



UNITED STATES COAST GUARD

REPORT OF INVESTIGATION INTO THE CIRCUMSTANCES SURROUNDING THE INCIDENT INVOLVING OIL SPILL / FOSS 248 P2

ON 12/30/2003



MISLE ACTIVITY NUMBER: 1977962
ORIGINATING UNIT: MSO PUGET SOUND
MISLE ACTIVITY OWNER: COMMANDANT (G-MRI)
MISLE ACTIVITY CONTROLLER: COMMANDANT (G-MRI)
MISLE CASE NUMBER: 158908

Report of Investigation

III. ACTIONS IN RESPONSE TO THIS REPORT**Actions on Recommendations****Safety Recommendation #5827: Oil transfer facilities install capability to receive alarm and shutdown signal from barge**

That each facility that receives cargo from a tank barge fitted with a cargo tank level sensor system complying with 46 CFR 39.20-9(b) as its only means of overfill protection must have an overfill control panel on the dock capable of receiving an alarm and shutdown signal from the cargo tank level sensor system.

Date Created: 03/19/2004
Current Owner Unit: COMMANDANT (G-MOA)
Date Last Modified: 09/01/2004 4:03:12 PM
Priority: Normal

Endorsement(s):

>USER: Boone, George L./SEAMS
>TIME: 03/24/2004 10:41
>STATUS: --->Forward
>NEW OWNER: 13M
Concur with recommendation as presented.

>USER: [REDACTED]/13M
>TIME: 05/03/2004 12:06
>STATUS: Forward--->Forward
>NEW OWNER: GMOA

D13 (m) does not concur with this recommendation. The current regulations are adequate in that they require sufficient equipment to prevent oil spills caused by overflowing a cargo tank during barge loading operations, provided that the equipment is in proper working order and calibrated correctly. In this particular case, the investigators concluded that the equipment was likely not in a proper operating condition at the time of the spill and that the tankerman failed to test and ensure that the system was working properly before starting cargo operations.

>USER: [REDACTED]/COMDT MOA
>TIME: 09/01/2004 16:02
>STATUS: Forward--->Final Agency Action
>NEW OWNER: COMDT MOA

The Final Agency Action has been determined and approved by [REDACTED] by direction of the Commandant.

Final Agency Action:

Do Not Concur- No Action Necessary

Report of Investigation

> [REDACTED] /COMDT MOA
>09/01/2004 16:03:

We do not concur with this recommendation. The facts in this case indicate that the installed overfill devices were not set and maintained properly, nor were they sufficiently tested before the transfer. We believe that compliance with current requirements for overfill devices, as provided in 33 CFR Part 155 and 46 CFR Part 39.20, provides sufficient protection against discharges due to overfills.

[REDACTED]
By direction

Required Actions:

Proposed Start Date: 03/19/2004
Proposed Completion Date: 03/19/2004

Actual Start Date: 03/19/2004
Actual Completion Date: 03/19/2004

Estimated Effort to Complete: 0 Staff Days
Action Status:
Action Commentary:

Safety Recommendation #5828: Oil containment boom deployed around vessels prior to transfer of oil

That oil containment boom is considered for deployment around involved vessels prior to transfer of low flammability fuel oil to or from vessels.

Date Created: 03/19/2004
Current Owner Unit: COMMANDANT (G-MOA)
Date Last Modified: 09/01/2004 4:04:21 PM
Priority: Normal

Endorsement(s):

>USER: Boone, George L./SEAMS
>TIME: 03/24/2004 10:42
>STATUS: --->Forward
>NEW OWNER: 13M
Concur with recommendation as presented.

>USER: [REDACTED] /13M
>TIME: 05/03/2004 12:08
>STATUS: Forward--->Forward
>NEW OWNER: GMOA

D13 (m) concurs with this recommendation. Booming vessels during cargo and oil transfers can prevent the progressive travel of spills into the surrounding environment. There are many variables that must be considered to fully appreciate the true effectiveness of this mitigating action; including flammability and toxic hazard of the cargo, tides and current.

Report of Investigation

Pre-booming this barge would have certainly helped; however, we believe the tide was such that a significant portion of the oil would have escaped from below any containment boom regardless. Pre-booming requirements are currently being considered at the Washington State level.

>USER: [REDACTED]/COMDT MOA

>TIME: 09/01/2004 16:03

>STATUS: Forward--->Final Agency Action

>NEW OWNER: COMDT MOA

The Final Agency Action has been determined and approved by [REDACTED] by direction of the Commandant.

Final Agency Action:

Concur- Acceptable Action

> [REDACTED]/COMDT MOA

>09/01/2004 16:04:

We concur with this recommendation. The predeployment of containment boom around a vessel involved in the transfer of certain types of fuels and cargoes can be an effective practice for mitigating the damaging effects of a spill should one occur. By preventing the spill from spreading, it protects the surrounding marine environment, while at the same time it may make recovery and clean-up of the spill easier and less costly. It should be noted that several states have already implemented laws, regulations and policies requiring the use of boom around vessels prior to conducting transfers under certain circumstances. We encourage other states and the maritime industry as a whole to consider adopting this practice and will publish a lessons learned from this investigation for the purpose of providing information on when and how the use of predeployed boom around vessels involved in transfers can be used safely and effectively to protect the marine environment. In addition, we will conduct an evaluation to determine whether a Federal requirement might be appropriate.

[REDACTED]
By direction

Required Actions:

Proposed Start Date: 03/19/2004

Actual Start Date: 03/19/2004

Proposed Completion Date: 03/19/2004

Actual Completion Date: 03/19/2004

Estimated Effort to Complete: 0 Staff Days

Action Status:

Action Commentary:

Safety Recommendation #5829: Foss Maritime incorporate maintenance program consistent with manufacturer recommendations

Report of Investigation

That Foss Maritime incorporate procedures into their maintenance program for maintaining the Bergan Tank Control System installed on the T/B 248 P2 consistent with manufacturer recommended practice and that all repairs and alterations of the alarm system be reported to the Officer in Charge, Marine Inspection.

Date Created: 03/19/2004
Current Owner Unit: MSO PUGET SOUND
Date Last Modified: 06/18/2004 1:42:18 PM
Priority: Normal

Endorsement(s):

>USER: Boone, George L./SEAMS
>TIME: 06/18/2004 10:41
>STATUS: --->Final Agency Action
>NEW OWNER: SEAMS
SEAMS will present this recommendation to FOSS when the case is closed. This Final Agency Action has been determined and approved by LCDR Lee Boone by direction of the OCMI.

Final Agency Action:

Concur- Acceptable Action

Required Actions:

Proposed Start Date: 03/19/2004 Actual Start Date: 03/19/2004
Proposed Completion Date: 03/19/2004 Actual Completion Date: 03/19/2004

Estimated Effort to Complete: 0 Staff Days
Action Status:
Action Commentary:

Safety Recommendation #5830: Foss Maritime develop a risk-based approach to assignment of tankermen

That Foss Maritime develop a risk-based approach to assigning the number of tankermen based on the challenges presented for each barge transfer.

Date Created: 03/19/2004
Current Owner Unit: MSO PUGET SOUND
Date Last Modified: 07/07/2004 5:38:02 PM
Priority: Normal

Endorsement(s):

>USER: [REDACTED]/SEAMS
>TIME: 07/07/2004 14:37

Report of Investigation

>STATUS: --->Final Agency Action

>NEW OWNER: SEAMS

SEAMS will present this recommendation to FOSS when the case is closed. This Final Agency Action has been approved by LCDR Boone by the direction of the OCMI.

Final Agency Action:

Concur- Acceptable Action

Required Actions:

Proposed Start Date: 03/19/2004

Actual Start Date: 03/19/2004

Proposed Completion Date: 03/19/2004

Actual Completion Date: 03/19/2004

Estimated Effort to Complete: 0 Staff Days

Action Status:

Action Commentary:

Safety Recommendation #5831: Chevron facility update Declaration of Inspection forms

That the Chevron/Texaco USA Point Wells facility update their Declaration of Inspection (DOI) forms to comply with 46 CFR 156.120(l), in that the declaration shall include testing of vessel overfill monitoring devices as a line item.

Date Created: 03/19/2004

Current Owner Unit: MSO PUGET SOUND

Date Last Modified: 07/07/2004 5:40:08 PM

Priority: Normal

Endorsement(s):

>USER: [REDACTED]/SEAMS

>TIME: 07/07/2004 14:39

>STATUS: --->Final Agency Action

>NEW OWNER: SEAMS

SEAMS will present this recommendation to Chevron when the case is closed. This Final Agency Action has been approved by LCDR Boone by the direction of the OCMI.

Final Agency Action:

Concur- Acceptable Action

Required Actions:

Proposed Start Date: 03/19/2004

Actual Start Date: 03/19/2004

Proposed Completion Date: 03/19/2004

Actual Completion Date: 03/19/2004

Estimated Effort to Complete: 0 Staff Days

Report of Investigation

Action Status:
Action Commentary:

Safety Recommendation #5832: Foss Maritime revise Oil Transfer Procedures

That Foss Maritime revise their Oil Transfer Procedures to incorporate the test protocol for testing the Bergan Tank Control System delineated in the Bergan manual.

Date Created: 03/19/2004
Current Owner Unit: MSO PUGET SOUND
Date Last Modified: 07/07/2004 5:41:44 PM
Priority: Normal

Endorsement(s):

>USER: [REDACTED]/SEAMS
>TIME: 07/07/2004 14:41
>STATUS: --->Final Agency Action
>NEW OWNER: SEAMS
SEAMS will present this recommendation to FOSS when the case is closed. This Final Agency Action has been approved by LCDR Boone by the direction of the OCMI.

Final Agency Action:

Concur- Acceptable Action

Required Actions:

Proposed Start Date: 03/19/2004	Actual Start Date: 03/19/2004
Proposed Completion Date: 03/19/2004	Actual Completion Date: 03/19/2004
Estimated Effort to Complete: 0 Staff Days	
Action Status:	
Action Commentary:	

Safety Recommendation #5833: Foss Maritime revise oil transfer procedures to include time to verify load prior to completion

That Foss Maritime revise their Oil Transfer Procedures for transfers to their barges by incorporating a provision requiring the tankerman- PIC to halt the loading operation well before the estimated completion (for example 1 hour) to verify the amount of oil in each tank. Upon completion of the verification process, the loading operation could then proceed until it is completed.

Date Created: 03/19/2004
Current Owner Unit: MSO PUGET SOUND
Date Last Modified: 07/07/2004 5:42:53 PM
Priority: Normal

NARRATIVE SUPPLEMENT
For the incident Involving
Oil Spill / FOSS 248 P2
On 12/30/2003

Shortly after midnight on 30 December 2003, approximately 4800 gallons of heavy fuel oil was spilled from the tank barge (T/B) FOSS 248 P2 when the #5 port tank (5P) was overfilled while loading at the Chevron/ Texaco USA Point Wells Facility north of Seattle, WA. U.S. Coast Guard MSO Puget Sound responded to the spill by sending pollution and marine casualty investigators and standing up a Unified Command at the Point Wells Facility. The Coast Guard and the Washington State Department of Ecology conducted a joint investigation of the incident, and will issue separate reports. Based on the findings of fact and conclusions, the activity is referred for enforcement against the assigned tankerman and Foss Maritime.

The Barge

This 248' single skin tank barge, built in 1981, is owned and operated by Foss Maritime Company and is certificated by the U.S. Coast Guard under the provisions of 46 CFR Subchapter D to carry grade D and lower cargoes on an oceans route. The barge is configured with 5 port and starboard pair of cargo tanks and is equipped with an high level and overfill alarm system to meet federal regulations. These alarms were set at what Foss Maritime believed to be 95% and 98% of tank capacity, respectively.

The Facility

The Chevron/Texaco USA Point Wells facility is located north of Seattle, WA. From the dock house on the pier, the facility person in charge (PIC) monitors the flow rate delivered to vessels. Just outside of the dock house is a transfer manifold, which includes a shutoff valve and an emergency pump stop button that will stop the flow of oil in about 7 to 10 seconds, which meets federal standards. Transfers usually include three facility persons, one to monitor the flow rate in the dock house (PIC), one to make any adjustments to the suction valves at the source tank (field operator) and one in the shore side control room to monitor all operations and conducts rounds of the facility (shift operator). Chevron also hires an independent gauger to verify the amount of oil transferred to vessels. The facility is not equipped with a means to remotely monitor and/or automatically shutdown the supply of oil based on a signal a barge's alarm system.

The High Level and Overfill Alarm System

The high level and overfill alarm system, inspected during installation in 1997 and annually by the U.S. Coast Guard, consists of two independent float sensors in each tank and a control unit in the barge deckhouse, located on the aft portion of the barge. The alarm system, powered by two 12-volt batteries charged by the barge's A/C electrical system, is wired in series so that any open circuit in the system (i.e., broken cable or poor plug in connection, etc.) results in an alarm; i.e. a fail-safe system. By company policy and in accordance manufacturer procedures, the system is to be tested prior each barge loading. With the exception of their oceans fleet barges (T/B CASCADES & T/B CASE POINT) that also have gauging sticks, the only Foss barge to have this particular alarm

system installed is the T/B FOSS 248 P2. The system is equipped with a cable receptacle for connecting the system to an oil transfer facility's automatic shutdown and/or monitoring system if so equipped. The alarm set points were preset by the manufacturer based on the anticipated configuration onboard the FOSS 248 P2.

The Tankerman

The T/B 248 P2 was manned with a single tankerman, Mr. [REDACTED], who holds a Coast Guard issued Merchant Mariner's Document, renewed last on April 18, 2003 by the Regional Examination Center, Seattle, WA. Foss Maritime has employed Mr. [REDACTED] as a tankerman since 1978 without incident and is highly regarded by the company.

Findings

On the night of 29 December 2003, the barge was to load approximately 23,612 barrels of heavy fuel oil (bunker C) to be delivered to Tacoma, Washington. By Foss Maritime agreement with the Inland Boatmen's Union of the Pacific, on jobs where the barge is loading more than 24,000 barrels, a second tankerman is assigned.

After meeting with the terminal PICs to conduct the pre-transfer conference and to fill out the declaration of inspection (DOI) as required by federal regulations, Mr. [REDACTED] began loading according to his plan, which was to fill the #2 through #4 port and starboard tanks in pairs, then #5 port, finishing with #1 starboard tank, all to an ullage of about 4 ft 3 inches (approximately 90%). The PICs agreed to communicate via a facility supplied radio and that at least a 15-minute warning would be given by the tankerman prior to completing the transfer. The DOI used for this transfer was the facility's version which did not specify that monitoring devices such as the overfill system be checked prior to the start of the transfer as required by federal regulations. Mr. [REDACTED] stated that as a part of his preparations and prior to transfer, he checked each float sensor at the tank as required by Foss' oil transfer procedures. He stated that he did not, however, check the power failure alarm.

The transfer started at about 1955 and proceeded without incident at a load rate of between 5500 and 5700 barrels (bbls) per hour with routine communications and tank gaugings completed about every half hour, increasing in frequency as the end of the transfer approached. As #3 and #4 port and starboard were topped off, Mr. [REDACTED] opened the supply valve for #2 port and starboard tanks all the way. At 2340 as he was completing the loading of the #2 tanks, he cracked open the supply valve for the final two tanks: the #5 port and the #1 starboard tank. Once the #2's were topped off, he opened the #1 starboard and the #5 port tank supply valve all the way. He then partially closed down the #1 starboard tank part way, but he does not recall how many turns he gave the handle. (Tankermen keep track of valve openings by counting the number of "turns" given to the valve handle.) Also at about 2340, Mr. [REDACTED] contacted the dock PICs and informed them that he had approximately 4000 bbls to go and that the transfer would be done by 0020. Mr. [REDACTED] would contact them two more times to inform them that there was 2000, then 1000 bbls to go. The exact times of these calls cannot be determined, but would most likely have been prior to midnight.

After closing the valves for # 2 port and starboard tanks, Mr. [REDACTED] went into the deckhouse and began checking his figures. He believed he was there for approximately 10 minutes and was standing near the doorway when he heard what he thought was oil going into the water. He exited the deckhouse and saw oil running over the side of the barge and into the water. He ran to the # 5 port supply valve, closed it, then headed to the # 1 starboard valve and opened it all the way. He then ran to the # 5 starboard tank and opened the valve to allow oil to gravitate from the # 5 port to the #5 starboard tank. He never heard an alarm. Mr. [REDACTED] then called the Foss dispatcher to report the spill and started putting pads down on the deck. He did not immediately call the dock attendants with the radio to inform them of the situation as he had left it in the deckhouse when he ran out upon discovering the spill. The facility workers discovered the spill by chance at about 5 minutes after midnight as the field operator was exiting the dock house to adjust the supply pump suction. They immediately shut off the supply of oil. Shortly thereafter, the tankerman applied absorbent pads on deck aft of the barge containment, and with the assistance of SHELLEY FOSS crew, deployed oil containment boom around the barge.

Problems were found with the high level and overfill alarm system. The barge supervisor, Mr. [REDACTED], reportedly found the overfill alarm system in the off position when he arrived at the barge on the morning of December 30, 2003. Subsequent relief tankerman on December 30 ([REDACTED] and [REDACTED]) reported that they did not touch the system. MSO Investigators discovered that the high level alarm and power failure alarm were inoperative, a condition that was discovered by testing the device in a manner consistent with that required prior to transfer. The power failure alarm did not activate when the power failure alarm test button was pushed and the high level alarm would immediately sound when energized even though none of the tank levels were at or above the high level mark. Two (possibly intermittent) circuit breaks were later found in the system that caused the high level alarm to sound. A disconnected lead in the power failure alarm test button caused the power failure alarm to be inoperative. The set point for the #5 port overfill alarm was also discovered to be unusually high, at almost 100% full.

There was bit of confusion by Foss Maritime regarding how to properly set the alarm points for the high level and overfill tank sensors, which were reset in 1997 by Foss. The settings on December 29 were higher than posted on the bulkhead in the barge deckhouse and as intended (in excess of 95% and 98%) by Foss. After attempting to lower the set points by 2 inches on January 5, 2003, again the set points were found be set higher than anticipated after investigators double checked calculations. Because of this confusion, representatives from the alarm manufacturer (Ian-Conrad Bergan, Inc) were asked to visit Seattle to educate Foss personnel on the system. Eventually these alarm set points were properly set in the presence of Coast Guard marine inspectors.

During interviews of other tankerman employed by Foss, it was noted that the testing of the Bergan Tank Control System prior to loading operations, as required by Foss' Oil Transfer Procedures, is not consistent. While indicating that they test the system as required, one tankerman indicated that he does not test each sensor for each tank, but rather "spot checks" sensors.

The Response

At 0008, notification was made by the facility PIC to the facility Qualified Individual who in turn requested response resources from Clean Sound Cooperative (CSC). Upon assessment of situation, the PIC determined the need to deploy containment boom. The vessel on board the barge could not be placed in the water to deploy boom because of the large amount of oil spilled on deck near the response vessel. Facility personnel attempted to use the facility's primary response vessel but were unsuccessful due to a dead battery in the boat. Attempts to use a secondary vessel were also unsuccessful. At 0030, facility personnel made a request to the Marine Spill Response Corporation (MSRC) for response resources, including response vessel PARK RESPONDER. After charging the primary boat battery, the vessel was started but could not be used due to a malfunction of the transmission.

At approximately 0055, NRC Environmental responders arrived on scene. At approximately 0130, NRC began deployment of approximately 2000 feet of containment boom in a "J" configuration in the vicinity of the barge and dock. NRC then attempted to deploy another 1000 feet of containment boom but was relieved by a newly arriving CSC vessel, which attempted to deploy containment boom around the barge. By the time containment boom was in place around the barge, the majority of oil had spread south into Puget Sound. Oil moved south due to a shore side counter current despite the fact that the tide was ebbing during the initial boom deployment. At approximately 0200, NRC spill recovery equipment arrived on scene. At 0238, MSO Puget Sound pollution investigators arrived on scene and shortly after 0800, initial 201 briefing was conducted and a Unified Command was established.

The Unified Command utilized all available resources and led a coordinated response effort using the incident command system. Six members of the District 13 Incident Management Assist Team (IMAT) were requested to fill critical positions within the unified command. Eight members of the USCG Pacific Strike Team were mobilized to assist on shoreline cleanup assessment teams (SCAT). SCAT teams surveyed and identified impacted beaches and recommend clean up strategies and priorities. The Federal On-Scene Coordinator's representative also requested the assistance of the NOAA Scientific Support Coordinator and NOAA scientists to provide spill trajectories, weather forecasting, resources at risk information, conduct SCAT and provide scientific support to the unified command. The multi-agency response organization rapidly grew to address the complexities of the response.

Geographic Response Plans (GRPs) were deployed to protect environmentally sensitive areas in accordance with the Northwest Area Contingency Plan. MSRC, CSC and NRC Environmental conducted skimming operations as per the direction of an assigned helicopter that tracked the oil moving West and South across Puget Sound toward Bainbridge Island and Port Madison. Within the first 24 hours, 686 gallons of oil was recovered by skimming. Over flights tracked the oil moving south near the eastern shoreline of Puget Sound for approximately 6 miles then proceeded northwesterly

towards Port Madison (there were no shoreline impacts on the eastern side of Puget Sound except directly in front of the Point Wells facility). By late evening on December 30, the oil impacted the shoreline of Port Madison between Indianola and Point Jefferson. Approximately 2 miles of shoreline was directly impacted. Due to high winds and wave action overnight, the GRP deployed at the entrance of the Doe Kag Wats Marsh failed and allowed oil to enter and impact the marsh. Shoreline assessment and shoreline clean up operations commenced December 31, 2003 and are continuing at the time of this activity report submittal (03/24/04).

Conclusions

1. All of the persons involved in the transfer of oil to the FOSS 248 P2 from the Chevron USA facility at Point Wells were authorized and qualified to engage in the duties as PICs for oil transfer operations to or from vessels.
2. With respect to Mr. [REDACTED], it appeared that fatigue was not a contributing factor to the cause of the casualty.
3. Neither the weather nor the sea state was a factor in the spill.
4. Chevron USA Point Wells facility meets the federal oil spill response planning requirements, as specified in 33 CFR Part 154. The failure of Chevron USA Point Wells' oil spill response boats indicates that they may need to re-examine preventative maintenance schedules for their boats.
4. Foss Maritime meets the federal oil spill response planning requirements, as specified in 33 CFR Part 155.
5. The alarm system was not likely in proper working order during the transfer: the power failure alarm was likely inoperative; a break in the high-level alarm circuit likely existed; and the overfill setting for the 5P tank was set unusually high.
6. In that the alarm system is designed fail-safe, adequate means for detecting a break in the electrical circuit for the alarm system existed. Material failure of the alarm system electrical cable was likely not a result of its lack of suitability for the service and location intended.
7. Mr. [REDACTED] did not properly and fully test the Bergan Tank Control System prior to the start of the transfer as required by Foss Maritime's Oil Transfer Procedures.
8. Mr. [REDACTED] failed to activate the high level alarm system, as required by Foss Maritime's Oil Transfer Procedures.
9. If Mr. [REDACTED] had properly and fully tested the Bergan Tank Control System prior to the start of the transfer, as required by Foss Maritime's Oil Transfer Procedures, he would have likely determined that the system was not in working order.

10. Deployment of the response vessel on the FOSS 248 P2 would have sped up the deployment of containment boom and reduced amount of oil that spread into Puget Sound. The response vessel on board the tank barge was unable to be placed in the water and deploy containment boom due to heavy oiling of the deck in vicinity of the vessel.

11. Mr. [REDACTED] negligently failed to monitor the transfer of oil to the FOSS 248 P2 on 29 and 30 December 2003.

12. It is believed that not all Foss' tankerman test the Bergan Tank Control System prior to loading operations fully, as required by their Oil Transfer Procedures. While only one tankerman specifically admitted not testing all tank sensors prior to loading operations, this practice may be more widespread based on the number of system deficiencies found by investigators after the casualty.

13. If the Bergan Tank Control System was in proper working order, it would have likely prevented the spill.

14. Deployment of oil containment boom prior to this transfer would have most likely mitigated the release of this heavy fuel oil spill.

15. The tankerman closed the supply valve for the 1S cargo tank more than he thought, causing almost all of the supply of oil to be diverted to the 5P cargo tank.

16. Foss Maritime, as demonstrated by their failed attempts to re-set the high level and overfill alarm systems after the casualty, was not familiar with how to properly set the Bergan Tank Control System.

Recommendations

1. That each facility that receives cargo from a tank barge fitted with a cargo tank level sensor system complying with 46 CFR 39.20-9(b) as it only means of overfill protection must have an overfill control panel on the dock capable receiving an alarm and shutdown signal from the cargo tank level sensor system. This recommendation will be forwarded to Commandant for appropriate action and resolution.

2. That oil containment boom is considered for deployment around involved vessels prior to transfer of low flammability fuel oil to or from vessels. This recommendation shall be forwarded to Commandant for action and resolution.

3. That Foss Maritime incorporate procedures into their maintenance program for maintaining the Bergan Tank Control System installed on the FOSS 248 P2 consistent with manufacturer recommended practice and that all repairs and alterations of the alarm system be reported to the Officer in Charge, Marine Inspection. This recommendation shall be addressed directly to Foss Maritime.

4. That Foss Maritime develop a risk-based approach to assigning the number of tankermen based on the challenges presented for each barge transfer. This recommendation shall be addressed directly to Foss Maritime.
5. That the Chevron/Texaco USA Point Wells facility update their Declaration of Inspection (DOI) forms to comply with 46 CFR 156.120(l), in that the declaration shall include testing of vessel overfill monitoring devices as a line item. This recommendation shall be addressed directly to the Chevron/ Texaco USA Point Wells facility.
6. That Foss Maritime revise their Oil Transfer Procedures to incorporate the test protocol for testing the Bergan Tank Control System delineated in the Bergan manual. This recommendation shall be addressed directly to Foss Maritime.
7. That Foss Maritime revise their Oil Transfer Procedures for transfers to their barges by incorporating a provision requiring the tankerman- PIC to halt the loading operation well before the estimated completion (for example 1 hour) to verify the amount of oil in each tank. Upon completion of the verification process, the loading operation could then proceed until it is completed. This recommendation shall be addressed directly to Foss Maritime.
8. That Foss Maritime move the location of the response vessel on board the barge to a location that would most likely permit deployment in the event of an oil spill. This recommendation shall be addressed directly to Foss Maritime.
9. That Foss Maritime develop and implement an oversight program to ensure that their tankermen are following all written policies and procedures. This recommendation shall be addressed directly to Foss Maritime.
10. That Chevron / Texaco USA Point Wells re-examine preventative maintenance programs for their response boats to ensure that they can be started and operated at all times.

Report of Investigation

Endorsement(s):

>USER: [REDACTED]/SEAMS

>TIME: 07/07/2004 14:42

>STATUS: --->Final Agency Action

>NEW OWNER: SEAMS

SEAMS will present this recommendation to FOSS when the case is closed. This Final Agency Action has been approved by LCDR Boone by the direction of the OCMI.

Final Agency Action:

Concur- Acceptable Action

Required Actions:

Proposed Start Date: 03/19/2004

Actual Start Date: 03/19/2004

Proposed Completion Date: 03/19/2004

Actual Completion Date: 03/19/2004

Estimated Effort to Complete: 0 Staff Days

Action Status:

Action Commentary:

Safety Recommendation #5834: Foss Maritime move the location of their response vessel onboard their barges

That Foss Maritime move the location of the response vessel on board their barges to a location that would most likely permit deployment in the event of an oil spill.

Date Created: 03/19/2004

Current Owner Unit: MSO PUGET SOUND

Date Last Modified: 07/07/2004 5:43:48 PM

Priority: Normal

Endorsement(s):

>USER: [REDACTED]/SEAMS

>TIME: 07/07/2004 14:43

>STATUS: --->Final Agency Action

>NEW OWNER: SEAMS

SEAMS will present this recommendation to FOSS when the case is closed. This Final Agency Action has been approved by LCDR Boone by the direction of the OCMI.

Final Agency Action:

Concur- Acceptable Action

Required Actions:

Report of Investigation

Proposed Start Date: 03/19/2004
 Proposed Completion Date: 03/19/2004

Actual Start Date: 03/19/2004
 Actual Completion Date: 03/19/2004

Estimated Effort to Complete: 0 Staff Days
 Action Status:
 Action Commentary:

Safety Recommendation #5846: Foss Maritime develop and implement a tankerman oversight program

That Foss Maritime develop and implement an oversight program to ensure that their tankermen are following all written policies and procedures.

Date Created: 03/19/2004
 Current Owner Unit: MSO PUGET SOUND
 Date Last Modified: 07/07/2004 5:44:54 PM
 Priority: Normal

Endorsement(s):

>USER: [REDACTED]/SEAMS
 >TIME: 07/07/2004 14:44
 >STATUS: --->Final Agency Action
 >NEW OWNER: SEAMS

SEAMS will present this recommendation to FOSS when the case is closed. This Final Agency Action has been approved by LCDR Boone by the direction of the OCMI.

Final Agency Action:

Concur- Acceptable Action

Required Actions:

Proposed Start Date: 03/19/2004
 Proposed Completion Date: 03/19/2004

Actual Start Date: 03/19/2004
 Actual Completion Date: 03/19/2004

Estimated Effort to Complete: 0 Staff Days
 Action Status:
 Action Commentary:

Safety Recommendation #5847: Chevron Facility re-examine preventative maintenance for response boats

That Chevron / Texaco USA Point Wells re-examine preventative maintenance programs for their response boats to ensure that they can be started and operated at all times.

Date Created: 03/24/2004

Report of Investigation

Current Owner Unit: MSO PUGET SOUND
Date Last Modified: 07/07/2004 5:45:54 PM
Priority: Normal

Endorsement(s):

>USER: ██████████/SEAMS
>TIME: 07/07/2004 14:45
>STATUS: --->Final Agency Action
>NEW OWNER: SEAMS

SEAMS will present this recommendation to Chevron when the case is closed. This Final Agency Action has been approved by LCDR Boone by the direction of the OCMI.

Final Agency Action:

Concur- Acceptable Action

Required Actions:

Proposed Start Date: 03/24/2004
Proposed Completion Date: 03/24/2004

Actual Start Date: 03/24/2004
Actual Completion Date: 03/24/2004

Estimated Effort to Complete: 0 Staff Days
Action Status:
Action Commentary:

Safety Alerts