Installation and Inspection of Concrete Mats

The Minerals Management Service's Seafloor Monitoring Team recently conducted inspections of a number of randomly selected pipeline crossings located in the Gulf of Mexico. The design of all of the inspected crossings incorporated concrete mats, which were placed over the crossing pipeline to eliminate hazards to trawling or other operations.

The inspection revealed that mats were not consistently butted together along the pipeline length, leaving gaps that presented possible hazards to trawling. Due to increased current velocity through the mat gaps, scouring under the pipelines was also observed. Numerous mats were found uncentered on the crossing pipeline and in several cases off of the pipeline entirely, with one mat lying upside down. Mat-lifting loops were exposed, and mat “tag” lines had not been removed following installation, both representing snag hazards. These deficiencies resulted in the required reinstallation of these mats.

Therefore, from this information it is recommended that operators conduct and document post-installation inspections of concrete mats installed between or over pipelines or over other subsea oil and gas facilities for their protection, separation, weighting, snag-proofing, or other purposes. Inspections should ensure that the mats have been installed consistent with installation designs submitted to and approved by MMS in relevant applications.

—GOMR—MMS—

Visit our Safety Information Website