/planning/environmental/environmental-reports/pending/long-beach-cruise-terminal-improvement-project/appendix-e\\_phase-i-esa\\_soils-report\\_aug2019](http://www.longbeach.gov/globalassets/lbds/media-library/documents/planning/environmental/environmental-reports/pending/long-beach-cruise-terminal-improvement-project/appendix-e_phase-i-esa_soils-report_aug2019)

# Appendix D2 - Sediment testing results 2018

The project proposes to deepen the existing berth by dredging approximately 33,250 cubic yards in order to increase navigable and mooring margins. A soil sampling analysis was conducted as part of the Dredging Soils Report to determine whether the dredged sediments could be placed at the LA-2 Ocean Dredge Material Disposal Site (ODMDS). According to the soils sampling and testing results, the dredged sediment showed moderate chemical contamination with some chemical concentrations elevated compared to LA-2 reference samples. However, none of the tested sediments were toxic to *Ampelisca abdita* and *Neanthes arenaceodentata*, which are indicators of sediment toxicity, and there was no observed water column toxicity. Additionally, among others, bioaccumulation testing was conducted to determine whether the dredged materials had an accumulation of chemicals and/or heavy metals in exceedance of permissible concentrations. Based on the analysis, the proposed dredging sediments would not exceed permissible concentrations related to bioaccumulation. Overall, the Dredging Soils Report concluded that the proposed dredging sediments from the Long Beach cruise terminal would be environmentally suitable for placement at the LA-2 ODMDS. As such, impacts concerning the routine transport, use, or disposal of hazardous materials during project construction would be less than significant.

# Appendix E1. Chemicals found in cruise terminal sediment in 2009 - with decision NOT to dispose at LA-2 in ocean

## 2.0 SITE HISTORY AND HISTORICAL DATA REVIEW

This section provides a brief history of dredging activities at the Long Beach Cruise Terminal site.

### 2.1 January 2009 (Weston, 2009)

Sediments from the Long Beach Cruise Terminal berth area were collected and tested in 2009 by Weston for CH2MHill and Carnival Corporation. This project was associated with the maintenance dredging of the berth to its design depth of -30 ft MLLW, with a total dredging volume of approximately 2,000 cy. Cores were collected from three (3) stations and tested for physical and chemical characteristics. The test results were reported by Weston (2009) and summary results are provided in Appendix A.

The material was found to be predominantly fine-grained sediments consisting of 77-95% silt and clay across the sampling area. Moderate contaminant levels were present in the samples. Four metals (arsenic, copper, lead, and nickel) were found to exceed the NOAA Effects Range Low (ERL) benchmark value for marine sediment but did not exceed the Effects Range Median (ERM) for marine sediment (Long et al., 1995). Total DDTs exceeded the ERM threshold in the site-wide composite sample.

Additional tests of individual cores from the berth proper showed elevated PCBs and chlordane compared with the site-wide composite sample. PCBs and chlordane were found to exceed ERL and ERM values, respectively.

The elevated sediment levels of certain constituents were determined to be significant enough to preclude open-water disposal at the offshore ocean disposal site LA-2. As a result, biological testing was not conducted. Based on available information, the dredged material was temporarily stockpiled at Pier S in POLB (Manson, person. comm.) before being transported to a thermal treatment recycling Class II landfill facility operated by TPST Soil Recyclers of California in Adelanto, CA, for disposal as non-hazardous petroleum contaminated soil (BESI, 2009).

# Appendix E3: Other chemicals found in Cruise Terminal sediment in 2009 and not found in LA-2 ref samples

The following are other organic compounds detected in the Long Beach Cruise Terminal samples above method detection limits (MDLs):

- Endrin was detected in the Composite-*a* sample (6.1  $\mu\text{g}/\text{kg}$ ) but not in the LA-2 reference sample (MDL=0.1).
- Pentachlorophenol concentrations in all three Long Beach Cruise Terminal samples were between the MDL and reporting limit (RL) but below the MDL in the LA-2 reference sample.
- Bis-(2ethylhexyl) phthalate concentrations in all three Long Beach Cruise Terminal samples (510 to 830  $\mu\text{g}/\text{kg}$ ) were a magnitude higher than the MDL but below the MDL in the LA-2 reference sample.
- Two other phthalate compound concentrations in the Composite-*a* and C1-*b* samples were estimated values between the MDL and RL.
- Bifenthrin concentrations in the all three Long Beach Cruise Terminal samples (4.3 to 11  $\mu\text{g}/\text{kg}$ ) were roughly four to 11 times higher than the RL (1.0  $\mu\text{g}/\text{kg}$ ). Bifenthrin was not detected in the LA-2 reference sample.
- Cyfluthrin and cypermethrin were detected in the Composite-*a* sample at concentrations of 2.0 and 1.4  $\mu\text{g}/\text{kg}$ , respectively, but not in the LA-2 reference sample. Cyfluthrin was also detected in the Composite-*b* sample but at an estimated concentration slightly above the MDL.
- Permethrin concentrations in the all three Long Beach Cruise Terminal samples (2.3 to 7.8  $\mu\text{g}/\text{kg}$ ) were roughly two to eight times higher than the RL (1.0  $\mu\text{g}/\text{kg}$ ). Permethrin was not detected in the LA-2 reference sample.

The mean ERM quotient (ERM<sub>q</sub>) among all chemical constituents with ERM values was 0.18 for all three Carnival samples. With an ERM<sub>q</sub> of 0.1, there is less than a 12% probability of a toxic response to marine amphipods (Long and MacDonald, 1998b). Therefore, the chemistry results predict a moderate chance that the Carnival sediments would cause significant toxicity to marine amphipods.

# Appendix E2. More results from 2009 sediment testing at Cruise Terminal

*Carnival Cruise Terminal*

*January 2009*

Table 4. Results of Physical and Chemical Analyses

Parameter	Units	ERL value	ERM value	CT Comp	CT1
<b>General Chemistry</b>					
Ammonia-N	mg/dry kg			8.75	
Dissolved Sulfides	mg/dry kg			<0.2	
Percent Solids	Percent			61.8	
Total Organic Carbon	Percent			0.69	
Total Sulfides	mg/dry kg			130.4	
Specific Gravity				2.63	
<b>Trace Metals</b>					
Arsenic (As)	µg/dry g	8.2	70	10.66	
Cadmium (Cd)	µg/dry g	1.2	9.6	0.777	
Chromium (Cr)	µg/dry g	81	370	51.68	
Copper (Cu)	µg/dry g	34	270	47.77	
Lead (Pb)	µg/dry g	46.7	218	59.52	
Mercury (Hg)	µg/dry g	0.15	0.71	0.12	
Nickel (Ni)	µg/dry g	20.9	51.6	33.72	
Selenium (Se)	µg/dry g			0.278	
Silver (Ag)	µg/dry g	1	3.7	0.353	
Zinc (Zn)	µg/dry g	150	410	132.9	
PCBs					

# Appendix E4. 2009 results, continued

Total PCBs	ng/dry g	22.7	180	18.3	
Pesticides					
2,4'-DDD	ng/dry g			<1	3.2
2,4'-DDE	ng/dry g			<1	4.6
2,4'-DDT	ng/dry g			<1	<1
4,4'-DDD	ng/dry g	2	20	25.5	15.3
4,4'-DDE	ng/dry g	2.2	27	37.3	27.8
4,4'-DDT	ng/dry g	1	7	<1	<1
Total DDTs	ng/dry g	1.58	46.1	62.8	50.9
Aldrin	ng/dry g			<1	<1
BHC-alpha	ng/dry g			<1	<1
BHC-beta	ng/dry g			<1	<1
BHC-delta	ng/dry g			<1	<1
BHC-gamma	ng/dry g			<1	<1
Chlordane-alpha	ng/dry g			<1	6.7
Chlordane-gamma	ng/dry g			<1	7.9
Total Detectable Chlordane	ng/dry g	0.5	6	0	14.6
DCBA (Dacthal)	ng/dry g			<5	<5

# Appendix F: “Carnival is not able to commit to Tier 3 tugs at this point in time”

the Mexican Riviera will be able to maintain the 12km within the exclusion zone inbound coming from Puerto Vallarta. The outbound leg brings significant hardship from a port timing perspective, in that the call at Cabo San Lucas gets heavily restricted, and result in enormous guest dissatisfaction.

8.

- Carnival is not able to commit to using Tier III tugs at this point in time, as a construction contractor has not yet been selected and there is limited availability of Tier III tugs. However, an analysis based on using Tier III tugs should be added to the air quality appendix to clearly show the emissions calculations. The current AQ appendix just has a note which says “emissions could be reduced substantially” with Tier III tugs, but there are no numbers. The reduced emissions calculation with the Tier III tugs could be incorporated into the MND appendix either as a second Mitigated emissions table or as an asterisk on the tugs and total emissions numbers for with and without the Tier III tugs. There could even be a third table/asterisk based on operating only one dredge tug during construction (as that is another potential option). Both of these potential options (Tier III tugs and/or only one tug) would provide data to inform AQMD for credits purchasing and may even end up getting this project below the NOx threshold.
- Carnival further understands that that during the construction, per AQMD guidelines, it will seek to further reduce emissions and will use commercially reasonable efforts to schedule dredging when Tier 3 tugs are available.
- Carnival can not comment on the AQMD request for the Lead Agency to review whether it has RECLAIM credits available for this project.
- However, prior to commencement of construction Carnival shall purchase the necessary RECLAIM credits and will follow the monitoring program established by the AQMD or the lead agency.

7:45 AM  
Friday  
11/29/2019

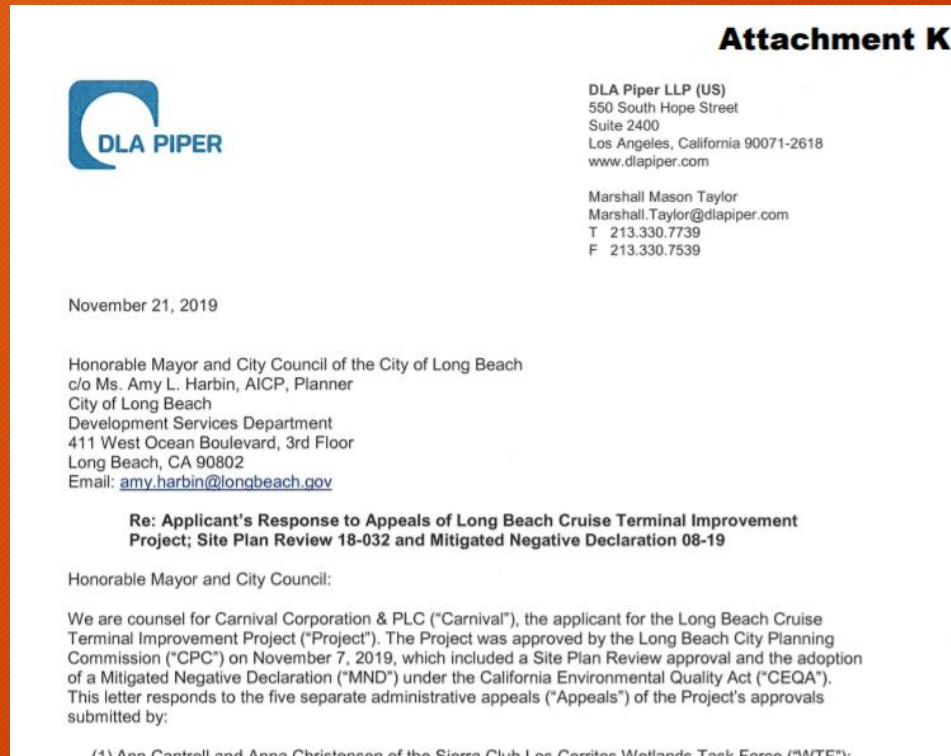
# Appendix G1: Rebuttal from Carnival's law firm - touting buying/leasing emission credits instead of using Tier III tug boats

- <http://longbeach.legistar.com/View.ashx?M=F&ID=7921633&GUID=3C2C7BE2-D31D-4D92-907E-D044EA664737>

CFU also complains that any proposed use of tugboats with Tier 3 engines is invalid because there is limited availability of such tugs. However, the MND analysis expressly states that Tier 3 tugs are not expressly mandated due to that very unavailability, instead merely requiring their use only when appropriately sized vessels with Tier 3 engines are available. (MND, at p. 4.3-8, n. 3.) This circumstance is further explained in the Air Quality Technical Report, which explains that mandating the use of Tier 3 tugs for the Project would be problematic as Tier 3 upgrades have mostly only been done for larger boats than those needed for the Project, and mandating the use of those larger Tier 3 boats as compared to smaller non-Tier 3 boats would wipe out any emissions reductions achieved with the larger boats' Tier 3 engines. (See, MND, Appx. A, at pp. 41-42.) Furthermore, under mitigation measure AQ-2, the Project will purchase Emissions Reductions Credits to offset its NOx emissions impacts. (MND, at p. 4.3-9.) The emissions reductions achieved by the Project's design features and mitigation measures thus properly account for the limited availability of Tier 3 engine tugs of a size that is appropriate for the Project, rendering the comment in the CFU Appeal irrelevant. Additionally, to respond to this concern, the MND was amended to state that tug boats would comply with at least Tier 2 standards – which the CFU Appeal fails to address.



# Appendix G1, continued: NOTE the memo is from Marshall Mason Taylor of DLA Piper



## Appendix G2: Carnival's law firm says buying emission credits would be infeasible

- SAME PERSON ... Marshall Taylor who says requiring Tier III tug boats cannot be required ... but an alternative is to buy emissions credits.
- However, he told Port of LB planning staff in June 2019 that "the expected cost [for NOx emission credits] would be \$30 million which effectively renders the project unfeasible"
- So is anything feasible as a mitigation measure?

### Amy Harbin

**From:** Taylor, Marshall M. <marshall.taylor@dlapiper.com>  
**Sent:** Thursday, June 20, 2019 5:52 PM  
**To:** Amy Harbin  
**Cc:** Mes, Wilkin (CCL) (WMes@carnival.com); Taylor, Marshall M.  
**Subject:** FW: Carnival ERCs  
**Attachments:** 1904-erc-sterc-active-list.xls

Amy:

We wanted to bring to your attention a significant issue on the requirement for NOx emission offset requirements as set forth in your recent email to Wilkin and the requirement of a firm commitment by a date certain.

We have spoken with several brokers and consultants with respect to purchasing NOx offsets. We finally found one consultant who was familiar and advised that the short term emission concept is not really designed for short term construction projects. What he was able to find is set forth on the attached chart, and he indicated a price of around \$15,000 per pound per day, if they were available at all. At your request for 20 days with a purchase of an estimated 100 pounds per day, the expected cost would be \$30,000,000 which effectively renders the project unfeasible.

You have suggested an alternative would be an EIR. How long would that take?

In addition, as we review AQMD rules, we do not believe that a signed purchase by a date certain should be part of the MND. Rather, Carnival would commit to either adjust its schedule to possibly reduce or remove the exceedance levels or have the offsets in place prior to the commencement of construction. Based upon the rules, the ERCs should be purchased and used prior to the start of construction.

As part of the mitigation, the purchase of tugs is spread out over different days to reduce any exceedance.