

U.S. Department of the Interior Minerals Management Service Gulf of Mexico OCS Region

Notice No. 049

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**OCS Operations Safety Alert** 

Oil Spill --Safety Equipment Failure

An oil spill recently occurred on an offshore production platform when safety equipment failed to operate.

Pipeline pumps transferring oil from a free-water knockout vessel gas locked and ceased pumping. This resulted in a high oil level in the free-water knockout. A high liquid level shut-in device on the vessel failed to operate and oil flowed through the gas outlet line to a low pressure gas scrubber. The low pressure gas scrubber discharged the oil to a relief gas scrubber where it passed through an emergency overflow line into a skim pile. A high liquid level shut-in device on the relief gas scrubber did not operate because it was located two feet above the liquid overflow level. The skim pile fluid level built up to the high liquid level shut-in device which failed to operate because of a damaged float. A blowcase transferring oil from the skim pile to wet oil tanks could not operate fast enough to prevent the oil/water interface from being depressed to the bottom of the pile and the oil discharged into the Gulf. Pumps evacuating the wet oil tanks failed in operation and permitted the wet oil tank fluid level to rise and actuate a high level shut-in device which shut in the platform.

To prevent a recurrence of this accident the operator is taking the following action:

1. Insure the high liquid level shut-in device on the free-water knockout is operating properly.

2. Inspect relief gas scrubber before final assembly to confirm the top of the internal stand pipe extends above the location of the high liquid level shut-in device.

3. Install an external boot-type high liquid level shut-in device on the skim pile in order to test the device by high liquid level simulation.

4. Determine the cause of the gas locking of the pipeline pumps and take remedial action.

[signed] D.W. Solanas

Oil and Gas Supervisor

**Field Operations** 

Gulf of Mexico Area