

Safety Alert

MMS

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

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Pipeline Ruptures – 870 Barrels of Crude Oil Spilled

Recently a 14-inch interstate crude oil pipeline was severed by a vessel anchor resulting in a spill of approximately 870 barrels.

A Minerals Management Service (MMS) investigation into the circumstances of this spill concluded that:

1. Though the pipeline right-of-way (ROW) holder, at a remote location, was alerted by various alarms and significant pressure change information, the holder chose neither to shut in the severed pipeline remotely nor contact the platform operator to manually shut in.
2. The pipeline did not automatically shut in because the pressure safety low (PSL) sensor was set well below the lower limit of the normal operating pressure.
3. The pressure safety high and low sensor (PSHL) on the departing pipeline, the severed pipeline, was not connected to the shut down valves (SDVs) on the two incoming pipelines.
4. The SDV's on the two incoming pipelines would not have shut in the pipelines because they were improperly located on one of the two branches rather than on the pipeline before the branch. Additionally, these pipeline SDVs were not located immediately upon boarding the platform.
5. The SDVs on the two incoming pipelines were being used to divert the flow of the product through pig traps.

These multiple factors contributed to an increased volume of oil, approximately 520 barrels, being spilled into the Gulf of Mexico. Had the severed pipeline been shut in expeditiously, as it could have been if the safety system (including the safety devices) functioned as designed and required, and if appropriate decisions had been made, a smaller volume of approximately 350 barrels of oil would have spilled.

The MMS recommends that pipeline ROW holders and lessees and operators consider establishing agreements and a communication protocol to ensure that on-site personnel are able to respond to pipeline emergencies.

The MMS reminds pipeline ROW holders and lessees and operators of the following regulatory requirements:

- In accordance with 30 CFR 250.1004(b)(3), departing pipelines receiving production from production facilities shall be protected by high- and low-pressure sensors (PSHL) to directly or indirectly shut in all production facilities. The PSHL shall be set not to exceed 15 percent above and below the normal operating pressure range. However, high pilots shall not be set above the pipeline's MAOP.
- In accordance with 30 CFR 250.1004(b)(4), crossing pipelines on production or manned nonproduction platforms which do not receive production from the platform shall be equipped with an SDV immediately upon boarding the platform. The SDV shall be operated by a PSHL on the departing pipelines and connected to the platform automatic- and remote-emergency shut in systems.
- In accordance with 30 CFR 250.1004(b)(1)(i), all incoming pipelines to a platform shall be equipped with a flow safety valve (FSV). In accordance with 30 CFR 250.1004(b)(2), incoming pipelines boarding a production platform shall be equipped with an automatic shutdown valve immediately upon boarding the platform. The SDV shall be connected to the automatic- and remote-emergency shut in systems.