
Safety and Environmental Protection Practices during Marine Seismic Operations in Mexico

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ABSTRACT

Marine seismic acquisition is the most accurate, efficient, and reliable method available today for hydrocarbon exploration. This industry is a priority for PEMEX, which is committed to the wellbeing of its employees' regarding health and safety as well as the protection of the environment. In the Gulf of Mexico, PEMEX hires companies specialized in marine seismic acquisition that share their commitment to sustainable development as it relates to the environment.

Using technologies such as the SENTINEL SERCEL/CGGVeritas (SENTINEL) solid streamers and NAUTILUS CGGVeritas streamer steering systems (NAUTILUS), we limit the environmental impact. The SENTINEL solid streamers use extruded polymer foam instead of fluid or gel and have been proven in environmentally sensitive frontier areas, including the Arctic. The NAUTILUS system takes power from the streamer itself, instead of using lithium batteries and exceeds international regulations of MARPOL, an international convention for marine pollution that stresses actions that demonstrate the protection of the environment and is essential in marine operations.

Compliance of national and international environmental conventions is important to PEMEX. PEMEX uses ANNEX S as a tool for monitoring international legislation such as MARPOL, IAPP, IMO, and national legislation such as SEMARNAT, PROFEPA and CONAGUA.

Focused upon environmental performance and continuing improvement during marine operations, PEMEX is committed to the care of marine mammals. Benefits of passive acoustic monitoring are being analyzed, as well as having marine mammal observers onboard.

During marine operations, in the event of a significant event that damages or harms the vessel, crew, or environment, each vessel has an emergency response plan (ERP). This plan details the appropriate response, the procedures to use, and how to deal with a specific event as identified as part of the risk assessment. Station bills are posted throughout the vessel listing the roles and responsibilities of each crew member in compliance with MARPOL 73/78.