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8 **BEFORE THE HEARING BOARD OF THE**
9 **SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

10 **In the Matter of**

11 COLTON POWER, LP – CENTURY [Facility ID
12 No. 182561]

13 Petitioner.

14 vs.

15 SOUTH COAST AIR QUALITY
16 MANAGEMENT DISTRICT.

17 Respondent.

CASE NO. 6167-4

**DECLARATION OF JOSEPH
SHEPHARD**

Hearing Date: March 26, 2024
Time: 9:30 a.m.
Place: Hearing Board
South Coast Air Quality
Management District
21865 Copley Drive
Diamond Bar, CA 91765

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20 **DECLARATION OF JOSEPH SHEPHARD**

21 I, Joseph Shephard, declare as follows:

- 22 1. I am employed as the plant manager overseeing the maintenance and operations of the
23 Colton Power, LP-Century electric power generating facility (“Facility”). I am directly
24 employed by North America Energy Services (“NAES”), which is responsible for
25 operating the Facility. I either have first-hand knowledge of events or have reviewed
26 information and data related to this petition for regular variance, and I am competent to
27 testify to the facts set forth herein.
- 28 2. The Facility is an electricity generating plant utilizing four simple cycle 10.5-MW natural

1 gas-fired combustion turbines. The Facility’s main purpose is to provide electricity to the
2 City of Colton in times of peak demand.

3 3. In early September 2023, Facility management was reorganized, and new plant
4 management personnel were assigned operations and maintenance responsibilities for the
5 Facility. I began managing the Facility at this time as part of this reorganization. As part
6 of this transition, the Facility’s management team has been implementing system
7 evaluations and performing maintenance where needed. I oversee personnel tasked with
8 directing all Operations and Maintenance activities at the plant. My responsibilities
9 include ensuring the safe and efficient operation of the Facility and ensuring that the plant
10 is operated in compliance with applicable safety, environmental, and power generating
11 requirements. This includes oversight of personnel that conduct air quality testing and
12 activities pursuant to the Facility’s Title V Permit to Operate.

13 4. As part of the maintenance review conducted after I began managing the Facility, it was
14 determined that a new Selective Catalytic Reduction (“SCR”) catalyst was required for
15 each of the four combustion turbines at the Facility, including Unit D15. It was
16 determined that the SCR catalyst replacement required an application to South Coast Air
17 Quality Management District (“AQMD”) for a RECLAIM/Title V Minor Permit
18 Revision. This application was filed on November 21, 2023.

19 5. On December 7, 2023, Facility engineers attempted to operate Unit D15 to confirm it
20 would perform properly for the ammonia (NH₃) slip test. At that time, the engineers and
21 plant operators were unable to keep Unit D15 operating. The engineers and operators
22 attempted to complete repairs that day but were unable to do so.

23 6. From December 8th through December 12th, Facility staff set up data ports to enable
24 remote access into the unit for tuning. SISO Engineering, a controls engineering
25 company, assisted with the remote set up. On December 13th, the remote access was
26 tested. On December 14th, staff test ran the unit for remote testing from by an outside
27 contractor who specializes in the Facility’s GE10 model turbines. During the test, the
28 unit faulted and tripped during several of the data collecting runs. A maximum of 2 MWs

1 was achieved and only for limited times. On December 14th, Colton Power engineers
2 again tried to fix Unit D15, but were still unable to keep the unit running. It was
3 determined that it would not be possible to run the unit during the scheduled ammonia
4 slip test.

- 5 7. South Coast Air Quality Management Rule 1134(e)(2)(C)(iii) states that ammonia slip
6 testing of natural gas fired turbines, such as the ones at the Facility, must be conducted by
7 the end of the calendar year. Condition D28.1 of the Facility's Permit to Operate
8 contains a similar condition. South Coast AQMD testing standards require that the unit
9 operate at normal load. However, Unit D15 could not operate consistently for the length
10 of time or load required for testing by the end of 2023, and could not respond to a City of
11 Colton dispatch demand.
- 12 8. On December 19, 2023, the Facility was granted an ex parte emergency variance from
13 South Coast AQMD Rules requiring the annual ammonia slip test for Turbine Unit D15,
14 which includes 203(b), 2004(f)(1) and 3002(c)(1)[from Section D, Condition No. 28.1 of
15 Title V/RECLAIM Facility Permit to Operate 182561} and Rule 1134(e)(2)(C)(iii).
- 16 9. On January 11, 2024, South Coast AQMD granted a short variance from South Coast
17 AQMD Rules requiring the annual ammonia slip test for Turbine Unit D15, which
18 includes 203(b), 2004(f)(1) and 3002(c)(1){from Section D, Condition No. 28.1 of Title
19 V/RECLAIM Facility Permit to Operate 182561} and Rule 1134(e)(2)(C)(iii). The short
20 variance ends March 29, 2024.
- 21 10. Subsequent to issuance of the short variance, an outside contractor tested and assessed
22 Unit D15. The outside contractor calibrated and tuned the combustor, and was ultimately
23 successful in starting Unit D15.
- 24 11. At the time of the short variance, the Facility expected to have the maintenance and
25 repairs, including replacement of the twenty-year old SCR catalyst, completed by the end
26 of March 2024.
- 27 12. The South Coast Air Quality Management District's online Facility Information Detail
28 ("F.I.N.D.") indicates that the Facility's applications for minor permit revisions to allow

1 installation of new SCR catalyst began the required 45-day period for review by the U.S.
2 Environmental Protection Agency (“EPA”) on or about February 22, 2024. Based on this
3 updated information, the Facility is not expected to have the requisite permit allowing
4 installation of the new SCR catalyst before mid-April.

5 13. When the Facility sought and obtained the short variance, Petitioner anticipated the
6 permit to construct for the new SCR catalyst would be issued in sufficient time for the
7 installation of the new SCR catalyst for Unit D15 before expiration of the short variance
8 deadline. However, it is now apparent that the required 45-day EPA review of the minor
9 permit application for the new SCR catalyst will not be completed in time for the Facility
10 to install the new SCR catalyst and perform the ammonia slip test by March 29, 2024, the
11 end date of the short variance.

12 14. There are no anticipated excess emissions associated with the condition of Unit D15.
13 While Unit D15 is currently operable, it is not operating as usual. Unit D15 is not being
14 marketed for normal unit operation prior to installation of new SCR catalyst in order to
15 avoid unnecessary operation of D15. However, it is available to the City of Colton under
16 the most extreme electrical emergency conditions. Furthermore, D15 will not be
17 available during the short period (approximately 1-2 weeks) needed for installation of the
18 new SCR catalyst. As such, this regular variance is not anticipated to cause the Facility
19 to exceed any emission limit.

20 15. Although Turbine Unit D15 is repaired and now operable, the Facility is taking measures
21 to avoid operation until the new SCR catalyst is installed. Unit D15 will only be operated
22 if necessary to serve the City of Colton during an electrical emergency. Because of this,
23 the Facility cannot predict whether it will operate Unit D15 under normal conditions at
24 normal load before the new SCR catalyst is installed. Therefore, the ammonia slip test
25 for Unit D15 cannot reasonably be scheduled by the end of the short variance period.

26 16. If Unit D15 is kept offline, the Facility will incur penalties pursuant to the California
27 Independent System Operator’s (“CAISO”) Resource Adequacy Availability Incentive
28 Mechanism (“RAAIM”). RAAIM is a penalty imposed by CAISO where Resource

1 Adequacy Resources, such as the Facility, do not meet defined availability or
2 performance thresholds. Colton Power estimates that these penalties would be
3 approximately \$35,000 per month if Unit D15 is kept offline. Furthermore, Colton Power
4 has not been able to procure replacement Resource Adequacy capacity that may help it
5 avoid RAAIM penalties for the full period prior to anticipated SCR catalyst replacement,
6 and even if available, such replacement capacity is expected to be much more expensive
7 than incurring RAAIM penalties.

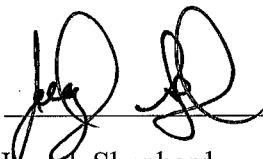
8 17. The existing SCR catalyst will be in place during any potential operation of Unit D15
9 during an extreme electric emergency condition. The Continuous Emissions Monitoring
10 System (“CEMS”) for Unit D15 will also be operated and maintained throughout the
11 requested regular variance period. Furthermore, the Facility maintains a fuel flow meter
12 to Unit D15 that records data establishing non-operation or operation. Records
13 associated with the CEMS and the fuel flow meter will be kept during the period of the
14 regular variance and can be provided to the South Coast Air Quality Management District
15 upon request.

16 18. I have reviewed Health and Safety (H&S) Code Section 41700. The suspension of
17 operation of Unit D15 pending repair and related delay of the ammonia slip test beyond
18 the 2023 calendar year are not expected to result in a violation of H&S Code Section
19 41700.

20 19. Without a regular variance, the Facility will be in violation of South Coast AQMD rules
21 due to the inability to adequately perform the annual ammonia slip test for Unit D15,
22 which was due by March 29, 2024 pursuant to the previously granted short variance.
23

24 I declare under penalty of perjury under the laws of the State of California that the forgoing is
25 true and correct, and that this declaration was executed on March 14, 2024 in Tracy, California.

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27 DATED: March 14, 2024

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By: 
Joseph Shephard

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