

1 Respondent, Southern California Edison – Pebbly Beach Generating Station (hereinafter referred to
2 as “Respondent” or “SCE”), was represented by Kelly Henderson. The public was given the
3 opportunity to testify. The matter was submitted, and evidence received. The Hearing Board finds
4 and decides as follows:

5 **FINDINGS OF FACT**

6 1. Petitioner is a body corporate and politic established and existing pursuant to Health
7 and Safety Code §40000, *et seq.* and §40400, *et seq.*, and is the sole and exclusive local agency with
8 the responsibility for comprehensive air pollution control in the South Coast Basin.

9 2. Respondent owns and operates the facility located at 1 Pebbly Beach Road, Avalon,
10 CA 90704 (“Facility”) within the District’s jurisdiction and subject to the District’s regulations.

11 3. Respondent maintains and is responsible for the operation of equipment described in
12 SCAQMD A/N 595203 as INTERNAL COMBUSTION ENGINE, LEAN BURN, NON-
13 EMERGENCY, UNIT NO. 15, DIESEL FUEL, EMD, MODEL 16-710G4B, TWO CYCLE, WITH
14 AFTERCOOLER, TURBOCHARGER, 3900 HP WITH GENERATOR, 2800 KWA, hereinafter
15 “Unit 15.” Unit 15 is vented to air pollution control equipment consisting of a selective catalytic
16 reduction module and a CO oxidation catalyst module, operated pursuant to SCAQMD A/N 548965.
17 Unit 15 is one of six diesel engines providing electric power to Santa Catalina Island.

18 4. In 2017, Respondent performed a zero-time overhaul on Unit 15, which resulted in a
19 “reconstruction” of the engine. Under various federal and SCAQMD rules, including Rule
20 1470(b)(47)(B), a reconstructed engine is considered a “new” engine if the costs of reconstruction
21 equal 50% or more of the lowest-available purchase price of a new, comparably equipped engine.
22 The costs of the 2017 zero-time overhaul of Unit 15 exceeded this 50% threshold, and thus Unit 15
23 was subject to the emission limits and other requirements for “new” engines under those federal and
24 SCAQMD rules.

25 5. When the permit to construct was issued for the zero-time overhaul in 2017, the permit
26 conditions related to Rule 1470 were not changed from those in the then-existing permit to operate,
27 and the 0.01 g/bhp-hr particulate matter (PM) emission limit for new engines under Rule
28 1470(c)(4)(A) was inadvertently omitted from the emission limits applicable to Unit 15 in the permit.

1 1. Respondent shall provide the following to South Coast AQMD (cperri@aqmd.gov)
2 no later than January 4, 2022:

- 3 a. The manufacturer specification sheet showing the maximum allowable back pressure
4 for Unit 15;
- 5 b. The current measured back pressure on Unit 15 at minimum, average, and maximum
6 load;
- 7 c. All correspondence to date from Johnson Matthey and EMD concerning SCE's
8 inquiry as to the feasibility of a diesel particulate filter (DPF) on Unit 15.

9 2. Respondent shall begin to investigate the feasibility of installing an active DPF on
10 Unit 15 by contacting at least one active DPF manufacturer no later than January 4, 2022.
11 Respondent shall provide South Coast AQMD (cperri@aqmd.gov) with all correspondence from
12 the DPF manufacturer concerning that inquiry within one week after the initial contact and every
13 two weeks thereafter as long as discussions with the DPF manufacturer are continuing. Respondent
14 shall provide a report to South Coast AQMD (cperri@aqmd.gov) by January 18, 2022, detailing the
15 findings of the investigation of the feasibility of installing an active DPF on Unit 15, including all
16 technical details relating to the conclusion as to feasibility, any supporting documentation, and any
17 other information necessary for South Coast AQMD to evaluate the validity of the conclusion.

18 3. If either an active or passive DPF is jointly determined by South Coast AQMD and
19 SCE to be technically feasible for Unit 15, Respondent shall submit required permit applications no
20 later than 14 days after the feasibility determination is made, with expedited processing requested
21 and paid for. Respondent shall place a purchase order for the DPF within 7 days of receipt of the
22 South Coast AQMD permit, and shall request and pay for expedited processing by the manufacturer,
23 if available. Respondent shall commence installation of the DPF on Unit 15 within 10 days of receipt
24 of the DPF and shall achieve final compliance no later than 60 days after installation is commenced.

25 4. If SCE and South Coast AQMD do not reach agreement as to whether either an active
26 or passive DPF is feasible, SCE and South Coast AQMD agree to bring the issue back to the Hearing
27 Board for consideration.
28

1 5. Beginning January 10, 2022, Respondent shall: (a) assess the feasibility and the
2 environmental, service, and operational impacts of increasing the use of the microturbines that are
3 both permitted and currently operational at the Pebbly Beach facility; and (b) shall report the results
4 of that assessment to the South Coast AQMD by March 18, 2022. The assessment shall include a
5 conclusion regarding whether at least 1,270,000 kWh of power can be generated by the
6 microturbines each calendar year until Unit 15 is brought into compliance, and if not, the maximum
7 kWh/year of electric power production that can be reasonably and reliably achieved using those
8 microturbines.

9 6. Respondent shall, by January 18, 2022, begin investigating the feasibility of the
10 following:

- 11 a. Using biodiesel or renewable diesel fuel for Unit 15 by contacting at least one
12 biodiesel or renewable diesel supplier and provide South Coast AQMD with all
13 correspondence from the biodiesel or renewable diesel supplier concerning that
14 inquiry;
- 15 b. Installing DPFs on all other engines at Pebbly Beach by contacting at least one DPF
16 manufacturer and provide South Coast AQMD with all correspondence from the
17 DPF manufacturer concerning that inquiry;
- 18 c. Installing a 100kW-250kW fuel cell at the Pebbly Beach facility;
- 19 d. Installing a 100kW-400kW PV solar system at the Pebbly Beach facility and provide
20 South Coast AQMD with the preliminary results of that investigation.

21 7. By April 1, 2022, Respondent shall submit to the South Coast AQMD
22 (cperri@aqmd.gov and mreichert@aqmd.gov) a report and preliminary action plan describing
23 options determined to be infeasible and evaluating feasible options resulting from the analyses
24 described in Conditions 5 and 6 (and any other options or combinations of options considered by
25 Respondent) and outlining the strategy selected from these options. In evaluating these options and
26 designing a strategy, Respondent shall examine whether some subset or smaller version of the
27 option(s) would be feasible and shall endeavor in good faith to find one or more options feasible for
28 implementation. The report shall include for all options considered, whether determined to be

1 feasible or infeasible, all technical details relating to the analysis, all supporting documentation, and
2 any other information necessary for South Coast AQMD to independently evaluate Respondent's
3 determinations and conclusions.

4 8. By July 8, 2022, Respondent shall submit to the South Coast AQMD
5 (cperri@aqmd.gov and mreichert@aqmd.gov) a final plan including detailed descriptions of the
6 proposed solution and associated increments of progress and deadlines by which each of the stated
7 milestones shall be met. Respondent shall offer to consult with the South Coast AQMD by early
8 August 2022.

9 9. If the South Coast AQMD does not object to Respondent's final selection by August
10 5, 2022, Respondent shall submit complete applications to South Coast AQMD no later than August
11 19, 2022 for a Permit to Construct as necessary for any new equipment needed to achieve the
12 selection. Respondent shall request the application be reviewed on an expedited basis and pay all
13 applicable fees at the time the application is submitted. Respondent shall also submit and request
14 and pay for expedited processing, if available, any required applications to local, state, or federal
15 agencies for necessary permits by August 19, 2022.

16 10. Respondent shall complete and issue all necessary purchase orders for any equipment
17 necessary to achieve the strategy set forth in Conditions 8 and 9 within 30 days of the issuance of
18 the last of all required agency approvals, including the South Coast AQMD Permit to Construct.

19 11. If Respondent will be implementing a plan developed under Conditions 5-10,
20 Respondent shall install all necessary equipment and have the equipment fully operational within
21 six months of either receiving a South Coast AQMD Permit to Construct and all necessary permits
22 from other agencies, or receiving the required equipment, whichever comes later.

23 12. Respondent has complied with Condition/Increment of Progress Nos. 1 through 10
24 (inclusive) of the Findings and Decision and Order of this Board adopted January 4, 2022.
25 Respondent anticipates that it will be able to demonstrate compliance with Condition/Increment of
26 Progress No. 11 by December 31, 2022. After evaluation of the potential options, Respondent chose
27 to proceed with installing a catalyst on Unit 15 to meet the emission requirements of Rule 1470.
28 Respondent expects to begin the replacement of Unit 15's catalyst in September 2022, after which

1 two emissions source tests must be completed (the first within 90 days of installation and the second
2 within 90 days of the first test). The permit expires on March 31, 2023. If the installation can be
3 successfully completed in September 2022, Respondent expects to complete the required emissions
4 source tests by December 31, 2022. If the installation is delayed beyond September 2022,
5 Respondent will notify the District by September 30 and provide an estimated installation date.

6 **CONDITIONS AND INCREMENTS OF PROGRESS**

7 **FROM ORDER ISSUED JANUARY 23, 2023**

8 1. Respondent shall complete installation of the catalyst on Unit 15 by September 30,
9 2022, unless it notifies the District by September 30, 2022, that it requires additional time. Such
10 notification shall be made to cperri@aqmd.gov, mreichert@aqmd.gov, and ishine@aqmd.gov and
11 shall include the reasons requiring an extension of time for installation. If such a notification is made,
12 Respondent shall complete installation of the catalyst on Unit 15 by October 21, 2022.

13 2. Respondent shall complete two emissions source tests on Unit 15 after the installation
14 of the catalyst. The first shall be completed within 90 days of installation of the catalyst, and the
15 second shall be completed at least 60 days, but no later than 90 days, of the first test (or re-test, if
16 such a re-test is performed under condition 4(a)).

17 3. Respondent shall request expedited preliminary results from both source tests of Unit
18 15 with the newly installed catalyst. Respondent agrees to notify the District (cperri@aqmd.gov,
19 mreichert@aqmd.gov, and ishine@aqmd.gov) of the results within 5 days of receipt of those
20 preliminary results.

21 4. If the preliminary results from the first source test show that Unit 15 is not meeting
22 the requirements of Rule 1470, Respondent shall determine whether actions can be taken such that a
23 re-test may demonstrate compliance.

24 a) If Respondent believes steps can be taken such that a re-test would demonstrate
25 compliance, Respondent shall, within 10 days of the preliminary test results,
26 provide South Coast AQMD with evidence that the reason the catalyst did not
27 reduce emissions to the required level is due to an issue that can be resolved with
28 equipment modifications prior to the re-test. Respondent shall perform any

1 necessary actions and shall make all reasonable efforts to complete a re-test within
2 15 days of the original source test. Respondent shall request expedited preliminary
3 test results from this re-test. If the preliminary results of the repeated source test
4 show that Unit 15 is still not meeting the requirements of Rule 1470, within 60
5 days of receipt of the preliminary re-test results, Respondent shall comply with
6 condition 4(c).

7 b) If Respondent believes no steps can be taken such that a re-test may demonstrate
8 compliance, within 60 days of receipt of the preliminary test results, Respondent
9 shall comply with condition 4(c).

10 c) If triggered, Respondent shall submit to the District (cperri@aqmd.gov,
11 mreichert@aqmd.gov, and ishine@aqmd.gov) within 60 days Respondent's
12 proposed plan and timeline to bring Unit 15 into compliance with District Rule
13 1470(c)(4)(A). Respondent shall not be obligated to commence procurement of a
14 unit that cannot comply with Rule 1135 or the conditions of the Permit to Construct
15 issued by the District. [Condition 4c was triggered and Respondent has submitted
16 an application for a Permit to Construct for a replacement generator for Unit 15].

17 5. If the first source test results (including a retest) show that Unit 15 is in compliance
18 with Rule 1470, but the second preliminary test results show that Unit 15 will not meet the
19 requirements of 1470, Respondent shall determine whether actions can be taken such that a re-test of
20 the second test may demonstrate compliance.

21 a) If Respondent believes steps can be taken such that a re-test would demonstrate
22 compliance, Respondent shall, within 10 days of the preliminary test results,
23 provide South Coast AQMD with evidence that the reason the catalyst did not
24 reduce emissions to the required level is due to an issue that can be resolved, and
25 any equipment modifications planned for the re-test. Respondent shall perform
26 any necessary actions and shall make all reasonable efforts to complete a re-test
27 within 15 days of the second source test. Respondent shall request expedited
28 preliminary test results from this re-test. If the preliminary results of the repeated

1 source test show that Unit 15 is still not meeting the requirements of Rule 1470,
2 within 60 days of receipt of the preliminary re-test results, Respondent shall
3 comply with condition 4(c).

4 6. No later than September 30, 2022, Respondent shall submit to the District
5 (cperri@aqmd.gov, mreichert@aqmd.gov, and ishine@aqmd.gov) the results of the grid stability
6 study, which shall include an analysis of the maximum percentage of inverter-based technology is
7 feasible at the Facility. [Further conditions for the grid stability study are as set forth below in the
8 Order, paragraphs 3 and 4].

9 7. No later than October 1, 2022, Respondent shall submit to the District
10 (cperri@aqmd.gov, mreichert@aqmd.gov, and ishine@aqmd.gov) the status of the design and
11 installation of 100 kW of solar photovoltaic panels on new carports at two locations at PBGS (the
12 west side of the main building and the east side of the main building over existing parking spaces
13 along the shoreline). Respondent shall complete installation of these solar photovoltaic panels no
14 later than January 31, 2026.

15 8. Nothing in this Order requires SCE to withdraw its pending application for a Permit
16 to Construct a third U.S. EPA Tier 4 Final-certified diesel generator (if Unit 15 cannot be brought
17 into compliance with Rule 1470 and must be removed from service).

18 **CONDITIONS AND INCREMENTS OF PROGRESS**

19 **FROM ORDER ISSUED JULY 25, 2023 (ORDER SIGNED AUGUST 8, 2023)**

20 1. Respondent shall confer with District staff regarding whether it is required to re-
21 submit its application for a Permit to Construct a replacement generator for Unit 15. If the
22 application must be resubmitted, Respondent shall do so no later than August 15, 2023.

23 [Completed.]

24 2. Respondent shall, no later than August 4, 2023, provide the District
25 (cperri@aqmd.gov, mreichert@aqmd.gov, and ishine@aqmd.gov) with the Building and Safety
26 Department, Fire Code, and State Fire Marshal regulations upon which it is relying regarding the
27 operation and limitations of its propane storage tanks and propane fuel deliveries, including but not
28 limited to required distance from buildings and water suppression requirements. To the extent

1 Respondent is relying on verbal representations from the Fire Chief or other Authority Having
2 Jurisdiction, Respondent shall request no later than July 28, 2023, a written determination, decision,
3 or explanation from that entity explaining their conclusions regarding the propane storage tanks and
4 propane fuel deliveries at the Facility. Respondent shall ask that this written explanation be provided
5 as quickly as possible and shall provide it to the District no later than two (2) business days after
6 receipt. [Completed.]

7 3. Respondent shall, as part of its grid reliability study, perform the following repower
8 scenarios using HOMER Pro® microgrid software using these configuration descriptions and
9 assumptions: [Completed.]

10 a. Assumptions for both configurations:

11 i. 10% minimum charge on the existing battery system

12 ii. Load demand forecasted data for 2026 reflecting a peak of 6 MW and
13 approximately 31 GWh annual loading

14 iii. Existing NaS BESS modeled as 1 MW / 7 MWh with a round-trip-
15 efficiency of 85%

16 iv. Annual consumption of 500,000 gallons of diesel

17 v. Annual consumption of 2.1 million gallons of propane

18 vi. No minimum spinning reserve requirement

19 b. Configuration 1

20 i. Utility Scale Renewable PV System (30% of annual load)

21 ii. Three Tier 4 Final Diesel Generators (1.825 MW each)

22 iii. Existing NaS Battery System

23 iv. Five new battery systems (1 MW each)

24 v. Propane near zero emission (NZE) technology with a combined rating of at
25 least 2.25 MW (65% of annual load)

26 c. Configuration 2

27 i. Utility Scale Renewable PV System (30% of annual load)

28 ii. Three Tier 4 Final Diesel Generators (1.825 MW each)

1 iii. Existing NaS Battery System

2 iv. Five new battery systems (1 MW each)

3 v. Propane NZE technology with a combined rating of at least 2 MW (50% of
4 annual load)

5 d. If both parties agree an assumption is in whole, or in part, infeasible, they may
6 mutually agree to an appropriate modification thereof. [Completed.]

7
8 4. Respondent shall complete the grid reliability study and submit it to the District
9 (cperri@aqmd.gov, mreichert@aqmd.gov, and ishine@aqmd.gov) no later than August 30, 2023,
10 but on good cause at the request of the Respondent, the District may grant an extension to September
11 29, 2023. [Completed.]

12 5. Respondent shall, no later than August 4, 2023, provide the District
13 (cperri@aqmd.gov, mreichert@aqmd.gov, and ishine@aqmd.gov) with records demonstrating the
14 amount of propane fuel used for utility purposes on Catalina Island for the last three years.
15 [Completed.]

16 **CONCLUSION**

17 1. The operation of the Equipment will result in a violation of the PM limit for “new”
18 engines in District Rule 1470 whenever Unit 15 is operated.

19 2. The issuance of the prayed-for Stipulated Order for Abatement is not expected to
20 result in the closing or elimination of an otherwise lawful endeavor, but if it does result in such
21 closure or elimination, it would not be without a corresponding benefit in reducing air contaminants.

22 3. This Stipulated Order for Abatement is not intended to be nor does it act as a
23 variance.

24 4. The issuance of this Stipulated Order for Abatement upon a fully noticed hearing
25 will not constitute a taking of property without due process of law.

26 5. There is good cause to issue this Stipulated Order for Abatement to assure that
27 operation of the Equipment is done in a manner that will minimize and mitigate excess emissions
28 and bring the Facility into compliance as expeditiously as practicable.

ORDER

1
2 THEREFORE, based on these findings of fact and good cause appearing, the Hearing Board
3 hereby orders Respondent to immediately cease and desist from violating District Rule 1470, or in
4 the alternative comply with the following conditions and increments of progress:

5 ~~1. Respondent shall confer with District staff regarding whether it is required to re-~~
6 ~~submit its application for a Permit to Construct a replacement generator for Unit 15. If the~~
7 ~~application must be resubmitted, Respondent shall do so no later than August 15, 2023.~~

8 ~~2.1. Respondent shall, no later than August 4, 2023, provide the District~~
9 ~~(eperri@aqmd.gov, mreichert@aqmd.gov, and ishine@aqmd.gov) with the Building and Safety~~
10 ~~Department, Fire Code, and State Fire Marshal regulations upon which it is relying regarding the~~
11 ~~operation and limitations of its propane storage tanks and propane fuel deliveries, including but not~~
12 ~~limited to required distance from buildings and water suppression requirements. To the extent~~
13 ~~Respondent is relying on verbal representations from the Fire Chief or other Authority Having~~
14 ~~Jurisdiction, Respondent shall request no later than July 28, 2023, a written determination, decision,~~
15 ~~or explanation from that entity explaining their conclusions regarding the propane storage tanks and~~
16 ~~propane fuel deliveries at the Facility. Respondent shall ask that this written explanation be provided~~
17 ~~as quickly as possible and shall provide it to the District no later than two (2) business days after~~
18 ~~receipt.~~

19 ~~3.1. Respondent shall, as part of its grid reliability study, perform the following repower~~
20 ~~scenarios using HOMER Pro® microgrid software using these configuration descriptions and~~
21 ~~assumptions:~~

22 ~~a. Assumptions for both configurations:~~

23 ~~i. 10% minimum charge on the existing battery system~~

24 ~~ii.i. Load demand forecasted data for 2026 reflecting a peak of 6 MW and~~
25 ~~approximately 31 GWh annual loading~~

26 ~~iii.i. Existing NaS BESS modeled as 1 MW / 7 MWh with a round trip~~
27 ~~efficiency of 85%~~

28 ~~iv.i. Annual consumption of 500,000 gallons of diesel~~

~~v.i. Annual consumption of 2.1 million gallons of propane~~

~~vi.i. No minimum spinning reserve requirement~~

~~b.a. Configuration 1~~

~~i. Utility Scale Renewable PV System (30% of annual load)~~

~~ii.i. Three Tier 4 Final Diesel Generators (1.825 MW each)~~

~~iii.i. Existing NaS Battery System~~

~~iv.i. Five new battery systems (1 MW each)~~

~~v.i. Propane near zero emission (NZE) technology with a combined rating of at least 2.25 MW (65% of annual load)~~

~~e.a. Configuration 2~~

~~i. Utility Scale Renewable PV System (30% of annual load)~~

~~ii.i. Three Tier 4 Final Diesel Generators (1.825 MW each)~~

~~iii.i. Existing NaS Battery System~~

~~iv.i. Five new battery systems (1 MW each)~~

~~v.i. Propane NZE technology with a combined rating of at least 2 MW (50% of annual load)~~

~~d.a. If both parties agree an assumption is in whole, or in part, infeasible, they may mutually agree to an appropriate modification thereof.~~

~~4.1. Respondent shall complete the grid reliability study and submit it to the District (cperri@aqmd.gov, mreichert@aqmd.gov, and ishine@aqmd.gov) no later than August 30, 2023, but on good cause at the request of the Respondent, the District may grant an extension to September 29, 2023.~~

~~5.1. Respondent shall, no later than August 4, 2023, provide the District (cperri@aqmd.gov, mreichert@aqmd.gov, and ishine@aqmd.gov) with records demonstrating the amount of propane fuel used for utility purposes on Catalina Island for the last three years.~~

1. Respondent shall, no later than March 1, 2024 February 9, 2024, submit to the District (cperri@aqmd.gov, mreichert@aqmd.gov, and ishine@aqmd.gov) the following information:

- 1 a. Data over the past five years related to daily temperature impacts on maximum
2 propane storage tank fill.
- 3 b. Information and/or documentation from the propane storage tank
4 manufacturer(s), propane storage tank maintenance vendor(s), or other impartial
5 third parties upon which SCE is relying regarding maximum propane tank levels
6 during propane tank maintenance events and at elevated temperatures (with
7 specific temperature reference points as relevant).
- 8 c. Records of the three most recent propane tank maintenance events which
9 required reduced propane tank levels performed at the facility.
- 10 d. Records from the vendor(s) performing the propane tank maintenance of the
11 date(s) of the last three propane tank maintenance events.
- 12 e. Documents supporting the recommended and/or required schedule for propane
13 tank maintenance provided by the propane tank manufacturer and/or other source
14 relied upon by Respondent.
- 15 f. Data and explanation as to why the propane tank levels were low in late 2022 if
16 propane tank maintenance was not being performed at that time.

17 ~~1.2.~~ The Parties shall return to the Hearing Board for a status and modification hearing
18 on November 7, 2024.

19 ~~2.3.~~ The Hearing Board may modify this Order for Abatement without the stipulation of
20 the parties upon a showing of good cause therefore, and upon making the findings required by Health
21 and Safety Code Section 42451(a) and District Rule 806(a). Any modification of the Order shall be
22 made only at a public hearing held upon 10 days published notice and appropriate written notice to
23 Respondent.

24 ~~3.4.~~ Unless terminated earlier, the Hearing Board shall retain jurisdiction over this matter
25 until March 31, 2026, at which time this Order for Abatement, if it has not been properly extended,
26 shall expire.

27 ~~4.5.~~ This Order for Abatement does not act as a variance, and Respondent is subject to
28 all rules and regulations of the District, and with all applicable provisions of California law. Nothing

1 herein shall be deemed or construed to limit the authority of the District to issue Notices of Violation,
2 or to seek civil penalties, criminal penalties, or injunctive relief, or to seek further orders for
3 abatement, or other administrative or legal relief.

4 **FOR THE BOARD:** _____

5
6 **DATED:** _____

7 Reviewed by Kelly Henderson, Attorney for Respondent

8 Prepared by Mary J. Reichert, Attorney for Petitioner
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