

Harbor Safety Committee

of the San Francisco Bay Region

*Mandated by the California Oil Spill
Prevention and Response Act of 1990*

Harbor Safety Committee of the San Francisco Bay Region

Thursday, February 9, 2017

Port of San Francisco

Pier 1 Conference Center

The Embarcadero

San Francisco, CA

Capt. Lynn Korwatch (M), Marine Exchange of the San Francisco Bay Region (Marine Exchange), Chair of the Harbor Safety Committee (HSC); called the meeting to order at 10:05.

Alan Steinbrugge (A), Marine Exchange, confirmed the presence of a quorum of the HSC.

Committee members (M) and alternates (A) in attendance with a vote: **John Berge** (M), Pacific Merchant Shipping Association; **Capt. Tony Ceraolo** (M), United States Coast Guard; **Chad Culberston** (M), Chevron Shipping Company; **Kevin Donnelly** (M), Water Emergency Transport Authority; **Lilli Ferguson** (A), NOAA; **Aaron Golbus** (M), Port of San Francisco; **Bob Gregory** (M), Foss Maritime Company; **Scott Grindy** (A), San Francisco Marine Small Craft Harbor; **Benjamin Huber** (M), Westar Marine Services; **MJR Kevin McCormick** (A), US Army Corps of Engineers; **Jim McGrath** (M), Bay Conservation and Development Commission; **Griffin Patrick** (M), Tesoro Refining and Marketing; **Jeff Robbins** (M), General Steamship Corp; **Capt. Paul Ruff** (A), San Francisco Bar Pilots; **Capt. Ray Shipway** (M), International Organization of Masters, Mates, and Pilots; **Jeff Vine** (A), Port of Stockton.

The meetings are always open to the public.

Approval of the Minutes-

A motion to accept the minutes of January 12, 2017 meeting was made and seconded. The minutes were approved without dissent.

Comments by Chair- Capt. Lynn Korwatch

Welcomed the committee members and audience.

Coast Guard Report- Capt. Tony Ceraolo

- Advised that recent weather conditions have resulted in the highest delta water levels recorded in almost a decade. VTS has received updates from the Bar Pilots regarding levee, Aids to Navigation and debris conditions. Storms have caused the Pilots to impose daylight

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restrictions and suspend operations for 24 hours in one instance. There has been storm damage to several Aids to Navigation. Heed Local Notice to Mariners and report any issues to the USCG.

- Advised that the USCG is still working with PG&E on the Sacramento power lines issue. Plans to address the problem should be presented by April, 2017.
- Advised that the USCG has published updated policy regarding the reporting of suspicious activity and breaches in security. (CG-5P Policy Letter No. 08-16, 12/14/2016) This policy letter addresses cybersecurity reporting.
- Thanked Capt. Korwatch for chairing the Maritime Transportation System Response and Recovery Coalition meeting scheduled to take place directly after today's HSC meeting.
- Cmdr. Jen Stockwell read from the January- 2017 Prevention/Response Report (attached). The USCG is seeking comment on the proposed decommissioning of the Mile Rocks sound signal. An anchor waiver for the Bay Bridge is proposed for Caltrans maintenance work. See the Local Notice to Mariners for more information.

Army Corps of Engineers Report- Major Kevin McCormick

- Al Paniccia read from the US Army Corps of Engineers, San Francisco District Report (attached). Plans for the FY 2017 dredge season were reviewed. The Main Ship Channel and Pinole Shoal Channel will be dredged by government hopper. Suisun Bay Channel will be dredged by clamshell in August. Richmond Outer Harbor dredging is being deferred this season due to CA Water Board restrictions on hopper dredging for longfin smelt protection. Army Corps fiscal policies prevent the use of clamshell dredging in the Richmond Outer Harbor. Condition surveys will be conducted regularly.
- Jim McGrath voiced concern with the Corps' position regarding longfin smelt, a state protected species.
- Al Paniccia advised that recent storms have led to the increased debris removal numbers reported. The next Suisun Bay condition survey will be conducted on February 13th.

San Francisco Fire Department Marine Unit - Tsunami Preparedness

- Aaron Golbus advised of a recent San Francisco Maritime Tsunami Workshop focusing on preparedness and introduced representatives from the San Francisco Fire Department Marine Unit. The Marine Unit seeks to protect fire assets from a tsunami by having plans in place for vessels to leave dock on short notice to ride out the event. Due to the fact that there are more

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Fire Department vessels to save than in-house pilots always available, the Marine Unit is looking for a pilot organization to partner with who can provide seasoned pilots on short notice during an emergency situation. The adverse conditions expected during a tsunami event require experienced pilots to operate the vessels. Any help the HSC can provide is appreciated. Capt. Korwatch advised that the HSC will assist on this matter. Capt. Shipway advised that ferry companies face similar problems protecting their vessels and that crew access during an emergency is a primary concern.

Clearing House Report- Alan Steinbrugge (report attached)

OSPR Report- David Mighetto

- Announced that OSPR is accepting applications for the primary or alternate member position on the SF HSC representing Ferry Operations. Deadline to apply is February 28, 2017
- Announced that the California Maritime Leadership Symposium will be held on February 15-16, 2017 in Sacramento. Register for the event online at maritimesymposium.com.
- Advised that the San Francisco Marine Exchange has submitted their proposed 2017-2018 PORTS budget.
- Tom Cullen, OSPR Administrator, advised that SB 414 assessments from other HSC's are being reviewed. SF HSC's assessment is still being finalized. OSPR inland regulations are being updated. An audit of OSPR was recently performed showing improvement compared to the last audit in 2012.
- Tom Cullen advised of a meeting that took place yesterday at State Lands regarding derelict vessels. It is cheaper to prevent rather than respond to derelict vessels as show by the Spirit of Sacramento recovery which cost 2–3 million dollars. The issue is being studied with surveys of derelict vessels planned. Larger vessels pose a greater risk that smaller recreational vessels.
- Tom Cullen announced that OSPR is hosting their bi-annual Spill Technology Workshop at the end of March, 2017.

NOAA Report- Lily Ferguson

- Advised that NOAA Fisheries is offering WhaleWatch which estimates the location and density of blue whales offshore. A free webinar will be held on February 22, 2017 from 10:00 – 11:00 regarding the service. Monthly predictive maps are produced to help reduce the risk of ship strikes.

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- Advised that the NWS La Nina watch has been canceled and more rain is expected this season. California reservoirs and snow pack are above normal but large aquifers in the central valley will take more than one wet year to replenish after the drought. See climate.gov ENSO blog for more information.
- Advised that a recent survey of the San Francisco waterfront has been applied to NOAA charts.

State Lands Commission Report - Richard Hernandez (report attached)

Brief on California ARB At-berth Regulations – California Air Resources Board

- Paul Milkey, ARB, gave a presentation to the HSC on proposed fuel regulations for ships at berth (slides attached).
 - CARB regulations have gradually decreased the sulfur limit in fuel which is now at 0.1%. Federal ECA regulations also limit sulfur to 0.1% although there are significant differences between the state and federal laws. CARB provides a straightforward equivalency process for vessels that meet ECA requirements calling California ports. CARB regulations will be removed if it is determined that federal regulations are fully equivalent at reducing sulfur emissions.
 - Effective since 2009, CA at-berth regulations gradually reduce the allowable quantity of PM and NOx emissions for many vessels including container ships, cruise ships and larger fleets. Tankers are not currently included and the regulations only apply to LA/LGB and SF ports. At-berth emission reduction options for vessels include the using of shore power primarily or the use of alternative technologies such as barge based scrubbers. The regulations are in the process of being amended and many methods for reducing emissions are being considered. The inclusion of tankers, bulkers and other vessel types is proposed along with adding regulation of boiler emissions. An ARB workshop will be held regarding this issue in spring, 2017 and input from the HSC and maritime community is welcome. Tankers produce more emissions at-berth than other types of vessels due to their boiler use and lack of current regulations. Amendments focused on reducing tanker emissions by using shore power, booster pumps and barge based emission control systems are being considered. Significant reduction in PM and NOx has been achieved by the existing regulations.

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Work Group Reports-

Tug Work Group- Bob Gregory advised that a draft of the SB 414 assessment is being reviewed by the Work Group and should be finalized by the next HSC meeting.

Navigation Work Group- Nothing to report.

Ferry Operations Work Group- Kevin Donnelly advised that there have been some cancelations and service disruption due to recent storms. Debris has been a significant issue with several ferries requiring prop replacement. A new 400 passenger ferry boat, the M/V Hydrus, will be added to the fleet next week with more new boats on the way. Construction is underway on the new Central Bay Maintenance and Operations Center in Alameda. WETA ridership is up 5% over last year. A Work Group meeting was held on January 19th regarding the routes of smaller ferry outfits on the bay. The smaller ferries will operate outside of high speed ferry lanes. Aaron Golbus advised that construction on San Francisco Ferry Terminal upgrades has been moved up and may start next month.

Dredge Issues Work Group- Chad Culbertson announced that a Work Group meeting will be held directly after today's HSC meeting to discuss hopper dredging issues.

PORTS Work Group- Nothing to report.

Prevention through People Work Group- Nothing to report.

PORTS Report- Alan Steinbrugge

- Advised of a recent outage affecting the Pier 1 weather station.
- Advised of communication issues with the Oakland Inner Harbor buoy mounted current sensor.
- Advised that planning continues with the Port of San Francisco regarding a Pier 27 weather station. Capt. Korwatch advised that a Pier 27 current sensor has been requested and will be considered.

Public Comment-

- Jim Haussener, CMANC, advised that the FY 2008 dredging request has been prepared. Most of the requests made in the past have received funding. A support letter from the Dredge Work

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Group is being prepared for submission at the next HSC meeting. Jim McGrath advised that the Bay Planning Coalition has been working on these issues as well.

- Gordon Loebel, Hornblower, advised of a National Transportation Safety Board report regarding the increase in human powered watercraft purchases and the impact on waterway safety.
- Scott Grindy advised that the South San Francisco Oyster Point development is considering removing the boat ramp there. This ramp is heavily used by the USCG and other agencies and is the only ramp in the area. Jim McGrath recommended that a letter detailing the concerns be sent to BCDC.

Old Business- None

New Business- None

- Capt. Korwatch advised the Maritime Transportation System Response and Recovery Coalition will meet after today's HSC meeting.

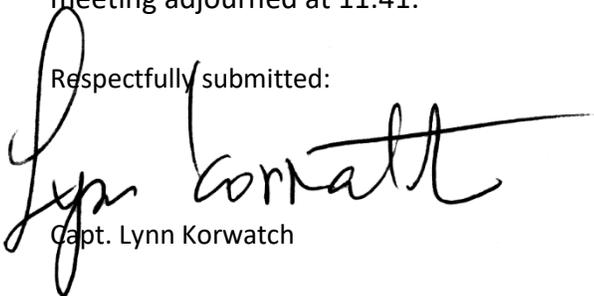
Next Meeting-

1000-1200
February 9, 2017
Port of Oakland
2nd Floor Board Room
530 Water Street
Oakland, CA

Adjournment-

A motion to adjourn was made and seconded. The motion passed without dissent and the meeting adjourned at 11:41.

Respectfully submitted:



Capt. Lynn Korwatch

PREVENTION / RESPONSE - SAN FRANCISCO HARBOR SAFETY STATISTICS

January 2017

PORT SAFETY CATEGORIES*	Jan-2017	Jan-2016	**3yr Avg
Total Number of Port State Control Detentions:	0	2	0.78
SOLAS (0), STCW (0), MARPOL (0), ISM (0), ISPS (0)			
Total Number of COTP Orders:	1	6	4.17
Navigation Safety (1), Port Safety & Security (0), ANOA (0)			
Marine Casualties (reportable CG 2692) within SF Bay:	7	15	10.28
Allision (0), Collision (0), Fire (0), Capsize (0), Grounding (0), Sinking (0)			
Steering (1), Propulsion (3), Personnel (0), Other (3), Power (0)			
Total Number of (routine) Navigation Safety issues/Letters of Deviation:	5	1	4.06
Radar (2), Gyro (1), Steering (0), Echo Sounder (0), AIS (2)			
AIS-835 (0), ARPA (0), Speed Log (0), R.C. (0), Other (0)			
Reported or Verified "Rule 9" or other Navigational Rule Violations:	0	0	0.50
Significant Waterway events/Navigation related Cases:	0	1	0.33
Total Port Safety (PS) Cases opened	13	25	20.11
MARINE POLLUTION RESPONSE			
Pollution Discharge Sources (Vessels)	Jan-2017	Jan-2016	**3yr Avg
U.S. Commercial Vessels	1	0	0.81
Foreign Freight Vessels	0	0	0.11
Public Vessels	0	0	0.53
Commercial Fishing Vessels	0	0	0.42
Recreational Vessels	1	1	3.94
Pollution Discharge Sources (Facilities)			
Regulated Waterfront Facilities	1	0	0.28
Regulated Waterfront Facilities - Fuel Transfer	0	0	0.00
Other Land Sources	0	0	1.36
Mystery Spills - Unknown Sources	4	3	4.53
Number of Pollution Incidents within San Francisco Bay			
Spills < 10 gallons	2	0	4.83
Spills 10 - 100 gallons	2	1	1.25
Spills 100 - 1000 gallons	0	0	0.22
Spills > 1000 gallons	0	0	0.06
Spills - Unknown Size	3	3	5.72
Total Pollution Incidents	7	4	12.08
Oil Discharge/Hazardous Materials Release Volumes by Spill Size			
Estimated spill amount from U.S. Commercial Vessels	30.00	0.00	14.22
Estimated spill amount from Foreign Freight Vessels	0.00	0.00	8.42
Estimated spill amount from Public Vessels	0.00	0.00	1.40
Estimated spill amount from Commercial Fishing Vessels	0.00	0.00	9.93
Estimated spill amount from Recreational Vessels	10.00	1.00	41.70
Estimated spill amount from Regulated Waterfront Facilities	1.00	0.00	3.03
Estimated spill amount from Regulated Waterfront Facilities - Fuel Transfer	0.00	0.00	0.00
Estimated spill amount from Other Land Sources	0.00	0.00	31.89
Estimated spill amount from Unknown Sources (Mystery Sheens)	unk	unk	0.92
Total Oil Discharge and/or Hazardous Materials Release (Gallons)	41.00	1.00	111.50
Penalty Actions			
Civil Penalty Cases	0	0	0.11
Notice of Violations	0	1	0.64
Letters of Warning	3	0	3.14
Total Penalty Actions	3	1	3.89

* NOTE: Values represent all cases within the HSC jurisdiction during the period. Significant cases are detailed in the narrative.

** NOTE: Values represent an average month over a 36 month period for the specified category of information.

SIGNIFICANT PORT SAFETY AND SECURITY CASES (Jan 2017)

MARINE CASUALTIES

Steering Casualty (04JAN17): A U.S. flag passenger vessel experienced a loss of starboard steering while underway without passengers onboard. Vessel moored using port steering and affected repairs. Case Closed.

Loss of Propulsion (09JAN17): A U.S. flag passenger vessel experienced a loss of propulsion on the number 2 engine while underway conducting sea trials with no passengers on board. The vessel returned to pier and conducted repairs. Case Pends.

Loss of Propulsion (27JAN17): A foreign flag bulk freight vessel experienced a loss of propulsion while departing anchorage. A COTP Order was issued requiring a two tug escort back to Anchorage 9 and to provide a Class Society report identifying causative factors and attesting to proper operation of main propulsion system. Two COTP Order Amendments were granted allowing vessel to go to berth and then return to Anchorage 9 with a one tug escort while waiting on parts to be delivered. LOP was not attributed to fuel switching. Case Pends.

VESSEL SAFETY CONDITIONS

NSTR

GENERAL SAFETY CASES

Notice of Arrival Violation (11JAN17): A foreign bulk freight vessel was issued a Letter of Warning for failure to report required information on the Notice of Arrival (non-functioning navigation equipment). The missing information was discovered while a Port State Control examination team was onboard to conducting a Safety and Security exam.

NAVIGATIONAL SAFETY

Letter of Deviation (LOD), Inop AIS (11JAN17): Vsl issued an outbound LOD due to parts being delivered at next port of call.

Letter of Deviation (LOD), Inop Secondary Marine Radar (11JAN17): Transit LOD issued; repairs conducted prior to departure.

Letter of Deviation (LOD), Inop Gyrocompass (12JAN17): Vsl issued an outbound LOD, parts to be delivered at next port of call.

Letter of Deviation (LOD), Inop AIS Pilot Plug (19JAN17): Vsl issued an outbound LOD, parts to be delivered at next port of call.

Letter of Deviation (LOD), Inop S- Band Radar (26JAN17): Vsl issued a transit LOD to affect repairs at Anchorage 9; repairs conducted, LOD lifted.

SIGNIFICANT INCIDENT MANAGEMENT DIVISION CASES

Letter of Warning (13JAN17): Commercial, uninspected deck barge experienced a mechanical casualty and discharged 100 gal hydraulic oil on deck, with approximately 30 gal reaching the water. Spill was contained and promptly recovered by crew onboard the barge.

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Of the San Francisco Bay Region**

**Report of the
U.S. Army Corps of Engineers, San Francisco District
February 9, 2017**

1. CORPS O&M DREDGING PROGRAM

The following report covers the upcoming FY 2017 dredging program for San Francisco Bay. This program is subject to change based on a number of variables including final FY 2017 appropriations and Corps Work Plan. Please refer to the Local Notice to Mariner for details of dredge operations.

FY 2017 DREDGING

- a. **SF Main Ship Channel** – Estimated start mid-May 2017, estimated completion end of May 2017, by government hopper.
- b. **Richmond Inner Harbor** – Estimated start late June 2017, estimated completion end of October 2017, by contracted clamshell.
- c. **Richmond Outer Harbor (and Richmond Long Wharf)** – Deferred due to special conditions contained in the Water Quality Certification.
- d. **Oakland Harbor** – Estimated start early August 2017, estimated completion end of November 2017, by contracted clamshell.
- e. **Redwood City Harbor** – Estimated start late June 2017, estimated completion end of October 2017, by contracted clamshell.
- f. **San Pablo Bay (Pinole Shoal)** – Estimated start beginning of June 2017, estimated completion mid-June 2017, by Government hopper.
- g. **Suisun Bay Channel (and New York Slough)** – Estimated start early August 2017, estimated completion end of September 2017, by contracted clamshell.

2. DEBRIS REMOVAL – Debris removal for January 2017 was 417 tons. Dillard: 212 tons; Raccoon: 35 tons; other boats: 170 tons, including Spirit of Sacramento and 3 other abandoned vessels. Average for January from 2007 to 2016 is 87.2 tons. (Range: 35-230 tons).

BASEYARD DEBRIS COLLECTION TOTALS:

MONTH	RACCOON	DILLARD	MISC	TOTAL
2017	TONS	TONS	TONS	TONS
JAN	30	212	170	417
FEB	0	0	0	0
MAR	0	0	0	0
APR	0	0	0	0
MAY	0	0	0	0
JUN	0	0	0	0
JUL	0	0	0	0
AUG	0	0	0	0
SEP	0	0	0	0
OCT	0	0	0	0
NOV	0	0	0	0
DEC	0	0	0	0

YR TOTAL
417

3. UNDERWAY OR UPCOMING HARBOR IMPROVEMENTS

None to report.

4. EMERGENCY (URGENT & COMPELLING) DREDGING

No urgent dredging in 2017.

5. OTHER WORK

San Francisco Bay to Stockton – No funds were received in FY15 and FY16. However, the Tentatively Selected Plan (TSP) milestone for Phase I (Western Reach) of the project was held on 29 June 2016 utilizing FY14 carryover funds. The recommended plan is to deepen the Phase I reach of the project from a depth of -35 feet to -38 feet MLLW. The final report is scheduled to be approved in February 2019.

HYDROGRAPHIC SURVEY UPDATE

Address of Corps' web site for completed hydrographic surveys:

<http://www.spn.usace.army.mil/Missions/Surveys,StudiesStrategy/HydroSurvey.aspx>

The following surveys are posted:

Alameda Point Navigation Channel: Condition survey of November 2, 2016.
Berkeley Marina (Entrance Channel): Condition survey of September 23, 2014.
Islais Creek Channel: Condition survey of May 12, 2016.
Larkspur Ferry Channel: Condition survey of November 14, 2014.
Main Ship Channel: Post-dredge survey of June 6, 2016.
Mare Island Strait: Condition survey of September 24, 2014.
Marinship Channel (Richardson Bay): Condition survey of December 6, 2016.
Napa River: Post-dredge survey of December 30, 2016.
Northship Channel: Condition survey of late July 29-31, 2015.
Oakland Entrance Channel: Post-dredge survey of September 28 & 30 and October 10, 2016.
Oakland Inner Harbor (Reach 2): Post-dredge survey of October 21 & 31, 2016.
Oakland Inner Harbor (Reach 3-6): Post-dredge survey of November 7, 2016.
Oakland Outer Harbor (Reach 7-8): Post-dredge survey of September 10 & 12, 2016.
Oakland Outer Harbor (Reach 9-10): Post-dredge survey of November 11 & December 12, 2016.
Petaluma River (Across-the-Flats): Condition survey of September 12-14, 2014.
Petaluma River (Main Channel): Condition survey of September 13-14, 2014.
Pinole Shoal Channel: Post-dredge survey of October 17-20 and November 15, 2016.
Redwood City Harbor: Post-dredge survey of October 28, November 7 and December 9 & 13, 2016.
Richmond Inner Harbor: Post-dredge survey of November 1-6 & 20-30 and December 2-5, 2016.
Richmond Inner Harbor (Santa Fe Channel): Condition survey of December 20, 2016.
Richmond Outer Harbor (Longwharf): Condition survey of October 23, 2016.
Richmond Outer Harbor (Southampton Shoal): Post-dredge survey of June 20-27, 2016.
Sacramento River Deep Water Ship Channel: Post-dredge survey of September 23, 2016.
San Bruno Shoal: Condition survey of August 4, 2016.
San Leandro Marina (and Channel): Condition survey of March 30 and April 1, 2015.
San Rafael (Across-the-Flats): Condition survey of May 10, 2013.
San Rafael (Creek): Condition survey of May 9, 2013.
Stockton Ship Channel: Post-dredge survey of October 7, November 17 & 30, December 7 & 17, 2016.
Suisun Bay Channel: Condition survey of December 19, 2016.
Suisun Bay Channel (Bullshead Reach): Condition survey of December 19, 2016.
Suisun Bay Channel (New York Slough): Condition survey of August 16-17, 2016.

Disposal Site Condition Surveys:

SF-08 (Main Ship Channel Disposal Site): Condition survey of March 12, 2013

SF-09 (Carquinez): Condition survey of March 2, 2015.

SF-10 (San Pablo Bay): Condition survey of March 2, 2015.

SF-11 (Alcatraz Island): Condition survey of January 4, 2017.

SF-16 (Suisun Bay Disposal Site): Condition survey of September 1, 2016.

SF-17 (Ocean Beach Disposal Site): Condition survey of March 20, 2013.

Requested Surveys:

Condition surveys are scheduled to occur between now and the end of March for all of San Francisco District's in-bay projects which are planned to be dredged in FY17.

NEW WEB ADDRESS – USACE WORK PLAN:

<http://www.usace.army.mil/Missions/Civil-Works/Budget/>

O&M DREDGING PLAN FOR FY17*

Project	2016			2017									2018			Volume	Placement Site	Notes
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC			
	FY 2017												FY 2018					
Humboldt Bar & Entrance								█	WCH Contract						750kcy	HOODS	West Coast Hopper Contract	
Noyo Harbor	█														15kcy	Upland		
Bodega Bay	█										█	█	█	█	75kcy	SF-DODS	Clamshell	
SF Main Ship Channel							ESSAYONS		█						350kcy	OBDS/ SF-8	Gov't Hopper	
Richmond Inner Harbor	█	█	█	█								█	█	█	350kcy	SF-DODS	Clamshell	
Richmond Outer Harbor	█	█													250kcy	SF-11	Deferred	
Oakland Harbor	█	█	█	█									█	█	600kcy	SF-DODS	Clamshell, Option to (E) Contract	
Redwood City Harbor	█	█	█	█									█	█	350kcy	SF-11	Clamshell	
Pinole Shoal	█	ESSAYONS						ESSAYONS		█					150kcy	SF-10	Gov't Hopper	
Suisun Bay Channel	█	█											█	█	175kcy	SF-16		
Napa River	█	█	█	█											90kcy	Upland		
Sacramento River (30 Ft)	█	█											█	█	100kcy	Various Upland	Clamshell	
San Joaquin, Port of Stockton	█	█	█	█									█	█	300kcy	Various Upland	Pipeline	



Ongoing Contract



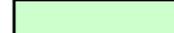
New Contract



WCH Contract



Gov't Dredge



Environmental Window

Abbreviations:

WCH - West Coast Hopper

* Program execution is based on the FY17 President's Budget and Federal Standard plan for each project.

** Window Extension.

Updated:

2/9/2017



Harbor Safety Committee of the
San Francisco Bay Region Clearing House
c/o Marine Exchange of the San Francisco Bay Region
505 Beach Street, Suite 300
San Francisco, California 94133-1131
415-441-6600 fax 415-441-3080 hsc@sfmtx.org

San Francisco Clearinghouse Report

February 9, 2017

- ✎ In January the clearinghouse did not need to contact OSPR regarding any possible escort violations.
- ✎ In January the clearinghouse did not receive any notifications of vessels arriving at the Pilot Station without escort paperwork.
- ✎ The Clearinghouse contacted OSPR 1 time in 2016 about a possible escort violations. The Clearinghouse contacted OSPR 3 time in 2015 about possible escort violations. The Clearinghouse contacted OSPR 5 times regarding possible escort violations in 2014. The Clearinghouse contacted OSPR 1 time in 2013. The Clearinghouse contacted OSPR 3 times in 2012 regarding any possible escort violations, 3 times in 2011, 6 times in 2010, 8 time 2009; 4 times 2008; 9 times in 2007; 9 times in 2006; 16 times in 2005; 24 times in 2004; twice in 2003; twice in 2002; 6 times in 2001; 5 times in 2000.
- ✎ In January there were 93 tank vessel arrivals; 14 ATB's, 5 Chemical Tankers, 18 Chemical/Oil Tankers, 24 Crude Oil Tankers, 2 LPG, 19 Product Tankers, and 11 Tugs with Barges.
- ✎ In January there were 279 total arrivals.

San Francisco Bay Clearinghouse Report For January 2017

San Francisco Bay Region Totals

	<u>2017</u>		<u>2016</u>	
Tanker arrivals to San Francisco Bay	68		66	
ATB arrivals	14		8	
Barge arrivals to San Francisco Bay	11		19	
Total Tanker and Barge Arrivals	93		93	
Total tank ship & tank barge movements	333		386	
Tank ship movements	181	54.35%	325	84.20%
Escorted tank ship movements	144	43.24%	161	41.71%
Unescorted tank ship movements	37	11.11%	100	25.91%
Tank barge movements	152	45.65%	61	15.80%
Escorted tank barge movements	29	8.71%	164	42.49%
Unescorted tank barge movements	123	36.94%	45	11.66%

Percentages above are percent of total tank ship & tank barge movements for each item.

Escorts reported to OSPR 0 0

Movements by Zone	Zone 1	%	Zone 2	%	Zone 4	%	Zone 6	%	Total	%
Total movements	190		324		0		146		660	
Unescorted movements	80	42.11%	153	47.22%	0	0.00%	64	43.84%	297	45.00%
Tank ships	66	34.74%	117	36.11%	0	0.00%	56	38.36%	239	36.21%
Tank barges	14	7.37%	36	11.11%	0	0.00%	8	5.48%	58	8.79%
Escorted movements	110	57.89%	171	52.78%	0	0.00%	82	56.16%	363	55.00%
Tank ships	102	53.68%	143	44.14%	0	0.00%	73	50.00%	318	48.18%
Tank barges	8	4.21%	28	8.64%	0	0.00%	9	6.16%	45	6.82%

Notes:

1. Information is only noted for zones where escorts are required.
2. All percentages are percent of total movements for the zone.
3. Every movement is counted in each zone transited during the movement.
4. Total movements is the total of all unescorted movements and all escorted movements.



CALIFORNIA STATE LANDS COMMISSION

HARBOR SAFETY COMMITTEE MONTHLY REPORT - JANUARY COMPARISON

VESSEL TRANSFERS

	Total Transfers	Total Vessels Monitored	Total Transfers Percentage
JANUARY 1 - 31, 2016	211	81	38.39
JANUARY 1 - 31, 2017	202	93	46.04

CRUDE OIL / PRODUCT TOTALS

	Crude Oil (D)	Crude Oil (L)	Overall Product (D)	Overall Product (L)	GRAND TOTAL
JANUARY 1 - 31, 2016	13,047,212	0	17,630,712	7,138,773	24,769,485
JANUARY 1 - 31, 2017	13,447,300	100,000	17,743,400	7,099,033	24,842,433

OIL SPILL TOTAL

	TERMINAL	VESSEL	Total	Gallons Spilled
JANUARY 1 - 31, 2016	0	0	0	0
JANUARY 1 - 31, 2017	1	0	1	1 Gallon - MDO

Disclaimer:

Please understand that the data is provided to the California State Lands Commission from a variety of sources; the Commission cannot guarantee the validity of the data provided to it.

Updates on California Vessel Fuel and At-Berth Regulations



California Environmental Protection Agency
 **Air Resources Board**

San Francisco Bay
Harbor Safety Committee
February 9, 2017

Paul Milkey, Staff Air Pollution Specialist
Technical Analysis Section
California Air Resources Board

Overview

- ◆ Update on implementation of the Vessel Fuel Regulation
- ◆ Overview of the At-Berth Regulation
- ◆ Potential amendments to the At-Berth Regulation
 - Special case: tankers



<http://www.arb.ca.gov/marine>

California Vessel Fuel Regulation

- ◆ Board approved in 2008, implemented in July, 2009
- ◆ Designed to reduce NO_x, SO_x, and diesel PM
- ◆ Applies to main & auxiliary engines, & auxiliary boilers within 24 nm of coastline
- ◆ Step down in sulfur levels
- ◆ Practical experience supported IMO fuel standards in federal ECA



Phased Fuel Sulfur Requirements

Fuel Requirement	Effective Date	California OGV Fuel Requirement Percent Sulfur Content Limit
Phase I	July 1, 2009	Marine gas oil (DMA) at or below 1.5% sulfur; or Marine diesel oil (DMB) at or below 0.5% sulfur
	August 1, 2012	Marine gas oil (DMA) at or below 1.0% sulfur; or Marine diesel oil (DMB) at or below 0.5% sulfur
Phase II*	January 1, 2014	Both marine gas oil (DMA) and marine diesel oil (DMB) at or below 0.1% sulfur

* Federal ECA also required 0.1% sulfur fuel as of January 1, 2015.

OGV Fuel Regulation Coordination with Federal Emission Control Area (ECA)

- ◆ Sulfur limits harmonized in 2015
 - California experience paved way for North American ECA
- ◆ Sunset of CARB regulation possible if equivalent emission reductions achieved by ECA
 - Decision by Executive Officer to keep CA Rule for now, reevaluate by early 2018
 - CARB is accommodating vessels using scrubbers & low sulfur heavy fuels



Safety Exemption

- ◆ Used by master when use of distillate fuel would endanger vessel/crew/cargo
 - Must be beyond master's reasonable control, such as mechanical problem, inclement weather, medical emergency
 - Used 8 times in 2014, none in 2015 or 2016
- ◆ Use exemption immediately
 - notify CARB within 24 hours after use of exemption, and four days to provide documentation

Overview At-Berth Regulation



At-Berth Regulation

Background

- ◆ At-Berth Regulation designed to reduce PM and NOx from diesel auxiliary engines of vessels in California
- ◆ Board approved in December 2007 and effective January 2009
- ◆ Reduction requirements phase-in over time from 2010 to 2020

At-Berth Regulation

Regulated Fleets

- ◆ Container & reefer fleets: 25+ visits per year
- ◆ Passenger fleets: 5+ visits per year



Container Vessels



Refrigerated (Reefer) Cargo
Vessels



Passenger Vessels

Requirements

- ◆ Two Compliance Pathways
 - Reduced Onboard Power Generation Option (ROPG)
 - Equivalent Emissions Reduction Option (EER)
- ◆ All shore-power vessels must plug-in when visiting compatible shore power berths

Reduced Onboard Power Generation Option

- ◆ Fleets have two requirements
 - Reduce fleet auxiliary engine power
 - 50% by 2014, 70% by 2017, and 80% by 2020
 - Connect a percentage of fleet vessels visits to shore power
 - 50% by 2014, 70% by 2017, and 80% by 2020
 - Vessels may operate auxiliary engines for up to three hours during a shore power visit

Equivalent Emission Reduction Option

- ◆ Fleets must reduce auxiliary engine emissions with approved alternative control technology
 - Control technology must have an approved test plan for demonstrating emission reductions
 - Control factor is based on approved emission measurements

At-Berth Regulation Affected Ports

- ◆ San Francisco
- ◆ Oakland
- ◆ Hueneme
- ◆ Los Angeles (POLA)
& Long Beach (POLB) *
- ◆ San Diego

* POLA & POLB are considered one port in the Regulation



At-Berth Regulation Requirements

- 2007 CA rule for power reductions from vessels at berth using grid-based shore power
- Affects container, refrigerated cargo and passenger vessels

Year	% of vessel visits using shore power
2014	50%+
2017	70%+
2020	80%+

- Shore power ready in CA:
- 23 terminals/63 berths
 - >200 vessels

Alternative Technologies

- ◆ Alternative at-berth reduction technologies for compliance are approved
- ◆ Two barge-mounted systems approved for container vessels
- ◆ Room for additional innovative technologies



2017 Advisory

- ◆ Supersedes previous advisories issued in 2013 and 2015
- ◆ Provides flexibility by addressing:
 - Shore power berth availability
 - Vessel commissioning
 - Difficulties in connecting/disconnecting within the “3-hour” limit
 - Use of approved alternatives to shore power under the ROPG option
 - Use of new technologies evaluated under an ARB-approved test plan
 - Use of an annual compliance period (vs. quarterly)

Potential Amendments At-Berth Regulation



At-Berth Regulation

Goals of Amendments

- ◆ Address implementation issues & increase flexibility
- ◆ Increase emission reductions from the Regulation



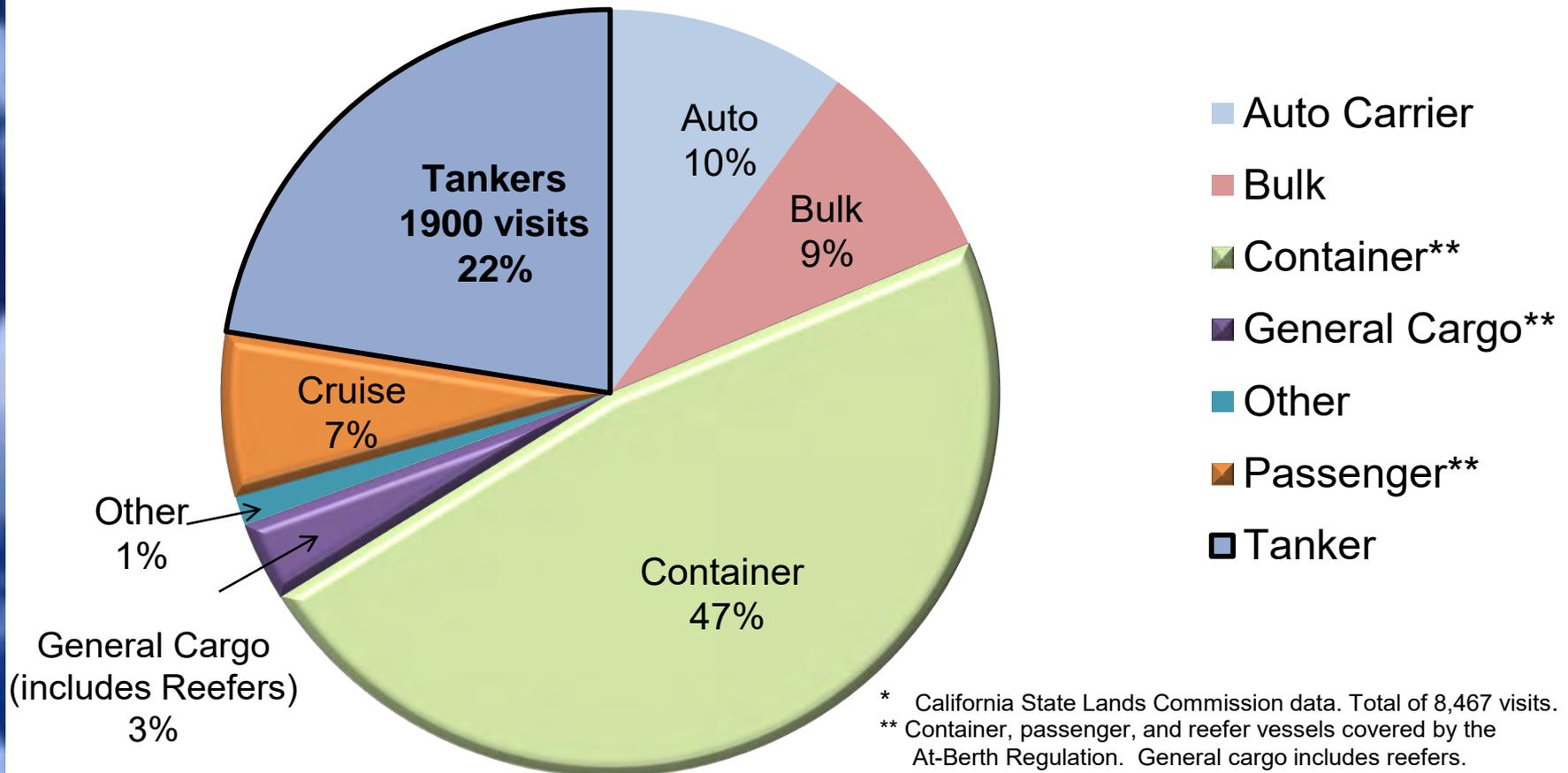
Amendments

- ◆ Address specific challenges identified in regulatory advisories
- ◆ Explore possibilities for additional emission reductions from:
 - Additional vessel types (tankers, bulk, auto carriers)
 - Adjust fleet size subject to regulation
 - New technologies
 - Boilers
 - Other regulatory changes
- ◆ Workshop planned for Spring 2017

Special Case: Tankers

2014 California Vessel Visits

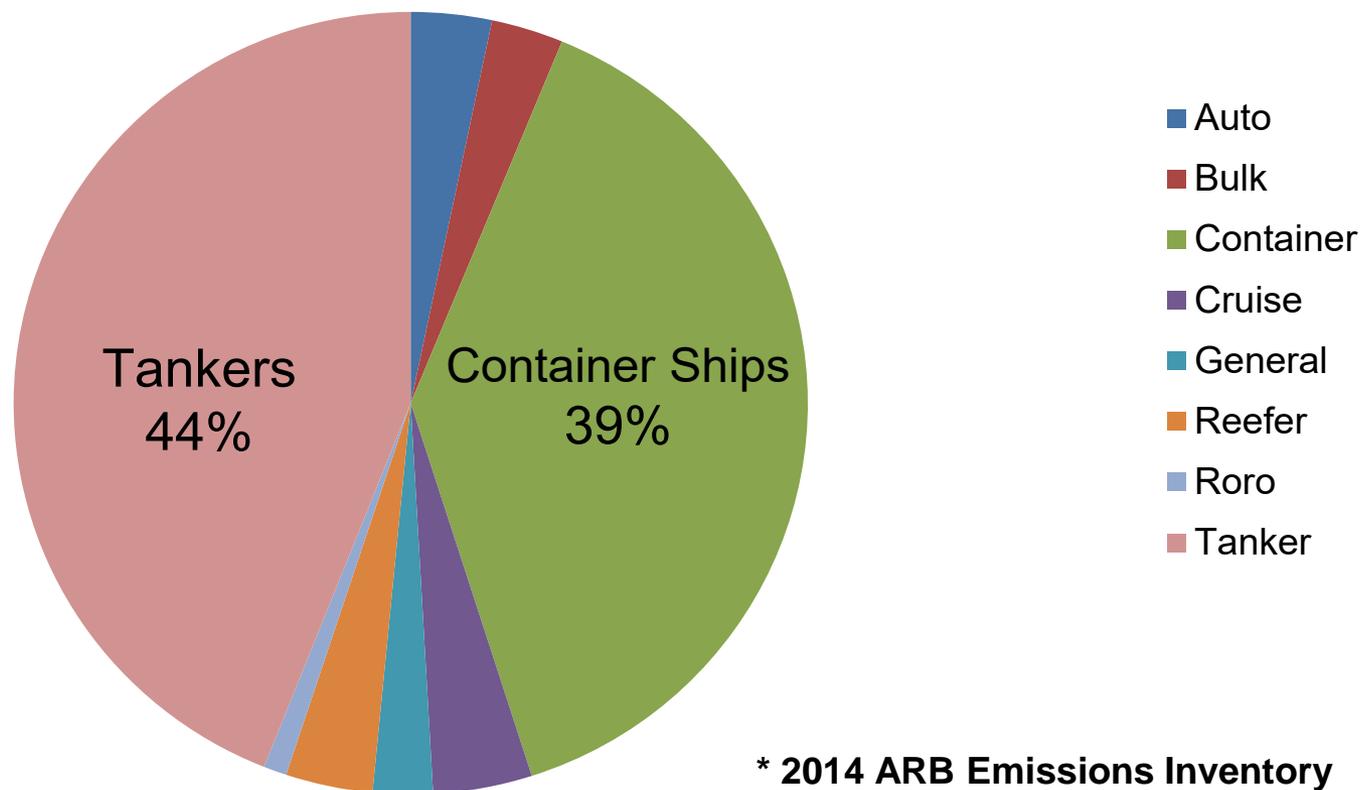
Visits by Vessel Type*



Special Case: Tankers

Ocean-going Vessel At-Berth Emissions

Diesel Particulate Matter (PM) Emissions*

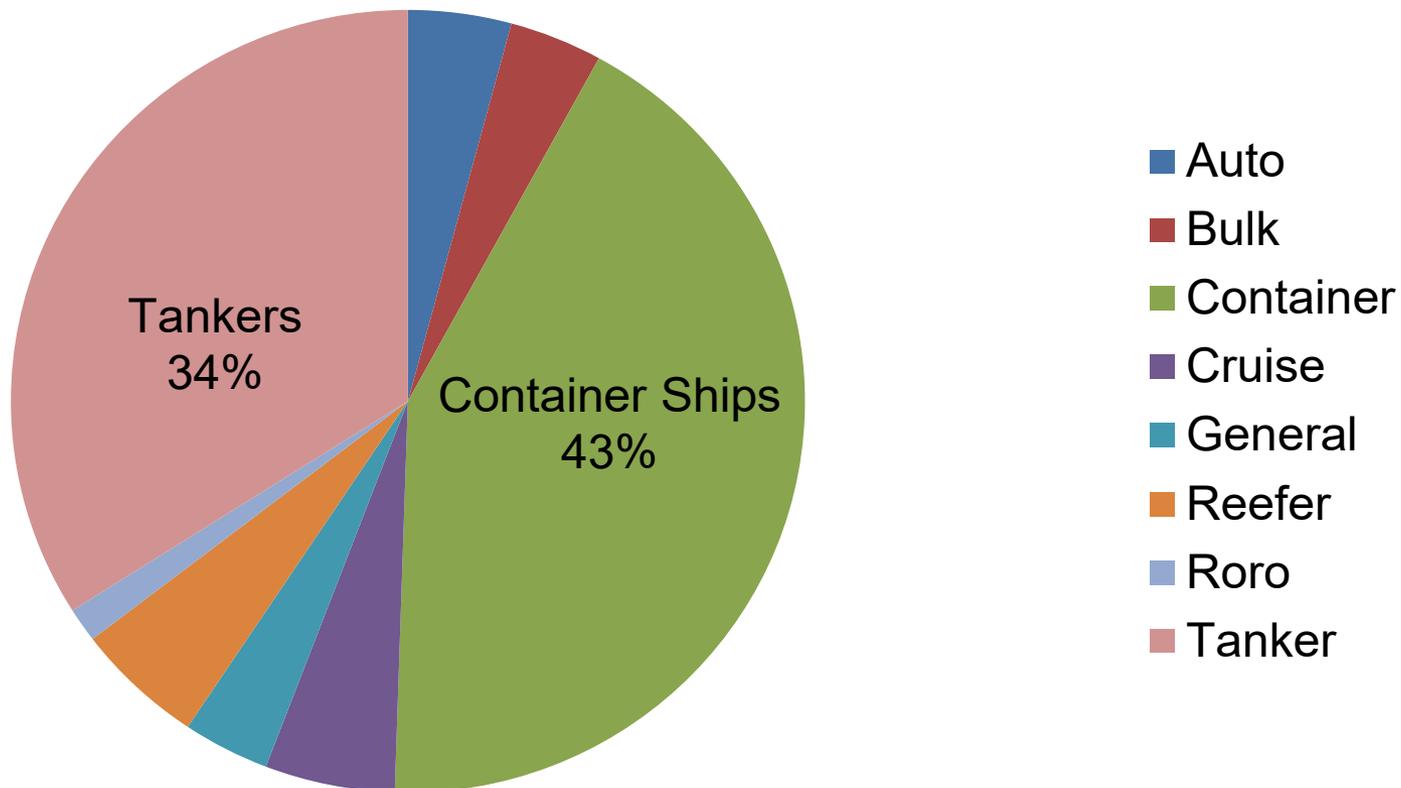


* 2014 ARB Emissions Inventory

Special Case: Tankers

Ocean-going Vessel At-Berth Emissions

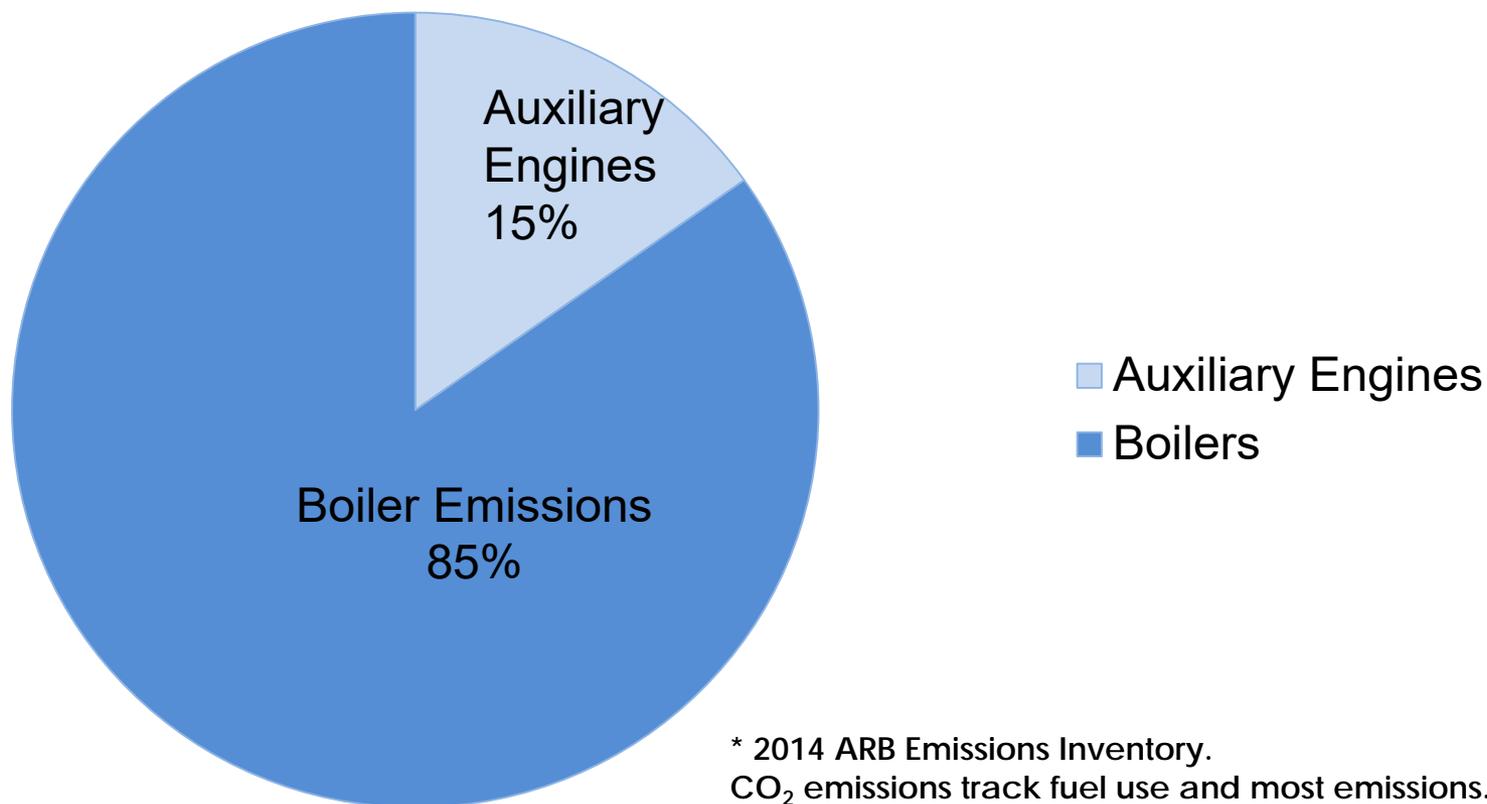
Nitrogen Oxides (NOx) Emissions*



* 2014 ARB Emissions Inventory

Special Case: Tankers Tanker Auxiliary Engine & Boiler At-Berth Emissions

CO₂ Emissions*



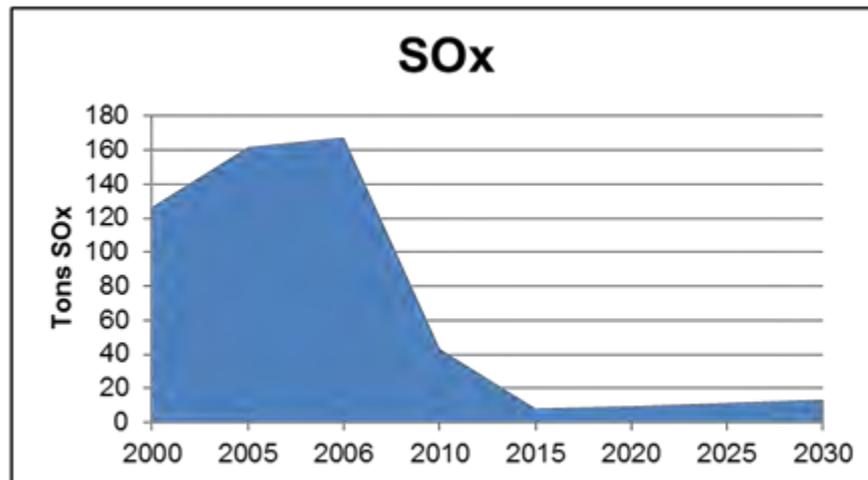
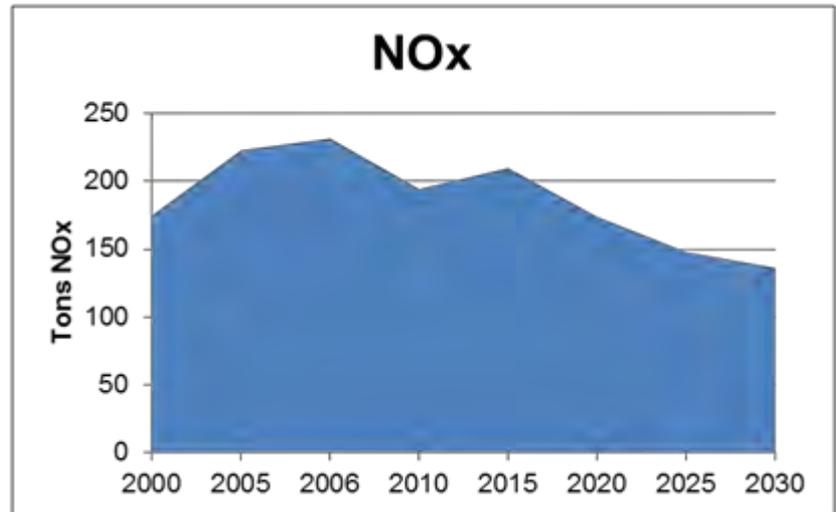
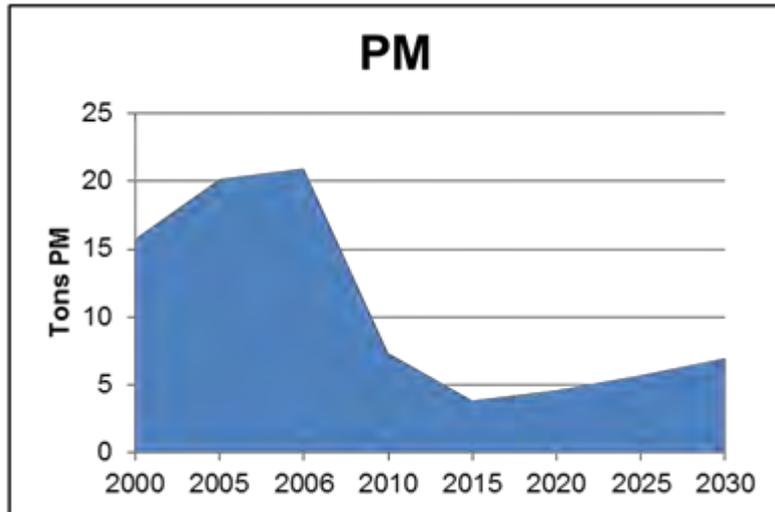
* 2014 ARB Emissions Inventory.
CO₂ emissions track fuel use and most emissions.

Special Case: Tankers

Potential Tanker Control Options for Discussion

- ◆ Landside/terminal-based controls
 - Electric booster pumps for crude oil
 - Terminal/refinery modifications
 - Barge or land-based emission controls
 - Shore-side power
- ◆ Vessel-based controls
 - Dual-fueled boilers that can use natural gas
 - Advanced boiler design (low NO_x burners, more efficient boilers using super-heated steam)

Summary California Statewide OGV Emission Trends 2000-2030*



*Includes all OGV regulations.

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