

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

NTL No. 2009-G39

Effective Date: January 27, 2010
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NOTICE TO LESSEES AND OPERATORS OF FEDERAL OIL, GAS, AND SULPHUR
LEASES AND PIPELINE RIGHT-OF-WAY HOLDERS
OUTER CONTINENTAL SHELF, GULF OF MEXICO OCS REGION

Biologically-Sensitive Underwater Features and Areas

This Notice to Lessees and Operators and Pipeline Right-of way Holders (NTL) supersedes NTL No. 2004-G05, effective April 1, 2004, on this topic. It changes the water depth applicability of the NTL from 400 meters (1,312 feet) to 300 meters (984 feet), makes minor changes to the list of affected OCS blocks, adds regulatory references, updates an NTL reference, makes minor administrative changes, and adds a guidance document statement.

Under 30 CFR 250.216(a) and 30 CFR 250.247(a), the Minerals Management Service (MMS) Gulf of Mexico OCS Region (GOMR) requires that site-specific information regarding sensitive underwater features accompany each Exploration Plan (EP), Development Operations Coordination Document (DOCD), and Development and Production Plan (DPP). Under 30 CFR 250.221(a) and 30 CFR 250.252(a), the MMS GOMR also requires that EP's, DOCD's, and DPP's be accompanied by a description of any monitoring systems that will measure environmental conditions or provide data or information on the impact of your proposed activities. Under 30 CFR 250.282, the MMS GOMR may require you to conduct monitoring programs and submit plans and reports.

The purpose of this NTL is to provide and consolidate guidance for the avoidance and protection of biologically sensitive features and areas (i.e., topographic features, pinnacles, live bottoms (low-relief features), and other potentially sensitive biological features) when conducting OCS operations in water depths less than 300 meters (984 feet) in the Gulf of Mexico. For guidance on avoiding biologically sensitive areas in water depths 300 meters (984 feet) or greater, refer to NTL No. 2009-G40, Deepwater Benthic Communities.

DEFINITIONS

1. Topographic features means isolated areas of moderate to high relief that provide habitat for hard-bottom communities of high biomass and diversity and large numbers of plant and animal species, and support, either as shelter or food, large numbers of commercially and recreationally important fishes.
2. Live bottoms (pinnacle trend features) means small, isolated, low to moderate relief carbonate reefal features or outcrops of unknown origin or hard substrates exposed by erosion that provide surface area for the growth of sessile invertebrates and attract large numbers of fish.

3. Live bottoms (low relief features) means seagrass communities, areas that contain biological assemblages consisting of sessile invertebrates living upon and attached to naturally occurring hard or rocky formations with rough, broken, or smooth topography; and areas where a hard substrate and vertical relief may favor the accumulation of turtles, fishes, or other fauna.
4. Potentially sensitive biological features means those features not protected by a biological lease stipulation that are of moderate to high relief (about 8 feet or higher), provide surface area for the growth of sessile invertebrates, and attract large numbers of fish. These features would be located outside any “No Activity Zone” of any of the named topographic features (banks) listed in Attachment 1 or the 74 live-bottom (pinnacle trend) stipulated blocks listed in Attachment 3.

TOPOGRAPHIC FEATURES (BANKS)

Introduction and Background

Oil and gas exploration, development, and transportation activities in the vicinity of sensitive biological habitats associated with topographic features on the OCS (e.g., coral reefs) may cause deleterious impacts to those habitats in several ways, including toxic and smothering effects from drilling and production effluents and mechanical damage from drilling rigs, platforms, pipelines, and anchor emplacement.

A stipulation to avoid and protect such habitats has been made a part of appropriate OCS oil and gas leases since 1973. The leases resulting from Western Planning Area Sale 210 that was held on August 19, 2009, leases resulting from upcoming Central Planning Area Sale 213 that will be held in March 2010, and all subsequent lease sales contain the current stipulation (see Attachment 1). You may elect either to conduct your operations, including lease term pipeline operations, in conformance with the current version of the stipulation, or you may elect to comply with the stipulation contained in your lease.

In order to provide necessary and sufficient protection for the sensitive biological habitats of the topographic features of the Central and Western Planning Areas of the Gulf of Mexico from the effects of right-of-way pipeline construction activities (including the use of anchors, chains, cables, and wire ropes), all bottom disturbances from right-of-way pipeline construction activities are limited in the same manner as bottom disturbances occurring from lease operations.

For a list and a map of the identified biologically sensitive topographic features in the Gulf of Mexico, see the MMS Internet website at <http://www.gomr.mms.gov/homepg/regulate/environ/topoblocks.pdf> for the list and <http://www.gomr.mms.gov/homepg/regulate/environ/topomap.pdf> for the map.

Policy

You must adhere to the provisions of the topographic features lease stipulation. In addition, based on an Essential Fish Habitat (EFH) programmatic consultation with the National Oceanic and Atmospheric Administration Fisheries (NOAA Fisheries);

1. No bottom-disturbing activities, including the use of anchors, chains, cables, and wire ropes from a semisubmersible drilling rig or from a pipeline construction vessel may occur within 152 meters (500 feet) of the designated “No Activity Zone” of a topographic feature; and
2. If more than two wells that are not from development operations are to be drilled from the same surface location and that surface location is within the 3-mile Zone of an identified topographic feature, all drill cuttings and drilling fluids from the drilling operations are to be shunted to the sea bottom through a structurally sound downpipe that terminates an appropriate distance, but no more than 10 meters (33 feet), from the bottom.

If the proposed bottom-disturbing activities do not meet the criteria set forth in the EFH programmatic consultation outlined above, the MMS GOMR must consult with NOAA Fisheries. An individual project-specific EFH consultation could extend the time necessary to complete the review of your EP, DOCD or pipeline application.

Implementation

1. If the proposed activities in your EP or DOCD could cause bottom disturbances in OCS blocks affected by the topographic features lease stipulation, include the information outlined in Attachment 2, Section A, in one copy of your EP or DOCD.
2. If the proposed activities in your pipeline application could cause bottom disturbances in OCS blocks affected by the topographic features lease stipulation, include the information outlined in Attachment 2, Section B, with one copy of your pipeline application.

Note that the topographic features information requirements outlined in Attachment 2 do not modify or cancel the requirements set forth in the topographic features lease stipulation.

3. Within 90 days after completing any activity that proposed disturbance of the seafloor within 305 meters (1,000 feet) of the “No Activity Zone” of a biologically sensitive topographic feature, submit a map at a scale of 1 inch = 1,000 feet with DGPS accuracy showing the location of the seafloor disturbance relative to these features to the MMS GOMR Plans Section for EP’s and DOCD’s and the MMS GOMR Pipeline Section for pipeline applications (with your pipeline construction report required by 30 CFR 250.1008(b)). Make sure that this map demonstrates that the as-placed location of all

bottom-disturbing activities did not physically impact any area within 152 meters (500 feet) of the “No Activity Zone” of a topographic feature, unless exempted by a site-specific EFH consultation.

LIVE-BOTTOMS (PINNACLE TREND FEATURES)

Introduction and Background

Oil and gas exploration, development, and transportation activities in the vicinity of the crests and flanks of pinnacle and hard-bottom features, including those located on 74 OCS lease blocks in the northeastern Central Planning Area (CPA) of the Gulf of Mexico, may cause deleterious impacts to the sessile and pelagic communities associated with those habitats. Adverse impacts could be caused by mechanical damage from drilling rigs, platforms, pipelines, and anchor emplacement.

A stipulation to avoid and protect such habitats has been made a part of appropriate CPA OCS oil and gas leases since 1974. The leases resulting from upcoming CPA Sale 213 that will be held in March 2010, and all subsequent sales will contain the current stipulation (see Attachment 3). You may elect either to conduct your operations, including lease term pipeline operations, in conformance with the current version of the stipulation, or you may elect to comply with the stipulation contained in your lease.

In order to provide necessary and sufficient protection for the sensitive biological habitats of live bottoms (pinnacle trend features) from the effects of right-of-way pipeline construction activities (including the use of anchors, chains, cables, and wire ropes), all bottom disturbances from right-of-way pipeline construction activities are limited in the same manner as bottom disturbances occurring from lease operations.

For a list and a map of the identified pinnacle trend features in the Gulf of Mexico, see the MMS Internet website at <http://www.gomr.mms.gov/homepg/regulate/environ/topoblocks.pdf> for the list and <http://www.gomr.mms.gov/homepg/regulate/environ/topomap.pdf> for the map.

Policy

You must adhere to the provisions of the live-bottoms (pinnacle trend features) lease stipulation. In addition, based on an EFH programmatic consultation with NOAA Fisheries, no bottom-disturbing activities, including those caused by anchors, chains, cables, or wire ropes from a semisubmersible drilling rig or from a pipeline construction vessel, may occur within 30 meters (100 feet) of any hard bottoms/pinnacles that have vertical relief of 8 feet or more.

If the proposed bottom-disturbing activities do not meet the avoidance parameters set forth in the EFH programmatic consultation outlined above, the MMS GOMR must consult with NOAA Fisheries. An individual project-specific EFH consultation is also required whenever the route of a proposed pipeline that will transport liquid hydrocarbons having an API gravity of 45° or less is located closer than 91 meters (300 feet) from any pinnacle trend feature having 8 feet or more of vertical relief. An individual project-specific EFH consultation could extend the time necessary to complete the review of your EP, DOCD, or pipeline application.

Implementation

1. If the proposed activities in your EP or DOCD could cause bottom disturbances in OCS blocks affected by the live-bottoms (pinnacle trend) lease stipulation, submit the information outlined in Attachment 4, Section A, with one copy of your EP or DOCD.
2. If the proposed activities in your pipeline application could cause bottom disturbances in OCS blocks affected by the live-bottoms (pinnacle trend) lease stipulation, submit the information outlined in Attachment 4, Section B, with one copy of your pipeline application.

Note that the live-bottom (pinnacle trend) features information requirements outlined in Attachment 4 do not modify or cancel the requirements set forth in the live-bottoms (pinnacle trend) lease stipulation.

3. Within 90 days after completing any activity that proposed disturbance of the seafloor within 61 meters (200 feet) of pinnacles in the pinnacle trend area, submit a map at a scale of 1 inch = 1,000 feet with DGPS accuracy showing the location of the seafloor disturbance relative to these features to the MMS GOMR Plans Section for EP's and DOCD's and the MMS GOMR Pipeline Section for pipeline applications (with your pipeline construction report required by 30 CFR 250.1008(b)). Make sure that the map demonstrates that the as-placed location of all bottom-disturbing activities did not physically impact any area within 30 meters (100 feet) of the pinnacles, unless exempted by site-specific EFH consultation.

LIVE BOTTOMS (LOW-RELIEF FEATURES)

Introduction and Background

Oil and gas exploration, development, and transportation activities in the vicinity of live-bottom (low relief) features in the CPA and the Eastern Planning Area (EPA) of the Gulf of Mexico may cause deleterious impacts to the sessile and pelagic communities associated with those habitats. Adverse impacts could be caused by toxic and smothering effects from drilling and production effluent and mechanical damage from drilling rigs, platforms, pipelines, and anchor emplacement.

A stipulation to avoid and protect such habitats has been made a part of appropriate OCS oil and gas leases since 1982. The leases resulting from upcoming CPA Sale 213 that will be held in March 2010, and all subsequent sales will contain the current stipulation (see Attachment 5). You may elect to conduct operations, including lease term pipeline operations, in conformance with the current version of the stipulation, or you may elect to comply with the stipulation in your lease document.

In order to provide necessary and sufficient protection for the sensitive biological habitats of the live bottoms (low relief features) from the effects of right-of-way pipeline construction activities (including the use of anchors, chains, cables, and wire ropes), all bottom disturbances from right-of-way pipeline construction activities are limited in the same manner as bottom disturbances occurring from lease operations.

For a list and a map of the live-bottom (low relief) area in the Gulf of Mexico, see the MMS Internet website at <http://www.gomr.mms.gov/homepg/regulate/environ/topoblocks.pdf> for the list and <http://www.gomr.mms.gov/homepg/regulate/environ/topomap.pdf> for the map.

Policy

No bottom-disturbing activities, including the use of anchors, chains, cables, or wire ropes from a semisubmersible drilling rig or from a pipeline construction vessel, may cause impacts to live bottoms (low-relief features).

Implementation

1. Before you conduct any drilling activities or construct or place any structure for exploration or development on any lease with the live-bottom (low relief) stipulation, including, but not limited to, well drilling and pipeline and platform placement, prepare a live-bottom survey report containing a bathymetry map constructed from remote-sensing data and an interpretation of live-bottom areas using the results of a photodocumentation survey. Use the guidelines in Attachment 7 to conduct the surveys and prepare the report. Make sure that the live-bottom survey report, including the attendant surveys, encompasses the entire area at least 1,000 meters (3,280 feet) from the proposed activity site. Conduct bathymetric and shallow hazards surveys using the guidelines of NTL No. 2008-G05, Shallow Hazards Requirements, effective May 1, 2008.
2. If the proposed activities in your EP, DOCD, or DPP could cause bottom disturbances in OCS blocks affected by the live-bottom (low relief) lease stipulation, submit the information outlined in Attachment 6, Section A, and the live-bottom survey report with one copy of your EP, DOCD, or DPP.
3. If the proposed activities in your pipeline application could cause bottom disturbances in OCS blocks affected by the live-bottom (low relief) lease stipulation, submit the information outlined in Attachment 6, Section B, and the live-bottom survey report with

one copy of your pipeline application.

Note that the live-bottom (low relief) information requirements outlined in Attachments 6 and 7 do not modify or cancel the requirements set forth in the live-bottom (low relief) lease stipulation.

4. Within 90 days after completing any activity that proposed disturbance of the seafloor within 30 meters (100 feet) of any live-bottom (low relief) feature, submit a map at a scale of 1 inch = 1,000 feet with DGPS accuracy showing the location of the seafloor disturbance relative to the feature to the MMS GOMR Plans Section for EP's, DOCD's, or DPP's and the MMS GOMR Pipeline Section for pipeline applications (with your pipeline construction report required by 30 CFR 250.1008(b)). Make sure that the map demonstrates that the as-placed location of all bottom-disturbing activities did not physically impact a live-bottom (low relief) feature.

POTENTIALLY SENSITIVE BIOLOGICAL FEATURES

Introduction and Background

Oil and gas exploration, development, and transportation activities in the vicinity of potentially sensitive biological features may cause deleterious impacts to the sessile and pelagic communities associated with those habitats. Adverse impacts could be caused by mechanical damage from drilling rigs, platforms, pipelines, and anchor emplacement.

No lease stipulation to avoid and protect such habitats currently exists. In order to provide necessary and sufficient protection for these potentially sensitive biological habitats from the effects of both lease operations (including lease term pipeline operations) as well as right-of-way pipeline construction activities (including the use of anchors, chains, cables, and wire ropes), all bottom disturbances from such activities are limited as described in the policy and implementation sections below.

Policy

No bottom-disturbing activities, including the use of anchors, chains, cables, or wire ropes from a semisubmersible drilling rig or from a pipeline construction vessel, may cause impacts to potentially sensitive biological features.

Implementation

1. If the proposed activities in your EP or DOCD could cause bottom disturbances in the vicinity of potentially sensitive biological features, as determined from your analysis or MMS GOMR review of survey information (see below), submit the information outlined in Attachment 8, Section A, with one copy of your EP or DOCD.

2. If the proposed activities in your pipeline application could cause bottom disturbances in the vicinity of potentially sensitive biological features, as determined from your analysis or MMS GOMR review of survey information (see below), submit the information outlined in Attachment 8, Section B, with one copy of your pipeline application.
3. Within 90 days after completing any activity that proposed disturbance of the seafloor within 30 meters (100 feet) of potentially sensitive biological features, submit a map at a scale of 1 inch = 1,000 feet with DGPS accuracy showing the location of the seafloor disturbance relative to these features to the MMS GOMR Plans Section for EP's and DOCD's and the MMS GOMR Pipeline Section for pipeline applications (with your pipeline construction report required by 30 CFR 250.1008(b)). Make sure that the map demonstrates that the as-placed location of all bottom-disturbing activities did not physically impact a potentially sensitive biological feature.

MMS GOMR REVIEW

As applicable, the MMS GOMR will analyze the submitted biological information during its review of your OCS plan or pipeline application. If the MMS GOMR determines that a biologically sensitive feature could potentially be harmed by your proposed activities, the MMS GOMR will instruct you to:

1. Amend the OCS plan or pipeline application to relocate the proposed activities to avoid impacting the biologically sensitive feature;
2. Amend the OCS plan or pipeline application to provide additional information (perhaps including a photo-survey, a video-survey, or already available information) that documents whether a biologically sensitive feature or features exist in the areas of concern; or
3. Adhere to certain conditions of OCS plan or pipeline application approval such as using a remotely operated vehicle to set anchors precisely or taking other measures to ensure that the proposed anchor pattern does not adversely affect a biologically sensitive feature, monitoring impacts caused by the proposed activities, or adhering to any other condition deemed necessary by the MMS GOMR.

EXCEPTION

The provisions of this NTL do not modify or cancel any biological monitoring plan that has been approved by the MMS GOMR.

GUIDANCE DOCUMENT STATEMENT

The MMS issues NTL's as guidance documents in accordance with 30 CFR 250.103 to clarify, supplement, and provide more detail about certain MMS regulatory requirements and to outline the information you provide in your various submittals. Under that authority, this NTL sets forth

a policy on and an interpretation of a regulatory requirement that provides a clear and consistent approach to complying with that requirement. However, if you wish to use an alternate approach for compliance, you may do so, after you receive approval from the appropriate MMS office under 30 CFR 250.141.

PAPERWORK REDUCTION ACT STATEMENT

The information collection provisions of this notice are intended to provide clarification, description, or interpretation of requirements contained in lease stipulations and 30 CFR 250, Subparts B and J. The Office of Management and Budget (OMB) has approved the information collection requirements for Subparts B and J and assigned OMB Control Numbers 1010-0151 and 1010-0050, respectively. This notice does not impose any additional information collection requirements subject to the Paperwork Reduction Act of 1995.

CONTACTS

Please direct any questions concerning this NTL regarding EP's and DOCD's to the MMS GOMR Plans Section by telephone at (504) 736-2581 or by e-mail to elizabeth.peuler@mms.gov and regarding OCS pipeline applications to the MMS GOMR Pipeline Section by telephone at (504) 736-2547 or by e-mail at alex.alvarado@mms.gov.

[original signed]

Lars T. Herbst
Regional Director

ATTACHMENTS

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|---------------------|---|
| Attachment 1 | Topographic Features Stipulation (current) |
| Attachment 2 | Topographic Features Information – Plans and Pipelines |
| Attachment 3 | Live-Bottom (Pinnacle Trend) Stipulation (current) |
| Attachment 4 | Live-Bottom (Pinnacle Trend) Information - Plans and Pipelines |
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| Attachment 6 | Live-Bottom (Low-Relief) Information - Plans and Pipelines |
| Attachment 7 | Live-Bottom (Low-Relief) Photodocumentation and Reports |
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ATTACHMENT 1

Stipulation No. 1 - Topographic Features (Central Gulf of Mexico Planning Area)

The stipulation provides for protection of the following banks:

BANK NAME	ISOBATH (m)
Alderdice Bank	80
Bouma Bank	85
Bright Bank[3]	85
Diaphus Bank[2]	85
Elvers Bank	85
Ewing Bank	85
Fishnet Bank[2]	76
Geyer Bank	85
Jakkula Bank	85
McGrail Bank	85
Parker Bank	85
Rezak Bank	85
Sackett Bank[2]	85
Sidner Bank	85
Sonnier Bank	55
Sweet Bank[1]	85

[1] Only paragraph A of the stipulation applies.

[2] Only paragraphs A and B apply.

[3] GOM Central Planning Area bank with a portion of its “3-Mile Zone” in the GOM Western Planning Area.

A. No activity including structures, drilling rigs, pipelines, or anchoring will be allowed within the listed isobath (“No Activity Zone”) of the banks as listed above. Maps are available at the MMS website http://www.gomr.mms.gov/homepg/lseale/topo_features_package.pdf.

B. Operations within the area shown as “1,000-Meter Zone” on the Topographic Features Stipulation Map shall be restricted by shunting all drill cuttings and drilling fluids to the bottom through a downpipe that terminates at an appropriate distance, but no more than 10 meters, from the bottom.

C. Operations within the area shown as “1-Mile Zone” on the Topographic Features Stipulation Map shall be restricted by shunting all drill cuttings and drilling fluids to the bottom through a downpipe that terminates at an appropriate distance, but no more than 10 meters, from the bottom. (Where there is a “1-Mile Zone” designated, the “1,000-Meter Zone” in paragraph B is not designated.)

D. Operations within the area shown as “3-Mile Zone” on the Topographic Features Stipulation Map shall be restricted by shunting all drill cuttings and drilling fluids from development operations to the bottom through a downpipe that terminates at an appropriate distance, but no more than 10 meters, from the bottom. If more than two wells that are not from development operations are to be drilled from the same surface location, all drill cuttings and drilling fluids shall be restricted by shunting to the bottom through a downpipe that terminates at an appropriate distance, but no more than 10 meters, from the bottom.

You and your operators, personnel, and subcontractors are responsible for carrying out the specific mitigation measures outlined in the most current MMS GOMR NTL, which provides guidance on how to follow the requirements of this stipulation.

Stipulation No. 1 - Topographic Features (Western Gulf of Mexico Planning Area)

The stipulation provides for protection of the following banks:

Bank Name	No Activity Zone Defined by Isobath (meters)
Shelf Edge Banks	
West Flower Garden Bank	100 (defined by the 1/4 ¹ /4 ¹ /4 system)
East Flower Garden Bank	100 (defined by the 1/4 ¹ /4 ¹ /4 system)
MacNeil Bank	82
29 Fathom Bank	64
Rankin Bank	85
Bright Bank[1]	85
Stetson Bank	52
Appelbaum Bank	85
Low Relief Banks[2]	
Mysterious Bank	74, 76, 78, 80, 84
Coffee Lump	Various
Blackfish Ridge	70
Big Dunn Bar	65
Small Dunn Bar	65
32 Fathom Bank	52
Claypile Bank[3]	50
South Texas Banks[4]	
Dream Bank	78, 82
Southern Bank	80
Hospital Bank	70
North Hospital Bank	68
Aransas Bank	70
South Baker Bank	70
Baker Bank	70

[1] Central Planning Area bank in the Gulf of Mexico (GOM) with a portion of its “1-Mile Zone” and/or “3-Mile Zone” in the Western Planning Area.

[2] Low Relief Banks--Only paragraph (a) applies.

[3] Claypile Bank--Paragraphs (a) and (b) apply. In paragraph (b), monitoring of the effluent to determine the effect on the biota of Claypile Bank shall be required rather than shunting.

[4] South Texas Banks--Only paragraphs (a) and (b) apply.

(a) No activity including structures, drilling rigs, pipelines, or anchoring will be allowed within the listed isobath (“No Activity Zone”) of the banks as listed above. Maps are available at the MMS website http://www.gomr.mms.gov/homepg/lseale/topo_features_package.pdf.

(b) Operations within the area shown as “1,000-Meter Zone” on the Topographic Features Stipulation Map shall be restricted by shunting all drill cuttings and drilling fluids to the bottom through a downpipe that terminates at an appropriate distance, but no more than 10 meters, from the bottom.

(c) Operations within the area shown as “1-Mile Zone” on the Topographic Features Stipulation Map shall be restricted by shunting all drill cuttings and drilling fluids to the bottom through a downpipe that terminates at an appropriate distance, but no more than 10 meters, from the bottom. (Where there is a “1-Mile Zone” designated, the “1,000-Meter Zone” in paragraph (b) is not designated.) This restriction on operations also applies to areas surrounding the Flower Garden Banks National Marine Sanctuary, namely the “4-Mile Zone” surrounding the East Flower Garden Bank and the West Flower Garden Bank.

(d) Operations within the area shown as “3-Mile Zone” on the Topographic Features Stipulation Map shall be restricted by shunting all drill cuttings and drilling fluids from development operations to the seafloor through a downpipe that terminates at an appropriate distance, but no more than 10 meters (33 feet), from the bottom. If more than two exploration wells are to be drilled from the same surface location within the 3- Mile Zone, all drill cuttings and drilling fluids from the drilling operations at that location are to be shunted to the seafloor through a structurally sound downpipe that terminates an appropriate distance, but no more than 10 meters, from the bottom.

You and your operators, personnel, and subcontractors are responsible for carrying out the specific mitigation measures outlined in the most current MMS GOMR NTL, which provides guidance on how to follow the requirements of this stipulation.

ATTACHMENT 2

A. TOPOGRAPHIC FEATURES INFORMATION – PLANS

1. If you propose bottom-disturbing activities (including rig placement, and rig or construction barge use of anchors, chains, cables, and wire ropes) within 305 meters (1,000 feet) of the “No Activity Zone” of an identified topographic feature, include a map at a scale of 1 inch = 1,000 feet with DGPS accuracy depicting

- a. Bathymetric contours;
- b. The “No Activity Zone” surrounding the topographic feature;
- c. The 500-foot area surrounding the “No Activity Zone”;
- d. The surface location of each proposed well or platform; and
- e. The position of anchors, chains, cables, and wire ropes relative to each proposed surface location.

You may use transparency overlays on other maps to display items d. and e. above, provided they are at a scale of 1 inch = 1,000 feet.

2. If you propose to drill more than two wells from the same surface location and that surface location is within the 3-Mile Zone of an identified topographic feature, include a statement in your EP that you will shunt all drill cuttings and drilling fluids from your drilling operations to the bottom through a structurally sound downpipe that terminates an appropriate distance, but no more than 10 meters (33 feet), from the bottom.

B. TOPOGRAPHIC FEATURES INFORMATION – PIPELINES

If you propose pipeline construction activities (including the use of anchors, chains, cables, and wire ropes) within 305 meters (1,000 feet) of a “No Activity Zone” of an identified topographic feature, include a map at a scale of 1 inch = 1,000 ft with DGPS accuracy depicting

- a. Bathymetric contours;
- b. The “No Activity Zone” surrounding the topographic feature;
- c. The 500-foot area surrounding the “No Activity Zone”;
- d. The proposed pipeline route; and
- e. The maximum area of disturbance potentially caused by the pipeline construction activities (including the use of anchors, chains, cables, and wire ropes).

You may use transparency overlays on other maps to display items d. and e. above, provided they are at a scale of 1 inch = 1,000 feet.

ATTACHMENT 3

LIVE-BOTTOM (PINNACLE TREND) STIPULATION

(To be included only in leases in the following OCS blocks: Main Pass Area, South and East Addition Blocks 190, 194, 198, 219-226, 244-266, and 276-290; Viosca Knoll Area Blocks 473-476, 521, 522, 564, 565, 566, 609, 610, 654, 692-698, 734, and 778; and Destin Dome Area Blocks 577, 617, 618, and 661.)

For the purpose of this stipulation, “live bottom areas” are defined as seagrass communities or those areas that contain biological assemblages consisting of such sessile invertebrates as sea fans, sea whips, hydroids, anemones, ascidians, sponges, bryozoans, or corals living upon and attached to naturally occurring hard or rocky formations with rough, broken, or smooth topography; or areas whose lithotope favors the accumulation of turtles, fishes, and other fauna.

Prior to any drilling activities or the construction or placement of any structure for exploration or development on this lease, including, but not limited to, anchoring, well drilling, and pipeline and platform placement, the lessee will submit to the Regional Director (RD) a live-bottom survey report containing a bathymetry map prepared utilizing remote-sensing techniques. The bathymetry map shall be prepared for the purpose of determining the presence or absence of live-bottoms that could be impacted by the proposed activity. This map shall encompass such an area of the seafloor where surface disturbing activities, including anchoring, may occur.

If it is determined that the live bottoms might be adversely impacted by the proposed activity, the RD will require the lessee to undertake any measure deemed economically, environmentally, and technically feasible to protect the pinnacle area. These measures may include, but are not limited to relocation of operations and monitoring to assess the impact of the activity on the live bottoms.

ATTACHMENT 4

A. LIVE-BOTTOM (PINNACLE TREND) INFORMATION – PLANS

If you propose bottom-disturbing activities (including rig placement, rig or construction barge use of anchors, chains, cables, and wire ropes) within 61 meters (200 feet) of pinnacles, include a map at a scale of 1 inch = 1,000 feet with DGPS accuracy depicting

- a. Bathymetric contours at 2-foot intervals;
- b. An outline of the pinnacles;
- c. An annotation of the height of individual pinnacles;
- d. The surface location of each proposed well or platform; and
- e. The position of anchors, chains, cables, and wire ropes relative to each proposed surface location.

You may use transparency overlays to other maps to display items d. and e. above, provided they are at a scale of 1 inch = 1,000 feet.

B. LIVE-BOTTOM (PINNACLE TREND) INFORMATION – PIPELINES

If you propose pipeline construction activities (including the use of anchors, chains, cables, and wire ropes) within 61 meters (200 feet) of pinnacles, include a map at a scale of 1 inch = 1,000 feet with DGPS accuracy depicting

- a. Bathymetric contours at 2-foot intervals;
- b. An outline of the pinnacles;
- c. An annotation of the height of individual pinnacles;
- d. The proposed pipeline route; and
- e. The maximum area of disturbance potentially caused by the pipeline construction activities (including the use of anchors, chains, cables, and wire ropes.)

You may use transparency overlays to other maps to display items d. and e. above, provided they are at a scale of 1 inch = 1,000 feet.

ATTACHMENT 5

LIVE-BOTTOM (LOW RELIEF) STIPULATION

(To be included in leases on blocks in water depths of 100 meters or less in the EPA and the following leases on blocks in the CPA: Pensacola Area Blocks 751-754, 793-798, 837-842, 881-886, 925-930, and 969-975; and Destin Dome Area Blocks 1-7, 45-51, 89-96, 133-140, 177-184, 221-228, 265-273, 309-317, 353-361, 397-405, 441-448, 485-491, 529-534, and 573-576.)

For the purpose of this stipulation, “live-bottom areas” are defined as seagrass communities; or those areas that contain biological assemblages consisting of such sessile invertebrates as sea fans, sea whips, hydroids, anemones, ascidians, sponges, bryozoans, or corals living upon and attached to naturally occurring hard or rocky formations with rough, broken, or smooth topography; or areas whose lithotype favors the accumulation of turtles, fishes, and other fauna.

Prior to any drilling activities or the construction or placement of any structure for exploration or development on this lease, including, but not limited to, well drilling and pipeline and platform placement, the lessee will submit to the Regional Director (RD) a live-bottom survey report containing a bathymetry map prepared utilizing remote-sensing techniques and an interpretation of live-bottom areas prepared from a photodocumentation survey. The live-bottom survey report, including the attendant surveys, will encompass an area within a minimum 1,000-meter distance of a proposed activity site.

If it is determined that live-bottom areas might be adversely impacted by the proposed activity, then the RD will require the lessee to undertake any measure deemed economically, environmentally, and technically feasible to protect live-bottom areas. These measures may include, but are not limited to, the following:

- (a) relocation of operations to avoid live-bottom areas;
- (b) shunting of all drilling fluids and cuttings in such a manner as to avoid live-bottom areas;
- (c) transportation of drilling fluids and cuttings to approved disposal sites; and
- (d) monitoring of live-bottom areas to assess the adequacy of any mitigating measures taken and the impact of lease-initiated activities.

ATTACHMENT 6

A. LIVE-BOTTOM (LOW RELIEF) INFORMATION – PLANS

If you propose bottom-disturbing activities (including rig placement, rig or construction barge use of anchors, chains, cables, and wire ropes) within 30 meters (100 feet) of live-bottom (low relief) features, include a map at a scale of 1 inch = 1,000 feet with DGPS accuracy depicting

- a. Bathymetric contours at 2-foot intervals;
- b. An outline of the live-bottom (low-relief) features;
- c. An annotation of the height of individual low-relief features;
- d. The surface location of each proposed well or platform; and
- e. The position of anchors, chains, cables, and wire ropes relative to each proposed surface location.

You may use transparency overlays on other maps to display items d. and e. above, provided they are at a scale of 1 inch = 1,000 feet.

B. LIVE-BOTTOM (LOW RELIEF) INFORMATION – PIPELINES

If you propose pipeline construction activities (including the use of anchors, chains, cables, and wire ropes) within 30 meters (100 feet) of live-bottom (low relief) features, include a map at a scale of 1 inch = 1,000 feet with DGPS accuracy depicting

- a. Bathymetric contours at 2-foot intervals;
- b. An outline of the live-bottom (low-relief) features;
- c. An annotation of the height of individual low-relief features;
- d. The proposed pipeline route; and
- e. The maximum area of disturbance caused by the installation of the pipeline, including the use of anchors, chains, cables, and wire ropes.

You may use transparency overlays on other maps to display items d. and e. above, provided they are at a scale of 1 inch = 1,000 feet.

ATTACHMENT 7

LIVE-BOTTOM (LOW-RELIEF) PHOTODOCUMENTATION AND REPORTS

Following are guidelines for conducting live-bottom (low-relief) photodocumentation surveys and preparing survey reports.

Live-Bottom Photodocumentation Surveys

A. A live-bottom photodocumentation survey is designed to determine the presence and extent of live bottoms in the vicinity of your proposed activities, including anchor locations. You may conduct the photodocumentation survey to "clear" specific proposed activity locations (refer to Section B) or to clear an entire lease block (refer to Section C). In either case, if you observe live-bottom areas during the photodocumentation survey, make sure that you survey the area(s) between transects where the live-bottom area is observed to determine the extent of live-bottom area(s) within the area you choose to clear.

B. Conduct the photodocumentation survey for a specific activity site or sites along at least 12 transects at approximately 30 degrees to each other radiating from the proposed activity site(s) out to at least 1,000 meters (3,280 feet). Position the radial design to correspond as much as possible with any indications of suspected live-bottom areas obtained from any geophysical surveys you may have conducted prior to or during the photodocumentation survey, while ensuring that full coverage around the site(s) is accomplished.

Alternatively, with MMS GOMR concurrence, you may concentrate the photodocumentation survey on live-bottom areas known or suspected from previously conducted studies or surveys. If this alternative is selected, run a grid pattern(s) of 200-meter (656-foot) line spacing to coincide with the shape/configuration of each known or suspected live-bottom area within 1,000 meters (3,280 feet) of the proposed activity site(s). Where separate live-bottom areas (patches) are located in proximity to each other, design a single grid to include all of these areas (patches).

In either case above, if live-bottom areas are encountered during the photodocumentation survey, depart from the preplanned transects to document the extent of the live-bottom area within 1,000 meters (3,280 feet) of the proposed activity site.

C. You have the option to provide photodocumentation for the entire lease block or for a portion of a lease block or blocks instead of conducting site-specific photodocumentation surveys. If this option is selected, you must photodocument the lease block (or portion) and all areas out to at least 1,000 meters (3,280 feet) around the area to be cleared, including outside the lease block boundaries, if necessary, at 200-meter (656-foot) line spacing.

D. Photodocumentation consists of underwater color videography and still photography. Operate the video camera with a surface monitor and recorder. Complement the video photodocumentation with the simultaneous and continuous tracking of Differential GPS positioning and water depth. Ensure that the photodocumentation is conducted under the proper

conditions (e.g., tow speed, water clarity, height above the bottom) to enhance your ability to determine the presence or absence and characterization of any live-bottom areas. Make sure that the still photography camera has a surface-controlled shutter. Mount the still photography camera in conjunction with the underwater video camera. Take still photographs of selected areas at such a frequency to determine the extent, type, and approximate coverage (i.e., percent biotic cover) of the live-bottom areas you encounter along a given photodocumentation transect. (The MMS GOMR anticipates that such live-bottom community areas will probably require a minimum of 100 photographs to provide sufficient data for proper characterization; the number of photographs is, however, a function of the size of the area.)

Document the professional judgment you use to establish the actual number of photographs taken in the photodocumentation survey report. Analyze a sufficient number of photographs, each encompassing a standard surface area (e.g., 0.5 meters²), for each live-bottom community area. This standard surface area allows for direct comparison with known data from live-bottom studies. Identify visually dominant epibiota during each survey. Should you photodocument an area that is devoid of live bottoms, provide the MMS GOMR with video and still photographs of the barren seafloor at least every 200 meters (656 feet).

E. Please be advised that if you materially revise the proposed location(s) of activities after you performed a photodocumentation survey under the provisions of Section B above, you may have to conduct a new survey to provide coverage of the revised location(s).

Live-Bottom Photodocumentation Survey Reports

A. Include the following information in your live-bottom photodocumentation report:

1. Introduction;
2. A brief description of the equipment you used;
3. A discussion of results including:
 - a. A brief discussion of the substrate types observed in the survey area;
 - b. A figure showing any hard-bottom areas indicated by your shallow hazards survey(s);
 - c. A figure showing the extent and position of live-bottom areas as determined from the photodocumentation survey and the actual locations of where you took representative still images;
 - d. A figure showing the video/still camera transects and the actual locations of the representative photographs appended to the report;
 - e. A bathymetry map at a scale of 1 inch = 1,000 feet showing potential live-bottom areas with isobaths at 2-foot contour intervals;
 - f. A description of live-bottom assemblages. (Individual organisms need only be identified to the level necessary to determine the presence or absence of live

bottoms and to characterize the live bottom, if present. As appropriate, classify each live-bottom type (biological assemblage));

- g. A discussion of the interpretation of the geophysical data as it relates to the actual live-bottom determined through the photodocumentation survey, to include:
 - 1) sediment types and thickness;
 - 2) evidence of hard-bottom signature(s); and
 - 3) correlation of geophysical data with photodocumentation data; and
- h. A general discussion of the extent and percent cover of live-bottom.

4. Conclusions.

5. References.

6. Appendix. Provide representative photographs of each live-bottom community type and substrate type encountered.

B. If requested by the MMS GOMR, make formal presentation of your live-bottom survey report, including an interpretation of live-bottom areas prepared from your photodocumentation survey showing of representative video footage and stills.

C. If requested by the MMS GOMR, submit your original data, including photographs.

ATTACHMENT 8

A. POTENTIALLY SENSITIVE BIOLOGICAL FEATURES INFORMATION – PLANS

If you propose bottom-disturbing activities (including rig placement, rig or construction barge use of anchors, chains, cables, and wire ropes) within 30 meters (100 feet) of potentially sensitive biological features, include a map at a scale of 1 inch = 1,000 feet with DGPS accuracy depicting:

- a. bathymetric contours at 2-foot intervals;
- b. an outline of the potentially sensitive biological features;
- c. an annotation of the height of individual potentially sensitive biological features;
- d. the surface location of each proposed well or platform; and
- e. the position of anchors, chains, cables, and wire ropes relative to each proposed surface location.

You may use transparency overlays to other maps to display items d. and e. above, provided they are at a scale of 1 inch = 1,000 feet.

B. POTENTIALLY SENSITIVE BIOLOGICAL FEATURES INFORMATION – PIPELINES

If you propose pipeline construction activities (including the use of anchors, chains, cables, and wire ropes) within 30 meters (100 feet) of potentially sensitive biological features, include a map at a scale of 1 inch = 1,000 feet with DGPS accuracy depicting:

- a. bathymetric contours at 2-foot intervals;
- b. an outline of the potentially sensitive biological features;
- c. an annotation of the height of individual potentially sensitive biological features;
- d. the proposed pipeline route; and
- e. the maximum area of disturbance potentially caused by the pipeline construction activities (including the use of anchors, chains, cables, and wire ropes).

You may use transparency overlays to other maps to display items d. and e. above, provided they are at a scale of 1 inch = 1,000 feet.