Ohmics

AI ELECTRICAL REVIEW

AUTOMATED PRELIMINARY SCREENING

# MOP Review

Report generated August 18, 2026

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| Prepared for | [REDACTED] |
| Prepared by | Ohmics automated review, PEFG, PLLC |
| Job ID | SAMPLE-MOP-01 |
| Order ID | SAMPLE: anonymized production test run |
| Review type | Automated release |

## AT A GLANCE: 36 FINDINGS

| 19 | 17 | 0 | 0 |
|---|---|---|---|
| CRITICAL | SIGNIFICANT | OBSERVATION | INFORMATION |

EXECUTIVE SUMMARY

# Findings and Recommendations Summary

This review found 36 findings: 19 critical and 17 significant. The critical findings concern cross check, impact, equipment and personnel. The recommendations below cover every critical and significant finding. Full detail begins on the following page.

## SEVERITY DISTRIBUTION



Critical 19 Significant 17

## RECOMMENDATIONS

Finding 1 · Critical
1. Confirm the location at the equipment before this MOP is used.

Finding 2 · Critical
2. Reconcile the redline and the MOP before either is issued.

Finding 3 · Critical
3. Identify the two test points and add them to the equipment summary and the drawing.

Finding 4 · Critical
4. State what each removed conductor serves and confirm its removal is intended.

Finding 5 · Critical
5. State whether the existing fuses are in scope, or correct the scope statement.

Finding 6 · Critical
6. List the affected systems and loads.

Finding 7 · Critical
7. State the redundancy during the outage and an estimated duration for each section.

Finding 8 · Critical
8. Supply both and re-run.

Finding 9 · Critical
9. Name the governing PPE procedure and confirm it covers these steps.

Finding 10 · Critical
10. State the qualification each role requires.

Finding 11 · Critical
11. Add an expected result to each installation step.

Finding 12 · Critical
12. Mark Safe Stop Points, at minimum before the conductor removal in step 3.02.

Finding 13 · Critical
13. Name the abort authority and how it is communicated to the field.

Finding 14 · Critical
14. Rewrite the back-out as a device-by-device reversal with expected results, and confirm replacement conductor is on site.

Finding 15 · Critical
15. Add a closing step defining the completed state and handoff, and name the follow-on procedure.

Findings 16, 17, 18, 19, 34, 35, 36 · Critical
16. Answer required from the responsible engineer.

Finding 20 · Significant
17. Cite the controlling drawing correctly and submit the sheets the MOP depends on.

Finding 21 · Significant
18. Submit the scope of work.

Finding 22 · Significant
19. State where the separation is intended so the steps can be checked against it.

Finding 23 · Significant
20. Identify the load owners and when each is notified.

Finding 24 · Significant
21. Add a prerequisite step confirming no conflicting work.

Finding 25 · Significant
22. List the torque tools with range and calibration, and attach the bill of materials.

Finding 26 · Significant
23. Name who leads the brief, document it, and complete the checklist before issue.

Finding 27 · Significant
24. State the minimum crew and make step 4.04 mandatory.

Finding 28 · Significant
25. Split the compound steps, define snug-tight, and correct the two device names.

Finding 29 · Significant
26. Add estimated durations and an overrun trigger.

Finding 30 · Significant
27. Identify step 3.02 as the point of no return and state the go/no-go criteria.

Finding 31 · Significant
28. Reference the applicable emergency procedure by document number.

Finding 32 · Significant
29. Assign a number and revision, fix the dates and references, add a risk class, and complete approvals before issue.

Finding 33 · Significant
30. Add a communication plan for start, hold points, completion and abort, with named contacts.

## BY CATEGORY

| | | | |
|---|---|---|---|
| Cross check | 8 | Impact | 5 |
| Equipment | 2 | Personnel | 2 |
| Prerequisites | 1 | Sequence | 5 |
| Back out | 2 | Emergency | 1 |
| Return to service | 1 | Identification | 1 |
| Communication | 1 | Interrogation | 7 |

# MOP Review

Job SAMPLE-MOP-01 · Order SAMPLE: anonymized production test run · Automated release

Anonymized sample. Client, site, people, dates, document numbers, equipment tags, part numbers and manufacturer names are removed or generalized, and identifying values are slightly modified. Findings are shortened; the engineering point of each is unchanged.

**Read before relying on anything below.**

**This review does not approve this procedure for execution.**

This is a structural and consistency review of a draft Method of Procedure against the single-line diagram and scope of work you submitted. It identifies gaps, inconsistencies, and questions requiring answers. It does not determine that the procedure is safe, complete, or correct, and it does not evaluate whether an electrically safe work condition can be established.

This review is limited to the documents provided. It cannot identify equipment, sources, or conditions absent from those documents, and it cannot verify field conditions. Absence of a finding does not indicate the procedure is adequate.

This procedure remains a draft requiring full review and approval by the responsible engineer and facility management before execution.

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You are responsible for confirming that the file you upload is the document you intend to have analyzed. Verify it before you submit — the intake step asks you to confirm this, and the report identifies the file it reviewed on its first page. An incomplete or partial submission — an extract, a summary page, a single sheet of a larger set, or a document missing the appendices the review depends on — is a valid submission of the correct type and will be reviewed and billed as one; the review will report the missing content as findings, and that consumes your payment. The one exception is a submission this engine refuses outright because it is not the kind of document this product reviews: that produces no review, no report, and consumes no paid unit.

## Submission details

| | |
|---|---|
| Report | MOP Review — Report MOP-01 |
| Submittal reviewed | [draft method of procedure].pdf (35 steps) with [equipment drawings].pdf |
| Client identity | Anonymized for public release |

## CRITICAL (19)

MOP-XREF-01-1 · Cross check · inconsistency

Critical

### 1. MOP and drawing disagree on where the 4000 A utility breaker is

The MOP places the utility breaker in section A2. The drawing places it in A1, with the generator breaker in A2. Two steps direct work on the utility breaker, so a crew following the MOP would go to the generator breaker.

**RECOMMENDATION**
Confirm the location at the equipment before this MOP is used.

Source: page not applicable, MOP equipment summary; drawing section schedule, rows A1 and A2

Code ref: none (general observation)

Confidence: high

MOP-XREF-01-2 · Cross check · inconsistency

Critical

### 2. MOP and redline disagree on an existing breaker

The MOP keeps an existing 10 A breaker in place and relabels it SPARE. The redline shows it replaced. The new breaker also appears under two catalog numbers from different device families (one-pole and two-pole).

**RECOMMENDATION**
Reconcile the redline and the MOP before either is issued.

Source: page not applicable, MOP step 3.03 and equipment summary; drawing markup, sheet 1; MOP Appendix C

Code ref: none (general observation)

Confidence: high

MOP-XREF-01-3 · Cross check · inconsistency

Critical

### 3. Two test points in the dead check exist nowhere else

The absence-of-voltage steps test five points. Two of them appear in no equipment list, no other step and no drawing.

**RECOMMENDATION**
Identify the two test points and add them to the equipment summary and the drawing.

Source: page not applicable, MOP steps 1.03 and 1.04; Appendix C; equipment summary; drawings

Code ref: none (general observation)

Confidence: high

MOP-XREF-02-5 · Cross check · gap

Critical

### 4. Four conductors removed with no stated purpose

Step 3.02 removes eight conductors. Four are never reinstalled or mentioned again, and nothing says what they fed.

**RECOMMENDATION**
State what each removed conductor serves and confirm its removal is intended.

Source: page not applicable, MOP step 3.02, traced through steps 3.03–3.15, §4 and §5

Code ref: none (general observation)

Confidence: high

MOP-XREF-03-6 · Cross check · gap

Critical

### 5. Scope says protection is corrected; the upstream fuses are unchanged

The scope says overcurrent protection deficiencies are corrected. The new 20 A branch is still fed through the existing 30 A fuse block, and no step changes those fuses.

**RECOMMENDATION**

State whether the existing fuses are in scope, or correct the scope statement.

Source: page not applicable, MOP scope; equipment summary; steps 2.01, 3.10 and 3.11; Appendix C

Code ref: none (general observation)

Confidence: high

MOP-IMP-01-9 · Impact · gap

Critical

### 6. Affected loads not listed

The MOP has no impact section. The drawings show the lineup feeding three busway feeders and a generator auxiliary section, none of which the MOP names. The "Affected working circuits" checkbox is unchecked.

**RECOMMENDATION**

List the affected systems and loads.

Source: page not applicable, MOP, whole document; prerequisite checklist; drawing section schedule

Code ref: none (general observation)

Confidence: high

MOP-IMP-02-10 · Impact · gap

Critical

### 7. No redundancy state or duration

The lineup is out of service for the whole procedure. The MOP does not state the redundancy during the outage, and the TIME column is empty for all 35 steps.

**RECOMMENDATION**

State the redundancy during the outage and an estimated duration for each section.

Source: page not applicable, MOP scope; step register, TIME column

Code ref: none (general observation)

Confidence: high

MOP-IMP-03-11 · Impact · inconsistency

Critical

### 8. Redundancy check could not run

The MOP declares no redundancy state and no single-line was submitted, so the check has neither input.

**RECOMMENDATION**

Supply both and re-run.

Source: page not applicable, MOP; submitted drawings

Code ref: none (general observation)

Confidence: high

MOP-PRE-05-14 · Equipment · gap

Critical

### 9. Dead check required, PPE not defined

Steps 1.03 and 1.04 require absence-of-voltage testing. The MOP excludes PPE to a separate procedure that it does not name, and no arc flash or shock information appears anywhere in the submittal.

**RECOMMENDATION**

Name the governing PPE procedure and confirm it covers these steps.

Source: page not applicable, MOP scope exclusions; steps 1.03 and 1.04; Appendix C

Code ref: none (general observation)

Confidence: high

MOP-PRE-02-15 · Personnel · gap

Critical

### 10. Roles named, qualifications not stated

Nine roles are named with no qualification requirement for any of them, including the two people who perform the dead check.

**RECOMMENDATION**

State the qualification each role requires.

Source: page not applicable, MOP administrative and approvals blocks; steps 1.03, 1.04 and 4.04

Code ref: none (general observation)

Confidence: high

MOP-STEP-01-19 · Sequence · gap

Critical

### 11. Installation steps have no expected result

Most Section 3 steps state an action with no expected result, for example cutting a mounting panel with no dimensions or tightening bolts "snug-tight" with no check. The executor has nothing to check against.

**RECOMMENDATION**

Add an expected result to each installation step.

Source: page not applicable, MOP steps 3.02, 3.04, 3.05, 3.06, 3.07 and 3.12

Code ref: none (general observation)

Confidence: high

MOP-STEP-04-20 · Sequence · gap

Critical

### 12. Safe Stop Point defined, never used

The footer defines "SSP = Safe Stop Point", but no step is marked SSP. The only hold point is in step 4.03, after all physical work is done.

**RECOMMENDATION**

Mark Safe Stop Points, at minimum before the conductor removal in step 3.02.

Source: page not applicable, MOP footer legend; all 35 steps

Code ref: none (general observation)

Confidence: high

MOP-STEP-05-21 · Sequence · gap

Critical

### 13. No abort authority

Step 5.01 lists back-out triggers that can be checked, but no step names who may call a back-out.

**RECOMMENDATION**

Name the abort authority and how it is communicated to the field.

Source: page not applicable, MOP steps 5.01 and 5.02; approvals block | Code ref: none (general observation)

Confidence: high

MOP-BO-02-24 · Back out · inconsistency

Critical

### 14. Back-out does not reverse most of the forward work

The forward sequence makes 14 distinct changes. The back-out restores wiring and one breaker only. It does not address the new assembly, fuse block, breaker, fuse change or relabeling. The wiring was cut, not disconnected, and the back-out calls for no replacement conductor.

**RECOMMENDATION**

Rewrite the back-out as a device-by-device reversal with expected results, and confirm replacement conductor is on site.

Source: page not applicable, MOP §3 steps 3.01–3.15 compared with §5 steps 5.01–5.07 | Code ref: none (general observation)

Confidence: high

MOP-RTS-01-27 · Return to service · gap

Critical

### 15. No handoff at successful completion

The MOP ends before re-energization, with LOTO applied. The back-out path defines its end state; successful completion does not, and the follow-on procedure is not named.

**RECOMMENDATION**

Add a closing step defining the completed state and handoff, and name the follow-on procedure.

Source: page not applicable, MOP scope; final section; step 5.07 | Code ref: none (general observation) | Confidence: high

MOP-INT-01-30 · Interrogation · interrogate

Critical

### 16. When was the single-line last field-verified?

No single-line was submitted. The drawings provided are several years old, carry hand markups, and do not match the drawing number cited in the MOP.

**RECOMMENDATION**

Answer required from the responsible engineer.

Source: page not applicable, fixed question; submitted drawings | Code ref: none (general observation) | Confidence: high

MOP-INT-02-31 · Interrogation · interrogate

Critical

### 17. Is any source missing from the drawings?

The drawings show a generator breaker in the same lineup and separate control power circuits, and a control power transformer was removed from the drawing. Its status in the field is unknown.

**RECOMMENDATION**
Answer required from the responsible engineer.

Source: page not applicable, fixed question; drawing section schedule and control sheets

Code ref: none (general observation) | Confidence: high

MOP-INT-04-33 · Interrogation · interrogate

Critical

### 18. What single failure causes a load loss, and is that risk accepted in writing?

The MOP has no risk classification and no impact assessment (findings 9 and 28).

**RECOMMENDATION**
Answer required from the responsible engineer.

Source: page not applicable, fixed question | Code ref: none (general observation) | Confidence: high

MOP-INT-07-36 · Interrogation · interrogate

Critical

### 19. Has a qualified person walked down this MOP at the equipment?

This review covers documents only. Findings 1, 2, 3, 5 and 6 can only be closed at the equipment.

**RECOMMENDATION**
Answer required from the responsible engineer.

Source: page not applicable, fixed question | Code ref: none (general observation) | Confidence: high

## SIGNIFICANT (17)

MOP-XREF-01-4 · Cross check · inconsistency

Significant

### 20. Drawing reference does not match the drawings submitted

The drawing number, sheet and revision cited in the MOP header do not match the submitted drawing. The drawing is one sheet of a 32-sheet set.

**RECOMMENDATION**
Cite the controlling drawing correctly and submit the sheets the MOP depends on.

Source: page not applicable, MOP header; drawing cross-reference block | Code ref: none (general observation)

Confidence: high

MOP-XREF-03-7 · Cross check · gap

Significant

### 21. Scope check limited by the missing scope of work

No scope of work was submitted, so the MOP's own scope section was used in its place. That makes the comparison l argely circular.

**RECOMMENDATION**

Submit the scope of work.

Source: page not applicable, MOP scope section | Code ref: none (general observation) | Confidence: medium

MOP-XREF-05-8 · Cross check · inconsistency

Significant

### 22. Steps re-join circuits the scope says are separated

The stated purpose is to separate the fan and controller power from the voltage-sensing circuit. After steps 3.09 to 3.15, both are still fed from the same fuse block terminals.

**RECOMMENDATION**

State where the separation is intended so the steps can be checked against it.

Source: page not applicable, MOP scope; steps 3.09, 3.10, 3.11 and 3.15 | Code ref: none (general observation) | Confidence: medium

MOP-IMP-04-12 · Impact · gap

Significant

### 23. No load owner notification

Load owners are not identified, and notification is required only on back-out.

**RECOMMENDATION**

Identify the load owners and when each is notified.

Source: page not applicable, MOP; prerequisite checklist; step 5.02 | Code ref: none (general observation) | Confidence: high

MOP-IMP-05-13 · Impact · gap

Significant

### 24. No concurrent work check

No step confirms that conflicting work is not under way on dependent systems.

**RECOMMENDATION**

Add a prerequisite step confirming no conflicting work.

Source: page not applicable, MOP §1, steps 1.01–1.05 | Code ref: none (general observation) | Confidence: high

MOP-PRE-04-16 · Equipment · gap

Significant

### 25. Torque values given, torque tools not

Eight steps give torque values from 18 to 35 in-lb. No torque tool, range or calibration is required, and the bill of materials is referenced but not attached.

**RECOMMENDATION**

List the torque tools with range and calibration, and attach the bill of materials.

Source: page not applicable, MOP steps 3.05–3.14, 1.05 and 4.04; Appendix C | Code ref: none (general observation) | Confidence: high

MOP-PRE-01-17 · Prerequisites · gap

Significant

### 26. Thin prerequisites; pre-job brief has no owner

There are three prerequisites. The pre-job brief has no named lead and is not documented, and all 18 items on the prerequisite checklist are unchecked.

**RECOMMENDATION**

Name who leads the brief, document it, and complete the checklist before issue.

Source: page not applicable, MOP steps 1.01, 1.02 and 1.05; prerequisite checklist

Code ref: none (general observation)

Confidence: high

MOP-PRE-03-18 · Personnel · gap

Significant

### 27. Two-person requirement implied, not stated

The steps assign Person 1 and Person 2, but no minimum crew is stated, and the second-person verification in step 4.04 says "should".

**RECOMMENDATION**

State the minimum crew and make step 4.04 mandatory.

Source: page not applicable, MOP steps 1.03, 1.04 and 4.04

Code ref: none (general observation)

Confidence: high

MOP-STEP-03-22 · Sequence · gap

Significant

### 28. Compound steps and two typos in device names

Step 3.01 combines nine operations under one signature, and step 3.02 is built the same way. "Snug-tight" is not defined. Two device names in operative instructions are mistyped.

**RECOMMENDATION**

Split the compound steps, define snug-tight, and correct the two device names.

Source: page not applicable, MOP steps 3.01, 3.02, 3.06 and 3.15; Appendix C

Code ref: none (general observation)

Confidence: high

MOP-STEP-06-23 · Sequence · gap

Significant

### 29. No duration estimates

The TIME column is empty for every step, and no overrun trigger is defined.

**RECOMMENDATION**

Add estimated durations and an overrun trigger.

Source: page not applicable, MOP step register, TIME column

Code ref: none (general observation)

Confidence: high

MOP-BO-03-25 · Back out · gap

Significant

### 30. No point of no return

Step 3.02 cuts conductors, so it is the point past which back-out requires new wire. The MOP does not identify it or give go/no-go criteria.

**RECOMMENDATION**

Identify step 3.02 as the point of no return and state the go/no-go criteria.

Source: page not applicable, MOP step 3.02; §5

Code ref: none (general observation)

Confidence: high

MOP-BO-04-26 · Emergency · gap

Significant

### 31. No emergency procedure referenced

No emergency operating procedure is referenced. Section 5 is titled "Emergency Back-Out", but its triggers are failed tests, wrong material and schedule, not emergencies.

**RECOMMENDATION**

Reference the applicable emergency procedure by document number.

Source: page not applicable, MOP §5; prerequisite checklist | Code ref: none (general observation) | Confidence: high

MOP-ID-01-28 · Identification · gap

Significant

### 32. Document control problems

The MOP has no number of its own, and the header date and filename date disagree. It has no risk classification. Step 1.01 points to the wrong section for the back-out plan. One section number and one step number are each used twice, and the approval and administrative blocks are blank.

**RECOMMENDATION**

Assign a number and revision, fix the dates and references, add a risk class, and complete approvals before issue.

Source: page not applicable, MOP header; administrative block; step 1.01; section headings; approvals block | Code ref: none (general observation) | Confidence: high

MOP-COM-01-29 · Communication · gap

Significant

### 33. Communication only on back-out

The only notification is on back-out. There is none at start, at hold points or at completion, and no method, contacts or escalation path.

**RECOMMENDATION**

Add a communication plan for start, hold points, completion and abort, with named contacts.

Source: page not applicable, MOP step 5.02; administrative block | Code ref: none (general observation) | Confidence: high

MOP-INT-03-32 · Interrogation · interrogate

Significant

### 34. What loses redundancy, and have load owners been told?

The MOP names no affected load, redundancy state or load owner (findings 9, 10 and 12).

**RECOMMENDATION**

Answer required from the responsible engineer.

Source: page not applicable, fixed question | Code ref: none (general observation) | Confidence: high

MOP-INT-05-34 · Interrogation · interrogate

Significant

### 35. Is another MOP running on a dependent system?

The MOP has no concurrent work check. It describes itself as a pilot, which suggests the same work will be repeated on other lineups.

**RECOMMENDATION**

Answer required from the responsible engineer.

Source: page not applicable, fixed question; MOP scope | Code ref: none (general observation) | Confidence: high

MOP-INT-06-35 · Interrogation · interrogate

Significant

### 36. Who can abort, and how does the field hear it?

No abort authority is named (finding 21), and communication covers only the back-out path (finding 29).

**RECOMMENDATION**

Answer required from the responsible engineer.

Source: page not applicable, fixed question | Code ref: none (general observation) | Confidence: high