In Reply Refer To: GM 235D

September 26, 2022

Ms. Aimee Deady  
Arena Offshore, LP  
2103 Research Forest Drive  
Suite 200  
The Woodlands, Texas 77381

Dear Ms. Deady,

Reference is made to the following plan:

Control No.   S-8086
Type          Supplemental Development Operations Coordination Document
Received      June 24, 2022
Lease(s)      OCS-G 00983, Block 252, Eugene Island Area (EI)  
              OCS-G 03331, Block 251, Eugene Island Area (EI)  
              OCS-G 36208, Block 261, Eugene Island Area (EI)  
              OCS-G 36209, Block 262, Eugene Island Area (EI)

You are hereby notified that the approval of the subject plan has been granted as of September 26, 2022, in accordance with 30 CFR 550.270(b)(1).

This approval includes the revision of air emissions for Platform A (Complex ID 22164) in EI 251 and the activities proposed for the below listed Wells.

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<tr>
<th>Well</th>
<th>Area and Block</th>
<th>Lease No.</th>
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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 boemrmog@boem.gov to determine if additional security is required and comply with any demand for this security.

Our review indicates that there is 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."

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

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, which may be found here: https://repository.library.noaa.gov/view/noaa/29355.

- **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 National Oceanic and Atmospheric Administration (NOAA) Fisheries internet site at https://repository.library.noaa.gov/view/noaa/29355.


- **VESSEL-STRIKE AVOIDANCE/REPORTING:** The applicant will follow the protocols provided under Appendix C. 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://repository.library.noaa.gov/view/noaa/29355.


- **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) 310-3061. 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.nmfsser@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) and BOEM (protectedspecies@boem.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.

• NOTIFICATION OF INTENTION TO TRANSIT RICE’S WHALE AREA

Condition of Approval (COA):

Operators or their recognized representative must notify the Bureau of Ocean Energy Management (BOEM) or Bureau of Safety and Environmental Enforcement (BSEE) as appropriate of their intention to transit through the Rice’s (formerly Bryde’s in 2020 Biological Opinion and subsequent amendment) whale area (from 100 to 400 meter isobaths from 87.5° W to 27.5° N as described in the species’ status review plus an additional 10 km around that area) (see figure below) when this transit is associated with either an initial plan/application or as part of a change to an existing plan/application when either vessel route and/or support base changes. If proposing to transit through any portion of the Rice’s whale area, the BOEM Permit/Plan holder shall submit their notification to transit and concurrence to fulfill the reporting requirements as stated below to BOEM/BSEE (protectedspecies@boem.gov and protectedspecies@bsee.gov). In the case of a post-approval change in vessel route or change in a support base, your intention to transit through the Rice’s whale area should be made by contacting the BOEM or BSEE Point of Contact for the most recent applicable permit or application. Please be advised that changes to the use of a support base may trigger a revised plan (e.g., 30 CFR § 550.283), revised application, or modified permit (for geological and geophysical [G&G] activities). You will be required to follow the requirements defined below as originally outlined (as Bryde's whale) in the 2020 Biological Opinion and April 2021 Amendment to the Incidental Take Statement and Revised Appendices issued by the National Marine Fisheries Service (NMFS). Note these conditions of approval refer to the species as the Rice’s whale (*Balaenoptera ricei*). Until 2021, the species was known as Bryde's whale (*Balaenoptera edeni*).

A. Vessel operators and crews must maintain a vigilant watch for Rice’s whales and slow down, stop their vessel, or alter course, as appropriate and regardless of vessel size, to avoid striking any Rice’s whale. Visual observers monitoring the 500 m vessel strike avoidance zone for Rice’s whales can be either third-party observers or crew members (e.g., captain), but crew members responsible for these duties must be provided sufficient training to distinguish aquatic protected species to broad taxonomic groups, as well as those specific species detailed further below. If the species is indistinguishable, then operators should assume it is a Rice’s whale and act accordingly (see below).
B. If transiting within the Rice’s whale area (figure below), operators must notify BOEM and/or BSEE of their plans prior to transit and include what port is used for mobilization and demobilization and explain why the transit is necessary. If an unavoidable emergency transit through this area occurs (i.e., safety of the vessel or crew is in doubt or the safety of life at sea is in question), it must be reported immediately after the emergency is over and must include all required information referenced herein. After completing transit through the Rice’s whale area, you must prepare a report of transit describing the time the vessel entered and departed the Rice’s whale area, any Rice’s whale sightings or interactions (e.g., vessel avoidance) that occurred during transit, and any other marine mammal sightings or interactions.

Minimum reporting information is described below:

i. The plan, permit or other BOEM or BSEE number used to identify the activity;
ii. Automatic Identification System (AIS), if available;
iii. Time and date vessel entered and exited the Rice’s whale area;
iv. Time, date, water depth, and location (latitude/longitude) of the first sighting of the animal;
v. Name, type, and call sign of the vessel in which the sighting occurred;
vi. Species identification (if known) or description of the animal involved;
vii. Approximate size of animal (if known);
viii. Condition of the animal during the event and any observed injury / behavior (if known);
ix. Photographs or video footage of the animal, if available;
x. General narrative and timeline describing the events that took place;
x. Time and date vessel departed Rice’s whale area;
xii. Trackline (e.g., time, location, and speed) of vessel while within Rice’s whale area; and
xiii. Environmental conditions, including Beaufort Sea State (BSS) and any other relevant weather conditions including cloud cover, fog, sun glare, and overall visibility to the horizon.

C. Upon conclusion of transit, operators must submit reports to protectedspecies@boem.gov and protectedspecies@bsee.gov within 24 hours of transit through the Rice’s whale area. The title of the email should include “Transit through Rice’s Whale Area.”

D. All vessels, regardless of size, must observe a 10-knot, year-round speed restriction in the Rice’s whale area during daylight hours. The only exception to the 10-knot vessel speed restriction would be when observing the speed restriction would cause the safety of the vessel or crew to be in doubt or the safety of life at sea to be in question.

E. All vessels must maintain a minimum separation distance of 500 m from Rice’s whales. If a whale is observed but cannot be confirmed as a species other than a Rice’s whale, the vessel operator must assume that it is a Rice’s whale and take appropriate action.
F. All vessels 65 feet or greater associated with oil and gas activity (e.g., source vessels, chase vessels, supply vessels) must have a functioning Automatic Identification System (AIS) onboard and operating at all times as required by the U.S. Coast Guard. If the U.S. Coast Guard does not require AIS for the vessel, it is strongly encouraged. At minimum, the reporting (as specified within this COA) must be followed and include trackline (e.g., time, location, and speed) data.

G. No transit is permissible at nighttime or during low visibility conditions (e.g., BSS 4 or greater) except for emergencies (i.e., when the safety of the vessel or crew would otherwise be in doubt or the safety of life at sea is in question).

H. If an operator while operating within the Rice’s whale area:
   i. Exceeds the 10-knot vessel speed,
   ii. Does not maintain a 500-meter minimum separation distance from a Rice’s whale, and/or
   iii. Conducts transit during nighttime or during low visibility conditions (e.g., BSS 4 or greater),

the operator must notify BSEE and BOEM by emailing protectedspecies@bsee.gov and protectedspecies@boem.gov within 24 hours. The notification must be reported as a separate and distinct notification to the transit report with the title “Transit Deviation” in the subject line. The notification must provide a detailed explanation as to why the Transit Deviation occurred.

I. This COA does not remove or alter the need to comply with any other applicable regulatory or legal requirements with respect to vessel operations, including as outlined in the amended Appendix C - Gulf of Mexico Vessel Strike Avoidance and Injured/Dead Aquatic Protected Species Reporting Protocols.
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 meters and Monitoring Zone of 500 meters 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: Within 30 days of completion of impact hammering activities, submit a Comprehensive PSO Report to BSEE and NMFS that includes specifics about pile driving activity (e.g., total strikes per pile, drive depth below mud line, total time of impact hammer active), full documentation of methods, results, and interpretation pertaining to all monitoring, description of mitigations applied or reasoning for why a shutdown could not occur, and summary of the dates of the impact hammer activities conducted and all protected species observations.
- 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,

MICHELLE PICOU
Digitally signed by
MICHELLE PICOU
Date: 2022.09.26 17:42:03 -05'00'

for Bernadette Thomas
Regional Supervisor
Office of Leasing and Plans