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UNITED STATES DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE
GULF OF MEXICO OCS REGION

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NOTICE TO LESSEES AND OPERATORS OF FEDERAL OIL, GAS, AND SULPHUR LEASES AND PIPELINE RIGHT-OF-WAY HOLDERS IN THE OUTER CONTINENTAL SHELF, GULF OF MEXICO OCS REGION

Shallow Hazards Requirements

This Notice to Lessees and Operators and Pipeline Right-of-way Holders (NTL) supersedes NTL 83-3, dated September 22, 1983, and makes minor technical amendments, updates cited regulatory authorities, deletes the Appendix, and includes a statement regarding the Paperwork Reduction Act of 1995. The Gulf of Mexico OCS Region (GOMR) is in the process of substantially changing the requirements of this NTL as hereby issued and plans to issue a replacement NTL to reflect those changes in the near future. If you have any questions regarding this NTL, please contact the Geological and Geophysical Analysis Unit at (504) 736-2995.

I. Introduction

Pursuant to 30 CFR 250.104(b) and according to 30 CFR 250.105(a), the GOMR has established a shallow hazards program to ensure that you conduct exploratory, development, production, and transportation operations with a minimum risk to human life and the environment. This NTL specifies the shallow hazards requirements necessary to meet this objective.

This NTL is effective immediately and applies to all existing and future leases and pipeline rights-of-way.

II. Shallow Hazards Analysis

A. Exploration Plans (EP's) and Development Operations Coordination Documents (DOCD's)

According to 30 CFR 250.203(b)(1)(ix) and 250.204(b)(1)(vii), you must include a shallow hazards analysis for each proposed drilling or platform site in all EP's and DOCD's that propose

seafloor-disturbing activities. You must include detailed shallow hazards analyses of all pipeline routes in separate pipeline applications, not in DOCD's.

A shallow hazards analysis for activities proposed in an EP or a DOCD must include the following:

1. A discussion and review of all available geological and geophysical data within 150 meters (490 feet) of each proposed operation.

2. An assessment of any seafloor and subsurface geologic and man made features and conditions that may have an adverse effect on the proposed operations. Seafloor geologic hazards include fault scarps, gas vents, unstable slopes, and reefs. Subsurface geologic hazards include faults, gas-charged sediments, abnormal pressure zones, and buried channels. Man made hazards include pipelines, wellheads, shipwrecks, ordnance, communication cables, and debris from previous oil and gas activities.

3. A specific discussion of mass movement of sediments, unstable slopes, active faulting, or gaseous sediments when the special operational constraints stipulation on some leases require it.

4. A discussion of any special safety measures that would minimize the adverse effects of shallow hazards on the proposed operations including a discussion of how you will comply with the requirements of Section IV, paragraph B, of this NTL.

5. For leases issued after April 1983, you must include a copy of your high-resolution survey data from the two lines closest to the proposed well or platform location with one copy of each EP or DOCD.

In order to provide sufficient information on which to base a shallow hazards analysis, you must conduct a shallow hazards survey, as described in Section III, paragraphs C.2.a. or C.2.b., of this NTL. However, if you can make a thorough analysis using available geological and geophysical information, including CDP and seismic bright spot data and seismic velocity data, you are not required to conduct a shallow hazards survey. If you are uncertain about the adequacy of available data to prepare an acceptable analysis, you may contact the appropriate GOMR geophysicist for guidance before you submit the EP or DOCD.

B. Applications for Permit to Drill

According to 30 CFR 250.401(d), the appropriate District Supervisor may require additional shallow hazards surveying and/or analysis to support applications to drill individual wells. The District Supervisor may also request to review original survey data.

C. Platform Applications

The necessary shallow hazards information that must be included in platform applications is specified in 30 CFR 250.901(b)(3)(v).

D. Pipeline Applications

According to 30 CFR 250.1007(a)(5), all pipeline applications must include a shallow hazards analysis that addresses the entire length of the pipeline.

1. A shallow hazards analysis for a pipeline for which you conducted a specific pipeline pre-installation survey must include the following:

a. A shallow hazards report prepared according to the requirements of Section III, paragraph D.2., of this NTL.

b. A discussion of any special safety measures that would minimize the effects of shallow hazards on the proposed pipeline including a discussion of how you will comply with Section IV, paragraph B, of this NTL.

2. A shallow hazards analysis for a pipeline for which you did not conduct a specific pipeline pre-installation survey must include the following:

a. A discussion of the specific data and reports you used to make the analysis.

b. An assessment of any seafloor and subsurface geologic and man made features and conditions that may have an adverse effect on the proposed pipeline.

c. A discussion of any special safety measures that would minimize the adverse effects of shallow hazards on the proposed pipeline including a discussion of how you will comply with Section IV, paragraph B, of this NTL.

To prepare an acceptable shallow hazards analysis for right-of-way pipelines, you must conduct a pipeline pre-installation survey as prescribed in Section III, paragraph C.2.d., of this NTL. However, for lease term pipelines, we do not require you to conduct a pipeline pre-installation survey if you can make a thorough analysis using available geological and geophysical data. If you are uncertain about the adequacy of available data to prepare an acceptable analysis for a lease term pipeline, you may contact the appropriate GOMR geophysicist for guidance before you submit the pipeline application.

III. Shallow Hazards Surveys and Reports

A. Introduction

Since the following shallow hazards survey requirements are similar to those for other surveys (e.g., archaeological resource and live-bottom), we encourage you to conduct the surveys concurrently. When you cannot meet any of the survey requirements for technical, logistical, or other justifiable reasons, you must provide an explanation of the problem in the shallow hazards report.

B. Data Acquisition Instrumentation

Geophysical instrumentation for shallow hazards surveys must represent state-of-the-art technological development, and you must deploy it in a manner that minimizes interference between the instrumentation systems. You must key all data recorders to the navigation system to ensure proper integration of information. The equipment operator must ensure that all instruments are adequately tuned and that all recorded data are readable, accurate, and properly annotated.

You must use the following instrumentation when you conduct shallow hazards surveys unless you justify to the appropriate GOMR geophysicist before you conduct the survey that certain instrumentation is unnecessary.

1. Magnetometer

You must use a total field intensity instrument to determine the presence of pipelines and other ferromagnetic objects. Tow the sensor of the magnetometer as near as possible to the seafloor; a distance of six meters (20 feet) or less is required. Magnetometer sensitivity must be one gamma or better, and the background noise level must not exceed three gammas peak to peak. Whenever possible, tow the magnetometer a minimum distance of three vessel lengths behind the vessel to eliminate its magnetic influence.

2. Side-Scan Sonar

You must use a dual channel side-scan sonar system to record continuous planimetric images of the seafloor. You must operate the system in a manner that provides 100 percent coverage of the seafloor in the survey area. Data obtained must be of such quality as to permit detection and evaluation of seafloor objects and features within the survey area.

The vertical sound beam width must be appropriate to the water depth, and the horizontal sound beam width must provide optimum resolution. You must tune the instrument to enhance echo returns from small nearby objects and features without sacrificing the quality of echo returns from more distant objects and features.

3. Shallow Penetration Subbottom Profiler

You must use a subbottom profiler system to determine the character of near-surface geological features. The system used must be capable of providing a resolution of at least one meter (three feet) within the upper 15 meters (50 feet) of sediment.

4. Medium Penetration Seismic Profiler

You must use a profiler system to determine the character of deeper geological features. The system used must be capable of penetrating at least 300 meters (980 feet).

For seafloor obstruction surveys and pipeline pre-installation surveys, as discussed in paragraphs C.2.c. and C.2.d. of this section, we do not require a medium penetration profiler system.

5. Depth Sounder

You must use a high-frequency narrow-beam depth sounder to make continuous water depth measurements. Record bathymetric data with a recording sweep appropriate to topography and water depth.

6. Additional Investigations

Under certain conditions, we may require additional instrumentation and methods such as underwater television, still or movie cameras, divers, coring, remote or manned submersibles, and additional geophysical survey lines.

C. Survey Parameters

You must adhere to the following navigation and survey pattern requirements when conducting shallow hazards surveys:

1. Navigation

You must accomplish navigation for the survey by using a state-of-the-art continuous positioning system correlated with annotated geophysical records. The accuracy of the system must be on the order of ±30 meters at 322 kilometers. The nominal fix spacing must be no more than 150 meters (490 feet).

2. Survey Pattern

You must design the pattern for each type of survey to cover the area of anticipated physical disturbances. This area includes but is not limited to the area within which drilling vessel or pipeline-lay barge anchors may be placed, but does not include the area within which work boat anchors will be placed or the area within which similar minimal disturbances may occur.

You must use the following survey patterns when you conduct a shallow hazards survey unless you justify to the appropriate GOMR geophysicist before you conduct the survey that a different survey pattern is adequate.

a. Lease Surveys - When you plan multiple operations on the lease or are likely to do so, it may be advantageous for you to conduct a lease survey. This survey must cover the entire area of the lease, as well as that portion external to the lease within which operational activities may cause physical disturbances. You must run the survey along parallel lines spaced at a maximum of 300 meters (980 feet) with cross lines spaced at a maximum of 900 meters (2,950 feet).

b. Site-Specific Surveys - This survey must cover an area at least 1800 meters (5,900 feet) square. You must run the survey along parallel lines spaced at a maximum of 300 meters (980 feet) with cross lines spaced at a maximum of 900 meters (2,950 feet). We do not require site-specific surveys in areas where lease surveys adequately cover the area.

c. Seafloor Obstruction Surveys - Before you begin operations involving mobile drilling rigs, pipeline-lay barges, and anchor-handling vessels, you may need to conduct a seafloor obstruction survey to locate existing pipelines and other potential hazards. We do not require a seafloor obstruction survey if the data from other surveys are adequate to accomplish this purpose. You must run seafloor obstruction surveys for wells and platforms in an area at least 300 meters (980 feet) square with three equidistant primary lines and at least one cross line. You must run seafloor obstruction surveys for pipelines using the same pattern as that required for pipeline pre-installation surveys discussed in paragraph C.2.d. of this section.

d. Pipeline Pre-installation Surveys - The pattern for pipeline pre-installation surveys must include a line along the proposed pipeline route with an offset parallel line on either side spaced to coincide with the area that the pipeline-lay barge anchors will disturb. We do not require individual pipeline pre-installation surveys for lease term pipelines in areas where other surveys adequately cover the area.

D. Shallow Hazards Reports

1. Introduction

You must include an evaluation of data gathered during the shallow hazards survey and a synthesis with other available geological and geophysical information in a report prepared and signed by a geophysicist or geologist specializing in high-resolution geophysical interpretation.

You must submit three copies of each shallow hazards report to the Regional Supervisor, Field Operations. You must submit the report with or in advance of the EP, DOCD, or pipeline application for which it was prepared. We encourage you to combine shallow hazards reports with archaeological resource reports (when required), since many of the requirements for these reports are similar. We do not require shallow hazards reports for seafloor obstruction surveys, as discussed in Section III, paragraph C.2.c., of this NTL.

2. Report Contents

Your shallow hazards reports must include the following information:

a. A description of the area surveyed including lease number(s), block number(s), OCS lease area(s), and water depth.

b. A listing of the individuals involved in survey implementation and report preparation, and a brief description of the duties of each.

c. A discussion of the shallow hazards survey including (1) a brief description of the navigation system with a statement of its estimated accuracy for the area surveyed; (2) a brief description of all survey instrumentation including scale and sensitivity settings and tow depths for the magnetometer and side-scan sonar sensors; (3) a description or diagram of the survey vessel including vessel size, sensor configuration, navigation antenna location, cable lengths, and distances from sensors to navigation antenna; (4) vessel speed; (5) sea state and weather conditions; (6) a copy of the daily survey operations log; and (7) a description of survey procedures including a statement of survey and record quality, a comparison of data from survey line crossings, and a discussion of any problems that may have affected the ability of the geophysicist or geologist to identify and analyze shallow hazards in the survey area.

d. A map or separate maps at a scale of 1:12,000 and oriented to true north that includes (1) a navigation postplot of the survey area showing lease block lines, latitude-longitude reference coordinates, survey lines and directions, and navigational shotpoints; (2) bathymetry; (3) shallow geologic structure; (4) deep geologic structure (from medium penetration profiler data); and (5) all anomalies such as side-scan sonar contacts, magnetic anomalies, and areas of shallow gas. For proposed pipeline routes, include the x and y coordinates of the origin and terminus of the route and the points where the route crosses safety fairway and anchorage area boundaries, existing pipelines, block lines, and the Federal/State boundary line.

e. An assessment of the potential for shallow hazards within the survey area including but not limited to discussions of (1) general geological background; (2) previous oil and gas activity including wells, platforms, and pipelines; (3) bathymetry; (4) seafloor features including side-scan sonar contacts; (5) geological structure including faults, river channels, and karst areas; (6) shallow gas and possible abnormal pressure zones; (7) magnetic anomalies; and (8) unstable seafloor areas.

f. A list of all magnetic anomalies including the (1) corrected location by line, shotpoint, and x and y coordinates; (2) intensity; (3) duration; and (4) source (if known) of each.

g. A summary of conclusions and recommendations supported by the survey data and analyses including a discussion of known or potential shallow hazards and areas to be avoided or that may require further investigations.

E. Original Survey Data

You should retain all original survey data for a lease and make it available upon request to us at any time prior to lease termination. You should retain the original survey data for a pipeline right-of-way until we notify you that the as-built location report is acceptable.

IV. Requirements for Mitigation of Potential Shallow Hazards

A. EP's, DOCD's, and Pipeline Applications

When our review of a shallow hazards survey and report and/or shallow hazards analysis indicates a potential hazard within the immediate area of your proposed operations, you will select one of the following three alternatives:

1. Amend your EP, DOCD, or pipeline application to locate the site of operations to avoid the potential shallow hazard.

2. Demonstrate to us that the use of special protective measures will minimize the risk to safe operations.

3. Establish, on the basis of further investigation using such equipment and techniques the Regional Supervisor, Field Operations, deems necessary, that such operations will not be adversely affected by the shallow hazard.

B. On-site Requirements

1. Prior to performing operations, you must buoy all existing pipelines and other potential hazards located within 150 meters (490 feet) of the operation (including anchor patterns). You may outline with buoys a safe working area large enough to accommodate your proposed operations in lieu of marking each hazard in areas highly congested with pipelines or debris.

2. In addition, you must prepare a plat with a minimum scale of 1:12,000 depicting the location of the proposed activity, all associated anchor patterns, and existing pipelines or other potential hazards in the area. You must provide copies of this plat to key personnel on all drilling rigs, derrick barges, pipeline-lay barges, and anchor-handling vessels associated with the operations.

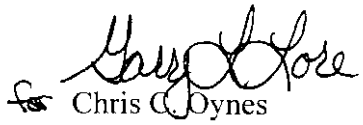
V. Paperwork Reduction Act of 1995 Statement

The Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.) requires us to inform you that we require the information collection discussed in this NTL to carry out the Federal Government's responsibilities to ensure that you conduct OCS exploratory, development, production, and transportation operations with a minimum risk to human life and the environment. Responses are mandatory. Proprietary data are covered under 30 CFR 250, Subpart A.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid Office of Management and Budget (OMB) Control Number. The OMB approved the information collection reporting aspects of this NTL as part of the requirements in 30 CFR 250, Subpart B (EP's, DOCD's, and surveys and reports), Subpart D (APD's and surveys), Subpart I (platform applications and surveys), and Subpart J (pipeline applications and surveys and reports) and assigned OMB control numbers 1010-0049, 1010-0053 (and 1010-0044 for Form MMS-123), 1010-0058, and 1010-0050, respectively.

The Paperwork Reduction Act of 1995 also requires us to inform you about the record keeping aspects of this NTL. The NTL requests that you to voluntarily retain all original survey data and make them available to us when needed. We must have access to these data to make determinations on plans, APD's, platform applications, and pipeline applications. We believe that the cost of retaining these data is much less than the cost of reproducing them if they were lost or discarded. We estimate the annual recordkeeping burden to be two hours in addition to that involved with your usual and customary business practice. The OMB has approved the record keeping burden of this collection under OMB control number 1010-0049.

Direct comments regarding the burden estimate or any other aspect of the information collection in this NTL to the Information Collection Clearance Officer, Mail Stop 4230, Minerals Management Service, Department of the Interior, 1849 C Street, N.W., Washington, DC 20240; and to the Office of Management and Budget, Office of Information and Regulatory Affairs, Attention: Desk Officer for the Department of the Interior (1010-0049), Washington, DC 20503.



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