



United States Department of the Interior

BUREAU OF OCEAN ENERGY MANAGEMENT

Gulf of Mexico OCS Region
1201 Elmwood Park Boulevard
New Orleans, LA 70123-2394

In Reply Refer To: GM 235D

October 9, 2020

Ms. Jill Wiederhold
Anadarko Petroleum Corporation
1201 Lake Robbins Drive
The Woodlands, Texas 77380

Dear Ms. Wiederhold,

Reference is made to the following plan:

Control No. N-10117
Type Initial Exploration Plan
Received July 10, 2020, amended August 3 and 27, 2020
Lease(s) OCS-G18194, Block 126, Mississippi Canyon Area (MC)
OCS-G35311, Block 80, Mississippi Canyon Area (MC)
OCS-G35312, Block 81, Mississippi Canyon Area (MC)
OCS-G35313, Block 82, Mississippi Canyon Area (MC)
OCS-G35316, Block 125, Mississippi Canyon Area (MC)

You are hereby notified that the approval of the subject plan has been granted as of October 9, 2020, in accordance with 30 CFR 550.233(b)(1).

This approval includes proposed activities for Subsea Wells A, AA, B, BB, C, CC, D, DD, E, EE, F, and FF in MC Block 80; Subsea Wells G, GG, H, HH, I, II, J, JJ, K, KK, L, LL, M, MM, N, NN, O, and OO in MC Block 81; Subsea Wells P, PP, Q, and QQ in MC Block 125; and Subsea Wells R and RR in MC Block 126.

Drilling permits cannot be issued for the proposed wells until concurrence with your coastal zone management consistency certification has been received by this office from the Alabama Department of Environmental Management or until concurrence with the certification has been conclusively presumed.

In accordance with 30 CFR 556.901(d), additional security may be required for your proposed activities. Prior to conducting activities in which you need to obtain approvals and/or permits described in 30 CFR 550.281(a) from the appropriate District Manager or BSEE Regional Supervisor, you must contact BOEM Risk Management Operations Group by email at boermog@boem.gov to determine if additional security is required and comply with any demand for this security.

Exercise caution while drilling due to indications of shallow gas, faulting, and possible water flow.

In response to the request accompanying your plan for a hydrogen sulfide (H₂S) classification, the area in which the proposed drilling operations are to be conducted is hereby classified, in accordance with 30 CFR 250.490(c), as "H₂S absent."

The projected NO_x emissions amounts in your plan were calculated using historic fuel consumption rates. Maintain monthly records of the total annual fuel consumption for the drilling rig only with a limit of 4,756,940 gallons/year and provide the information to the BOEM Regional Supervisor, Office of Leasing and Plans, Plans Section (GM 235D) annually by February 1st of each year, beginning in the year 2022. If no activities were conducted during a calendar year, provide a statement to that effect in lieu of the required records. If at any time during your activities these records indicate that your NO_x annual emissions may exceed the annual limit approved in your plan or the total annual fuel consumption limit, you must immediately prepare a revised plan pursuant to 30 CFR 550.283 to include the recalculated emissions amounts. You will not proceed with the actions that could cause the potential annual increase in emissions until the revised plan has been submitted to and approved by BOEM.

You must comply with the following species protective measures in all activities conducted pursuant to the plan:

- **COMPLIANCE WITH BIOLOGICAL OPINION TERMS AND CONDITIONS AND REASONABLE AND PRUDENT MEASURES:** This approval is conditioned upon compliance with the Reasonable and Prudent Measures and implementing Terms and Conditions of the Biological Opinion issued by the National Marine Fisheries Service (NMFS) on March 13, 2020. This includes mitigation, particularly any appendices to Terms and Conditions applicable to the plan, as well as record-keeping and reporting sufficient to allow BOEM and BSEE to comply with reporting and monitoring requirements under the Biological Opinion; and any additional reporting required by BOEM or BSEE developed as a result of Biological Opinion implementation. The NMFS Biological Opinion may be found here: <https://www.fisheries.noaa.gov/resource/document/biological-opinion-federally-regulated-oil-and-gas-program-activities-gulf-mexico>. The Appendices and protocols may be found here: <https://www.fisheries.noaa.gov/resource/document/appendices-biological-opinion-federally-regulated-oil-and-gas-program-gulf-mexico>.
- **SUPPORT BASES AND VESSEL TRANSIT ROUTES:** Approval of your plan is conditioned upon your use of the support bases and vessel transit routes as described in your plan. BOEM/BSEE must be notified at least 15 days prior to any vessel route changes that require transit of the Bryde's Whale area, and you must receive prior approval for that transit from BOEM/BSEE.
- **MARINE TRASH AND DEBRIS AWARENESS AND ELIMINATION:** The applicant will follow the guidance provided under Appendix B. Gulf of Mexico Marine Trash and Debris Awareness and Elimination Survey Protocols found in the Biological Opinion issued by NMFS on March 13, 2020. The guidance can be accessed on the National Oceanic and Atmospheric Administration (NOAA) Fisheries internet site at <https://www.fisheries.noaa.gov/resource/document/appendices-biological-opinion-federally-regulated-oil-and-gas-program-gulf-mexico>.

- **VESSEL-STRIKE AVOIDANCE/REPORTING:** The applicant will follow the guidance provided under Appendix C. Gulf of Mexico Vessel Strike Avoidance and Injured/Dead Aquatic Protected Species Reporting Protocols found in the Biological Opinion issued by NMFS on March 13, 2020. The guidance can be accessed on the NOAA Fisheries internet site at <https://www.fisheries.noaa.gov/resource/document/appendices-biological-opinion-federally-regulated-oil-and-gas-program-gulf-mexico>.
- **SEISMIC SURVEY OPERATION, MONITORING, AND REPORTING GUIDELINES:** The applicant will follow the guidance provided under Appendix A. Seismic Survey Mitigation and Protected Species Observer Protocols found in the Biological Opinion issued by NMFS on March 13, 2020. The guidance can be accessed on the NOAA Fisheries internet site at <https://www.fisheries.noaa.gov/resource/document/appendices-biological-opinion-federally-regulated-oil-and-gas-program-gulf-mexico>.
- **MOON POOL MONITORING AND REPORTING:** A moon pool has been identified during review of your plan submittal. If any sea turtle or other marine mammal is detected, you are required to contact NMFS at nmfs.psoreview@noaa.gov and BSEE at protectedspecies@bsee.gov for additional guidance and incidental report information.
- **SEA TURTLE RESUSCITATION GUIDELINES:** The applicant will follow the guidance provided under Appendix J. Sea Turtle Handling and Resuscitation Guidelines found in the Biological Opinion issued by the NMFS on March 13, 2020. The guidance can be accessed on the NOAA Fisheries internet site at <https://www.fisheries.noaa.gov/resource/document/appendices-biological-opinion-federally-regulated-oil-and-gas-program-gulf-mexico>.

In addition to the measures proposed above and in your plan, the following additional measures are required after consultation with NMFS to ensure compliance with the Biological Opinion:

- A moon pool has been identified during review of your plan submittal. If any Endangered Species Act (ESA) listed species is detected, you are required to contact NMFS at nmfs.psoreview@noaa.gov and BSEE at protectedspecies@bsee.gov for additional guidance and incidental reporting information.
- Application of these measures includes, but is not limited to, dive support vessels, service vessels, pipelaying vessels, drillships, floating platforms (e.g., SPAR), mobile offshore drilling units, and other facilities with enclosed moon pools (well in the hull of a vessel, with or without a door). Moon pool range of activities expected are:
 - Deploy or retrieve Remotely Operated Vehicles tethered to vessel
 - Deploy or retrieve Autonomous Underwater Vehicle (AUV) tethered to vessel
 - Drilling apparatus deployment and retrieval
 - Various submarine tools that are attached via tethers
 - Use by human divers for entry and exit
 - Pipelaying or decommissioning activities
- Should your moon pool activities fall outside the scope of those described in the bullets above, then a detailed description of those activities will need to be provided to BOEM and NMFS for review, so that a determination of potential effects to ESA listed species can be made.

- Moon pools with hull doors should attempt to keep doors closed when no activity is occurring within the moon pool, unless the safety of crew or vessel require otherwise. This will prevent ESA listed species from entering the confined area.
- Use of a moon pool requires regular monitoring while open to the water column and if a vessel is not underway. Regular monitoring means 24-hour video monitoring with hourly recurring checks for at least five minutes of the video feed, or, hourly recurring visual checks of the moon pool for at least five minutes by a dedicated crew observer with no other tasks during that visual check.
- If water conditions are such that observers are unable to see within a meter of the surface, operations requiring the lowering or retrieval of equipment through the moon pool must be conducted at a rate that will minimize potential harm to ESA listed species, if safety permits.
- Closure of the hull door
 - Should the moon pool have a hull door that can be closed, then prior to and following closure the moon pool must be monitored continuously by a dedicated crew observer with no other tasks to ensure that no individual ESA listed species is trapped within the moon pool. If visibility is not clear to the hull door from above (e.g., turbidity or low light), 30 minutes of monitoring is required prior to hull door closure.
- Movement of the vessel (without closed hull door) and equipment deployment/retrieval
 - Prior to movement of the vessel and/or deployment and retrieval of equipment, the moon pool must be monitored continuously for a minimum of 30 minutes, by a dedicated crew observer with no other tasks, to ensure no individual ESA listed species are present in the moon pool area.
 - If an ESA listed species is observed in the moon pool prior to movement of the vessel, the vessel must not be moved and equipment must not be deployed or retrieved, to the extent practicable, unless the safety of crew or vessel requires otherwise. NMFS personnel must be contacted immediately according to reporting requirements (below) for species type. If the observed animal leaves the moon pool, the operator may commence activities.
 - Should an ESA listed species be observed in a moon pool prior to activity commencement, recovery of the animal or other actions specific to the scenario may be required to prevent interaction with the animal. Operators must not take such action except at the direction of, and after contact with, NMFS.
- **SLACK-LINE PRECAUTIONS:** If operations require the use of flexible, small diameter (< 2 inch) lines to support operations (with or without divers), operators/contractors must reduce the slack in the lines, to the extent practicable, to prevent accidental entanglement of ESA listed species. This may include tether lines attached to remotely operated equipment. The following measures are required (noting that diver safety is paramount, and the following measures must be followed only in cases where they do not jeopardize human safety).
 - Operators must utilize tensioning tools and/or other appropriate procedures to reduce unnecessary looseness in the lines and/or potential looping.
 - The lines must remain taut, as long as additional safety risks are not created by this action.
 - A line tender must be present at all times during dive operations and must monitor the line(s) the entire time a diver is in the water.

- Should the line tender and/or diver become aware of an entanglement of an individual ESA listed species, the following protocols must be followed as soon as safety permits.
- **SLACK-LINE REPORTING REQUIREMENTS:** Interactions with ESA listed species must be reported to NMFS and BSEE. Incidents requiring reporting, appropriate reporting contacts, and minimum reporting information are described below.
 - Should any of the following occur at any time, immediate reporting of the incident is required (after personnel and/or diver safety is ensured):
 - Entanglement or entrapment (i.e., an animal is entangled in a line or cannot or does not leave a moon pool of its own volition) of an ESA listed species.
 - Injury of an ESA listed species (e.g., the animal appears injured or lethargic).
 - Interaction, or contact with equipment by an ESA listed species.
 - Contact information for reporting is as follows:
 - Marine mammals: contact Southeast Region's Marine Mammal Stranding Hotline at (877) 433-8299. If you do not receive a response, go to the following website to contact the relevant stranding networks for marine mammals: <https://www.fisheries.noaa.gov/report>.
 - Sea turtles: contact Brian Stacy, Veterinary Medical Officer at (352) 283-3370.
 - Other ESA listed species (e.g., giant manta ray, oceanic whitetip shark, or Gulf sturgeon): contact the ESA Section 7 biologist at (301) 427-8413 (nmfs.psoreview@noaa.gov) and report all incidents to takereport.nmfs@noaa.gov.
 - Any observation of a leatherback sea turtle within a moon pool, (regardless of whether it appears injured, or an interaction with equipment or entanglement/entrapment is observed), must be reported immediately to Brian Stacy, Veterinary Medical Officer at (352) 283-3370.
 - Report all incidents to takereport.nmfs@noaa.gov.

After the appropriate contacts have been made for guidance/assistance, you may contact BSEE at protectedspecies@bsee.gov for questions or additional guidance on recovery assistance needs (if still required) and continued monitoring requirements

- Minimum reporting information is described below.
 1. Time, date, water depth, and location (latitude/longitude) of the first discovery of the animal;
 2. Name, type, and call sign of the vessel in which the event occurred;
 3. Equipment being utilized at time of observation;
 4. Species identification (if known) or description of the animal involved;
 5. Approximate size of animal;
 6. Condition of the animal during the event;
 7. Photographs or video footage of the animal;

8. NMFS liaison or stranding hotline that was contacted for assistance;
9. General narrative and timeline describing the events that took place.

These measures are designed to promote environmental protection, consistent environmental policy, compliance with environmental laws, and safety.

If you have any questions or comments concerning this approval, please contact Nawaz Khasraw at (504)736-7625.

Sincerely,

for Bernadette Thomas
 Regional Supervisor
 Office of Leasing and Plans