

## PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



September 8, 2022

Christopher Luton  
Regional Lead  
SOLV Energy  
16680 West Bernardo Drive  
San Diego, CA, 92127

**SUBJECT: Generation Audit of Wright Solar Park - Audit Number GA2022-08CWS**

Dear Mr. Luton:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission (CPUC), Samuel Mandell of ESRB staff conducted a solar generation audit of Wright Solar Park from June 27 through June 30, 2022.

During the audit, ESRB observed plant operations, inspected equipment, reviewed data, interviewed plant staff, and identified potential violations of General Order (GO) 167-B. A copy of the audit findings itemizing the violations is attached. Please advise me by email no later than October 6, 2022 by providing electronic copy of all corrective actions and preventive measures taken and/or planned to be taken to resolve the 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 Samuel Mandell at [samuel.mandell@cpuc.ca.gov](mailto:samuel.mandell@cpuc.ca.gov). Please note that although Wright Solar Park 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 Samuel Mandell with a copy to me and the GO 167 inbox [GO167@cpuc.ca.gov](mailto:GO167@cpuc.ca.gov) by October 6, 2022.

Thank you for your courtesy and cooperation throughout the audit process. If you have any questions concerning this audit, please contact Samuel Mandell at [samuel.mandell@cpuc.ca.gov](mailto:samuel.mandell@cpuc.ca.gov) or (916) 217-8294.

Sincerely,

A handwritten signature in blue ink that reads "Banu Acimis".

Banu Acimis, P.E.  
Program and Project Supervisor

Electric Safety and Reliability Branch  
Safety and Enforcement Division  
California Public Utilities Commission

Attachment: Audit Findings

Cc: Lee Palmer, Director, Safety and Enforcement Division, CPUC  
Nika Kjensli, Program Manager, ESRB, SED, CPUC  
Rickey Tse, Senior Utilities Engineer (Supervisor), ESRB, SED, CPUC  
Nathan Sarina, Senior Utilities Engineer (Supervisor), ESRB, SED, CPUC  
Samuel Mandell, Utilities Engineer, ESRB, SED, CPUC  
Ron Drobeck, Compliance Manager, SOLV Energy  
Erin Kivlehan, Director of Asset Management, Clenera

**CPUC AUDIT FINDINGS OF  
WRIGHT SOLAR PARK  
JUNE 27 – 30, 2022**

**I. Findings Requiring Corrective Action**

**Finding 1: The Plant fails to maintain good housekeeping practices:**

**General Order (GO) 167-B, Appendix E, Operation Standard (OS) 1 – Safety** states in part:

*“The protection of life and limb for the workforce is paramount. GAOs have a comprehensive safety program in place at each site. The company behavior ensures that personnel at all levels of the organization consider safety as the overriding priority.”*

**GO 167-B, Appendix E, OS 4: Problem Resolution and Continuing Improvement** states:

*“The GAO values and fosters an environment of continuous improvement and timely and effective problem resolution.”*

**GO 167-B, Appendix E, OS 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.”*

**GO 167-B, Appendix D, Maintenance Standard (MS) 1 – Safety** states in part:

*“The protection of life and limb for the work force is paramount. The company behavior ensures that individuals at all levels of the organization consider safety as the overriding priority.”*

**GO 167-B, Appendix D, MS 4 – Problem Resolution and Continuing Improvement** states:

*“The company values and fosters an environment of continuous improvement and timely and effective problem resolution.”*

**GO 167-B, Appendix D, MS 18 – Maintenance Facilities and Equipment** states:

*“Facilities and equipment are adequate to effectively support maintenance activities.”*

ESRB observed the following housekeeping issues at the Plant:

- The remains of a bird strike, including the carcass and damaged equipment, were left in the substation as shown in Figure 1.
- There is chemical build-up on the substation battery bank as shown in Figure 2.
- There were tripping hazards that included defective equipment left haphazardly inside storage containers as shown in Figure 3.



**Figure 1:** Showing remains of a bird strike left in the substation.



**Figure 2:** Chemical build-up on the substation battery bank



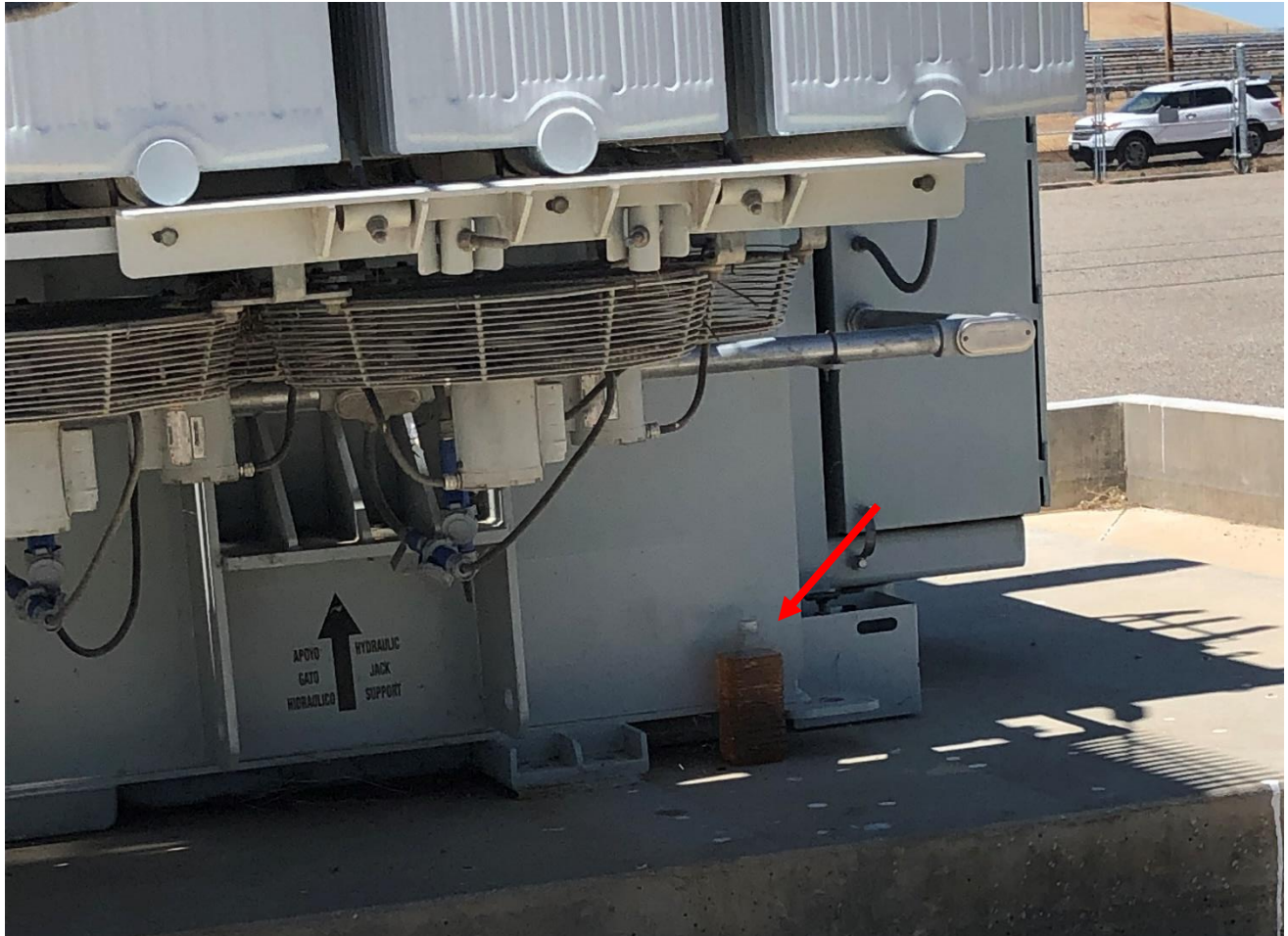
**Figure 3:** Equipment improperly stored inside storage container

**Finding 2: The Plant does not properly store or label oil in the substation:**

**GO 167-B, Appendix E, OS 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.”*

Inside the substation, there were what appeared to be gallon water jugs that were filled with what looked like oil near the transformers as shown in Figure 4. The oil needs to be stored in proper containers and correctly labeled.



**Figure 4:** Unlabeled liquid improperly stored by transformer

**Finding 3: The Plant has dry overgrown vegetation:**

**GO 167-B, Appendix E, OS 1 – Safety** states in part:

*“The protection of life and limb for the workforce is paramount. GAOs have a comprehensive safety program in place at each site. The company behavior ensures that personnel at all levels of the organization consider safety as the overriding priority.”*

**GO 167-B, Appendix D, MS 1 – Safety** states in part:

*“The protection of life and limb for the work force is paramount. The company behavior ensures that individuals at all levels of the organization consider safety as the overriding priority.”*

ESRB observed in several areas, vegetation in between the solar panels was overgrown touching the solar panels as shown in Figure 5. The vegetation was also in a dry and highly flammable state. Proper vegetation management is necessary to mitigate fire risk to ensure safety and maintain service.



**Figure 5:** Dead vegetation that has grown to the bottoms of the solar panels

**Finding 4: A “Prohibited Items” sign is missing from all access gates.**

**GO 167-B, Appendix E, OS 1: Safety** states in part:

*“B. Managers in the organization contribute to the safety culture of the work environment through:*

- 1. Establishing standards and clearly communicating expectations that safety is the highest priority.”*

**GO 167-B, Appendix E, OS 21: Plant Security** states:

*“To ensure safe and continued operations, each GAO provides a prudent level of security for the plant, its personnel, operating information and communications, stepping up security measures when necessary.”*

**GO 167-B, Appendix D, MS 1 – Safety** states in part:

*“The protection of life and limb for the work force is paramount. The company behavior ensures that individuals at all levels of the organization consider safety as the overriding priority.”*



**National Fire Protection Association 730 4.1.3.3.a** states in part:

*“Measures to deter the unauthorized introduction of dangerous substances and devices that could facilitate an attack or actions having serious negative consequences.”*

Through its jobsite orientation, the Plant specifies smoking and uninsulated tools and equipment are prohibited. However, the Plant fails to address whether legal substances such as alcohol, and legal weapons such as firearms are prohibited on site. Additionally, notice for prohibited items must be physically posted and visible before allowing access. In addition, visitors and contractors must be warned before entering the facility of what is not permitted and considered contraband.

**Finding 5: Unsecured conductors were found sagging to the ground:**

**GO 167-B, Appendix E, OS 1: Safety** states:

*“The protection of life and limb for the workforce is paramount. GAOs have a comprehensive safety program in place at each site. The company behavior ensures that personnel at all levels of the organization consider safety as the overriding priority. This is manifested in decisions and actions based on this priority. The work environment and the policies and procedures foster such a safety culture, and the attitudes and behaviors of personnel are consistent with the policies and procedures.”*

**GO 167-B, Appendix D, MS 1 – Safety** states in part:

*“The protection of life and limb for the work force is paramount. The company behavior ensures that individuals at all levels of the organization consider safety as the overriding priority.”*

**GO 167-B, Appendix D, MS 13 - Equipment Performance and Materiel Condition** states:

*“Equipment performance and materiel condition support reliable plant operation. This is achieved using a strategy that includes methods to anticipate, prevent, identify, and promptly resolve equipment performance problems and degradation.”*

ESRB observed a systemic issue at the array sites where conductors were left unsecured and lying on the ground with examples as shown in Figures 6-8. This constitutes tripping hazard because they are electrical conductors that can be hazardous to the Plant employees; therefore, they should be properly secured to ensure safety and prevent service interruptions.



**Figure 6:** Showing conductors on an array 1 row East of CB1.9.1C9



**Figure 7:** Showing conductors on an array near CB1.9.1C10



**Figure 8:** Showing conductors on an array near CB 1.16.5C13.

## II. Documents Reviewed

Category	Reference #	Reviewed 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	SDS 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 Protection System Inspection Record (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
	Training	17
18		Safety Training Records
19		Skill-related Training Records
20		Certifications for Welders, Forklift & Crane Operators
Contractor	21	Hazmat Training and Record
	22	Latest list of Qualified Contractors
	23	Contractor Selection / Qualification Procedure
	24	Contractor Certification Records
Regulatory	25	Contractor Safety Program Procedure and Training Records
	26	Water Permit (if applicable)
	27	Spill Prevention Control Plan (SPCC) (if applicable)
	28	CalARP Risk Management Plan (RMP)

O&M	29	Daily Round Sheets / Checklists
	30	Logbook
	31	List of Open/Backlogged Work Orders
	32	List of Closed/Retired Work Orders (last 4 quarters)
	33	Work Order Management Procedure (last 3 revisions, if applicable)
	34	Computerized Maintenance Management System (Demonstration On-site)
	35	All Root Cause Analyses (if any)
	36	Maintenance & Inspection Procedures, or Related Documents (last 3 revisions, if applicable)
	37	SCADA system (Demonstration On-site)
	38	Maintenance and Inspection Records for Solar Inverters
	39	Maintenance and Inspection Records for Solar Trackers
	40	Maintenance and Inspection Records for Solar Arrays/Collectors/Solar Field
	41	Maintenance and Inspection Records for Mounting System
	42	Maintenance and Inspection Records for Switchgear/breaker/relays
	43	Maintenance and Inspection Records for Electrical System
	44	Maintenance and Inspection Records for Main Transformer(s)
	45	Maintenance and Inspection Records for Switchyard & Transmission Equipment
	46	Maintenance and Inspection Records for other equipment
Documents	47	P&IDs
	48	Vendor Manuals
	49	Solar Farm Equipment Design Data
	50	Procedure Compliance Policy
Spare Parts	51	Spare Parts Inventory List
	52	Shelf-life Assessment Report
Management	53	Organizational Chart
Instrumentation	54	Instrument Calibration Procedures and Records
Test Equipment	55	Measuring & Testing Equipment List
	56	Test Equipment Calibration Procedures and Records
Internal Audit	57	Internal Audit Procedures and all Records