

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
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November 7, 2023

EA2023-1148

Marc Blanc
Trouble Supervisor
Modesto Irrigation District
929 Woodland Ave.
Modesto, CA 95351

SUBJECT: Electric Distribution Facilities Audit of Modesto Irrigation District

Mr. Blanc:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission (CPUC), Dmitriy Lysak of ESRB staff conducted a CIP audit of Modesto Irrigation District (MID) from September 18, 2023 through September 22, 2023. During the audit, ESRB staff conducted field inspections of MID's facilities and equipment and reviewed pertinent documents and records.

As a result of the audit, ESRB staff identified violations of General Order (GO) 95 and GO 128. A copy of the audit findings itemizing the violations and observations is enclosed.

Please provide a response no later than December 5, 2023, via electronic copy of all corrective actions and preventive measures taken by MID to correct the identified violations and prevent the recurrence of such violations and observations.

If you have any questions concerning this audit, please contact Dmitriy Lysak at (415) 940-4423 or dmitriy.lysak@cpuc.ca.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Rickey Tse'.

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

Enclosure: CPUC Audit Findings of Modesto Irrigation District

Cc: Lee Palmer, Director, Safety and Enforcement Division (SED), CPUC

Nika Kjensli, Program Manager, ESRB, SED, CPUC

Fadi Daye, Program and Project Supervisor, ESRB, SED, CPUC

Nathan Sarina, Senior Utilities Engineer (Supervisor), ESRB, SED, CPUC

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CPUC AUDIT FINDINGS OF MODESTO IRRIGATION DISTRICT
SEPTEMBER 18 – 22, 2023

I. Records Review

During the audit, Electric Safety and Reliability Branch (ESRB) staff reviewed the following records:

- Modesto Irrigation District’s Operating Bulletin No. 27 Inspection and Related Repair of Overhead and Underground Electric Transmission and Distribution Lines
- Modesto Irrigation District Statistics as of September 2023, including miles of overhead lines, miles of underground lines, number of poles, number of vaults, and number of pedestals.
- Modesto Irrigation District Facility Maps as of September 2023.
- Modesto Irrigation District Work Order List containing data of facility locations, overhead or underground facility types, identified deficiencies, repair priority levels, corrective action due dates, and work completion dates from June 2018 through September 2023.
- Modesto Irrigation District Inspection Data containing data for the inspected facility type, facility location, fire threat district location, inspection date, and resulting inspection findings from June 2018 through June 2023.
- Modesto Irrigation District Reliability Metrics from June 2018 through June 2023.
- Modesto Irrigation District Pole Loading Analysis Projects List from June 2018 through June 2023.
- Modesto Irrigation District Construction Projects from June 2022 through June 2023.
- Modesto Irrigation District Equipment Test Records from June 2020 through June 2023.

II. Records Violations

ESRB observed the following violations during the record review portion of the audit:

1. General Order (GO) 95, Rule 18-B(1)(a) states in part:

“The maximum time periods for corrective actions associated with potential violation of GO 95 or a Safety Hazard are based on the following priority levels:

- (i) Level 1 -- An immediate risk of high potential impact to safety or reliability:*
 - *Take corrective action immediately, either by fully repairing or by temporarily repairing and reclassifying to a lower priority.*
- (ii) Level 2 -- Any other risk of at least moderate potential impact to safety or reliability:*
 - *Take corrective action within specified time period (either by fully repair or by temporarily repairing and reclassifying to Level 3 priority). Time period for corrective action to be determined at the time of identification by a qualified company representative, but not to exceed: (1) six months for potential violations that create a fire risk located in Tier 3 of the High Fire-Threat District; (2) 12 months for potential violations that create a fire risk located in Tier 2 of the High Fire-Threat District; (3) 12 months for potential violations that compromise worker safety; and (4) 36 months for all other Level 2 potential violations.*
- (iii) Level 3 -- Any risk of low potential impact to safety or reliability:*
 - *Take corrective action within 60 months subject to the exception specified below.”*

MID’s Operating Bulletin No. 27 Inspection and Related Repair of Overhead and Underground Electric and Distribution Lines adheres to General Order 95, Rule 18 timelines to correct any nonconformance.

- **Priority #1, Immediate Hazard:** Conditions that may fail at any moment and affect the integrity of the system or present a safety hazard to workers or the general public should be made safe, as soon as practicable.
- **Priority #2, Non-Emergency Repair Condition:** Conditions that require work to maintain the integrity of the system, but are not in immediate need of attention, will be prioritized by urgency and will be scheduled to have appropriate repairs made to correct the condition within 6 months, where applicable.
- **Priority #3 Non-Emergency Repair Condition:** Conditions that do not present a situation that could jeopardize the safety of the system, workers or general public. The inspector will issue a Priority #3 tag with the time interval recommended by the judgement of the inspector. Work will be scheduled for completion within 1 year, where

applicable.

ESRB’s review of MID’s work orders submitted for the period from June 2018 through June 2023 found that MID had a total of 291 late work orders, including 213 late-closed work orders and 78 late-pending work orders.

Table 1 below lists the late work orders in Modesto Irrigation District by different hazard levels.

Table 1: Late Work Orders in Modesto Irrigation District

Repair Category	Late-Closed Work Orders	Late-Pending Work Orders	Total
1	19	4	23
2	71	14	85
3	123	60	183
Total	213	78	291

Late-closed work orders are those completed past their assigned due dates based on their repair categories, and late-pending work orders are those that had not been completed, as of September 15, 2023, by their assigned due dates based on their repair categories. MID is required to mitigate late work order issues, including completing any late-pending work orders.

MID placed 57 work orders on hold due to issues sourcing replacement transformers. Lead times are still extended due to delays from the pandemic. The work orders are included in the late-pending work order totals. 21 of these work orders were placed on hold in error and do not need transformers to be corrected. The work orders will be reissued so that the correct issues can be resolved.

2. General Order (GO) 95, Rule 18-A(1)(a) states in part:

“Where a communications company’s or an electric utility’s (Company A’s) actions result in potential violations of GO 95 for another entity (Company B), that entity’s (Company B’s) remedial action will be to transmit a single documented notice of identified potential violations to the communications company or electric utility (Company A) within a reasonable amount of time not to exceed 180 days after the entity discovers the potential violations of GO 95. If the potential violation constitutes a Safety Hazard, such notice shall be transmitted within ten (10) business days after the entity discovers the Safety Hazard.”

MID does not currently have a procedure or process in place for sending and receiving third party safety hazard notifications. While MID does have contacts established with other

utilities through their joint pole group, MID did not send or receive any safety hazard notifications in the last 60 months. MID shall formalize procedures for sending and receiving safety hazard notifications to ensure potential violations of GO 95 related to other utilities are not missed and are resolved in a timely manner.

III. Field Inspection

During the field inspection, ESRB inspected the following facilities in Table 2:

Table 2: Field Inspection Locations

Location #	Structure Type	Address	City
1	Transformer	1244 W Roseburg Ave	Modesto
2	Transformer	1224 W Roseburg Ave	Modesto
3	Pole	2000 Nita Alexander Ct	Modesto
4	Pole	2012 Nita Alexander Ct	Modesto
5	Pole	801 Garzas Ct	Modesto
6	Pole	805 Garzas Ct	Modesto
7	Pole	430 California Ave	Modesto
8	Pole	416 California Ave	Modesto
9	Pole	801 S M.L.K. Dr	Modesto
10	Pole	816 S M.L.K. Dr	Modesto
11	Pole	14569 Yosemite Blvd	Waterford
12	Pole	14570 Yosemite Blvd	Waterford
13	Pole	14571 Yosemite Blvd	Waterford
14	Pole	14572 Yosemite Blvd	Waterford
15	Pole	12710 Bentley St	Waterford
16	Pole	226 D St	Waterford
17	Pole	208 E St	Waterford
18	Pole	205 D St	Waterford
19	Transformer	976 Brigadoon Ln	Waterford
20	Transformer	620 Flora Ln	Waterford
21	Pole	215 N Eucalyptus Ave	Waterford
22	Pole	215 N Eucalyptus Ave	Waterford
23	Pole	215 N Eucalyptus Ave	Waterford
24	Pole	218 N Eucalyptus Ave	Waterford
25	Pole	218 N Eucalyptus Ave	Waterford
26	Pole	506 Fairland Ave	Modesto
27	Pole	506 Fairland Ave	Modesto
28	Pole	506 Fairland Ave	Modesto
29	Pole	506 Fairland Ave	Modesto
30	Transformer	4530 Leckron Rd	Modesto

31	Transformer	4530 Leckron Rd	Modesto
32	Transformer	3820 Dillingham Ave	Modesto
33	Transformer	3724 Dillingham Ave	Modesto
34	Transformer	3920 Dillingham Ave	Modesto
35	Transformer	3609 Zachary Ct	Modesto
36	Transformer	2820 Floyd Ave	Modesto
37	Pole	3809 Purple Finch Ln	Modesto
38	Pole	3725 Floyd Ave	Modesto
39	Transformer	2701 Coral Oak Dr	Modesto
40	Transformer	1916 Canyon Oak Dr	Modesto
41	Transformer	2601 Oakdale Rd Suite East	Modesto
42	Pole	1721 Wylie Dr	Modesto
43	Pole	501 Westgate Dr	Riverbank
44	Pole	511 Westgate Dr	Riverbank
45	Pole	518 Westgate Dr	Riverbank
46	Pole	612 Westgate Dr	Riverbank
47	Transformer	2212 Barger Way	Riverbank
48	Transformer	2206 Barger Way	Riverbank
49	Transformer	5906 Jandee Way	Riverbank
50	Transformer	2556 Rio Gabriel St	Riverbank
51	Transformer	5824 Huntley St	Riverbank
52	Transformer	2520 Rio Gabriel St	Riverbank
53	Transformer	5421 Etherington Ct	Riverbank
54	Transformer	5445 Etherington Ct	Riverbank
55	Transformer	2624 Silver Bell Dr	Riverbank
56	Transformer	208 Blossom View Pl	Modesto
57	Transformer	7008 Hartley Ct	Modesto
58	Transformer	400 Hartley Dr	Modesto
59	Transformer	308 Hartley Dr	Modesto
60	Transformer	4812 Stratos Way	Modesto
61	Pole	4816 Stratos Way	Modesto
62	Pole	605 Standiford Ave	Modesto
63	Pole	605 Standiford Ave	Modesto
64	Pole	701 Standiford Ave	Modesto
65	Transformer	3501 Tully Rd B	Modesto
66	Pole	3507 Tully Rd	Modesto
67	Pole	3501 Tully Rd B	Modesto
68	Pole	3700 Tully Rd	Modesto
69	Pole	3543 Tully Rd	Modesto
70	Pole	713 Leveland Ln	Modesto
71	Pole	901 Leveland Ln	Modesto
72	Pole	714 Leveland Ln	Modesto
73	Pole	2608 Kathrine Ave	Modesto
74	Pole	2605 Fremont Ave	Modesto
75	Pole	2601 Fremont Ave	Modesto

76	Pole	2608 Kathrine Ave	Modesto
77	Transformer	392 S Paraiso Way	Mountain House
78	Transformer	266 W Gallo Way	Mountain House
79	Transformer	140 W Gallo Way	Mountain House
80	Pole	20052 W Grant Line Rd	Tracy
81	Pole	20056 W Grant Line Rd	Tracy
82	Pole	20124 W Grant Line Rd	Tracy
83	Pole	20048 W Grant Line Rd	Tracy
84	Transformer	2282 S Podere Dr	Tracy
85	Transformer	164 Rodbell Ln	Tracy
86	Transformer	147 Rodbell Ln	Tracy
87	Transformer	162 McClintock Ln	Tracy
88	Pole	10078 Beckwith Rd	Modesto
89	Pole	10078 Beckwith Rd	Modesto
90	Pole	N Gates Rd and Beckwith Ln	Modesto
91	Pole	N Gates Rd and Beckwith Ln	Modesto
92	Pole	7710 Shackelford Rd	Modesto
93	Pole	7638 Shackelford Rd	Modesto
94	Pole	7638 Shackelford Rd	Modesto
95	Pole	3619 Shoemake Ave	Modesto
96	Pole	3619 Shoemake Ave	Modesto
97	Pole	3536 Shoemake Ave	Modesto
98	Pole	2613 Crommelin Ave	Modesto
99	Pole	2609 Sparks Way	Modesto
100	Pole	2613 Sparks Way	Modesto
101	Pole	2709 Sparks Way	Modesto
102	Pole	2016 Mt Vernon Dr	Modesto
103	Pole	2001 Scott Ave	Modesto
104	Pole	2001 Girard Ave	Modesto
105	Pole	2112 Rasmussen Ave	Modesto
106	Pole	1617 Teakwood Dr	Modesto
107	Pole	1609 Teakwood Dr	Modesto
108	Pole	1606 Teakwood Dr	Modesto
109	Pole	5312 American Ave	Modesto
110	Pole	5319 American Ave	Modesto
111	Pole	5261 American Ave	Modesto
112	Transformer	3801 Pelandale Ave	Modesto
113	Pole	3801 Pelandale Ave	Modesto
114	Pole	3801 Pelandale Ave	Modesto
115	Pole	5042 Parks Ave	Salida
116	Pole	5106 Parks Ave	Salida
117	Pole	5113 Parks Ave	Salida

IV. Field Inspection Violations

ESRB identified the following violations during the field inspection:

1. GO 95, Rule 31.1, Design, Construction and Maintenance states in part:

“Electrical supply and communication systems shall be designed, constructed, and maintained for their intended use, regard being given to the conditions under which they are to be operated, to enable the furnishing of safe, proper, and adequate service.”

ESRB’s findings are listed in Table 3:

Table 3: GO 95, Rule 31.1 Findings

Location #	Findings
7	Guy wire missing due to theft.
15	Loose nails on visibility strips.
42	Damaged visibility strips.
72	Secondary conduit on crossarm detached.
88	Primary and cutout crossarms deteriorated.
111	Secondary crossarm deteriorated.

2. GO 95, Rule 31.6, Abandoned Lines states:

“Lines or portions of lines permanently abandoned shall be removed by their owners so that such lines shall not become a public nuisance or a hazard to life or property. For the purposes of this rule, lines that are permanently abandoned shall be defined as those lines that are determined by their owner to have no foreseeable future use.”

ESRB’s finding is listed in Table 4:

Table 4: GO 95, Rule 31.6 Finding

Location #	Finding
70	Abandoned vertical ground wire.

3. GO 95, Rule 91.3C, Stepping states in part:

“Where installed, the lowest step shall not be less than 8 feet from the ground line, or any easily climbable foreign structure from which one could reach or step.”

ESRB’s findings are listed in Table 5:

Table 5: GO 95, Rule 91.3C Findings

Location #	Findings
38	Pole step installed too low.
67	Pole step installed too low.
99	Pole step installed too low.

4. GO 95, Rule 38, Table 2, Case 9 requires the following:

9c. Vertical separation between conductors and/or cables, on separate crossarms or other supports at different levels (excepting on related line and buck arms) on the same pole and in adjoining midspans between supply and communication conductors requires at least forty-eight inches of separation from communication conductors.

ESRB’s finding is listed in Table 6:

Table 6: GO 95, Rule 38 Finding

Location #	Finding
61	Service line for street light supplied by MID in contact with communication conductors at midspan.

5. GO 95, Rule 51.6 – Marking and Guarding, High Voltage Marking states:

"A. High Voltage Marking

Poles which support line conductors of more than 750 volts shall be marked with high voltage signs. This marking shall consist of a single sign showing the words "HIGH VOLTAGE," or pair of signs showing the words "HIGH" and "VOLTAGE," not more than six (6) inches in height with letters not less than 3 inches in height. Such signs shall be of weather and corrosion-resisting material, solid or with letters cut out therefrom and clearly legible."

ESRB’s findings are listed in Table 7:

Table 7: GO 95, Rule 51.6 Findings

Location #	Findings
68	Missing “High Voltage” sign.
96	Missing “High Voltage” sign.
111	Loose “High Voltage” sign.
114	Faded/damaged “High Voltage” sign.

6. GO 95, Rule 84.6.B, Ground Wires states:

“Ground wires, other than lightning protection wires not attached to equipment or ground wires on grounded structures, shall be covered by metal pipe or suitable covering of wood or metal, or of plastic conduit material as specified in Rule 22.8–A, for a distance above ground sufficient to protect against mechanical injury, but in no case shall such distance be less than 7 feet. Such covering may be omitted providing the ground wire in this 7 foot section has a mechanical strength at least equal to the strength of No. 6 AWG medium–hard–drawn copper.

Portions of ground wires which are on the surface of wood poles and within 6 feet vertically of unprotected supply conductors supported on the same pole, shall be covered with a suitable protective covering (see Rule 22.8).”

ESRB’s findings are listed in Table 8:

Table 8: GO 95, Rule 84.6.B Findings

Location #	Findings
11	Exposed vertical ground wire.
17	Exposed vertical ground wire.
22	Exposed vertical ground wire.
24	Exposed vertical ground wire.
28	Exposed vertical ground wire.
29	Exposed vertical ground wire.
37	Exposed vertical ground wire.
38	Exposed vertical ground wire.
43	Exposed vertical ground wire.
73	Exposed vertical ground wire.

Location #	Findings
101	Exposed vertical ground wire.
106	Exposed vertical ground wire.
108	Exposed vertical ground wire.
111	Exposed vertical ground wire.
117	Vertical ground wire detached from pole.

7. GO 95, Rule 86.9, Guy Marker (Guy Guard) states in part:

“A substantial marker of suitable material, including but not limited to metal or plastic, not less than 8 feet in length, shall be securely attached to all anchor guys. Where more than one guy is attached to an anchor rod, only the outermost guy is required to have a marker.”

ESRB’s findings are listed in Table 9:

Table 9: GO 95, Rule 86.9 Findings

Location #	Findings
88	Guy guard faded.
89	Guy guard faded.
95	Guy guard faded.
96	Guy guard faded.
99	Visibility strips on guy guard faded.
101	Visibility strips on guy guard faded.

8. GO 128, Rule 17.1, Design, Construction and Maintenance states in part:

“Electrical supply and communication systems shall be designed, constructed, and maintained for their intended use, regard being given to the conditions under which they are to be operated, to enable the furnishing of safe, proper, and adequate service.

For all particulars not specified in these rules, design, construction, and maintenance should be done in accordance with accepted good practice for the given local conditions known at the time by those responsible for the design,

construction, or maintenance of [the] communication or supply lines and equipment.”

ESRB’s findings are listed in Table 10:

Table 10: GO 128, Rule 17.1 Findings

Location #	Findings
20	Vault lid hardware damaged. Repaired in field.
36	Oil Level low. Grading issue with transformer.
39	Transformer in vault leaning.
41	Transformer enclosure rusted. High voltage sign and transformer identification markers painted over.
47	Oil level low. Existing oil leak. Transformer identification marker faded.
48	Transformer identification marker faded.
49	Oil level low.
52	Oil level low.
53	Oil level low. Existing oil leak. Transformer identification marker faded.
54	Oil level low.
60	Transformer identification marker faded.
65	Grading issue with transformer.
79	Transformer identification marker faded.
85	Transformer identification marker missing.
87	Transformer identification marker missing.

9. GO 128, Rule 42.7, Covers states:

“Manholes and handholes, while not being worked in shall be securely closed by covers of sufficient strength to sustain such loads as may reasonably be imposed

upon them, and arrangement shall be such that a tool or appliance shall be required for their opening and cover removal (Also See Rule 17.8 and Appendix B, Figure 9).”

ESRB’s finding is listed in Table 11:

Table 11: GO 128, Rule 42.7 Finding

Location #	Finding
87	Vault lid damaged, unable to open.

10. GO 128, Rule 35.1, Identification of Cables states:

“Cables operating at a voltage in excess of 750 volts shall be permanently and clearly identified by tags or other suitable means to indicate their operating voltage and the circuit with which they are normally associated at each manhole or other commonly accessible location of the underground system.”

ESRB’s findings are listed in Table 12:

Table 12: GO 128, Rule 35.1 Findings

Location #	Findings
35	Missing tags on primary cables.
65	Primary tags not attached to cables.

11. GO 128, Rule 17.8, Identification of Ownership states:

“Manholes, handholes, subsurface and self-contained surface-mounted equipment enclosures shall be marked as to ownership to facilitate identification by persons authorized to work therein and by other persons performing work in their vicinity.”

ESRB’s findings are listed in Table 13:

Table 13: GO 128, Rule 17.8 Findings

Location #	Findings
85	Ownership identification incorrect.
87	Ownership identification incorrect.

V. Observations

1. GO 95, Rule 18-A, Resolution of Potential Violations of General Order 95 and Safety Hazards states in part:

- (2) *“Where a communications company’s or an electric utility’s (Company A’s) actions result in potential violations of GO 95 for another entity (Company B), that entity’s (Company B’s) remedial action will be to transmit a single documented notice of identified potential violations to the communications company or electric utility (Company A) within a reasonable amount of time not to exceed 180 days after the entity discovers the potential violations of GO 95. If the potential violation constitutes a Safety Hazard, such notice shall be transmitted within ten (10) business days after the entity discovers the Safety Hazard.*
- (3) *If a company, while performing inspections of its facilities, discovers a Safety Hazard(s) on or near a communications facility or electric facility involving another company, the inspecting company shall notify the other entity of such Safety Hazard(s) no later than ten (10) business days after the discovery.*
- (4) *To the extent a company that has a notification requirement under (2) or (3) above cannot determine the facility owner/operator, it shall contact the pole owner(s) within ten (10) business days if the subject of the notification is a Safety Hazard, or otherwise within a reasonable amount of time not to exceed 180 days after discovery. The notified pole owner(s) shall be responsible for promptly (normally not to exceed five business days) notifying the company owning/operating the facility if the subject of the notification is a Safety Hazard, or otherwise within a reasonable amount of time not to exceed 180 days, after being notified of the potential violation of GO95.”*

Table 14 includes all non-MID (third-party) findings that ESRB observed during the audit:

Table 14: Observations

Location #	Findings
3	Abandoned communication cable.
16	Abandoned communication service drop.
38	Exposed communication vertical ground.
43	Exposed communication vertical ground.
63	Exposed communication vertical ground.
64	Exposed communication vertical ground.

Location #	Findings
66	Exposed communication vertical ground.
67	Exposed communication vertical ground.
101	Exposed communication vertical ground.
102	Exposed communication vertical ground.
104	Exposed communication vertical ground.
108	Exposed communication vertical ground.
115	Damaged communication vertical ground.