

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

Harbor Safety Committee of the San Francisco Bay Region Thursday, October 13, 2016 California Maritime Academy Richmond Maritime Safety & Security Center 5756 West Gertrude Street Richmond, 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 10:02.

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: **Jim Anderson** (M), CA Dungeness Crab Task Forced; **Capt. Atansa Atanasov** (A), National Cargo Bureau; **Capt. Bob Carr** (M), San Francisco Bar Pilots; **Chad Culbertson** (M), Chevron Shipping Company; **Capt. Tom Dougherty** (M), Blue & Gold Fleet; **Jeff Ferguson** (M), NOAA; **Aaron Golbus** (M), Port of San Francisco; **Benjamin Huber** (M), Westar Marine Services; **Phil Kipper** (A), San Francisco Bay Keeper; **Jim Mazza** (A), US Army Corps of Engineers; **Jim McGrath** (M), Bay Conservation and Development Commission; **Capt. Patrick Nelson** (A), United States Coast Guard, **Griffin Patrick** (M), Tesoro Refining and Marketing; **Jeff Robbins** (M), General Steamship Corp; **Chris Peterson** (M), Port of Oakland; **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 the September 8, 2016 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. Patrick Nelson**

Advised that Fleet Week went well with 35 Neptune Coalition partners participating and over
 70 boats on the water providing enforcement during events.



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- Advised of a foul smell reported on September 20 in San Pablo Bay. An oil sheen was found on the water but the discharge point and the cause of the smell remain a mystery. The spilled oil has been identified but cannot be definitively linked to the reported smell.
- Advised of demolition work on the old east span of the Bay Bridge scheduled to take place on October 15 and October 29. The new span will be briefly closed to traffic while old bridge piers are imploded.
- Advised that the Coast Guard is partnering with the EPA, County and State agencies in the
  response to sunken river boat Spirit of Sacramento which capsized near Bethel Island and is a
  pollution risk. Total cost of incident response could exceed 1.5 million dollars and action will be
  pursued against the vessel owners.
- Advised of a recreational vessel with 30 people on board which sunk off Fisherman's Wharf in San Francisco during Fleet Week. The response from the Coast Guard and nearby vessels was immediate and there were no fatalities.
- LT Marcia Medina read from the September- 16 Prevention/Response Report (attached).

#### **Army Corps of Engineers Report-Jim Mazza**

- Read from the US Army Corps of Engineers, San Francisco District Report (attached). Suisun Bay
  dredging will not take place this season due to a bid protest but monthly surveys will be
  conducted to monitor shoaling.
- Capt. Griffin Patrick asked what conditions would trigger emergency dredging in Suisun Bay. Jim
  Mazza advised that there are no specific guidelines but that the Army Corps can determine if
  emergency dredging is necessary.

Clearing House Report- Alan Steinbrugge (report attached)

**OSPR Report- David Mighetto, Nothing to Report** 

#### **NOAA Report- Jeff Ferguson**

- Advised that NOAA is assisting in the Spirit of Sacramento response by providing localized weather forecasts, oil spill trajectory analysis and hydrographic surveys.
- Advised that the NWS La Nina watch is no longer in effect. It is now predicted to be a neutral year.



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• Advised that Army Corps surveys for San Bruno Shoal, Islais Creek and Alcatraz Disposal Site have been applied to the NOAA charts.

#### State Lands Commission Report- Richard Hernandez (report attached)

Capt. Korwatch advised that she attended Prevention First in Long Beach where SB 414 was
discussed. Richard Hernandez advised that information from a Prevention First presentation on
the hydrodynamics of passing vessels in the Carquinez Strait will be distributed through the HSC.

#### **Work Group Reports-**

**Tug Work Group- Alan Steinbrugge** advised that the next tug work group meeting will be held on October 27. Capt. Korwatch advised that progress is being made on the SB 414 required towing assessment.

**Navigation Work Group- Capt. Robert Carr** advised that a meeting will be scheduled to follow up on the submerged cables and pipelines issue. Relevant information from New York will be reviewed.

**Ferry Operations Work Group- Capt. Tom Dougherty** advised that ferry ridership continues to increase with the Oakland and Alameda terminals being the most popular. Jim McGrath advised of PUC licensing of several small ferry boats. Aaron Golbus advised that small ferry operations are being planned in San Francisco and Berkeley.

**Dredge Issues Work Group- Capt. Griffin Patrick** advised that the lack of dredging in San Pablo Bay is a concern. Monthly surveys reviewed by the Bar Pilots will help detect any issues that develop. Capt. Harry Bolton, Cal Maritime, advised that silt buildup has increased in recent years at their dock requiring more frequent dredging.

**PORTS Work Group- Chris Peterson-** Nothing to report.

**Prevention through People Work Group-** Nothing to report.

#### **PORTS Report- Alan Steinbrugge**

- Advised that the new current sensor on Buoy 4 in the Oakland Channel is online.
- Advised of ongoing planning for a Pier 27 weather station.



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> Advised that several PORTS weather stations will be upgraded with satellite modems to increase reliability.

**Public Comment- None** 

**Old Business- None** 

#### **New Business-**

- Capt. Korwatch asked for information regarding crab season. Jim Anderson advised that conditions look good and it should be a normal year.
- Ben Huber advised of a letter from Cemex addressed to the HSC requesting review of a proposal to lay berth two MARAD vessels at Pier 80.

#### **Next Meeting-**

November 10, 2016 1000-1200 Port of San Francisco Pier 1, Bay Side Conference Room The Embarcadero San Francisco, CA

#### Adjournment-

A motion to adjourn was made and seconded. The motion passed without dissent and the meeting adjourned at 10:42.

espectfully submitted:

L. Lynn Korwatch

PREVENTION / RESPONSE - SAN FRANCISCO HARBOR SAFETY STATISTICS							
September 2016							
PORT SAFETY CATEGORIES*	Sep-2016	Sep-2015	**3yr Avg				
Total Number of Port State Control Detentions:	0	0	0.78				
SOLAS (0), STCW (0), MARPOL (0), ISM (0), ISPS (0)							
Total Number of COTP Orders:	4	4	4.47				
Navigation Safety (4), Port Safety & Security (0), ANOA (0)							
Marine Casualties (reportable CG 2692) within SF Bay:	10	9	10.44				
Allision (0), Collision (0), Fire (0), Capsize (0), Grounding (2), Sinking (0)							
Steering (0), Propulsion (3), Personnel (0), Other (4), Power (1)							
Total Number of (routine) Navigation Safety issues/Letters of Deviation:	2	2	4.19				
Radar (0), Gyro (0), Steering (0), Echo Sounder (1), AIS (1)							
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	0.61				
Significant Waterway events/Navigation related Cases:	0	0	0.39				
Total Port Safety (PS) Cases opened	16	15	20.89				
MARINE POLLUTION RESPONSE							
Pollution Discharge Sources (Vessels)	Sep-2016	Sep-2015	**3yr Avg				
U.S. Commercial Vessels	0	1	0.86				
Foreign Freight Vessels	0	0	0.11				
Public Vessels	0	1	0.53				
Commercial Fishing Vessels	0	0	0.53				
Recreational Vessels	3	6	4.36				
Pollution Discharge Sources (Facilities)							
Regulated Waterfront Facilities	0	0	0.25				
Regulated Waterfront Facilities - Fuel Transfer	0	0	0.00				
Other Land Sources	0	2	1.58				
Mystery Spills - Unknown Sources	5	2	4.47				
Number of Pollution Incidents within San Francisco Bay							
Spills < 10 gallons	3	6	5.67				
Spills 10 - 100 gallons	0	3	1.28				
Spills 100 - 1000 gallons	0	1	0.19				
Spills > 1000 gallons	0	0	0.06				
Spills - Unknown Size	5	2	5.61				
Total Pollution Incidents	8	12	12.81				
Oil Discharge/Hazardous Materials Release Volumes by Spill Size							
Estimated spill amount from U.S. Commercial Vessels	0.00	5.00	11.20				
Estimated spill amount from Foreign Freight Vessels	0.00	0.00	8.42				
Estimated spill amount from Public Vessels	0.00	2.00	1.29				
Estimated spill amount from Commercial Fishing Vessels	0.00	0.00	9.82				
Estimated spill amount from Recreational Vessels	7.50	566.00	41.70				
Estimated spill amount from Regulated Waterfront Facilities	0.00	0.00	3.00				
Estimated spill amount from Regulated Waterfront Facilities - Fuel Transfer	0.00	0.00	0.00				
Estimated spill amount from Other Land Sources	0.00	2.00	33.12				
Estimated spill amount from Unknown Sources (Mystery Sheens)	unk	0.00	1.33				
Total Oil Discharge and/or Hazardous Materials Release (Gallons)	7.50	575.00	109.88				
Penalty Actions							
Civil Penalty Cases	0	0	0.11				
Notice of Violations	0	0	0.64				
Letters of Warning	2	5	3.00				
Total Penalty Actions	2	5	3.75				
* NOTE: Values represent all cases within the HSC jurisdiction during the period. Significant of	ases are detail	ed in the narrat	tiv e.				
$^{**}$ NOTE: Values represent an average month over a 36 month period for the specified cate	gory of informa	tion.					

## SIGNIFICANT PORT SAFETY AND SECURITY CASES (SEP 2016)

#### **MARINE CASUALTIES**

**Grounding (01SEP16):** A U.S. small passenger vessel ran aground with 15 persons on board carrying approximately 400 gallons of fuel. Responders successfully rescued all 15 persons and the owner contracted a salvage company to remove the vessel and transport it to a repair facility. A CG-835 No-Sail was issued requiring the vessel to conduct permanent repairs to the satisfaction of the attending Marine Inspector. Case pends.

Loss of Propulsion (03SEP16): A foreign flag bulk freight vessel experienced a loss of propulsion while anchoring in Anchorage 9. A COTP Order was issued and the Classification Society provided a surveyor report attesting to the reason for a loss of propulsion was due to a damaged limit switch. The limit switch was renewed and tested without further issue. The COTP Order was amended for the vessel's outbound transit with one tug and subsequently lifted. LOP was not attributed to fuel switching. Case Closed.

Loss of Power (05SEP16): A foreign flag bulk freight vessel experienced a total loss of power while transiting inbound to Anchorage 9. A COTP Order was issued and the Classification Society provided a surveyor report attesting to causative factors and proper operation of the vessel's main propulsion and associated systems. The loss of power was due to clogged/contaminated fuel filters on each Ship's service diesel generator. COTP Order was lifted. LOP was not attributed to fuel switching. Case Closed.

**Reduction of Propulsion (09SEP16):** A foreign flag bulk freight vessel experienced a reduction of propulsion while transiting and dropped anchor in the middle of a channel. A COTP Order was issued allowing the vessel to continue to Anchorage 9 with a one tug escort. The reduction of propulsion was due to a malfunctioning exhaust valve on the main engine. The valve was replaced and a Class surveyor attended to witness satisfactory operation of the propulsion and associated systems. The reduction of propulsion was not attributed to fuel switching. Case Closed.

**Reduction of Propulsion (21SEP16):** A foreign flag container vessel experienced a reduction of propulsion while outbound to sea and the pilot onboard directed the vessel to Anchorage 9 to trouble shoot the issue. The crew discovered and purged the air in the oil piping, tested the engine ahead and astern and found it in good condition. A COTP Order was issued requiring the vessel to have a one tug escort from Anchorage 9 to Mile Rock. Reduction of propulsion was not attributed to fuel switching. Case Closed.

#### **VESSEL SAFETY CONDITIONS**

Nothing significant to report

#### **GENERAL SAFETY CASES**

(25SEP16): Vessel entered the port without a correct Notice of Arrival submitted. Security concerns were addressed and Enforcement Action was pursued. Case Closed.

#### NAVIGATIONAL SAFETY

Letter of Deviation (LOD), Inop Echo Depth Sounder, (01SEP16): Vessel issued inbound & outbound LOD (valid until 27NOV16). Letter of Deviation (LOD), Inop AlS Pilot Plug, (16SEP16): Vessel issued inbound LOD.

#### SIGNIFICANT INCIDENT MANAGEMENT DIVISION CASES

Enforcement Pending (04SEP16): Early morning on 04 September 2016 a recreational vessel (previously certificated U.S. small passenger vessel) capsized in the vicinity of Franks Tract with 600 gallons of diesel fuel onboard. A Unified Command was established consisting of the US Coast Guard, CA Fish and Wildlife OSPR, Contra Costa County Sheriff's Department, Environmental Protection Agency, and US Army Corps of Engineers. The Coast Guard hired Global Diving and Salvage to parbuckle the vessel and transport it to the US Army Corps of Engineers where the fuel tanks were empty. As of 05 October 2016, the Environmental Protection Agency has assumed responsibility for the vessel and is working to remove all hazmat onboard. Once those operations are complete, and the vessel is free of hazmat, the Coast Guard will oversee the removal of any remaining petroleum products and the vessel will be transfered to Contra Costa County for final disposition. Case Pends

San Pablo Bay Mystery Sheen, No Enforcement (20SEP16): Following reports of a strong odor in the vicinity of Vallejo, crews set out to determine a source and found a sheen spanning across San Pablo Bay. The Coast Guard took samples and conducted an extensive search of any potential sources in the area but were unable to determine the cause. MSRC was hired to conduct cleanup however the sheen was determined to be unrecoverable. Case Pends.

#### Harbor Safety Committee Of the San Francisco Bay Region

### Report of the U.S. Army Corps of Engineers, San Francisco District October 13, 2016

#### 1. CORPS O&M DREDGING PROGRAM

The following is this year's O & M dredging program for San Francisco Bay. The FY16 O&M dredging program is subject to change, please refer to the Local Notice to Mariner for details of dredge operations.

#### FY 2016 DREDGING

- a. SF Main Ship Channel Started 18 May 2016, completed 1 June 2016, by government hopper.
- b. Richmond Outer Harbor (and Richmond Long Wharf) Started 1 June 2016, completed 14 June 2016, by government hopper. A second dredging episode occurred from 4 to 10 October 2016.
- **c. Richmond Inner Harbor** Contract awarded to Curtin Maritime on 1 September 2016. Estimated start in the next week or two, estimated completion end of November 2016, by contracted clamshell.
- **d.** San Pablo Bay (Pinole Shoal) Actual start on 26 September 2016, actual completion 3 October 2016, by government hopper.
- e. Redwood City Harbor Contract awarded to Manson Construction on 8 September 2016.

  Dredging is scheduled to start on 13 October 2016, with estimated completion end of November 2016. San Bruno Shoal will not be dredged this year.
- **f.** Oakland Harbor Dredging in the Outer Harbor started on 11 August 2016, estimated completion end of November 2016, contracted clamshell.
- **g.** Suisun Bay Channel (and New York Slough) The Suisun Bay Channel dredging solicitation was cancelled and the channel will not be dredged this season. We are conducting monthly hydrographic surveys to closely monitor shoaling conditions.
- h. Napa River Channel Contract awarded to Ahtna Construction on 6 September 2016. Dredging started on 18 September 2016 in the upper reaches of the river, with estimated completion end of November 2016, hydraulic pipeline.
- **2. DEBRIS REMOVAL** Debris removal for September 2016 was 22 tons. Dillard: 13 tons, including 1 abandoned vessel; Raccoon: 5 tons, including 1 abandoned vessel; other boats: 4 tons, including 8 abandoned vessels. Average for September from 2006 to 2015 is 29 tons. (Range: 8.5 59.2 tons).

#### **BASEYARD DEBRIS COLLECTION TOTALS:**

MONTH	RACCOON	DILLARD	MISC	TOTAL
2016	TONS	TONS	TONS	TONS
JAN	0	61	12	73
FEB	0	62	15	77
MAR	0	34.5	3	37.5
APR	0	42	75	117
MAY	0	18	4	22
JUN	5	54	3	62
JUL	24	9	12	45
AUG	22	48.5	16	86.5
SEP	5	13	4	22
OCT				
NOV				
DEC				

YR TOTAL
542

### 3. UNDERWAY OR UPCOMING HARBOR IMPROVEMENTS

None to report.

#### 4. EMERGENCY (URGENT & COMPELLING) DREDGING

No urgent dredging in 2016.

#### 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 Chanel:** Condition survey of November 5, 2014. **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 September 21, 2014.

**Napa River:** Condition survey of early March 2-7, 2016.

**Northship Channel:** Condition survey of late July 29-31, 2015.

Oakland Entrance Channel: Condition survey of July 7-13, 2016.

Oakland Inner Harbor (Reach 2): Condition survey of July 7-13, 2016. Oakland Inner Harbor (Reach 3): Condition survey of July 7-13, 2016.

Oakland Inner Harbor (Reach 4-6): Condition survey of July 7-13, 2016.

Oakland Outer Harbor (Reach 7-9): Post-dredge survey of September 10 & 12, 2016.

Oakland Outer Harbor (Reach 10): Post-dredge survey of September 10 & 12, 2016.

Petaluma River (Across-the-Flats / Main Channel): Condition survey of September 12-14, 2014.

**Pinole Shoal Channel:** Condition survey of August 5, 11-12, 2016.

Redwood City Harbor: Condition survey of July 20, 2016.

**Richmond Inner Harbor:** Condition survey of July 26-27, 2016.

Richmond Outer Harbor (Longwharf): Post-dredge survey of June 28-29, 2016.

**Richmond Outer Harbor (Southampton Shoal):** Post-dredge survey of June 20-27, 2016.

Sacramento River Deep Water Ship Channel: Condition survey of February 9-12, 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 / San Rafael Creek: Condition surveys of May 9-10, 2013.

**Stockton Ship Channel:** Condition survey of February 22-25, 2016.

**Suisun Bay Channel:** Condition survey of August 8, 22-23, and 31, 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 September 7, 2016.

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

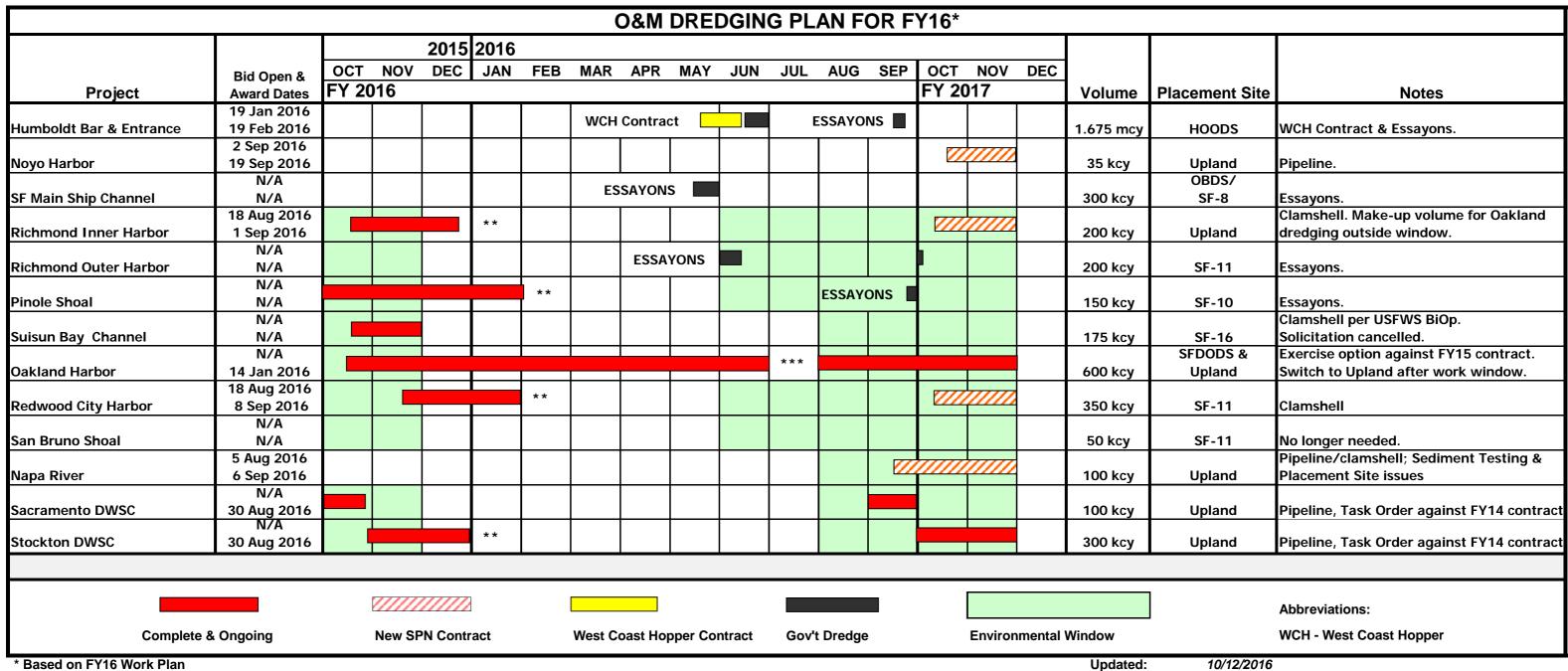
SF-17 (Ocean Beach Disposal Site): Condition survey of March 20, 2013.

### **Requested Surveys:**

Alameda Naval Air Station scheduled, but on-hold due to survey vessel repairs SF-9 (Carquinez) scheduled, but on-hold due to survey vessel repairs SF-10 (San Pablo Bay) scheduled, but on-hold due to survey vessel repairs SF-11 (Alcatraz Island) scheduled mid-October, but on-hold due to survey vessel repairs

NEW WEB ADDRESS – USACE WORK PLAN:

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



<sup>\*</sup> Based on FY16 Work Plan

<sup>\*\*</sup> Environmental Window Extension Granted



# 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@sfmx.org

# San Francisco Clearinghouse Report

October 13, 2016

- In September the clearinghouse did not need to contact OSPR regarding any possible escort violations.
- In September 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 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 September there were 92 tank vessel arrivals; 13 ATB's, 2 Chemical Tankers, 20 Chemical/Oil Tankers, 27 Crude Oil Tankers, 1 LPG 14 Product Tankers, and 15 Tugs with Barges.
- In September there were 287 total arrivals.

# San Francisco Bay Clearinghouse Report For September 2016

## San Francisco Bay Region Totals

	2016		$\underline{2015}$	
Tanker arrivals to San Francisco Bay	64		60	
ATB arrivals	13		9	
Barge arrivals to San Francisco Bay	15		20	
Total Tanker and Barge Arrivals	92		89	
Tank ship movements & escorted barge movements	274		323	
Tank ship movements	173	63.14%	188	58.20%
Escorted tank ship movements	138	50.36%	134	41.49%
Unescorted tank ship movements	35	12.77%	54	16.72%
Tank barge movements	101	36.86%	135	41.80%
Escorted tank barge movements	19	6.93%	45	13.93%
Unescorted tank barge movements	82	29.93%	90	27.86%

Percentages above are percent of total tank ship movements & escorted 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	182		269		0		118		569	
Unescorted movements	68	37.36%	115	42.75%	0	0.00%	48	40.68%	231	40.60%
Tank ships	48	26.37%	82	30.48%	0	0.00%	38	32.20%	168	29.53%
Tank barges	20	10.99%	33	12.27%	0	0.00%	10	8.47%	63	11.07%
Escorted movements	114	62.64%	154	57.25%	0	0.00%	70	59.32%	338	59.40%
Tank ships	104	57.14%	135	50.19%	0	0.00%	64	54.24%	303	53.25%
Tank barges	10	5.49%	19	7.06%	0	0.00%	6	5.08%	35	6.15%

#### 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.

# San Francisco Bay Clearinghouse Report For 2016

# San Francisco Bay Region Totals

	<u> 2016</u>		2015	
Tanker arrivals to San Francisco Bay	530		691	
ATB arrivals	101		108	
Barge arrivals to San Francisco Bay	137		256	
Total Tanker and Barge Arrivals	667		1,055	
Tank ship movements & escorted barge movements	2,917		3,617	
Tank ship movements	1,682	57.66%	2,088	57.73%
Escorted tank ship movements	1,216	41.69%	1,304	36.05%
Unescorted tank ship movements	466	15.98%	720	19.91%
Tank barge movements	1,235	42.34%	1,529	42.27%
Escorted tank barge movements	260	8.91%	572	15.81%
Unescorted tank barge movements	975	33.42%	1,105	30.55%

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

Escorts reported to OSPR

1

Movements by Zone	Zone 1	%	Zone 2	%	Zone 4	%	Zone 6	%	Total	%
Total movements	1,736		2,681		0		1,273		5,690	
Unescorted movements	751	43.26%	1,254	46.77%	0	0.00%	637	50.04%	2,642	46.43%
Tank ships	544	31.34%	861	32.11%	0	0.00%	455	35.74%	1,860	32.69%
Tank barges	207	11.92%	393	14.66%	0	0.00%	182	14.30%	782	13.74%
Escorted movements	985	56.74%	1,427	53.23%	0	0.00%	636	49.96%	3,048	53.57%
Tank ships	881	50.75%	1,199	44.72%	0	0.00%	500	39.28%	2,580	45.34%
Tank barges	104	5.99%	228	8.50%	0	0.00%	136	10.68%	468	8.22%

#### Notes:

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

# HARBOR SAFETY COMMITTEE MONTHLY REPORT - SEPTEMBER COMPARISON

## **VESSEL TRANSFERS**

	Total Transfers	Total Vessel Monitors	Total Transfer Percentage	
SEPTEMBER 1 - 30, 2015	213	80	37.56	
SEPTEMBER 1 - 30, 2016	204	86	42.16	

## **CRUDE OIL / PRODUCT TOTALS**

	Crude Oil ( D )	Crude Oil ( L )	Overall Product ( D )	Overall Product ( L )	GRAND TOTAL
SEPTEMBER 1 - 30, 2015	16,570,185	0	21,398,295	6,740,408	28,138,703
SEPTEMBER 1 - 30, 2016	14,622,900	0	19,292,387	6,162,947	25,455,334

## OIL SPILL TOTAL

SEPTEMBER 1 - 30, 2015	Terminal	Vessel	Facility	Total	Gallons Spilled
	0	0	0	0	0
SEPTEMBER 1 - 30, 2016	0	0	0	0	0

#### 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.