

## PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



March 30, 2023

Brett Corkill  
Project Engineer  
50 W. Liberty Street, Suite 640  
Reno, NV 89501

**SUBJECT: Generation Audit of Mustang Two Solar – Audit Number GA2023-03MS**

Dear Mr. Corkill:

On behalf of the Generation Section, Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission (CPUC), Calvin Choi of ESRB staff conducted a generation audit of Mustang Two Solar from February 27, 2023, through March 2, 2023.

During the audit, ESRB 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 by email no later than April 27, 2023, by electronic copy, of all corrective measures taken by Mustang Two Solar 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. For any violations not corrected, please provide the projected completion dates to correct the violations and to achieve full compliance with GO 167-B.

Please submit your response to Calvin Choi at [Calvin.Choi@cpuc.ca.gov](mailto:Calvin.Choi@cpuc.ca.gov). Please note that although Mustang Two Solar has been given 30 days to respond, it has a continuing obligation to comply with all applicable GO 167-B requirements; therefore, the response period does not alter this continuing duty.

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 Calvin Choi with a copy to me and the GO 167-B inbox [GO167@cpuc.ca.gov](mailto:GO167@cpuc.ca.gov) by April 13, 2023.

Sincerely,

A handwritten signature in blue ink, appearing to read "Banu Acimis".

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

Attachment: CPUC Generation Audit Findings

Cc: Lee Palmer, Director, Safety and Enforcement Division, CPUC  
Nika Kjensli, Program Manager, ESRB, CPUC  
Calvin Choi, Senior Utilities Engineer (Specialist), ESRB, CPUC  
Saimon Islam, Senior Utilities Engineer (Specialist), ESRB, CPUC  
Stephen Hur, Utilities Engineer, ESRB, CPUC

## I. Findings Requiring Corrective Action

### **Finding 1: ESRB staff observed a peeling arc flash warning sticker near switch SW 213 in substation and missing safety and identification (ID) stickers on 2 inverters.**

GO 167-B, Appendix E, Operation Standards (OS) 1: Safety states in part:

*“The protection of life and limb for the work force is paramount. GAOs have a comprehensive safety program in place at each site...”*

GO 167-B, Appendix D, Maintenance Standards (MS) 11: Plant Status and Configuration states:

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

ESRB staff observed an Arc Flash sticker that was peeling near switch SW 213 in the Plant substation. ESRB staff also observed missing High Voltage signs, Arc Flash stickers, and identification stickers. The Plant needs to ensure that all inverters have these ID and safety signs/labels. These ID signs are important for the quick identification of equipment, and they help hasten repairs or maintenance being completed. The safety signs help inform employees, contractors, and visitors who may be unfamiliar with the equipment and its inherent dangers.



Figure 1: Peeling Arc Flash Label



Figure 2: Missing signs/labels on one inverter

**Finding 2: ESRB staff observed missing National Fire Protection Association (NFPA) Fire diamond signs on substation control room.**

**GO 167-B, Appendix E, OS 10: Environmental Regulatory Requirements** states in part:

*“Environmental regulatory compliance is paramount in the operation of the generating asset.”*

**NFPA 1 (Uniform Fire Code) 60.1.2.23 (d)** states:

*“Doors shall be well fitted, self-closing, and equipped with a self-latching device.”*

**NFPA 704: 4.3 Location of Signs** states:

*“Signs shall be in locations approved by the authority having jurisdiction and as a minimum shall be posted at the following locations:*

- 1) Two exterior walls or enclosures containing a means of access to a building or facility.*
- 2) Each access to a room or area.*
- 3) Each principal means of access to an exterior storage area.”*

ESRB staff observed missing NFPA sign (the fire diamond) on the control room of the Plant substation, where the backup batteries are held. This sign is important to provide information related to hazards that emergency services would need to effectively deal with the emergency.



Figure 3: Missing NFPA sign (fire diamond) near entrance of control room

**Finding 3: ESRB staff observed a small oil leak and inoperable cooling fan for transformer T1 in the substation.**

**GO 167-B, Appendix D, MS 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.”*

ESRB staff observed a small oil leak and a cooling fan that was not operable for transformer T1 in the Plant substation. Substation transformer maintenance is important to ensure the Plant’s connection to the state electric grid.

**Finding 4: The Plant did not have a standard inventory list for the first-aid kits in service.**

**GO 167-B, Appendix D, MS 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.”*

ESRB staff observed that the Plant did not have an inventory list for the first-aid kits. This list is important to ensure that during inspections, first-aid kits are stocked with all the items needed to address injuries.

**Finding 5: The Plant did not keep records of calibration of test equipment.**

**GO 167-B, Appendix D, MS 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.”*

ESRB staff observed that the Plant did not keep records of calibrations of test equipment. These records are important to ensure that test equipment that are used for work are calibrated at manufacturer’s recommended

recalibration dates. Regular calibration of the test equipment is required to ensure accurate and reliable qualitative and quantitative results when in use.

## II. Documents Reviewed

Category	Reference #	CPUC-Requested Documents
Safety	1	Orientation Program for Visitors and Contractors**
	2	Evacuation Procedure
	3	Evacuation Map and Plant Layout
	4	Evacuation Drill Report & Critique (last 3 years)
	5	Hazmat Handling Procedure
	6	MSDS for All Hazardous Chemicals
	7	Injury & Illness Prevention Plan (IIPP) (last 3 years)
	8	OSHA Form 300 (Injury Log) in last 4 years
	9	OSHA Form 301 (Incident Report) in last 4 years
	10	List of all CPUC Reportable Incidents (last 5 years)
	11	Root Cause Analysis of all Reportable Incidents (if any)
	12	Fire Sprinklers Test Report (last 3 years)
	13	Insurance Report / Loss Prevention / Risk Survey (last 3 years)
	14	Lockout / Tagout Procedure (last 3 revisions, if applicable)
	15	Arc flash Analysis
	16	Confined Space Entry Procedure
	17	Plant Physical Security and Cyber Security Procedures and Records
	18	Fire Protection System Inspection Record
Training	19	Safety Training Records*
	20	Skill-related Training Records*
	21	Certifications for Welders, Forklift & Crane Operators*
	22	Hazmat Training and Record*
Contractor	23	Latest list of Qualified Contractors*
	24	Contractor Selection / Qualification Procedure
	25	Contractor Certification Records
	26	Contractor Monitoring Program
Regulatory	27	Daily CEMS Calibration Records
	28	Air Permit (if applicable)
	29	Water Permit (if applicable)
	30	Spill Prevention Control Plan (SPCC) (if applicable)
	31	CalARP Risk Management Plan (RMP)
O&M	32	Daily Round Sheets / Checklists
	35	Logbook**
	36	List of Open/Backlogged Work Orders*
	37	List of Closed/Retired Work Orders (last 4 quarters)*
	38	Work Order Management Procedure (last 3 revisions, if applicable)

	39	Computerized Maintenance Management System (Demonstration Onsite)**
	40	All Root Cause Analyses (if any)
	41	Maintenance & Inspection Procedures (or Related Documents) (last 3 revisions, if applicable)
	42	SCADA system
	43	Maintenance and Inspection Records for Solar Inverters
	44	Maintenance and Inspection Records for Solar Trackers
	45	Maintenance and Inspection Records for Solar Arrays/Collectors/Solar Field
	46	Maintenance and Inspection Records for Mounting System
	47	Maintenance and Inspection Records for Switchgear/breaker/relays
	48	Maintenance and Inspection Records for Electrical System
	49	Maintenance and Inspection Records for Main Transformer(s)
	50	Maintenance and Inspection Records for Switchyard & Transmission Equipment
	51	Maintenance and Inspection Records for other equipment
Document	52	P&IDs*
	53	Vendor Manuals*
	54	Solar Firm Equipment Design Data
	55	Procedure Compliance Policy
Spare Parts	56	Spare Parts Inventory List
	57	Shelf-life Assessment Report
Instrumentation	58	Instrument Calibration Procedures and Records
Test Equipment	59	Calibration Procedures and Records
Internal Audit	60	Internal Audit Procedures and all Records

\* Provide data in a searchable format such as a searchable PDF, Word Document, Excel Spreadsheet, etc.

\*\* These items may be provided on-site by the first day of the audit.