BEFORE THE HEARING BOARD OF THE

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

In The Matter of:

BETA OFFSHORE OPERATING, LLC

[Proposed] Order Granting Modification to a Regular Variance

Section 42350 of the California Health and Safety Code Case No. 5855-7

[PROPOSED] FINDINGS AND DECISION OF THE HEARING BOARD

Petitioner's request for modification to conditions to a regular variance was heard on the Hearing Board's Consent Calendar on April 23, 2024, as ordered pursuant to notice and in accordance with the provisions of California Health and Safety Code Section 40826. The following members of the Hearing Board were present: Cynthia Verdugo-Peralta, Chair; Robert Pearman, Esq., Vice Chair; Jerry P. Abraham, M.D., MPH, CMQ; Micah Ali and Mohan Balagopalan. Petitioner, Beta Offshore Operating, LLC (hereinafter also referred to as "Petitioner" or "Beta"), represented by Ivan Tether, Attorney at Law, did not appear. The Executive Officer of the South Coast Air Quality Management District ("District"), represented by Josephine Lee, Senior Deputy District Counsel, did not appear. The parties filed with the Hearing Board a Joint Stipulation to Have This Matter Placed on the Consent Calendar of the Hearing Board. Petitioner filed with the Hearing Board the Declaration of Jeff Ortloff (Director of Facilities Engineering for Amplify Energy Corp., Beta's parent company) in support of Status Report and/or Modification Hearing for a regular variance. The parties submitted a Proposed Findings and Decision and Order of the Hearing Board. The public was given an opportunity to testify. The matter was submitted and evidence received. The Hearing Board finds and decides as follows:

Nature of Business and Location of Facility

1. Petitioner, with a facility located on OCS Lease Parcels P300/P301 of the Outer Continental Shelf, approximately nine miles offshore from Huntington Beach, CA

(Facility ID No. 166073), is an oil and gas producer. Beta Offshore includes three offshore platforms, Ellen, Elly and Eureka.

Equipment and Permit to Construct/Operate

2. On December 7, 2023, the Hearing Board granted Beta a regular variance until November 16, 2024 from certain requirements under District Rules 203, 1110.2, 1134, 1100, 2004, 2012 and 3002, as well as permit conditions detailed below in Paragraph 6. The regular variance was granted for the following equipment: Six Internal Combustion (Rig) Engines: Devices D81 through D86, Application/Permit Numbers (A/N) 630158, 630160, 630161, 630221, 630222, and 630224; Six Selective Catalytic Reduction (SCR) systems to be retrofitted to those six IC (Rig) Engines: Devices C197 though C202, A/N 630226, 630230, 630231, 630266, 630267 and 630268; Three Centaur Gas Turbines: Devices D98 through D100, A/N 638605, 638607 and 638608; and Three SCR systems to be retrofitted to those three Centaur Turbines: Devices C203 through C205, A/N 638609, 638610 and 638611. The variance was also granted for Three Saturn Turbines, Devices D95 through D97, A/N 516038, 516039 and 516040, which have since ceased operation in compliance with Variance Condition 1.

SUMMARY OF THE CASE FOR THE REGULAR VARIANCE

3. Beta delivers the crude oil produced from the Platforms to the refinery by pipeline. Beta relies on the six internal combustion (IC) engines and six turbines (now only the three Centaur Turbines) referenced above to operate the platforms. Amendments to District Rules 1110.2 on November 1, 2019 and 1134 on February 4, 2022 require substantial NOx reductions from these engines and turbines. (The three Saturn Turbines have now been replaced by electric motors and that element of compliance has been completed.)

4. While Beta began its Air Quality (AQ) Compliance Project in August 2018 in anticipation of the rule amendments, that progress was interrupted in the fall of 2021 (until April 2023) when the impact of prohibited anchor dragging by two third-party container vessels that snagged and ruptured Beta's pipeline manifested into an oil spill. For eighteen months Beta shut down all production and had little if any idea whether it would ever be able to resume normal operations. During that time, Beta was required by federal law to maintain personnel and facility safety systems on the platforms, yet had no revenue from the platforms. Beta primarily devoted resources to investigating and repairing damage to the pipeline. Beta did timely apply for the District permits required for the AQ Compliance Project.

5. On or about April 7, 2023, three federal agencies, with input from the California State Lands Commission, authorized Beta to resume use of the pipeline which allowed Beta to return to production. Immediately upon receipt of pipeline authorization, Beta reinstated and expedited the AQ Compliance Project, yet determined in the summer of 2023 that the Project could not be completed by the end of the year and that Beta would require variance relief.

Rules and Permit Conditions for Which Beta Is Out of Compliance

6. As of January 1, 2024, Beta's Centaur Turbines and as of December 31, 2024, Beta's Rig Engines were out of compliance and continue to be out of compliance with the following Rules and Permit Conditions because of the interruption in operations triggered by the third-party anchor dragging and pipeline rupture:

- \circ Rule 1134(d)(3), (e)(2) and (e)(3) -- The reduced NOx emission limits cannot be achieved by 01/01/2024
- Rule 2012 Cannot comply until after SCR retrofit for reporting lower NOx limits
- Rule 1110.2(d), (e)(2), (e)(4), (e)(10), (f)(1)(C) and (f)(1)(D) -- The RECLAIM facility cannot meet the applicable NOx emission limit by 12/31/2023
- Rule 1100(d)(1)(B) -- Operator cannot meet the RECLAIM transition requirements for Rule 1110.2 by 12/31/2023, as required by this reference in Rule 1100.
- <u>Permit Condition</u> (PC) A63.15 NOx emissions may exceed 6.1 lb/day limit for Rig Engines.

- PC A63.16 NOx emissions may exceed 117.5 lb/day for gas turbines
- PC D12.8 Temperature gauge cannot be monitored and maintained until SCR is installed to Rig Engines
- PC D12.9 Pressure gauge cannot be monitored and maintained until SCR is installed to Rig Engines
- PC D12.10 Flow meter cannot indicate the urea injection flow rate until SCR is installed to Rig Engines
- PC D12.11 -- Flow meter cannot indicate the urea injection flow rate until SCR is installed (rig engines)
- PC D12.12 -- Temperature gauge cannot be monitored and maintained until SCR is installed (Centaur gas turbines)
- PC D12.13 -- Pressure gauge cannot be monitored and maintained until SCR is installed (Centaur gas turbines)
- PC D12.14 -- Flow meter cannot indicate the urea injection flow rate until SCR is installed (Centaur gas turbines)
- PC D29.5 -- Source test at the outlet of the SCR serving the equipment cannot be performed until SCR is installed (rig engines)
- PC D29.6 -- Source test at the outlet of the SCR serving the equipment cannot be performed until SCR is installed (Centaur gas turbines)
- PC E193.2 -- Cannot assure compliance with backpressure limit until equipment is installed and operating
- PC E448.4 -- Rig engines will be in noncompliance of the I&M plan
- PC E448.9 -- Operator may not be able to comply with timeline requirements of the I&M plan submittal
- PC H23.10 -- Rig engines cannot comply with requirements in Rule 1110.2 by 12/31/2023
- PC H23.9 -- Gas turbines cannot comply with requirements in Rule1134 by 1/1/2024 (Centaur gas turbines)

Rules for Which Beta Achieved Compliance

7. As of January 27, 2024, Beta's <u>Saturn Turbines</u> ceased operation and were

no longer in noncompliance with the following Rules and Permit Conditions:

- Rule 1134(d)(3), (e)(2) and (e)(3) -- The reduced NOx emission limits cannot be achieved by 01/01/2024 (still applies to the Centaur Turbines)
- Permit Condition (PC) A63.16 NOx emissions may exceed 117.5 lb/day for gas turbines (still applies to the Centaur Turbines)
- PC E448.9 -- Operator may not be able to comply with timeline requirements of the I&M plan submittal (still applies to the Centaur Turbines)
- o PC H23.9 -- Gas turbines cannot comply with requirements in

Rule1134 by 1/1/2024 (still applies to the Centaur Turbines)

Variance Conditions and Requested Modification and Clarification

8. Under the Regular Variance, Beta is subject to twenty-two (22) Conditions (Number 13 of 23 was omitted) detailed in the December 15, 2023 Minute Order recording the Hearing Board's grant of the regular variance on December 7, 2023. These conditions together lead to final compliance with all applicable Rules and Permit Conditions. Beta has complied with all Variance Conditions that have required action to this time. Beta requests modification of future deadlines in two Variance Conditions, Condition 5 and Condition 12.d, as detailed below. Beta requests clarification of one Variance Condition, Condition 9, as detailed below, to enumerate scenarios falling within an exception. Beta anticipates compliance with all other Variance Conditions and anticipates achieving final compliance under the Regular Variance before the final compliance date of November 16, 2024.

Condition 5, requested modification: The Fitch Company, which manufactures the Urea Injection Skids which are a component of the SCR systems required for retrofit of the Centaur Turbines, experienced major flooding in mid-December 2023, resulting in destruction two of the three required Skids. Beta documented this destruction by a letter and photographs from the manufacturer. Because of this flood damage, Beta requests that the specific date deadlines for retrofit of the Centaur Turbines in Condition 5 be extended – by one month for the first two and by fifteen days for the third. Beta learned of this problem and delay from a January 24, 2024 letter from the Fitch Company. <u>The requested change to the original condition is shown below with strikethroughs and underlines:</u>

5. Petitioner shall complete the retrofit of the Centaur Turbines according to the following schedule:

a. Within seventy-five (75) days of receipt of the selective catalytic

reduction ("SCR") system for at least one of the three Centaur Turbines and no later than May 30, 2024 June 30, 2024.

- b. For the second of the three Centaur Turbines, within sixty (60) days of completing the commissioning of the first Centaur Turbine and no later than July 31, 2024 <u>August 30, 2024</u>. (Commissioning is required to ensure the safety and reliability of each device, and includes processes and tests to ensure all systems and components have been installed, hooked up, and programmed properly. This also includes management of change (MOC), pre-start safety review (PSSR) and quality assurance/quality control (QA/QC) sign-offs by the company.).
- c. For the third of the three Centaur Turbines, within sixty (60) days of completing the commissioning of the prior two Centaur Turbines and no later than September 30, 2024 October 15, 2024.
- Condition 9, requested clarification: Because safety and environmental protection require operating three Centaur Turbines during maintenance, source testing, commissioning of new turbines and commissioning after turbine retrofit, Beta requests clarification of Condition 9 to expressly state these exceptions to its limit on operating only two Centaurs at one time. Two of Beta's three Centaur Turbines run continuously to prevent possible unplanned power outages. If one of the two running turbines were to fail, it would be necessary to rely on the third Centaur Turbine. Maintenance, testing and commissioning all require some period of running three turbines at once to keep all three turbines in good working order and readily available to replace a failed turbine. Without two turbines running, the platforms would lose critical power which would inhibit the facility safety systems from functioning as designed and would lead to unnecessary risks to facility personnel and the environment. All these scenarios fall within Condition 9's existing exception for "an emergency that creates a risk to the health and safety of personnel and/or environment that cannot be avoided without operating an additional Centaur Turbine." Beta requests clarification that the stated scenarios fall within that exception. The requested change to the original

condition is shown below with underlines:

9. During the term of this variance, Petitioner shall operate no more than any two of the three Centaur Turbines at a given time, except <u>when</u> <u>maintenance or source testing of these Turbines (as described in Paragraph 8 of Petitioner's variance petition) requires operation of three Turbines, during commissioning of a new Centaur Turbine, during commissioning after retrofit of a Centaur Turbine, or in the event of an<u>other</u> emergency that creates a risk to the health and safety of personnel and/or environment that cannot be avoided without operating an additional Centaur Turbine.</u>

Condition 12.d, requested modification: Because of more challenging working conditions (no crane access and safety procedures for working over water) on Platform Ellen, Beta requests more time for retrofitting the 4th Rig Engine, the first Rig Engine on Platform Ellen, by modifying Condition 12.d to allow 30 days instead of 14 days for the retrofit. The requested change to the original condition is shown below with strikethroughs and underlines:

12.d. For the fourth of the six Rig Engines, within fourteen (14) thirty (30) days of completion of structural modification and deck extension on Platform Ellen;

Additional Findings:

9. <u>Final Compliance</u>: Beta can reasonably be expected to achieve compliance by no later than November 16, 2024.

10. <u>Excess Emissions</u>: Beta's actual excess emissions, calculated, reported and paid for month-by-month have proven to be substantially less than calculated in their Petition for the regular variance. For the month of January 2024, net emissions were 517 lbs/day, as compared to the potential to emit (PTE) with no mitigation of 3,495 lbs/day, showing a reduction of 2,978 lbs/day. For the month of February 2024, net emissions were

642 lbs/day, as compared to the PTE with no mitigation of 3,495 lbs/day, showing a reduction of 2,853 lbs/day. For the month of March 2024, net emissions were 670 lbs/day, as compared to the PTE with no mitigation of 3,495 lbs/day, showing a net reduction of 2,825 lbs/day.

11. <u>Harm to Beta if Modifications Not Granted</u>: If the requested modifications to the existing variance are not granted, Beta would be in violation of Conditions 5 and 12.d of the existing Variance. Because the deadlines in question are not resolved by shutdown of the related equipment until compliance is achieved, Beta would face potential revocation of the Variance.

<u>ORDER</u>

THEREFORE, good cause appearing, the Hearing Board orders as follows:

A. Petitioner is granted the following modifications and clarification to the Conditions imposed by the Regular Variance granted on December 7, 2023:

- <u>Condition 5 is modified to read</u>: "Petitioner shall complete the retrofit of the Centaur Turbines according to the following schedule:
 - a. Within seventy-five (75) days of receipt of the selective catalytic reduction ("SCR") system for at least one of the three Centaur Turbines and no later than May 30, 2024 June 30, 2024.
 - b. For the second of the three Centaur Turbines, within sixty (60) days of completing the commissioning of the first Centaur Turbine and no later than July 31, 2024 August 30, 2024. (Commissioning is required to ensure the safety and reliability of each device, and includes processes and tests to ensure all systems and components have been installed, hooked up, and programmed properly. This also includes management of change (MOC), pre-start safety review (PSSR) and quality assurance/quality control (QA/QC) sign-offs by the company.).
 - c. For the third of the three Centaur Turbines, within sixty (60) days of completing the commissioning of the prior two Centaur Turbines and no later than September 30, 2024 October 15,

<u>2024</u>."

- <u>Condition 9 is clarified to read</u>: "During the term of this variance, Petitioner shall operate no more than any two of the three Centaur Turbines at a given time, except <u>when maintenance or source</u> <u>testing of these Turbines (as described in Paragraph 8 of</u> <u>Petitioner's variance petition) requires operation of three Turbines,</u> <u>during commissioning of a new Centaur Turbine, during</u> <u>commissioning after retrofit of a Centaur Turbine, or</u> in the event of another emergency that creates a risk to the health and safety of personnel and/or environment that cannot be avoided without operating an additional Centaur Turbine."
- <u>Condition 12.d is modified to read</u>: "For the fourth of the six Rig Engines, within fourteen (14) thirty (30) days of completion of structural modification and deck extension on Platform Ellen;

B. Other than the modifications and clarifications immediately above, Petitioner is subject to the Conditions imposed upon Petitioner under the Regular Variance granted on December 7, 2023, to the extent these Conditions remain applicable.

BOARD MEMBER: _____

DATED: _____

Prepared by Ivan Tether, Attorney for Petitioner and Reviewed by Josephine Lee, Senior Deputy District Counsel