

BUREAU OF OCEAN ENERGY MANAGEMENT, REGULATION, AND ENFORCEMENT (BOEMRE); GULF OF MEXICO OCS REGION (GOMR)

AVOIDANCE OF ARCHAEOLOGICAL RESOURCES

BOEMRE is required to assess the impacts of offshore oil and gas operations on natural, biological, and cultural resources to ensure their protection. Bottom-disturbing operations such as well placement, anchoring, and pipeline activities may damage resources that reside on the seabed, particularly archaeological resources such as historic shipwrecks.

Therefore, when you submit an EP, DOCD, or DPP, or other permit application that proposes bottom-disturbing activities in the Gulf of Mexico OCS, BOEMRE will conduct the appropriate NEPA review of your submission. The NEPA document will then consider imposing conditions of approval requiring data and information concerning the potential existence of archaeological resources that may be affected by your proposed operations before you may commence such bottom-disturbing activities.

AVOIDANCE OF ARCHAEOLOGICAL RESOURCES: Your proposal includes bottom-disturbing activities that have the potential to impact submerged archaeological resources that could be in the area of potential effect (APE), which encompasses all portions of the seafloor where bottom disturbing activities are to occur, and include, but are not limited to, the following: all anchor touchdown points, chain/wire on the seafloor to lift off point, pipeline and structure placements, and well site locations. Pursuant to 30 CFR 250.194(a)(2), prior to commencing any bottom-disturbing activities, BOEMRE requires as a condition of approval for you to perform an archaeological assessment. Operators may use various methods to provide BOEMRE with these data and information. Examples of the types of archeological data and information and methods of collection that BOEMRE would deem sufficient to make such a decision are as follows: 1) high-resolution survey data or 2) remotely operated vehicle (ROV) survey data; the details are provided below. If you detect any archaeological resource with either survey method, you should halt operations and notify either Dr. Jack Irion at (504) 736-1742 or Dr. Christopher Horrell at (504) 736-2796 for further instructions in compliance with the regulations under 30 CFR §250.194(2)(c).

- 1) If you choose to use high-resolution survey data for the assessment, you should acquire these data in all areas where bottom-disturbing activities are proposed. The acquisition of these data may be accomplished using conventional survey instrumentation (i.e. magnetometer, side scan sonar, sub-bottom profiler digitally recorded and tied into DGPS or other commensurate navigation systems). In water depths greater than 200 meters (656 feet), the magnetometer will not be required. If the use of conventional instrumentation is not feasible, acquisition of this data may be accomplished using autonomous underwater vehicles (AUVs) or Deep Tow systems. NTL 2005-GO7 provides guidance regarding the specific instrumentation (www.gomr.boemre.gov/homepg/regulate/regs/ntls/2005%20NTLs/05-g07.html).
- If archaeological resources are not detected, you should provide confirmation noting such to BOEMRE prior to conducting any bottom-disturbing activities proposed in your approved plan/permit (i.e. subsequent to data collection/conclusion work, but prior to submittal of the formal archaeological assessment report). Confirmation can be sent to Env-Compliance-ARC@boemre.gov and should contain:
 - A certification from a professional marine archaeologist noting the absence of any potential archaeological resources in the APE; and
 - A certification from an operator representative confirming the survey results and certifying that all seabed disturbing activities will be confined to the surveyed APE.
- Once receipt of the certifications is confirmed by BOEMRE, you may commence with approved bottom-disturbing activities.
- The associated archaeological assessment report of the high-resolution survey and an as-built map at a scale of 1-in. = 1,000 ft with DGPS accuracy, showing the location of all seafloor disturbances, should be submitted to the Regional Supervisor, Field Operations, Plans Section (MS 5231) or Pipeline Section (MS 5232), at the same time you submit the End of Operations

Report (Form MMS-125), Structure Installation Notification, or Pipeline Construction Report to the appropriate BOEMRE office. You should refer to NTL 2005-G07, Appendix 2 for recommended report guidelines.

- 2) If you choose to base the archaeological assessment on a ROV survey, you should investigate the seafloor by deploying a ROV equipped with sector-scanning sonar technology and digital recording capabilities to investigate each location where bottom-disturbing activities will occur prior to conducting any bottom-disturbing activities. The ROV investigation should use video cameras, recorded to DVD, and a sector-scanning sonar set at a maximum range of 100 meters (330 feet). A professional marine archaeologist should be present to direct, observe, and monitor the ROV investigation. Specific ROV and sector-scanning sonar investigation requirements (for structure, subsea equipment, or well site locations and anchoring activities) are shown below, while general guidelines for conducting the ROV investigation can be found on the BOEMRE website at: http://www.gomr.boemre.gov/homepg/regulate/environ/archaeological/ROV_2005_1.pdf.
- For structure, subsea equipment, or well site locations, the ROV investigation should result in a minimum 500 feet of sonar coverage from the center point of site. During this investigation, the sector-scanning sonar should be set at a range of no more than 100 meters to identify and investigate any features standing above the seafloor.
 - For anchoring activities, you should examine the seafloor running the ROV from the proposed anchor touchdown point along the mooring line/chain to the proposed liftoff point. During this investigation, the sector-scanning sonar should be set at a range of no more than 100 meters (330 feet) to identify and investigate any features standing above the seafloor. In addition, you should run one additional line on either side of the proposed mooring line to ensure a minimum of 500 feet of sonar coverage from the main mooring line. Finally, using the sector-scanning sonar, you should ensure a minimum of 500 feet of sonar coverage beyond the proposed touchdown point of the anchor and 500 feet of sonar coverage beyond the liftoff point of the chain/wire on the seafloor. If anomalous seafloor features are resolved in the sector-scanning sonar data, you should investigate using the ROV.
 - If archaeological resources are not detected, you should provide confirmation noting such to BOEMRE prior to conducting any bottom-disturbing activities proposed your approved plan/permit (i.e. subsequent to data collection/conclusion work, but prior to submittal of the formal archaeological assessment report). Confirmation can be sent to Env-Compliance-ARC@boemre.gov and should contain:
 - A certification from a professional marine archaeologist noting the absence of any potential archaeological resources in the area of potential effects (APE); and
 - A certification from an operator representative confirming the survey results and certifying that all seabed disturbing activities will be confined to the surveyed APE.
 - Once receipt of certifications is confirmed by BOEMRE, you may continue with approved bottom-disturbing activities.
 - An archaeological assessment report of the ROV investigation and an as-built map at a scale of 1-in. = 1,000 ft with DGPS accuracy, showing the location of all seafloor disturbances, should be submitted to the Regional Supervisor, Field Operations, Plans Section (MS 5231) or Pipeline Section (MS 5232), at the same time you submit the End of Operations Report (Form MMS-125), Structure Installation Notification, or Pipeline Construction Report to the appropriate BOEMRE office. This report should include copies of the digital video data and sector-scanning sonar data. Refer to NTL 2005-G07, Appendix 2 for specific reporting guidelines.