Manually Operated Drains

Recently a pollution event occurred in the OCS waters when a cleaning crew inadvertently bumped open one of the drain valves on the heater treater, allowing approximately one barrel (bbl) of oil to drain to the overboard line and into the Gulf of Mexico (GOM). The investigation revealed the heater treater had been improperly installed after the water polishing unit was taken out of service. The heater treater was equipped with manually operated drains that were used to drain water and sand from the bottom of the vessel. The drains had individual 2” manual valves and were manifolded together. A single line from the drain manifold was piped directly to the skimmer’s overboard line and it bypassed all upstream water treating equipment. One of the drains was inadvertently bumped open allowing oil to drain to the overboard line and into the GOM.

The MMS recommends the following:

- Manual drains used to drain the bottom of pressure vessels should be piped to water/sand treating equipment prior to discharge to an open ended sump or overboard. Title 30 CFR 250.300(a) states, in part, the following: “*** the lessee shall take measures to prevent unauthorized discharge of pollutants into the offshore waters. The lessee shall not create conditions that will pose unreasonable risk to public health, life, property, aquatic life, wildlife, recreation, navigation, commercial fishing, or other uses of the ocean.***” -

- When making modifications to surface production equipment on an offshore platform, operators should implement a management-of-change (MOC) program. A thorough MOC program would establish procedures to identify and control all hazards associated with process changes and maintain the accuracy of safety information. In this case, the use of a MOC process may have identified the introduction of the possible hazard of pollution when the water polishing unit was taken out of service. This in turn may have prevented the heater treater drain line from being piped directly overboard.

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