



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

September 3, 2021

Ms. Aimee Deady
Arena Offshore, LP
4200 Research Forest Drive
Suite 230
The Woodlands, Texas 77381

Dear Ms. Deady,

Reference is made to the following plan:

Control No. S-8046
Type Supplemental Development Operations Coordination Document
Received March 31, 2021, modified July 6, 2021
Lease(s) OCS-G 03197, Block 120, Main Pass Area

You are hereby notified that the approval of the subject plan has been granted as of September 3, 2021, in accordance with 30 CFR 550.270(b)(1).

This approval includes the activities proposed for Wells A002 and A003 and Platform A (Complex ID 2041).

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.

Our review indicates that there is a pipeline in the vicinity of platform A that may pose a hazard to your proposed operations. Therefore, take precautions in accordance with Notice to Lessees and Operators No. 2008-G05, Section VI.B, prior to performing operations.

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."

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, and the amendment issued on April 26, 2021. 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 Amended Incidental Take Statement and 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>. The amendment provided updates to Appendices A, C, and I.
- **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 amendment issued by NMFS on April 26, 2021. 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 amendment issued by NMFS on April 26, 2021. 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>.

- **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>.
- **SLACK-LINE PRECAUTIONS Condition of Approval:**
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, except for human safety considerations, to prevent accidental entanglement of protected species (i.e., species protected under the Endangered Species Act [ESA] and/or Marine Mammal Protection Act [MMPA]). This requirement includes tether lines attached to remotely operated equipment. The requirements below must be followed for any activities entailing use of flexible, small diameter lines that will not remain continuously taut, except when complying with these requirements would put the safety of divers, crew, or the vessel at risk:
 1. Operators must utilize tensioning tools and/or other appropriate procedures to reduce unnecessary looseness in the lines and/or potential looping;
 2. The lines must remain taut, as long as additional safety risks are not created by this action;
 3. 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; and
 4. Should the line tender and/or diver become aware of an entanglement of an individual protected species, the reporting requirements described in the *Reporting Requirements Condition of Approval* (see below) must be followed as soon as safety permits.
- **REPORTING REQUIREMENTS Condition of Approval:**
Review of your proposed activities identified use of equipment that has the potential for entanglement and/or entrapment of protected species (i.e., species protected under the ESA and/or MMPA) that could be present during operations. In case of entrapment, procedures and measures for reporting are dependent upon the situation at hand. **These requirements replace those specific to dead and injured species reporting in respective sections of Appendix A (insofar as they relate to geophysical surveys) and Appendix C of the 2020 Biological Opinion on the Bureau of Ocean Energy Management's Oil and Gas Program Activities in the Gulf of Mexico.**

*Incidents Requiring **Immediate** Reporting*

Certain scenarios or incidents require immediate reporting to Federal agencies; these 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 of a protected species (i.e., an animal is entangled in a line or cannot or does not leave a moon pool of its own volition).
 - Injury of a protected species (e.g., the animal appears injured or lethargic).
 - Interaction, or contact with equipment by a protected species.
 - 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).
1. As soon as personnel and/or diver safety is ensured, report the incident to NMFS by contacting the appropriate expert for 24-hr response. If you do not receive an immediate response, you must keep trying until contact is made. Any failed attempts should be documented. Contact information for reporting is as follows:
 - **Marine mammals:** contact Southeast Region's Marine Mammal Stranding Hotline at (877) 433-8299.
 - **Sea turtles:** contact Brian Stacy, Veterinary Medical Officer at (352) 283-3370. If unable to reach Brian Stacy, contact Lyndsey Howell at (301) 301-3061. This includes the immediate reporting of any observation of a leatherback sea turtle within a moon pool.
 - **Other protected 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).
 - **Report all incidents** to takereport.nmfs@noaa.gov.

Minimum reporting information is described below:

- i. Time, date, water depth, and location (latitude/longitude) of the first discovery of the animal;
 - ii. Name, type, and call sign of the vessel in which the event occurred;
 - iii. Equipment being utilized at time of observation;
 - iv. Species identification (if known) or description of the animal involved;
 - v. Approximate size of animal;
 - vi. Condition of the animal during the event and any observed injury/behavior;
 - vii. Photographs or video footage of the animal, only if able; and
 - viii. General narrative and timeline describing the events that took place.
2. After the appropriate contact(s) have been made for guidance/assistance as described in 1 above, you may contact BSEE at (985) 722-7902 (24 hours/day) for questions or additional guidance on recovery assistance needs (if still required) and continued monitoring requirements. You may also contact this number if you do not receive a timely response from the appropriate contact(s) listed in 1 above.

Minimum post-incident reporting includes all information described above (under 1. i through viii) in addition to the following:

- i. NMFS liaison or stranding hotline that was contacted for assistance.

- ii. For moon pool observations or interactions:
- iii. Size and location of moon pool within vessel (e.g., hull door or no hull door);
- iv. Whether activities in the moon pool were halted or changed upon observation of the animal; and
- v. Whether the animal remains in the pool at the time of the report, or if not, the time/date the animal was last observed.

Reporting of Observations of Protected Species within an Enclosed Moon Pool

If a protected species is observed within an enclosed moon pool and does not demonstrate any signs of distress or injury or an inability to leave the moon pool of its own volition, measures described in this section must be followed (only in cases where they do not jeopardize human safety). Although this particular situation may not require immediate assistance and reporting as described under *Incidents Requiring Immediate Reporting* (see above), a protected species could potentially become disoriented with their surroundings and may not be able to leave the enclosed moon pool of their own volition. In order for operations requiring use of a moon pool to continue, the following reporting measures must be followed:

Within 24 hours of any observation, and daily after that for as long as an individual protected species remains within a moon pool (i.e., in cases where an ESA listed species has entered a moon pool but entrapment or injury has not been observed), the following information must be reported to BSEE (protectedspecies@bsee.gov):

1. For an initial report, all information described above (under 1. i through viii) should be included.
 2. For subsequent daily reports:
 - a. Describe the animal's status to include external body condition (e.g., note any injuries or noticeable features), behaviors (e.g., floating at surface, chasing fish, diving, lethargic, etc.), and movement (e.g., has the animal left the moon pool and returned on multiple occasions?);
 - b. Description of current moon pool activities, if the animal is in the moon pool (e.g., drilling, preparation for demobilization, etc.);
 - c. Description of planned activities in the immediate future related to vessel movement or deployment of equipment;
 - d. Any additional photographs or video footage of the animal, if possible;
 - e. Guidance received and followed from NMFS liaison or stranding hotline that was contacted for assistance;
 - f. Whether activities in the moon pool were halted or changed upon observation of the animal; and
 - g. Whether the animal remains in the pool at the time of the report, or if not, the time/date the animal was last observed.
- **In addition to the measures proposed by the applicant, the following measures related to ESA-listed species during pile driving should be followed:**
 - Establish an Exclusion Zone of 157-m and Monitoring Zone of 500-m for ESA-listed species.

- Monitoring by a dedicated observer, which would have no other tasks, must take place from 30 minutes prior to initiation of pile driving activity through 30 minutes post-completion of pile driving activity.
- Initiate and conduct pile driving only during daylight hours, as practicable. Use lights to monitor the exclusion zone during times when visibility is limited due to dark, rain, fog, etc.
- Use soft start techniques when initiating pile driving. Soft start requires the operator to provide an initial set of strikes at reduced energy, followed by a thirty-second waiting period, then two subsequent reduced energy strike sets. A soft start must be implemented at the start of each day's pile driving and at any time following cessation of impact pile driving for a period of 30 minutes or longer.
- Delay pile driving if an ESA-listed species is observed entering or within the Exclusion Zone within 30 minutes prior to commencement of pile driving. If a delay is called for based on an ESA-listed species entering or within the Exclusion Zone, pile driving may not commence until either the animal has voluntarily left and been visually confirmed beyond the Exclusion Zone or 30 minutes have elapsed without subsequent detection.
- Shut down pile driving if an ESA-listed species is observed entering or within the Exclusion Zone while pile driving is underway, except when shutdown would jeopardize human safety or the stability of the pile being driven. Pile driving may not commence following shutdown until either the animal has voluntarily left and been visually confirmed beyond the Exclusion Zone or 30 minutes have elapsed without subsequent detection.
- In advance of the pile driving activity, the designated, dedicated observers shall provide an email and/or resume package describing qualifications to BSEE at protectedspecies@bsee.gov and NMFS at nmfs.psoreview@noaa.gov for approval in the observer role. Qualifications shall include background experience, training and/or education appropriate for fulfilling the role as an observer of ESA-listed species.
- If a shutdown is called for by the dedicated observer but shutdown does not occur: Specifics of the pile driving activity and reasoning for why a shutdown could not occur should be communicated to the observer and reported in the post-activity report sent to BSEE and NMFS.
- Report any observations of ESA-listed species and report any mitigation actions that were undertaken in response to observations of ESA-listed species (i.e., postponing ramp up or shutting down due to presence of ESA-listed species in the exclusion zone) to BOEM at protectedspecies@boem.gov and to NMFS at nmfs.psoreview@noaa.gov after operations have ceased.

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 Chiquita Hill at (504)736-2668.

Sincerely,

for Bernadette Thomas
Regional Supervisor
Office of Leasing and Plans