

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, May 14, 2020

Remote Meeting Via Zoom

10 Commodore Drive, Emeryville, 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 10:01.

Marcus Freeling (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 Force; **John Berge** (M), Pacific Merchant Shipping Association; **Capt. Marie Byrd** (M), United States Coast Guard; **LTC John Cunningham** (M), US Army Corps of Engineers; **Capt. Sean Daggett** (M), Sause Bros. Inc.; **Ben Eichenberg** (A), San Francisco Baykeeper; **Jeff Ferguson** (M), NOAA; **Scott Grindy** (M), San Francisco Small Craft Harbor; **Chris Hendry** (M), Chevron Shipping Company; **Capt. Thomas Kirsch** (M), Blue and Gold Fleet; **Jim McGrath** (M), Bay Conservation and Development Commission; **Dominic Moreno** (M), Port of San Francisco; **Jeff Robbins** (M), General Steamship Corporation; **Julian Rose** (M), Marathon Petroleum; **Capt. Paul Ruff** (A), San Francisco Bar Pilots; **Mariah Swenson** (M), AMPORTS; **Jeff Vine** (M), Port of Stockton.

The meetings are always open to the public.

Approval of the Minutes-

A motion to accept the minutes of the April 9, 2020 meeting was made and seconded. The minutes were approved without dissent.

Comments by Chair- Capt. Lynn Korwatch

Welcomed the committee members and audience. The annual Marine Exchange Mayday Party has been canceled.

Coast Guard Report- Capt. Marie Byrd

- Advised that recreational fishing has been opened and there is an increase in vessel traffic near the pilot station. Incidents have been reported of recreational vessels impeding safe navigation.
- Advised of an April 18th Rule 9 violation involving a sailing vessel which tacked in front of a tanker departing from Stockton. The tanker was forced to change course and a picture of the sailboat was released.

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- Advised of a May 5th incident when the UPRR Bridge failed to lift properly for an approaching vessel. The tug Delta Cathryn responded in case of emergency but the operators were able to raise the bridge manually to allow vessel transit. Upgrades to the bridge motors will be made in addition to monitoring to ensure the malfunction does not reoccur.
- Advised that three cruise ships without passengers are scheduled to arrive in Oakland for layup. Security around the vessels is a priority.
- Advised that the USCG Salvage Response Plan is being updated and will be released in June. A phased approach is being implemented.
- Advised that CDR Dave Dixon will be leaving Sector for a new assignment in Alaska. Capt. Korwatch thanked CDR Dixon for his service and HSC participation.
- LT Cotton read from the April- 2020 Prevention/Response Report (attached).

Army Corps of Engineers Report- LTC John Cunningham

- Read from the US Army Corps of Engineers, San Francisco District Report (attached). USACE is supporting safe navigation and economic recovery during the COVID-19 crisis. Oakland Harbor and Richmond Inner Harbor dredging is scheduled for mid-June. April debris removal numbers were below average. Surveys have been updated. The USACE Work Plan is available at: www.usace.army.mil/Missions/Civil-Works/Budget/.

Clearinghouse Report- Marcus Freeling (report attached)

- Capt. Korwatch asked about the Anchorage 9 congestion issue. Capt. Paul Ruff advised that there has been less congestion recently and active traffic management has not been needed. Guidance for active management will be released.
- Capt. Tom Cullen, OSPR Administrator, asked for detailed information about vessel arrivals compared to last year. Reports indicate that the COVID-19 crisis is affecting shipping. Marcus Freeling advised that information will be provided.

OSPR Report- Mike Caliguire

- Advised that Brandon Chapman is no longer with the Port of Redwood City and another member of the port is applying for the position. HSC membership openings will be announced.

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NOAA Report- Jeff Ferguson

- Advised that NOAA's Coast Pilot 7 will be available on June 9th. Coast Pilot 7 covers only California. Coast Pilot 10 will be released separately covering Oregon, Washington, Hawaii, and the Pacific Islands.
- Advised that the NWS plans to streamline products by eliminating Advisories and only issuing Warnings. Message content will not change. Feedback is welcome and a survey regarding the proposed change is available at: <https://www.surveymonkey.com/r/VZGX6BF>
- Advised that rain is forecast followed by drier weather. Fire season is expected to start early this year.
- Advised that National Safe Boating Week is next week.

State Lands Commission Report- Mike Melin (report attached)

- Jim McGrath asked about oil transfer volumes. Mike Melin advised that transfer volumes are lower than typical due to lack of demand and some tank vessels are being used as floating storage offshore.

Water-Go-Round Project Report- Joseph Pratt, Ph.D., Golden Gate Zero Emission Marine

- Joseph Pratt, Golden Gate Zero Emission Marine, gave a presentation to the committee on the Water-Go-Round hydrogen fuel cell ferry project (slides attached). The project was first presented at the January 2019 HSC meeting. Hydrogen fuel cells generate electricity without combustion and are solid state. The technology has many applications and creates zero emissions. The Water-Go-Round is a hydrogen fuel cell powered ferry being constructed with funding from several partners including CARB. The vessel is scheduled to be completed in November 2020 and will be the world's first hydrogen fuel cell powered commercial ferry. The ferry will hold approximately 84 passengers. The hydrogen fuel tanks are located at the top of the vessel for safety and can be fueled from a truck while docked. Hydrogen is non-toxic and is exempt from OPRR regulations. Safety is a priority and USCG regulations are being followed. Feedback is welcome. Contact: jpratt@ggzeromarine.com
- In response to questions, Joseph Pratt advised that Hornblower will be operating the Water-Go-Round once in service. The vessel contains lithium ion batteries which act as backup in case of hydrogen fuel cell system failure.

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Work Group Reports-

Tug Work Group- Capt. Sean Daggett advised that there was nothing to report.

Navigation Work Group- Capt. Paul Ruff advised Vessel Speed Reduction (VSR) began on May 1st. Vessels are complying with the recommendation. Whales have been active in the Main Ship Channel. Ben Eichenberg advised of a possible whale strike by a ferry vessel, but no information is available. Kathi George, Marine Mammal Center, reported three whale strandings so far this year. Three humpback whales have been in the bay recently and grey whales have been sighted. Whale sightings can be reported to the Marine Mammal Center at: 415-289-SEAL. John Berge advised that whale sightings can be reported to NOAA at: (877) SOS-WHALE (767-9425) or whales@noaa.gov. Capt. Byrd advised reporting of whale sightings to USCG VTS via Channel 16. Julian Rose advised that whale reporting can also be done through the NOAA Whale Alert App.

Ferry Operations Work Group- Capt. Tom Kirsch advised that there was nothing to report.

Dredge Issues Work Group- Julian Rose advised that concerns remain regarding Pinole Shoal Channel depth and dredging deferment. The channel is 34.7 feet deep which is below project depth. No dredging is currently planned until 2021.

PORTS Work Group- Nothing to report.

Prevention through People Work Group- Scott Grindy advised that many public boat ramps are closed. Dominic Moreno advised that the Pier 52 boat ramp is still open.

Plan Update Work Group- Capt. Korwatch advised that the 2020 Harbor Safety Plan update is upcoming. Linda Scourtis, BCDC, will be coordinating the update.

PORTS Report- Marcus Freeling

- Advised that the Amorco current meter is back online. The sensor and data cable were replaced.
- Advised that the South Hampton Shoal LB6 buoy-mounted current meter is still down. The buoy equipment was inspected for physical damage and the antenna cable was replaced but the shore station is still unable to connect with the buoy. The Oakland LB3 current meter is also offline. Repairs will continue and a full buoy service will be scheduled.
- Advised that the nose cones of all PORTS windbirds will be replaced and station software upgraded.

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- Advised that PORTS data is publicly available through NOAA's Tides and Currents website.

Public Comment-

- Dennis Deisinger, BAE Systems, advised that Cal Maritime's summer classes have been canceled. Alumni videos for recent graduates are requested.
- Maritime Day is on May 22nd and no public events are planned.

Old Business- None

New Business- None

Next Meeting-

1000-1200, June 11, 2020
Port of Oakland, Exhibit Room
530 Water Street, Oakland, CA

Adjournment-

A motion to adjourn to meeting was made and seconded. The motion passed without dissent and the meeting adjourned at 11:13.

Respectfully submitted:



Capt. Lynn Korwatch

SIGNIFICANT PORT SAFETY AND SECURITY CASES (APRIL 2020)
MARINE CASUALTIES
Loss of propulsion (22APR20): A U.S. flag bulk freight vessel experienced a loss of propulsion while mooring at the Port of Oakland. Vessel lost propulsion due to problems with the air start system. Repairs were conducted to the air start system. Class attended the vessel and witnessed satisfactory operation of the air start system and main diesel engines. Case closed.
VESSEL SAFETY CONDITIONS
Operational Control (15APR20): A U.S. flag ferry vessel experienced a loss of steering due to a failure of the steering pump. An operational control (code 17) was issued. Case pends.
Operational Control (20APR20): A U.S. flag ferry vessel was inspected at the Tiburon Ferry Terminal and received an operational control (code 17) due to an inoperable visual and audible high level bilge alarm on the bride, and a watertight hatch not meeting watertight requirements. Case pends.
Operational Control (21APR20): A U.S. flag small passenger vessel was inspected in Berkeley, CA and received an operational control (code 17) due to invalid communications documentation, and multiple firefighting and prevention infractions. Case pends.
Operational Control (28APR20): A foreign flag container vessel was found to have members of the crew that were in the Schengen Area within the past 14 days, which presents a risk of spreading the 2019 Novel Coronavirus. A COTP Order was issued, requiring all crew members to remain on board the vessel while in the Port of San Francisco. Case pends.
Operational Control (26APR20): A foreign flag bulk freight vessel was found to have members of the crew that have a history of absconding. A COTP Order was issued, requiring the vessel to provide additional security measures to keep crewmembers on board the vessel. Case pends.
GENERAL SAFETY CASES (SIO/CID/MWM)
Rule 9 Violation (18APR20): A sailing vessel tacked back and forth across the bow of a tank vessel as they departed Stockton, CA causing the tanker to change course/speed to avoid the sailing vessel by approximately 100 feet. Case pends.
NAVIGATIONAL SAFETY (CID)
Letter of Deviation (07APR20): A vessel was issued an inbound LOD due to an inoperable rudder angle indicator. Case closed.
Letter of Deviation (14APR20): A vessel was issued an inbound LOD due to an inoperable S-band radar. Case closed.
Letter of Deviation (24APR20): A vessel was issued an inbound LOD due to an inoperable AIS heading reading. Case closed.
SIGNIFICANT INCIDENT MANAGEMENT DIVISION CASES
Letter of Warning (LOW), (02APR20): A sailing vessel in Alameda, CA experienced a bilge pump malfunction which resulted in a discharge of one gallon of unrecoverable oily water mixture into the waterway. A NOFI and LOW were issued. Case closed.
Letter of Warning (LOW), (06APR20): A commercial fishing vessel in Moss Landing, CA experienced an equipment failure which resulted in a discharge of five gallons of diesel into the waterway. Cleanups were completed by the responsible party. A NOFI and LOW were issued. Case closed.
Letter of Warning (LOW), (14APR20): A pump dock in Oakland, CA experienced an equipment failure which resulted in a discharge of one gallon of jet fuel into the waterway. Boom was in place for pumping operations and cleanup was completed immediately by the responsible party. A NOFI and LOW were issued. Case closed.
Letter of Warning (LOW), (24APR20): A recreational vessel sank at a pier in San Francisco, CA which resulted in a discharge of five gallons of gasoline into the waterway. Local contractors were hired by the vessel owner for cleanup and removal of the vessel. A NOFI and LOW were issued. Case closed.
Notice of Violation (NOV), (12APR20): A fishing vessel in Rio Vista, CA sank at the dock of a commercial entity which resulted in a discharge of 100 gallons of diesel into the waterway. The owner of the property utilized their own crane to remove the vessel and hired local contractors who conducted cleanups. A NOFI and NOV were issued. Case closed.
Notice of Violation (NOV), (17APR20): A regulated waterfront facility in Oakland, CA experienced a mishap in which a tractor trailer collided with a crane causing the crane to fall in to the waterway. The crane subsequently discharged two gallons of transmission oil into the waterway as a result of the mishap. The facility conducted cleanups. A NOFI and NOV were issued. Case closed.
Notice of Violation (NOV), (20APR20): A recreational vessel in Berkeley, CA partially sunk at its dock which resulted in a discharge of five gallons of gasoline into the waterway. The owner was contacted and assumed cleanup responsibilities. A NOFI and NOV were issued. Case closed.
Civil Penalty (13APR20): A commercial land source in Concord, CA experienced a hydraulic line malfunction on a piece of their construction equipment stored on a barge which resulted in a discharge of one gallon of hydraulic oil into the waterway. The responsible party completed containment and conducted cleanups. A NOFI was issued and a Civil Penalty has been administered due to multiple discharges from the same responsible party within a year. Case closed.

PREVENTION / RESPONSE - SAN FRANCISCO HARBOR SAFETY STATISTICS			
April 2020			
PORT SAFETY CATEGORIES*	Apr-2020	Apr-2019	**3yr Avg
Total Number of Port State Control Detentions:	0	0	0.22
SOLAS (0), STCW (0), MARPOL (0), ISM (0), ISPS (0)			
Total Number of COTP Orders:	2	11	4.11
Navigation Safety (0), Port Safety & Security (2), ANOA (0)			
Marine Casualties (reportable CG 2692) within SF Bay:	7	11	9.00
Allision (1), Collision (0), Fire (0), Capsize (0), Grounding (0), Sinking (0)			
Steering (1), Propulsion (2), Personnel (2), Other (1), Power (0)			
Total Number of (routine) Navigation Safety issues/Letters of Deviation:	3	2	1.72
Radar (1), Gyro (0), Steering (1), Echo Sounder (0), AIS (1)			
ARPA (0), Speed Log (0), R.C. (0), Other (0)			
Reported or Verified "Rule 9" or other Navigational Rule Violations:	1	1	0.67
Significant Waterway events/Navigation related Cases:	0	0	0.19
Total Port Safety (PS) Cases opened	13	25	15.92
MARINE POLLUTION RESPONSE			
Pollution Discharge Sources (Vessels)	Apr-2020	Apr-2019	**3yr Avg
U.S. Commercial Vessels	0	2	0.86
Foreign Freight Vessels	1	0	0.19
Public Vessels	0	1	0.64
Commercial Fishing Vessels	1	1	0.72
Recreational Vessels	6	5	5.08
Pollution Discharge Sources (Facilities)			
Regulated Waterfront Facilities	1	2	0.42
Regulated Waterfront Facilities - Fuel Transfer	0	0	0.06
Other Land Sources	2	7	3.39
Mystery Spills - Unknown Sources	3	7	4.58
Number of Pollution Incidents within San Francisco Bay			
Spills < 10 gallons	10	15	7.81
Spills 10 - 100 gallons	2	1	1.08
Spills 100 - 1000 gallons	0	0	0.19
Spills > 1000 gallons	0	0	0.00
Spills - Unknown Size	2	9	6.86
Total Pollution Incidents	14	25	15.94
Oil Discharge/Hazardous Materials Release Volumes by Spill Size			
Estimated spill amount from U.S. Commercial Vessels	0.00	2.13	12.01
Estimated spill amount from Foreign Freight Vessels	1.00	0.00	0.36
Estimated spill amount from Public Vessels	0.00	5.00	2.47
Estimated spill amount from Commercial Fishing Vessels	5.00	1.00	24.24
Estimated spill amount from Recreational Vessels	113.00	4.00	28.55
Estimated spill amount from Regulated Waterfront Facilities	2.00	5.00	2.03
Estimated spill amount from Regulated Waterfront Facilities - Fuel Transfer	0.00	0.00	0.11
Estimated spill amount from Other Land Sources	2.00	12.25	19.12
Estimated spill amount from Unknown Sources (Mystery Sheens)	unk	unk	0.00
Total Oil Discharge and/or Hazardous Materials Release (Gallons)	123.00	29.38	88.88
Penalty Actions			
Civil Penalty Cases	1	0	0.06
Notice of Violations	3	1	0.53
Letters of Warning	4	4	3.36
Total Penalty Actions	8	5	3.94
* 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.			

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

**Report of the
U.S. Army Corps of Engineers, San Francisco District
May 14, 2020**

1. CORPS O&M DREDGING PROGRAM

The following report covers the planned FY 2020 dredging program for San Francisco Bay. While this program is subject to change based on a number of variables, it is based on actual FY 20 appropriations including the FY 2020 Work Plan. Please refer to the Local Notice to Mariners for details of dredge operations.

FY 2020 DREDGING

- a. **SF Main Ship Channel** – Planning for the FY20 dredging episode is currently underway with start of dredging tentatively scheduled for early June 2020 by Essayons.
- b. **Richmond Inner Harbor** – A maintenance dredging contract was awarded to Curtin Maritime on May 7. Start of dredging is tentatively scheduled for mid-June 2020.
- c. **Richmond Outer Harbor (and Richmond Long Wharf)** – Per environmental requirements, Richmond Outer Harbor and San Pablo Bay (Pinole Shoal) are hopper-dredged in alternating years. Pinole Shoal was dredged in FY19, thus, Richmond Outer is scheduled for dredging in FY20. Planning is currently underway with start of dredging tentatively scheduled for mid-June 2020 by Essayons.
- d. **Oakland Harbor** – A maintenance dredging contract was awarded to Manson Construction on May 1. Start of dredging is tentatively scheduled for mid-June 2020.
- e. **Redwood City Harbor** – The FY19 dredging was completed at the end of January 2020. Since Redwood City is on a two-year cycle, the next dredging episode is planned for FY21. Work planned for FY20 includes condition surveys and preliminary prep for the next dredging cycle.
- f. **San Pablo Bay (Pinole Shoal)** – Per environmental requirements, Richmond Outer and San Pablo Bay (Pinole Shoal) are hopper-dredged in alternating years. Pinole Shoal was dredged in FY19, next scheduled dredging will occur in 2021.
- g. **Suisun Bay Channel (and New York Slough)** – Planning for the FY20 dredging episode is currently underway with start of dredging tentatively scheduled for mid-August 2020.
- h. **Petaluma River Channel** – This project received FY20 Work Plan funding for dredging. Planning is currently underway with start of dredging tentatively scheduled for late August 2020.

2. DEBRIS REMOVAL – Debris removal for April 2020 was 20 tons. Dillard: 8 tons; Raccoon: 12 tons. Average for April from 2010 to 2019 is 124 tons (Range: 27-530 tons).

BASEYARD DEBRIS COLLECTION TOTALS:

MONTH	RACCOON	DILLARD	MISC	TOTAL
2020	TONS	TONS	TONS	TONS
JAN	45	57	28	130
FEB	33	39	45	117
MAR	15	5.5	29	49.5
APR	12	8	0	20
MAY				
JUN				
JUL				
AUG				
SEP				
OCT				
NOV				
DEC				

YR TOTAL
316.5

3. UNDERWAY OR UPCOMING HARBOR IMPROVEMENTS

None to report.

4. EMERGENCY (URGENT & COMPELLING) DREDGING

None to report.

5. OTHER WORK

San Francisco Bay to Stockton – The Final EIS for San Francisco to Stockton Navigation Improvement Project was published on March 6, 2020. The Final EIS is available on the San Francisco District website, at the following web address: <https://www.spn.usace.army.mil/Missions/Projects-and-Programs/Projects-by-Category/Projects-for-Navigable-Waterways/San-Francisco-Bay-to-Stockton-JFB-/>

Pinole Shoal Channel CATZOC – On 27 Mar 2020, the category zone of confidence (CATZOC) for Pinole Shoal Channel was upgraded from "B" to "A1". This upgrade will increase shipping efficiency through this critical navigation channel. The upgrade was the result of a collaborative effort between USACE, the NOAA Office of Coast Survey and navigation stakeholders. USACE would like to thank Jeff Ferguson and Peter Holmberg at NOAA for their hard work and cooperative spirit.

Regional Dredge Material Management Plan: On July 19, 2019, the Corps held a public meeting to discuss a Regional Dredge Material Management Plan for the Bay in which many people expressed concern about studies being conducted by the Corps related to the San Francisco Bay to Stockton Navigation Improvement Project. The U.S. Army Corps of Engineers San Francisco District hosted a public meeting on Wednesday, Nov. 13th to present an overview of the District's Navigation Program. The meeting is part of an effort by the Corps to evaluate the agency's San Francisco Bay navigation program in order to best position the program for success over the next several decades. The meeting took place from 6-8 p.m., at the Pinole Library located at 2935 Pinole Valley Rd, Pinole, Calif., 94585. The meeting was held as an opportunity for the public to provide further input about those studies and our navigation program in general.

The draft can be found at:

<http://www.saj.usace.army.mil/About/DivisionsOffices/Planning/EnvironmentalBranch/EnvironmentalDocuments.aspx>

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 December 27, 2019.

Berkeley Marina (Entrance Channel): Condition survey of July 17, 2019.

Islais Creek Channel: Condition survey of April 15, 2020.

Larkspur Ferry Channel: Condition survey of April 8, 2020.

Main Ship Channel: Condition survey of February 11, 2020.

Mare Island Strait: Condition survey of September 30, 2019.

Marinship Channel (Richardson Bay): Condition survey of August 6, 2019.

Napa River: Condition survey of March 5, 10-11, 2020.

Northship Channel: Condition survey of April 21-24, 2020.

Oakland Inner Harbor: Condition survey of March 26, 2020.

Oakland Outer Harbor: Condition survey of March 26, 2020.

Petaluma River (Across-the-Flats): Condition survey of December 19, 2017.

Petaluma River (Main Channel): Condition survey of March 4 & 17, 2020.

Petaluma River (Extended Channel): Condition survey of March 19-26, 2018.

Pinole Shoals Channel: Condition survey of March 19-25, 2020.

Redwood City Harbor: Condition survey March 30 & April 1, 2020.
Richmond Inner Harbor: Condition survey of March 11-12, 2020.
Richmond Inner Harbor (Santa Fe Channel): Condition survey of December 20, 2016.
Richmond Outer Harbor (Longwharf): Condition survey of March 19, 2020.
Richmond Outer Harbor (Southampton Shoal): Condition survey of March 18, 2020.
Sacramento River Deep Water Ship Channel: Condition survey of February 18-21, 2020.
San Bruno Shoal: Condition survey of April 9, 2020.
San Leandro Marina (and Channel): Condition survey of March 30 and April 1, 2015.
San Rafael (Across-the-Flats): Condition survey of September 24, 2019.
San Rafael (Creek): Condition survey of September 24, 2019.
Stockton Ship Channel: Condition survey of February 12-17, 2020.
Suisun Bay Channel: Condition survey of January 28-31, 2020.
Suisun Bay Channel (Bullshead Reach): Condition survey of January 28-31, 2020.
Suisun Bay Channel (New York Slough): Condition survey of February 11, 2020.

Disposal Site Condition Surveys:

SF-08 (Main Ship Channel Disposal Site): Condition survey of April 14, 2020.
SF-09 (Carquinez): Condition survey of April 7, 2020.
SF-10 (San Pablo Bay): Condition survey of April 7, 2020.
SF-11 (Alcatraz Island): Condition survey of April 2, 2020.
SF-16 (Suisun Bay Disposal Site): Condition survey of October 2, 2019.
SF-17 (Ocean Beach Disposal Site): Condition survey of April 14, 2020.

Requested Surveys:

Pre/Post-dredge and condition surveys are scheduled to occur throughout the year for all of San Francisco District's in-bay projects which are planned to be dredged in FY20.

NEW WEB ADDRESS – USACE WORK PLAN:

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

2020 O&M DREDGING PLAN*

Annual	Bid Open	Award	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	Estimated CY	Dredge Type	Placement Site	
			FY2020												FY2021								
Oakland Harbor	13-Apr (A)	1-May (A)							Yellow	Black	Mob	Red/White									890kcy	Contract Clam Shell	SF-DODS
Richmond Inner Harbor	24-Apr (A)	7-May (A)							Yellow	Black	Mob	Red/White									223kcy	Contract Clam Shell	SF-DODS
San Joaquin River (Port of Stockton)	14-Jun	28-Jun									Yellow	Black	Mob	Red/White						285kcy	Contract Pipeline	Various Upland	
Suisun Bay Channel	15-Jun	29-Jun									Yellow	Black	Mob	Red/White						74kcy 33kcy	Contract Clam Shell	Upland SF-16	
SF Main Ship Channel	N/A	N/A									Black									350kcy	Govt Hopper	OBDS/SF-8	
Richmond Outer Harbor	N/A	N/A									Black									250kcy	Govt Hopper	SF-11/SF-10	
Humboldt Bar & Entrance Channels	N/A	N/A										Grey	Black							1100kcy	Contract Hopper	HOODS	
Humboldt Interior Channels	N/A	N/A								Black										150kcy	Govt Hopper	HOODS	
Workplan Funded Projects in Order of Award Date																							
Noyo River and Harbor	1-Jun	8-Jun									Yellow	Black	Mob	Red/White						18kcy	Pipeline	Upland	
Petaluma River	25-Jun	7-Jul									Yellow	Black	Mob	Red/White						200kcy	Clam Shell/ Pipeline	Upland, SF-10	
Sacramento River (30 Foot Project)	6-Jul	13-Jul									Yellow	Black	Mob	Red/White						145kcy	Contract Pipeline	Various Upland	
Crescent City Harbor	10-Jul	17-Jul									Yellow	Black	Mob	Red/White						20kcy	Hydraulic/ Pipeline	Wheeler Island	
Moss Landing Harbor	19-Aug	27-Aug										Yellow	Black	Mob	Red/White					85kcy	Hopper/Clam Shell w/Pipe	SF-14, Beach Site	
San Rafael Creek (P&S only)	N/A	N/A																	Purple	TBD	TBD	TBD	
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p> Solicitation</p> <p> Bid Opening</p> <p> Contract Award</p> <p> Hopper Dredging</p> </div> <div style="width: 45%;"> <p> Environmental Window</p> <p> Mobilization</p> <p> New SPN Contract</p> <p> Funded for P&S only</p> </div> </div>																							

* Program execution is based on the FY20 Workplan plus FY19 Carryover.



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

San Francisco Clearinghouse Report

May 14, 2020

- ✎ In April the clearinghouse contacted OSPR once regarding a possible escort violation.
- ✎ In April the clearinghouse did not receive any notifications of vessels arriving at the Pilot Station without escort paperwork.
- ✎ The clearinghouse has contacted OSPR 1 time in 2020 regarding a possible escort violation. The clearinghouse did not contact OSPR in 2019 regarding possible escort violations. The clearinghouse contacted OSPR 1 time in 2018 about a possible escort violation. The clearinghouse did not contact OSPR in 2017 about possible escort violations. The clearinghouse contacted OSPR 1 time in 2016 about a possible escort violation. The clearinghouse contacted OSPR 3 times 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 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 April there were 93 tank vessel arrivals; 13 ATBs, 7 Chemical Tankers, 21 Chemical/Oil Tankers, 22 Crude Oil Tankers, 20 Product Tankers, and 10 Tugs with Barges.
- ✎ In April there were 260 total vessel arrivals.

San Francisco Bay Clearinghouse Report For April 2020

San Francisco Bay Region Totals

	<u>2020</u>		<u>2019</u>	
Tanker arrivals to San Francisco Bay	70		74	
ATB arrivals	13		11	
Barge arrivals to San Francisco Bay	10		19	
Total Tanker and Barge Arrivals	93		104	
Tank ship movements & escorted barge movements	331		331	
Tank ship movements	166	50.15%	181	54.68%
Escorted tank ship movements	127	38.37%	146	44.11%
Unescorted tank ship movements	39	11.78%	35	10.57%
Tank barge movements	165	49.85%	150	45.32%
Escorted tank barge movements	16	4.83%	29	8.76%
Unescorted tank barge movements	149	45.02%	121	36.56%

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	196		323		0		135		654	
Unescorted movements	106	54.08%	184	56.97%	0	0.00%	65	48.15%	355	54.28%
Tank ships	90	45.92%	145	44.89%	0	0.00%	63	46.67%	298	45.57%
Tank barges	16	8.16%	39	12.07%	0	0.00%	2	1.48%	57	8.72%
Escorted movements	90	45.92%	139	43.03%	0	0.00%	70	51.85%	299	45.72%
Tank ships	83	42.35%	124	38.39%	0	0.00%	64	47.41%	271	41.44%
Tank barges	7	3.57%	15	4.64%	0	0.00%	6	4.44%	28	4.28%

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 2020

San Francisco Bay Region Totals

	<u>2020</u>		<u>2019</u>	
Tanker arrivals to San Francisco Bay	290		878	
ATB arrivals	61		185	
Barge arrivals to San Francisco Bay	52		164	
Total Tanker and Barge Arrivals	403		1,227	
Tank ship movements & escorted barge movements	1,420		4,053	
Tank ship movements	716	50.42%	2,257	55.69%
Escorted tank ship movements	563	39.65%	1,804	44.51%
Unescorted tank ship movements	153	10.77%	453	11.18%
Tank barge movements	704	49.58%	1,796	44.31%
Escorted tank barge movements	129	9.08%	241	5.95%
Unescorted tank barge movements	575	40.49%	1,555	38.37%

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

Escorts reported to OSPR 0 #REF!

Movements by Zone	Zone 1	%	Zone 2	%	Zone 4	%	Zone 6	%	Total	%
Total movements	822		1,390		0		567		2,779	
Unescorted movements	407	49.51%	720	51.80%	0	0.00%	272	47.97%	1,399	50.34%
Tank ships	331	40.27%	568	40.86%	0	0.00%	248	43.74%	1,147	41.27%
Tank barges	76	9.25%	152	10.94%	0	0.00%	24	4.23%	252	9.07%
Escorted movements	415	50.49%	670	48.20%	0	0.00%	295	52.03%	1,380	49.66%
Tank ships	385	46.84%	551	39.64%	0	0.00%	255	44.97%	1,191	42.86%
Tank barges	30	3.65%	119	8.56%	0	0.00%	40	7.05%	189	6.80%

Notes:

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



CALIFORNIA STATE LANDS COMMISSION

HARBOR SAFETY COMMITTEE MONTHLY REPORT - APRIL COMPARISON

VESSEL TRANSFERS

	Total Transfers	Total Vessels Monitored	Total Transfers Percentage
APRIL 1 - 30 2019	215	71	33.02
APRIL 1 - 30 2020	195	42	21.54

CRUDE OIL / PRODUCT TOTALS

	Crude Oil (D)	Crude Oil (L)	Overall Product (D)	Overall Product (L)	GRAND TOTAL
APRIL 1 - 30 2019	14,135,000		20,771,700	7,541,082	28,312,782
APRIL 1 - 30 2020	10,971,900		14,804,347	8,915,842	23,720,189

OIL SPILL TOTAL

	<u>TERMINAL</u>	<u>VESSEL</u>	<u>Total</u>	<u>Gallons Spilled</u>
APRIL 1 - 30 2019	0	0	0	0
APRIL 1 - 30 2020	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.

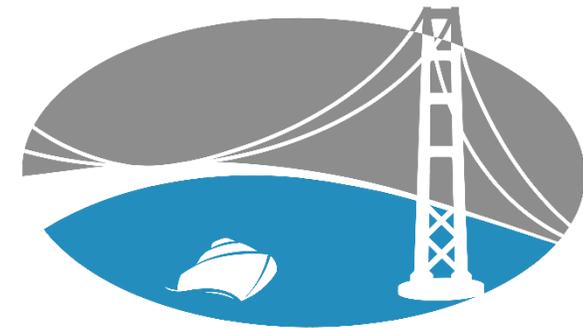


The Water-Go-Round

Dr. Joseph Pratt, CEO & CTO

GOLDEN GATE ZERO EMISSION MARINE

Harbor Safety Committee Meeting
May 14, 2020



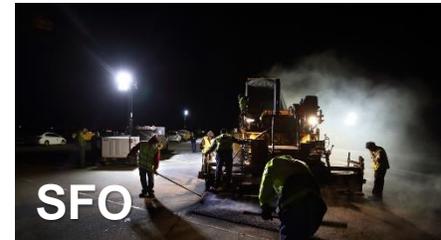
Fuel cell: Directly converts hydrogen to electricity, and is used all around us today.



Going In: H₂ and air
Going Out: Electricity
Water
Heat (150 F)
Warm humid air



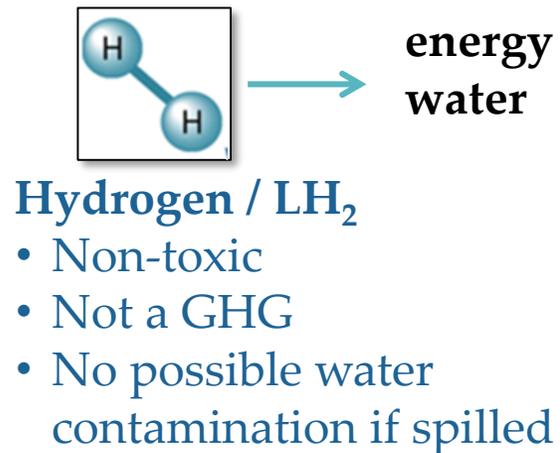
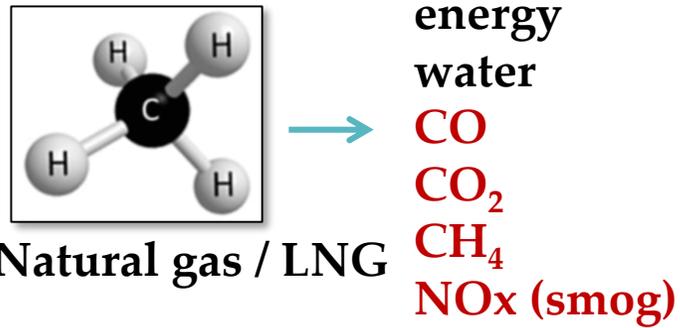
AC Transit



Ghirardelli Square



Hydrogen: Similar to natural gas, but does not contain carbon. It is also the lightest gas.



Travels upward at ~45 mph
(8 stories in 5 seconds)



NG H₂

Technology Comparison

Diesel and LNG

- ✓ Flexible
- ✗ Zero Emission
- ✗ Simple Maintenance

Battery Electric

- ✗ Flexible
- ✓ Zero Emission
- ✓ Simple Maintenance

Fuel Cell *Best of Both*

- ✓ Flexible
- ✓ Zero Emission
- ✓ Simple Maintenance

The Water-Go-Round



- Aluminum catamaran
- 70' / 21 m LOA
- 84 passenger (reconfigurable)
- 22 knot top speed
- 2x 300 kW electric motors
- 360 kW PEM fuel cell
- 100 kWh Li-ion battery
- H₂: 242 kg @ 250 bar

Water-Go-Round Project Partners

Project Lead



GOLDEN GATE
ZERO
EMISSION MARINE

Funding & Administration



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT



This project is supported by the "California Climate Investments" (CCI) program

Partners



BAE SYSTEMS



HEXAGON
COMPOSITES



Sandia
National
Laboratories

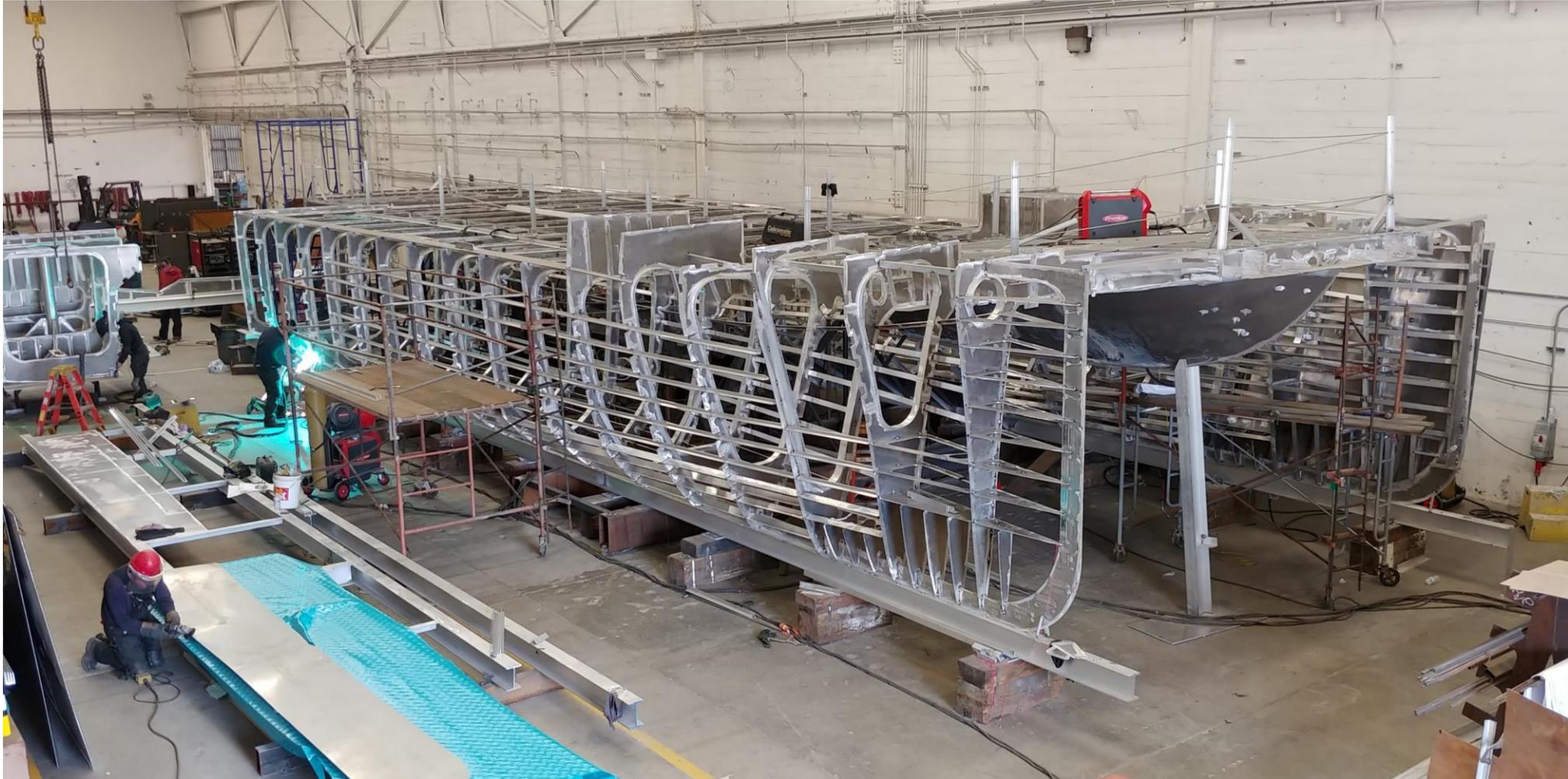


Key Milestones

Project Began	June 11, 2018
Ferry Design Complete	Oct. 2018
Keel Laying Ceremony	Nov. 8, 2018
Ferry Build Began	Feb. 2019
Transition to All-American Marine	March 2020
Construction Complete (est.)	Nov. 2020
Begin Operation in SF Bay (est.)	Nov. 2020

The Water-Go-Round will be
North America's first hydrogen fuel cell vessel
and the
First commercial hydrogen fuel cell ferry in the world

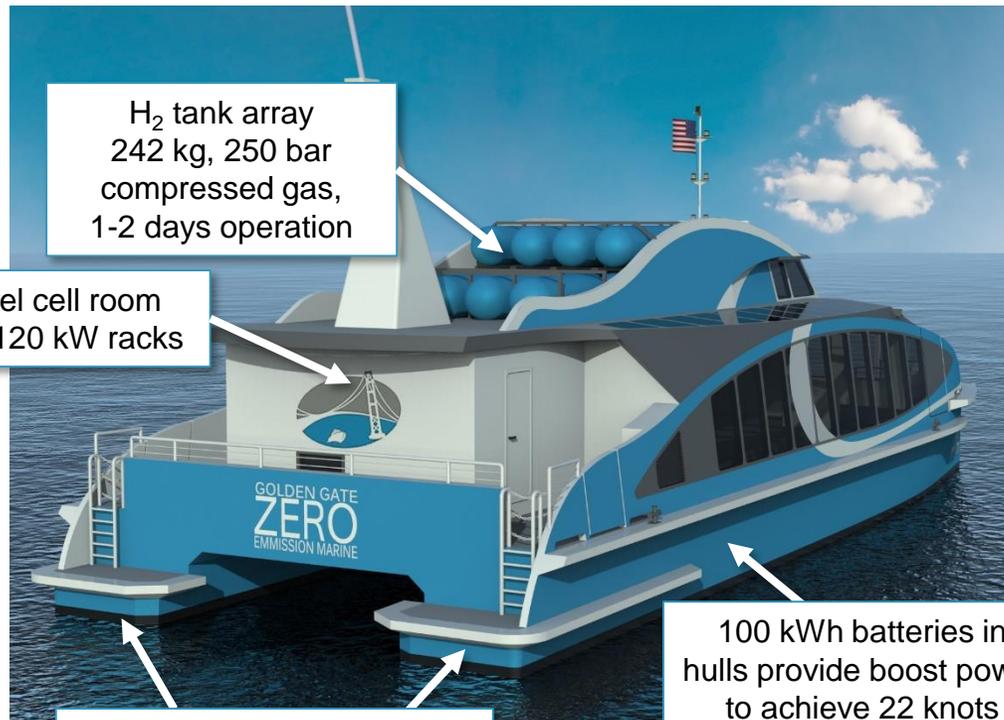
Hull construction – Bay Ship & Yacht



Transition to All American Marine for Fitout



Water-Go-Round Features

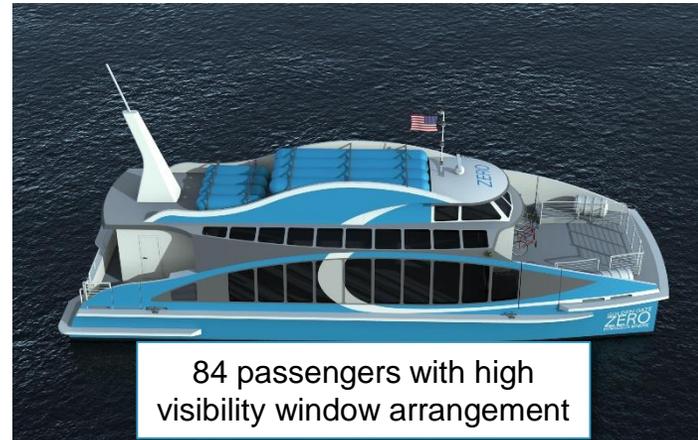


H₂ tank array
242 kg, 250 bar
compressed gas,
1-2 days operation

Fuel cell room
3 x 120 kW racks

300 kW (400 hp) shaft
motors (1 in each demi-hull)

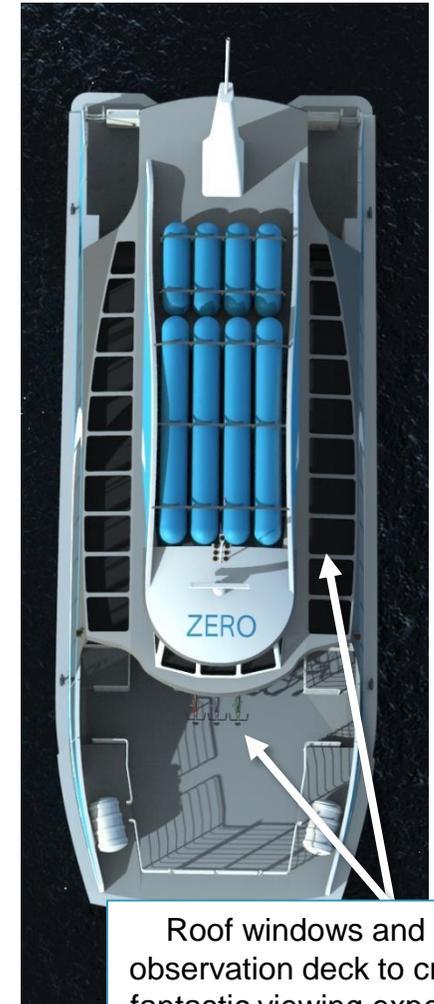
100 kWh batteries in
hulls provide boost power
to achieve 22 knots



84 passengers with high
visibility window arrangement



Boarding from sides and bow
for maximum flexibility



Roof windows and bow
observation deck to create a
fantastic viewing experience

The fueling will look like today's operation with diesel



California's Office of Spill Prevention and Response (OSPR) has exempted hydrogen fueling from the insurance requirements imposed on diesel fueling

Applicable Rules, Regulations, Codes, and Standards

- **Base Regulation: Subchapter T**
 - “Normal” components
 - Each Subchapter allows use of “Equivalents” approach for alternative designs (e.g. 46 CFR 175.540 for SubT)
 - Method for determining Equivalent Risk described by IMO MSC.1/Circ.1212
- **IMO’s 2015 International Code of Safety for Ships using Gases or other Low-flashpoint Fuels (“IGF Code”)** was adopted by USCG
 - Written with natural gas / LNG in mind, not hydrogen
 - SOLAS-class vessels, not local vessels in inland/protected waters
- **DNV-GL for fuel cell installations:** *DNV-GL Rules for Classification: Ship, part 6, chapter 2, section 3*
- **IEC, ASME, ANSI, ISO, CGA,** etc. industry standards are also available

Regulatory Approach: Vessel is normal, fuel is novel

Novel Components

- H₂ Fuel Tanks
- H₂ Fuel System
- Fuel Cell
- Enclosed Spaces with H₂
- Hazardous Areas
- Fire Safety
- Fueling/bunkering
- Li-ion Battery

<p>U.S. Department of Homeland Security United States Coast Guard</p> <p>Commandant United States Coast Guard</p> <p>2703 Martin Luther King Jr. Ave SE Washington, DC 20523-7430 Staff Symbol: CG-ENG Phone: (202) 372-1365 Fax: (202) 372-1925 Email: timothy.e.meyers@uscg.mil</p> <p>16710/GGZEM 2018-3603</p> <p>MAY 21 2019</p> <p>Incat Crowther Attn: Mr. Stewart Wells 102 Asma Blvd, Suite 100 Lafayette, LA 70508</p> <p>Subj: WATER GO ROUND, CG1496421 Bay Ship & Yacht Co. Hull No. 1801 70.17' x 24.50' x 8.17' Hydrogen Fuel and Lithium-ion Hybrid Ferry (T) Design Basis</p> <p>Ref: (a) Your letter, IC17212-SW01 (USCG H-1), dated June 1, 2018 (b) IC Dwg. No. D-011, Rev. B, "General Arrangement," 1 sheet, dated June 1, 2018 (c) IC Dwg. No. D-045, Rev. A, "Hazardous Areas," 1 sheet, dated June 1, 2018 (d) IC Dwg. No. D-101, Rev. B, "Midship Section," 1 sheet, dated June 1, 2018 (e) IC Dwg. No. D-637, Rev. P2, "Structural Fire Protection," 1 sheet, dated June 1, 2018 (f) IC Doc. No. R-002, Rev. P4, "Regulatory Matrix," 12 sheets, dated June 1, 2018 (g) MSC letter E1-1802580, "Hydrogen Fuel and Lithium-ion Hybrid Ferry (T) Alternative Design Standard", dated June 29, 2018 (h) Memo from J. Pratt, "Hydrogen Tank Regulatory Analysis", dated September 26, 2018 (i) Memo from J. Pratt, "Hydrogen Tank Rack Design Review", dated December 7, 2018 (j) Hexagon letter, "Hexagon cylinders for Golden Gate Zero Emission Marine", dated December 14, 2018 (k) Email from ABS Engineering Services Department, "Clarifications of Carbon Fiber Compressed Gas Tubes for Hydrogen - Golden Gate Zero Emission Marine, Water-Go-Round Project", dated February 14, 2019</p> <p>Dear Mr. Wells:</p> <p>We have reviewed references (a) through (f), requesting a concept review for an aluminum hull catamaran passenger ferry powered by a hybrid hydrogen fuel cell and lithium ion battery power plant which were forwarded by the Marine Safety Center (MSC) for our review with reference (g) on June 29, 2018. References (b) through (f) include a regulatory matrix, design documents, and supporting plans. We understand the fuel will be stored onboard in compressed hydrogen cylinders mounted on the upper deck. References (g) through (k) provide further details on the standards being proposed for design, construction and testing of the compressed hydrogen fuel tanks, and the installation of those tanks on the vessel. Review of the lithium-ion battery installation for this project has previously been addressed by MSC in reference (g).</p> <p>We understand that the vessel is to be certificated under Title 46 Code of Federal Regulations (CFR) Subchapter T. As this subchapter does not address hydrogen-fueled propulsion systems, we note that you intend to comply with <i>The International Code of Safety for Ships Using Gases or Other Low-flashpoint Fuels (IGF Code)</i> (IMO Resolution MSC.91(95)) for the proposed gas-fueled system installation design. You have also offered several additional standards for consideration in establishing a design basis for the</p>	<p>Subj: WATER GO ROUND, CG1496421 Design Basis</p> <p>MAY 21 2019</p> <p>project, including DNV-GL Rules for Classification of Ships Pt-6/Ch-2/Sec-3 – Fuel Cell Installations; ASME B31.12 – Hydrogen Piping and Pipelines; ABS Document No. ABSHOU557163 - ABS Requirements for Construction of Refillable Carbon Composite Road and Marine Transport Pressure Vessels; and various IEC standards. Details on your proposed application of these standards are given in the regulatory matrix you provided in reference (f).</p> <p>Based upon your proposed regulatory matrix outlined in reference (f), I have determined that the alternative design standard described in enclosure (1) provides an equivalent level of safety to that of Title 46 CFR Subchapter T for this vessel. Should you decide not to comply with enclosure (1), you may propose other alternative design standards to the Marine Safety Center, via the cognizant OCMI, in accordance with 46 CFR 175.340(a).</p> <p>In applying enclosure (1) the Commanding Officer of the Marine Safety Center may accept an alternative to a specific item in the design basis that provides an equivalent level of safety. During construction, the cognizant Coast Guard Officer in Charge, Marine Inspection (OCMI) may impose additional requirements to address issues that were not fully anticipated or covered during plan review.</p> <p>The scope of this review has been limited to the design, arrangement and engineering aspects of the hydrogen fuel cell and lithium-ion propulsion plant, and associated safety systems you proposed for installation on the subject vessel. It does not address requirements for bunkering operations, manning, crew training, or other such operational issues associated with the use of hydrogen as fuel. Any questions related to operational requirements should be directed to the Coast Guard's Office of Operating and Environmental Standards (CG-OES), the Office of Commercial Vessel Compliance (CG-CVC), and the OCMI in whose zone the vessel will be operating.</p> <p>For further clarification on any of these issues, please feel free to contact Mr. Tim Meyers of my staff at (202) 372-1365 or timothy.e.meyers@uscg.mil.</p> <p>Sincerely,  E.P. HAWKINS Chief, Office of Design and Engineering Standards U.S. Coast Guard By direction</p> <p>Enc: (1) Design Basis for Hydrogen Fuel Cell Powered Passenger Ferry: WATER GO ROUND</p> <p>Copy: Commandant, U.S. Coast Guard (CG-OES, CG-CVC) Commander, Eleventh Coast Guard District (dp) Commander, Coast Guard Sector San Francisco Commanding Officer, Marine Safety Center (MSC-2) Detachment Chief, U.S. Coast Guard Liquefied Gas Carrier National Center of Expertise</p> <p>2</p>
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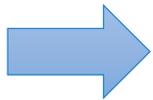
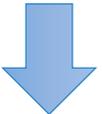
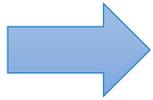
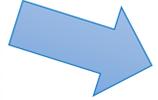
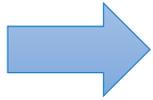
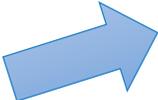
WGR Design Basis letter issued 05-21-2019

Summary of Key Safety Features of the WGR

- Hydrogen tanks on open deck
- Fuel cells contained in fire boundary, in ESD-protected space
- No hydrogen in the hulls (not a necessity)
- Fire boundary between passenger space and hydrogen
- Hydrogen, smoke, and fire detection systems with automated shutoff
- Classified electronic equipment in hazardous zone areas

Although unique as a whole, each part follows well-established industry standards and practice.

The WGR is a groundbreaking vessel that unlocks new zero emission applications and scales



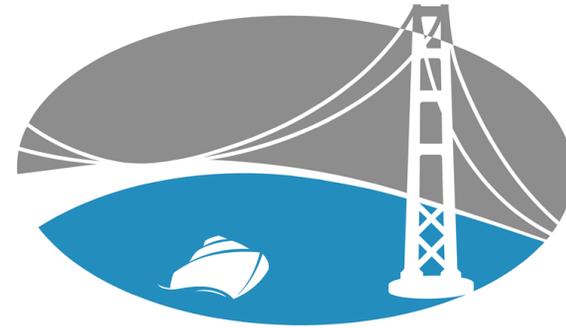
Thank You!

Contact information:

Joe Pratt

jpratt@ggzeromarine.com

(510) 788-5101



GOLDEN GATE
ZERO
EMISSION MARINE

waterground.com

ggzeromarine.com