

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



June 6, 2022

GA2022-13MS

Timothy Menzel
Mojave Solar LLC
42134 Harper Lake Road
Hinkley, CA 92347

SUBJECT: Audit of Atlantica Mojave Solar Project

Mr. Menzel,

On behalf of Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission (CPUC), James Miller of my staff conducted a powerplant audit of The Mojave Solar Project from February 28, 2022 to March 4, 2022.

During the audit, my staff observed plant operations, inspected equipment, reviewed data, interviewed plant staff, and identified violations of General Order (GO) 167-B. A copy of the audit findings itemizing the violations is enclosed. Please advise me no later than July 6, 2022, by electronic or hard copy, of all corrective measures taken by The Mojave Solar Project to remedy and prevent the recurrence of such violations. Your response should include a Corrective Action Plan with a description and completion date of each action and measure completed.

If you wish to make a claim of confidentiality covering any of the information in the report, you may submit a confidentiality request pursuant to Section 15.4 of GO 167-B, using the heading "General Order 167-B Confidentiality Claim". The request should be sent to James Miller with a copy to Nika Kjensli (nika.kjensli@cpuc.ca.gov) and the GO 167-B inbox (GO167@cpuc.ca.gov) by July 6, 2022.

If you have any questions concerning this audit, you can contact James Miller at James.Miller@cpuc.ca.gov or (213) 660-8898.

Sincerely,

A handwritten signature in blue ink that reads "Fadi Daye".

Fadi Daye, P.E.
Program and Project Supervisor
Electric Safety and Reliability Branch
Safety and Enforcement Division
California Public Utilities Commission

Attachment: Findings

Cc: Lee Palmer, Director, Safety and Enforcement Division, CPUC
Nika Kjensli, Program Manager, ESRB, CPUC
Majed Ibrahim, Senior Utilities Engineer, ESRB, CPUC
James Miller, Utilities Engineer, ESRB, CPUC

I. Findings Requiring Corrective Action

Findings 1-16: Maintenance Findings

GO 167-B, Appendix D, Maintenance Standard 9: Conduct of Maintenance states:

Maintenance is conducted in an effective and efficient manner, so equipment performance and material condition effectively support reliable plant operation.

1. ERSB staff observed damaged insulation and insulation covers on pipes throughout both the Alpha and Beta Plants. These included pipes transporting both steam and heat transfer fluid (HTF).



An example of damaged insulation at the Beta Plant.

Findings 2-8 were observed at the Alpha Plant.

2. Several pipes were leaking water in the reverse osmosis building.
3. HTF pipes had leaking valves near sites 110G, 118G, and 150G.
4. An elbow shield was missing near location 124G in the solar field.

5. The inlet to the flow separator had a leaking valve.
6. Water filter A-MF-436B was missing its plexiglass cover.
7. The housing of pump 436D was damaged.
8. The sign on the eye wash station outside the water treatment building had fallen down.

Findings 9-16 were observed at the Beta Plant.

9. The valve on the pressure gauge of pump MP444-C was leaking.
10. The pressure gauge on pump MP444-A was broken.
11. The underside of Filtration Unit C presented with corrosion and peeling paint.
12. Filtration Unit B had a water leak.
13. The “Confined Space” sign on the soda ash storage tank was damaged.
14. The drain level switch on the A-train super heater was leaking water.
15. The eye wash station near the A-train Super heater had a damaged sign.
16. The pressure gauge on the feedwater storage tank was malfunctioning.

Finding 17: Tripping Hazard

GO 167-B, Appendix E, Operation Standard 8: Plant Status and Configuration states:

Station activities are effectively managed, so plant status and configuration are maintained to support safe, reliable and efficient operation.

17. ESRB staff observed an unsafe thick hose in the walkway near tank SK017-X.



A hose in the walkway at the Beta Plant.

Finding 18: Missing Secondary Containment

GO 167-B, Appendix E, Operation Standard 10: Environmental Regulatory Requirements states:

Environmental regulatory compliance is paramount in the operation of the generating asset. Each regulatory event is identified, reported and appropriate action taken to prevent recurrence.

40 CFR § 264.193 - Containment and detection of releases states in part:

In order to prevent the release of hazardous waste or hazardous constituents to the environment, secondary containment that meets the requirements of this section must be provided

18. The fire houses at both plants are equipped with large diesel fuel storage tanks that lacked secondary containment measures to control spills and leaks.

II. Documents Reviewed

ESRB Staff reviewed the following records and documents:

Maintenance Records

1. Spare Parts Checklist
2. Backlog Work Orders
3. Closed Work Orders
4. Weekly Turbine Test Results

Air and Water Permits

5. Cooling Towers
6. HTF Expansion System
7. Carbon Absorption
8. Diesel Engines
9. Gasoline Dispensing
10. Groundwater

Procedures

11. Environmental Impact
12. Hot Work Permit Checklist
13. Power Block Inspection of Watch Checklist
14. Control of Documents and Records
15. Document Control
16. Hazard Identification
17. Incident Response
18. Operations Supervisor
19. Control Room Operator
20. Water Treatment Operator
21. Solar Field Operator
22. Warehouse Assistant
23. Power Block Operator
24. Management of Human Resources
25. Annual Facility Operating Plan
26. Spill Prevention, Control, and Countermeasures
27. Bioremediation for HTF Contaminated Soil
28. Conditions of Compliance for Plant Procedures
29. Daily Operation Report
30. HTF System Inspection, Monitoring, and Maintenance Plan
31. Maintenance Plans in SAP
32. EHS Management System

- 33. Maintenance Contracting Strategy
- 34. Solar Field Operator Daily Routine
- 35. Operational Injury and Illness Prevention Program
- 36. Safety Clearance Lockout and Tagout
- 37. Meteorological Instrumentation Calibration Requirements
- 38. Calibration Report for Transmitters
- 39. Monitoring of the Electrical System
- 40. Preventative Culture General Procedure
- 41. Protocol for the Dissemination of Operations and Maintenance Knowledge
- 42. Plant Operation Manual
- 43. Logbooks and Operations Records
- 44. Solar Field Valves
- 45. Operations Procedure for Readiness, Long-term Storage and Flow-assisted Corrosion
- 46. Startup and Shut-down Checklists

Safety

- 47. Evacuation Procedure and Drill Records
- 48. Fire Protection System
- 49. Visitor Safety Orientation Materials
- 50. OSHA Logs
- 51. Confined Space Procedure
- 52. Injury and Illness Prevention Program
- 53. Hazardous Materials Safety Data Sheets
- 54. Safety Training Records
- 55. Fire Watch Sheets
- 56. Monthly Fire Extinguisher Inspection Records
- 57. Safety Shower Checklist Records