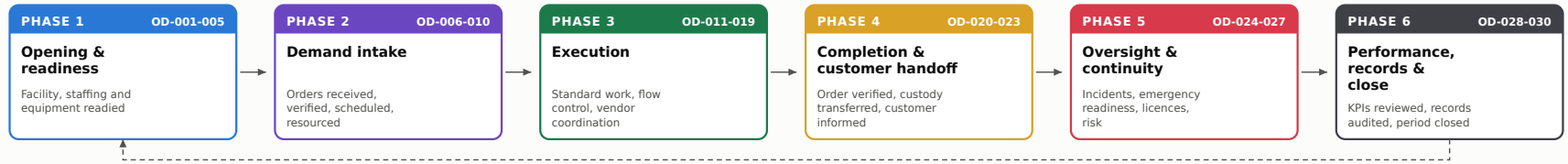
Operations Department (OD) — Complete SOP Set

Archetype: ELECTRIC_UTILITY · Electric Utility

Tier: Free (entire Operations department) · Modules: 30 · Standard: locked 13-section

Contents

FIGURE 1 — OPERATIONS WORKFLOW



Six phases · 30 modules · one continuous operating cycle, closing back into Phase 1 the next operating day.

Modules

- OD-001 — Daily Operations Opening Procedure
- OD-002 — Shift Handover & Briefing
- OD-003 — Staffing & Coverage Verification
- OD-004 — Work Area Readiness & Housekeeping Inspection
- OD-005 — Operational Equipment Availability Check
- OD-006 — Customer Order / Work Request Intake
- OD-007 — Order Verification & Acceptance Review
- OD-008 — Job Scheduling & Sequencing
- OD-009 — Resource & Capacity Allocation
- OD-010 — Incoming Material / Supply Verification
- OD-011 — Standard Work Execution & Process Adherence
- OD-012 — Work-in-Progress Tracking & Status Update
- OD-013 — Operational Handoff Between Work Stages
- OD-014 — Output Monitoring & Throughput Review
- OD-015 — Bottleneck Identification & Response
- OD-016 — Rework & Nonconforming Work Handling
- OD-017 — Schedule Deviation & Change Management
- OD-018 — Subcontractor & Vendor Coordination
- OD-019 — Interdepartmental Coordination Review
- OD-020 — Job / Order Completion Verification
- OD-021 — Delivery / Service Turnover
- OD-022 — Customer Communication & Status Notification
- OD-023 — Customer Feedback & Complaint Intake
- OD-024 — Operational Incident Reporting & Response
- OD-025 — Emergency & Business Continuity Readiness Check
- OD-026 — Regulatory, License & Permit Currency Verification
- OD-027 — Operational Risk Review
- OD-028 — Operational KPI Review
- OD-029 — Operational Records Retention & Documentation Audit
- OD-030 — End-of-Shift / End-of-Day Operations Closeout

Phase 1 — Opening & readiness

OD-001 — Daily Operations Opening Procedure

Estimated completion time: 45–90 minutes per shift start

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

This procedure establishes the standardized sequence for bringing a generation facility and its control room to a verified operational state at shift start, so that generating units, station service, and dispatch communications are confirmed ready before production work begins. It ensures continuity of the control-room shift log and a documented readiness sign-on.

2. Scope

Covers the opening sequence for the operating shift: control-room turnover, station status verification, communications and SCADA/EMS sign-on, and the readiness sign-off that authorizes the shift to begin. Excludes work-area housekeeping (OD-004), equipment availability determination (OD-005), and safety-specific readiness/JHA (SD-001).

3. Responsibilities

- Shift Operations Supervisor — leads turnover, authorizes the readiness sign-on, and owns the shift log entry.
- Control Room Operator (NERC-certified) — verifies SCADA/EMS status, breaker/switching state, and dispatch communications.
- Auxiliary/Field Operator — walks down station service and confirms plant status points reported to the control room.

4. Required PPE & Lockout/Tagout

- Standard facility PPE for control-room and plant-floor walkdown: FR-rated clothing, hard hat, safety glasses, hearing protection in turbine hall.
- Not applicable to this procedure — no LOTO is applied during opening. Any existing tag-out status is verified/read-across during turnover per SD-001; do not clear or apply tags under this SOP.

5. Regulatory References

- NERC Reliability Standards — PER-005 (operator training/turnover), COM-002 (operating communications), TOP-001/TOP-003 (operations reliability and data specification).
- FERC-jurisdictional operating requirements applicable to the generating entity.

- 29 CFR 1910.269 (operation of electric power generation) as it pertains to shift readiness.
- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow

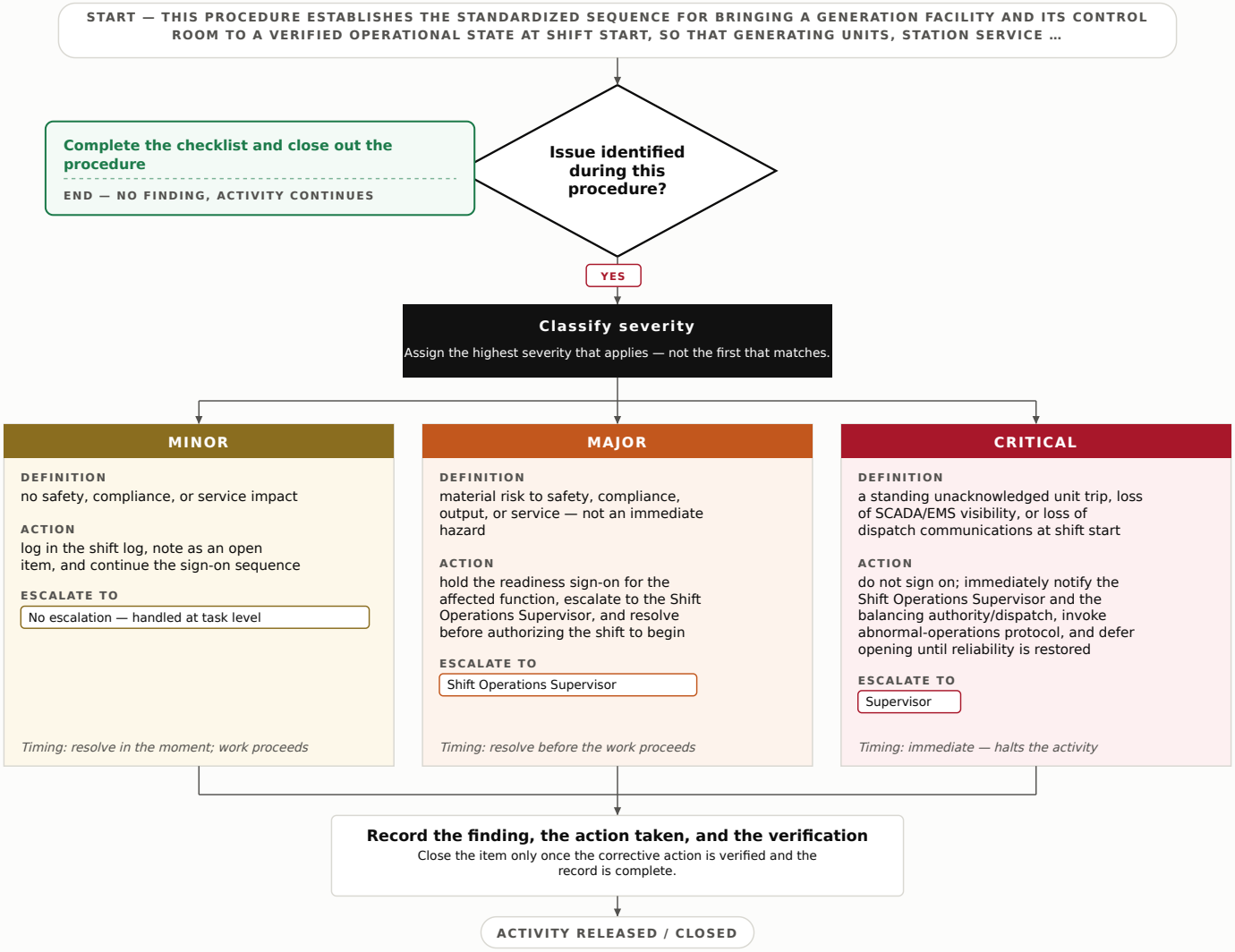
7. Step-by-Step Procedure

1. Conduct face-to-face turnover with the outgoing Shift Operations Supervisor; review the shift log, open work orders, active tags, and abnormal conditions.
2. Confirm generating unit status (online/offline/standby), current MW output, and any dispatch/AGC limits against the EMS display.
3. Verify station service and auxiliary power status; confirm the Auxiliary Operator's plant walkdown status points match control-room indications.
4. Validate SCADA/EMS connectivity, alarm annunciator state, and that no unacknowledged critical alarms are standing.
5. Sign on to dispatch/balancing-authority communications; confirm two-way contact and current load/generation schedule.
6. Cross-check breaker and switching configuration against the current one-line status; note any mismatch (do not operate).
7. Confirm readiness of all shift positions and obtain verbal readiness from each operator.
8. Record the readiness sign-on, time, and any open items in the control-room shift log and close out the opening procedure.

8. Decision Tree

OD-001 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Daily Operations Opening Procedure



READING THIS TREE

- **No finding** — Activity stands. Complete the checklist and continue.
- **Minor** — Handled in place at task level; no escalation.
- **Major** — Supervisory decision required before the next stage.
- **Critical** — Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- Turnover completed face-to-face with all open items and active tags reviewed.
- Unit status and MW output reconciled between EMS display and field indications.
- SCADA/EMS and dispatch communications confirmed operational with no standing critical alarms.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
Face-to-face turnover completed and shift log reviewed		
Unit status / MW output reconciled with EMS		
Station service & auxiliary power confirmed		
SCADA/EMS connectivity and alarm state verified		
Dispatch/balancing-authority communications signed on		
Breaker/switching configuration cross-checked to one-line		
Readiness sign-on recorded in shift log		

11. KPIs

- Opening procedure completed before scheduled shift start: 100% of shifts.
- Turnover documentation completeness (all fields logged): ≥ 98%.
- Critical findings unresolved at sign-on: 0.

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

OD-002 — Shift Handover & Briefing

Estimated completion time: 20–45 minutes per shift transition

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1. Purpose

To ensure a complete, verifiable transfer of generating-unit status, open operational issues, and shift priorities from the outgoing to the incoming Control Room Operator so that continuous, reliable generation and grid dispatch are maintained without loss of situational awareness.

2. Scope

Covers the structured control-room handover of unit load and status, active clearances/hold orders, open work notifications, grid dispatch instructions, and outstanding priorities across all generating units at the facility. Excludes the safety pre-shift briefing, which is covered under SD-003, and maintenance-crew handover, which is covered under MD-001.

3. Responsibilities

- Outgoing Control Room Operator — compiles and communicates current unit status, open issues, and priorities; ensures the shift log is complete and accurate before relief.
- Incoming Control Room Operator — reviews all handover items, confirms understanding, walks down active alarms/clearances, and accepts control accountability.
- Shift Supervisor (Operations) — witnesses the turnover, resolves discrepancies, and authorizes formal transfer of the watch.

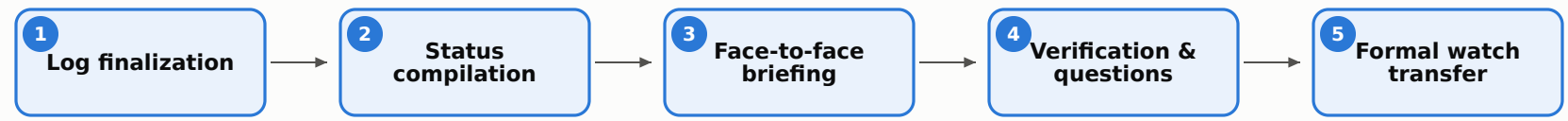
4. Required PPE & Lockout/Tagout

- Standard facility PPE for control-room area; hearing/eye protection if handover includes a walkdown onto the generation floor.
- Not applicable — this coordination task involves no hazardous energy control; any active clearances/tags are only reviewed, not applied, per MD-001.

5. Regulatory References

- NERC Reliability Standards PER-005 (Operations Personnel Training) and TOP-001 (Transmission Operations — situational awareness/authority); NERC COM-002 (Operating Personnel Communications Protocols); internal Control Room Operating Log policy.
- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow



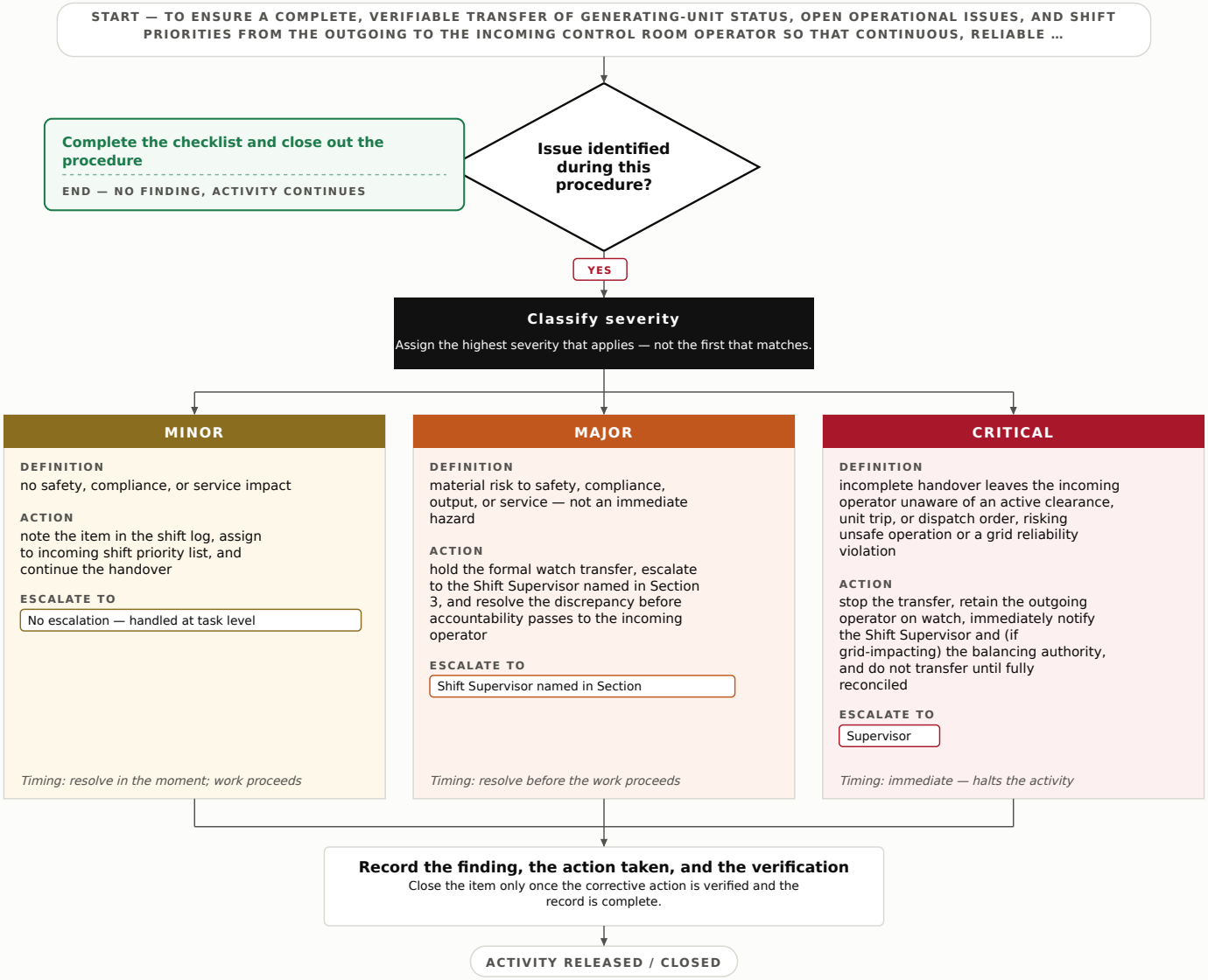
7. Step-by-Step Procedure

1. Outgoing operator finalizes the shift log, ensuring all load changes, trips, dispatch orders, and alarms are timestamped and entered.
2. Outgoing operator compiles current status of each generating unit (MW output, mode, fuel status, derates) and lists active clearances/hold orders in effect (reference MD-001 for any maintenance clearances).
3. Both operators conduct a face-to-face briefing at the control desk, reviewing unit status, open issues, and top priorities for the incoming shift.
4. Operators walk down the alarm/annunciator panel and active operator work-arounds together, confirming no unacknowledged alarms.
5. Incoming operator reviews outstanding dispatch instructions and grid conditions from the balancing authority.
6. Incoming operator asks clarifying questions until all open items are understood; discrepancies are escalated to the Shift Supervisor.
7. Shift Supervisor witnesses agreement and both operators sign the log to formally transfer the watch.
8. Time of transfer, names, and any unresolved items are documented in the Control Room Operating Log.

8. Decision Tree

OD-002 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Shift Handover & Briefing



READING THIS TREE

No finding
Activity stands. Complete the checklist and continue.

Minor
Handled in place at task level; no escalation.

Major
Supervisory decision required before the next stage.

Critical
Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- Shift log is complete, timestamped, and signed by both operators.
- All active clearances/hold orders and unacknowledged alarms are verbally confirmed and understood.
- Outstanding dispatch instructions and unit priorities are acknowledged by the incoming operator.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
Shift log finalized and timestamped		
Each unit's MW/mode/derate status reviewed		
Active clearances/hold orders confirmed (per MD-001)		
Alarm/annunciator panel walked down, no unacknowledged alarms		
Outstanding dispatch instructions communicated		
Priorities list agreed by incoming operator		
Both operators and Supervisor signatures obtained		

11. KPIs

- Handover completion with signed log: 100% of shift transitions.
- Post-handover clarification callbacks (missed items reported after transfer): ≤ 1 per month.
- Critical handover discrepancies resulting in transfer hold: 0 per quarter.

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

OD-003 — Staffing & Coverage Verification

Estimated completion time: 30–60 minutes per operating period (per shift turnover)

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

To confirm that every required operating role for the generation facility is present, currently qualified, and formally assigned before the operating period begins, so that no unit is run or dispatched without adequate qualified coverage.

2. Scope

Covers verification of role presence, current qualification status, and control-room/field assignment for each shift or operating period at the generating station. Excludes shift-schedule construction and assignment (see HR-015) and the assessment or issuance of operator competency and qualification credentials (see TR-020); this procedure only verifies that credentials referenced there are valid and unexpired.

3. Responsibilities

- Shift Supervisor (Operations) — leads the coverage verification at turnover; confirms roster, qualifications, and assignments; authorizes the operating period.
- Control Room Operator — confirms own presence and credential status; identifies any gap in required field or auxiliary coverage.
- Operations Manager — resolves coverage shortfalls, approves overtime/hold-over or standby callout, and signs off on Critical escalations.

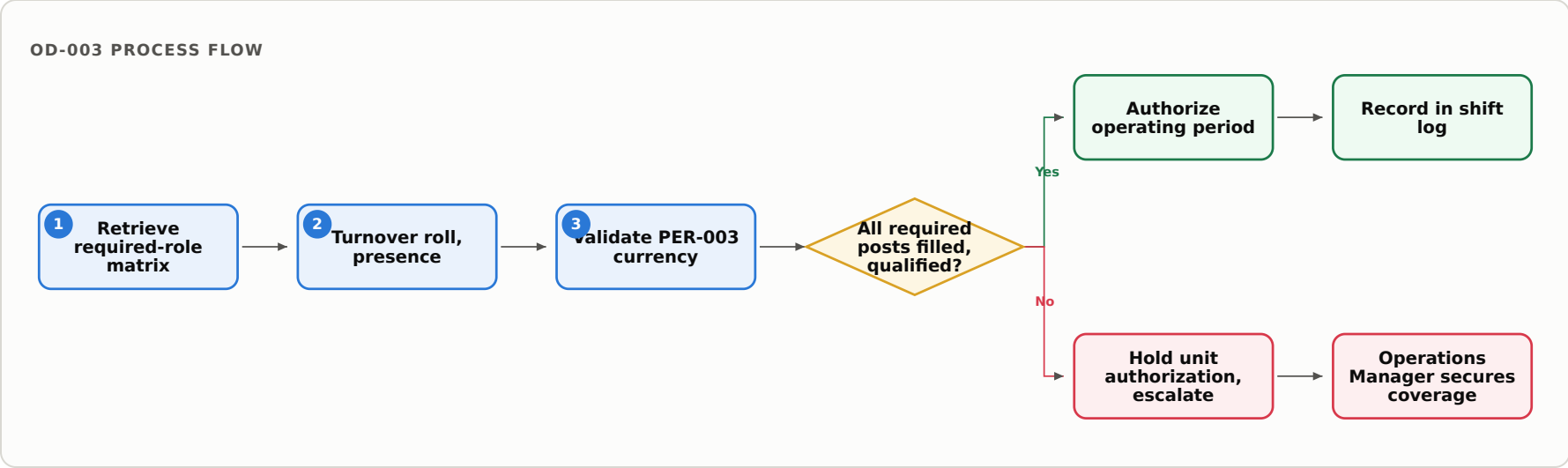
4. Required PPE & Lockout/Tagout

- Standard facility PPE while on the plant floor (arc-rated clothing, safety glasses, hearing protection where posted); no additional PPE for the verification activity itself.
- Not applicable — no hazardous energy involved in this administrative verification task.

5. Regulatory References

- NERC PER-005 (Operations Personnel Training) and PER-003 (Operating Personnel Credentials — System Operator certification), NERC PER-004 where applicable.
- NERC EOP standards addressing capability to meet minimum operating staffing; 29 CFR 1910 (general OSHA duty where staffing affects safe operation).
- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow



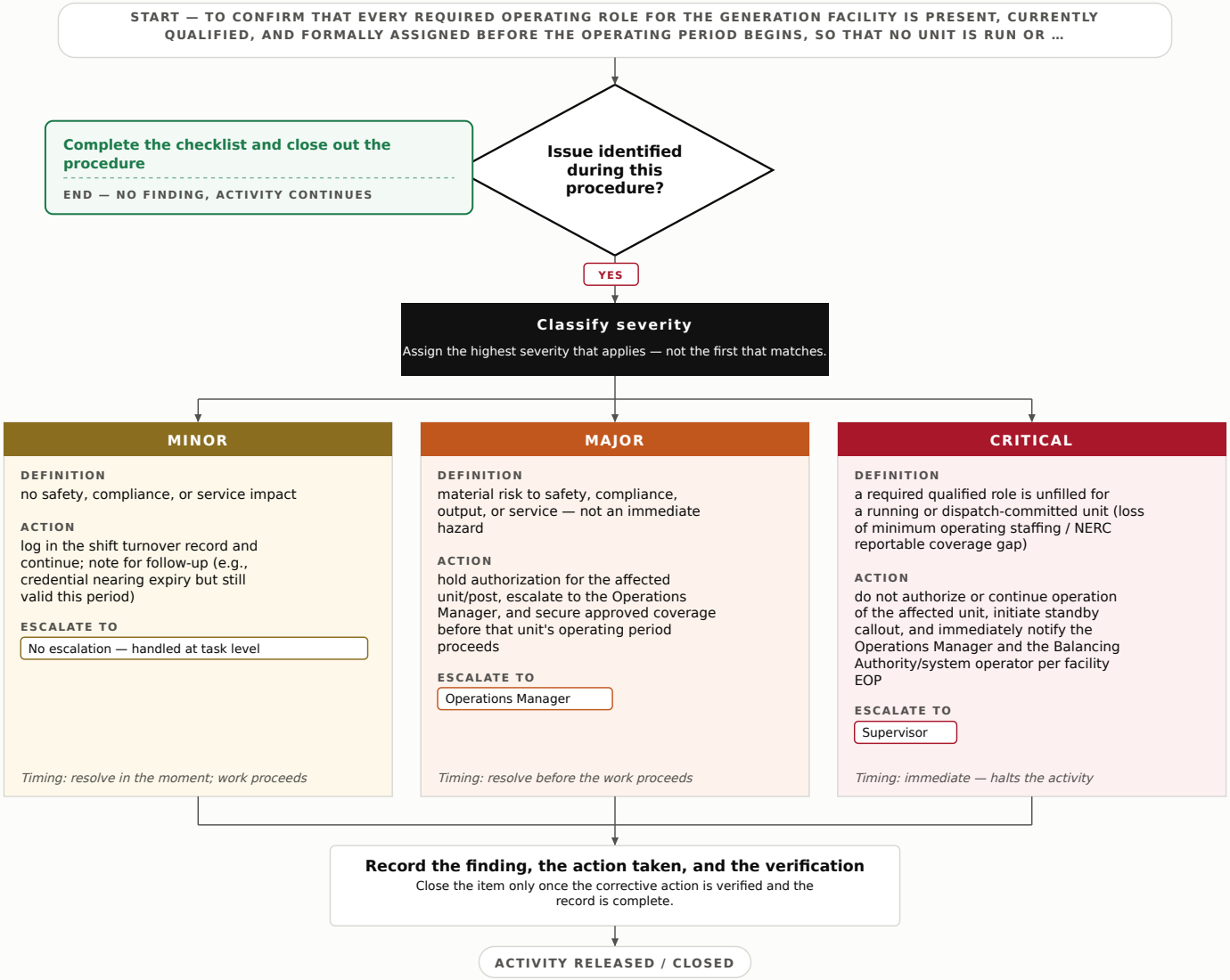
7. Step-by-Step Procedure

1. Retrieve the operating-period required-role matrix (control room operator, field/auxiliary operators, water/chemistry operator, and any switching authority) for the units scheduled to run.
2. Conduct the turnover roll: confirm the physical presence and fitness-for-duty attestation of each individual named for the period.
3. For each named individual, validate that their required qualification and NERC PER-003 certification (where the role requires it) is current and unexpired, using the credential record only — do not re-assess competency (see TR-020).
4. Confirm each present, qualified individual is formally assigned to a specific unit, post, or switching authority for the period with no unfilled required role.
5. Identify any gap — absence, expired credential, or unfilled required post — and classify per Section 8.
6. For gaps, arrange approved coverage (hold-over, standby callout, or qualified reassignment) with the Operations Manager before the period is authorized.
7. Confirm no unit is scheduled to operate without its minimum qualified coverage in place.
8. Record the completed verification, all gaps and their resolution, and the authorizing signature in the shift log / turnover record.

8. Decision Tree

OD-003 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Staffing & Coverage Verification



READING THIS TREE

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- **Major** — Supervisory decision required before the next stage.
- **Critical** — Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- All required roles on the period matrix are matched to a present, named individual.
- Every safety- or reliability-critical role holds a current, unexpired qualification/certification.
- All coverage gaps have a documented resolution before period authorization.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
Required-role matrix retrieved for all scheduled units		
All named personnel physically present at turnover		
Fitness-for-duty attestation completed for each individual		
NERC PER-003 / role qualifications current and unexpired		
Each required post formally assigned with no gap		
Coverage shortfalls resolved and documented		
Verification recorded in shift log with authorizing signature		

11. KPIs

- Operating periods started with full verified coverage ≥ 99%
- Coverage verification completed before period start 100%
- Unresolved Critical staffing gaps at authorization 0

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

OD-004 — Work Area Readiness & Housekeeping Inspection

Estimated completion time: 30–60 minutes per shift start

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1. Purpose

To confirm that turbine hall, control room, generator bays, and switchyard access areas are clear, organized, and free of housekeeping hazards before the operating shift begins, so that generation operations at this facility proceed safely and without obstruction.

2. Scope

Covers pre-shift walkdown and housekeeping inspection of operational work areas — turbine/generator floor, control room, boiler/fuel-handling walkways, and switchyard access points. Excludes warehouse housekeeping (see WH-023) and maintenance-shop housekeeping (see MD-025).

3. Responsibilities

- Shift Operations Lead — performs the pre-shift walkdown, classifies findings, authorizes area readiness for the shift.
- Control Room Operator — inspects control-room housekeeping, egress, and panel-front clearances; logs findings in the shift log.
- Operations Supervisor — verifies completed inspection, approves escalations, and signs off on close-out.

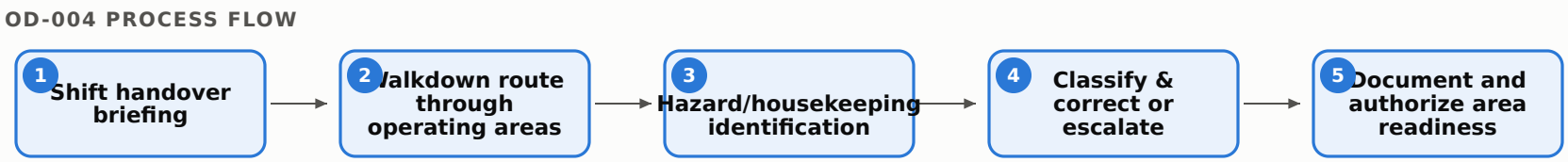
4. Required PPE & Lockout/Tagout

- Standard facility PPE: hard hat, safety glasses, arc-rated clothing, hearing protection in turbine hall, steel-toe boots.
- LOTO: Not applicable for the inspection itself — no equipment operation. If a housekeeping hazard requires physical intervention on energized/rotating equipment, defer to established LOTO procedures before contact.

5. Regulatory References

- 29 CFR 1910.22 (Walking-Working Surfaces — housekeeping, clearance, aisle access)
- 29 CFR 1910.37 (Maintenance of exit routes / means of egress)
- 29 CFR 1910.269 (Electric Power Generation, Transmission, and Distribution — working space and clearances)
- NFPA 70E (electrical safety working-space housekeeping, internal-policy adopted)
- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow



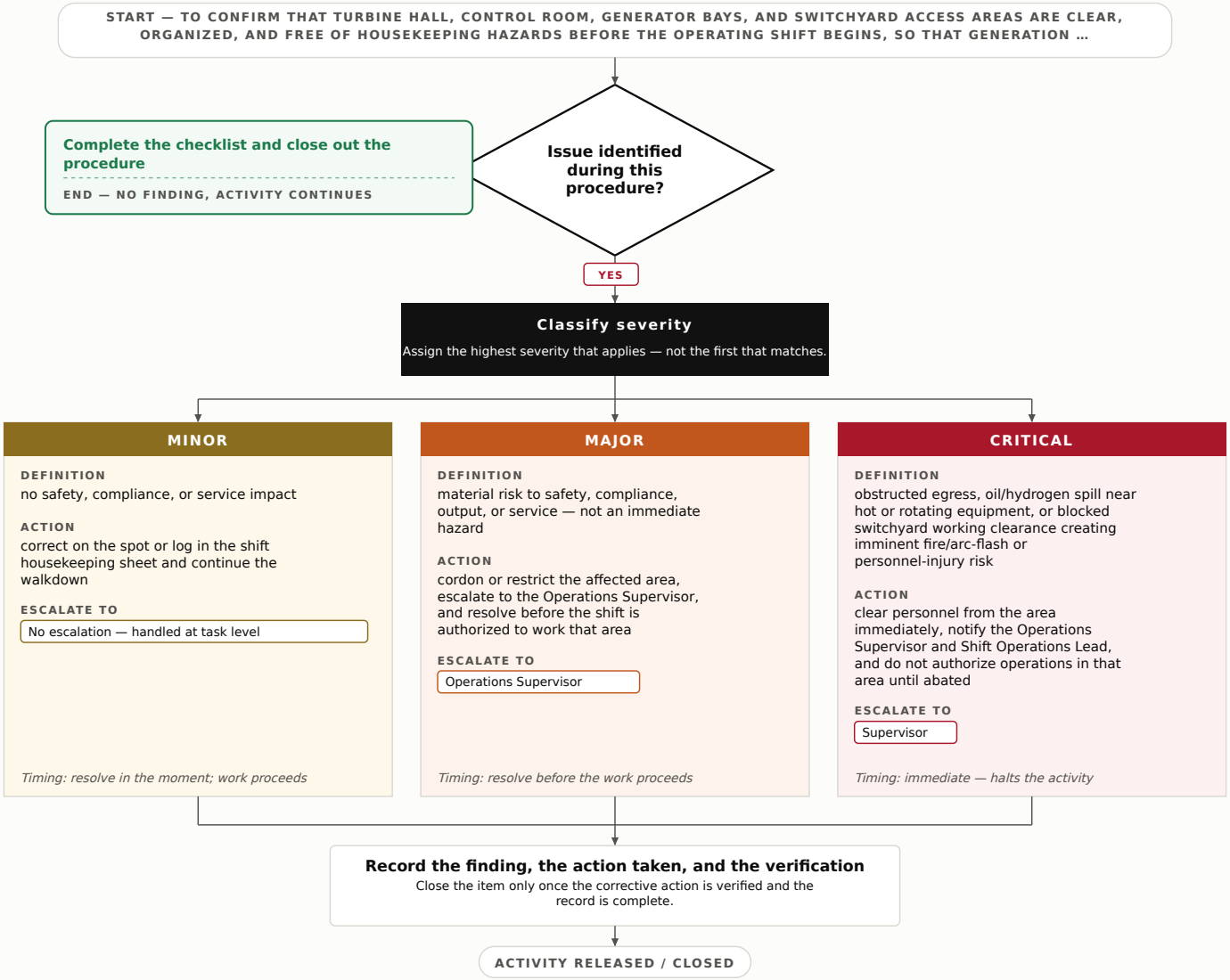
7. Step-by-Step Procedure

1. Review prior-shift log and open housekeeping items during handover briefing with outgoing Shift Operations Lead.
2. Walk the turbine hall and generator bays; verify floors are clear of oil, water, tools, and rags; confirm lube-oil and hydrogen-seal areas show no leaks or spills.
3. Inspect control room; confirm panel fronts, egress paths, and firefighting equipment are unobstructed and no loose material blocks access.
4. Check boiler/fuel-handling walkways and stairs for coal dust, ash accumulation, or debris; verify handrails intact and drains clear.
5. Inspect switchyard access points and cable trenches for clear pathways, secured covers, and no vegetation or trip hazards obstructing working clearances.
6. Verify fire extinguishers, eyewash stations, and spill-kit stations are stocked, accessible, and unobstructed.
7. Correct minor housekeeping issues immediately; classify and route any findings that cannot be corrected on the spot per Section 8.
8. Record all findings, corrective actions, and readiness authorization in the shift log and housekeeping inspection sheet.

8. Decision Tree

OD-004 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Work Area Readiness & Housekeeping Inspection



READING THIS TREE

- **No finding** — Activity stands. Complete the checklist and continue.
- **Minor** — Handled in place at task level; no escalation.
- **Major** — Supervisory decision required before the next stage.
- **Critical** — Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- All operating-area egress paths and exits confirmed clear and unobstructed.
- No uncontained oil, water, hydrogen, or fuel/ash accumulation in operating areas.
- Fire, spill, and emergency equipment accessible and stocked.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
Turbine hall / generator bay floors clear of spills, tools, debris		
Control room egress and panel-front clearances unobstructed		
Boiler/fuel-handling walkways and stairs free of dust/ash, handrails intact		
Switchyard access points and trench covers clear and secured		
Fire extinguishers, eyewash, and spill kits accessible and stocked		
No uncontained oil, water, or hydrogen leaks in operating areas		
Shift log and inspection sheet completed and authorized		

11. KPIs

- Pre-shift walkdown completion rate: 100% of shifts
- Unresolved Critical housekeeping findings at shift start: 0
- Repeat housekeeping findings closed within one shift: ≥ 95%

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

OD-005 — Operational Equipment Availability Check

Estimated completion time: 30–60 minutes per shift/operating period

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1. Purpose

To confirm that the equipment and tools required for the upcoming operating period — generating units, turbine auxiliaries, switchgear, breakers, and operator hand tools/test instruments — are present, functional, and released for use so that generation dispatch and switching activities can proceed without unplanned interruption.

2. Scope

Covers the pre-period availability verification of operational equipment and tools staged for the shift, including confirmation that items are physically present, energized/available, and cleared of holds or tags. Excludes equipment condition/inspection (see ED-003), preventive-maintenance status (see PM-024), and material-handling equipment pre-use checks (see WH-004).

3. Responsibilities

- Shift Operations Supervisor — owns the availability check, authorizes release of equipment for the period, and resolves escalated availability gaps.
- Control Room Operator — verifies unit/breaker availability status in the DCS/SCADA and reconciles against the operating plan.
- Field Operator/Auxiliary Operator — physically confirms presence and functional readiness of staged tools, portable test instruments, and local equipment.

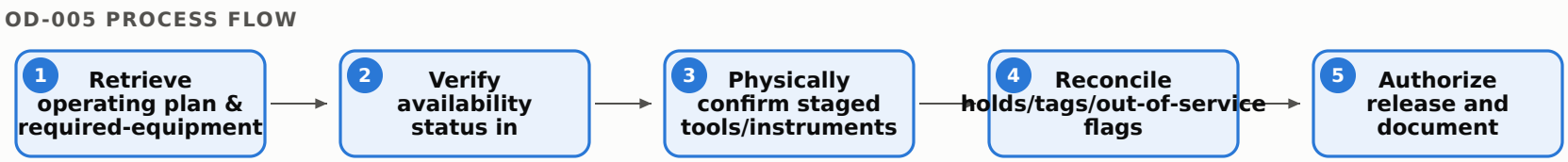
4. Required PPE & Lockout/Tagout

- Standard facility PPE: arc-rated FR clothing, hard hat, safety glasses, hearing protection, and dielectric gloves when in switchgear areas.
- LOTO: This is a status/availability verification only. Do not clear, apply, or manipulate any lockout/tagout device. Tagged or isolated equipment is treated as NOT available; hazardous-energy control is governed under the facility LOTO program.

5. Regulatory References

- 29 CFR 1910.269 (Electric Power Generation, Transmission, and Distribution)
- 29 CFR 1910.147 (The Control of Hazardous Energy — LOTO), status-recognition only
- NERC Reliability Standards (e.g., PER-005 operator readiness; VAR/EOP operating provisions as applicable)
- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow



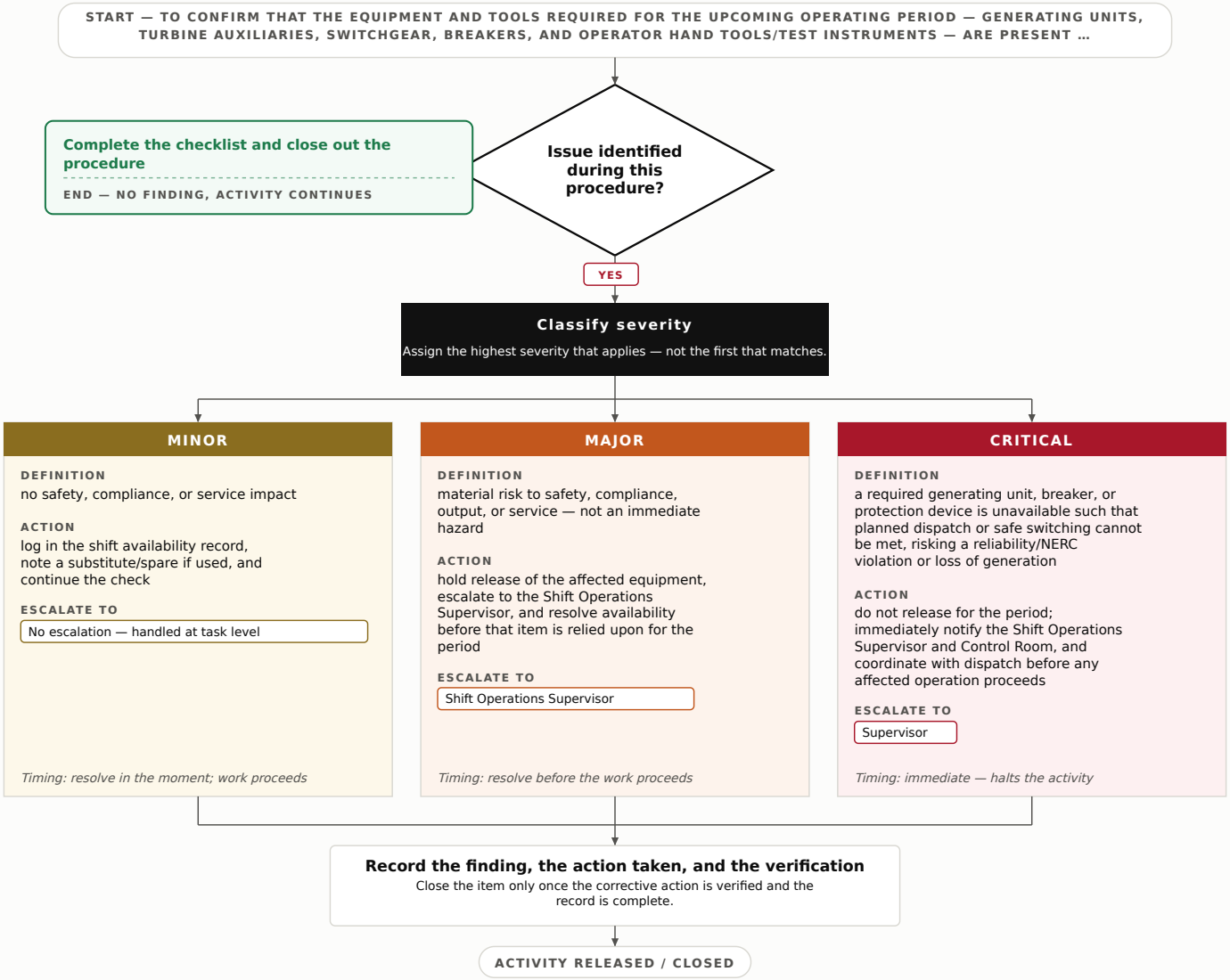
7. Step-by-Step Procedure

1. Obtain the operating plan, dispatch schedule, and the required-equipment/tool list for the upcoming period from the Shift Operations Supervisor.
2. In the DCS/SCADA, confirm each required generating unit, turbine auxiliary, transformer, and breaker/switchgear position shows an "available" or "in-service-ready" status.
3. Cross-check the tag-out/out-of-service log to confirm no required item carries an active hold or isolation tag; flag any that do as unavailable.
4. Have the Field Operator physically confirm presence and power-on/self-test of staged portable equipment — protective relays test set, portable meters, radios, and operator hand tools called for in the plan.
5. Confirm consumables and spare-ready items sourced from suppliers (turbine/generator set spares, transformer accessories, miscellaneous electrical equipment) are on hand per the required-equipment list.
6. Reconcile any discrepancy between the required list and confirmed availability; classify per the Decision Tree.
7. Obtain Shift Operations Supervisor authorization releasing verified equipment for the period.
8. Record results in the shift log/availability record, noting each item's present/functional/released status and any open items with owner and target time.

8. Decision Tree

OD-005 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Operational Equipment Availability Check



READING THIS TREE

- **No finding** — Activity stands. Complete the checklist and continue.
- **Minor** — Handled in place at task level; no escalation.
- **Major** — Supervisory decision required before the next stage.
- **Critical** — Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- Every item on the required-equipment/tool list has a confirmed present/functional/released status.
- SCADA/DCS availability status reconciles with the physical field confirmation.
- All active tags/out-of-service holds have been cross-checked and dispositioned.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
Required-equipment/tool list matched to operating plan		
Generating unit(s) show available/in-service-ready in SCADA		
Breakers/switchgear positions confirmed available		
Portable test instruments present and self-test passed		
No active tag-out/OOS holds on required items		
Spares/consumables on hand per list		
Supervisor release-for-period authorization obtained		

11. KPIs

- Required items verified present, functional, and released: ≥ 99% per period
- Unplanned unavailability discovered after period start: 0 per period
- Availability check completed before period start: 100% on time

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

Phase 2 — Demand intake

OD-006 — Customer Order / Work Request Intake

Estimated completion time: 15–45 minutes per request

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1. Purpose

Establish a consistent method for receiving, logging, and initially routing incoming customer orders, interconnection requests, generation dispatch instructions, and service/work requests so that no request is lost and each enters the work-management system with the data needed for downstream scheduling.

2. Scope

Covers intake and logging of external and internal work requests — dispatch orders, wholesale supply requests, interconnection/service inquiries, and maintenance work requests — from first receipt through creation of a tracked record in the Work Management System (WMS). Excludes acceptance/capability review (whether the utility can technically serve or fulfill the request), which is covered under OD-007.

3. Responsibilities

- Operations Dispatch Coordinator — receives requests through all channels, logs them in the WMS, and assigns priority and initial routing.
- Shift Operations Supervisor — reviews logged requests, verifies completeness, and authorizes escalation of Major/Critical items.
- Records/Compliance Clerk — maintains the intake log, ensures required data fields are captured, and preserves records per retention rules.

4. Required PPE & Lockout/Tagout

- Standard facility PPE only for control-room/office intake; field-verification visits follow the applicable field PPE standard.
- Not applicable — no hazardous energy involved in the intake and logging activity itself.

5. Regulatory References

- NERC Reliability Standards (e.g., COM-002 Operating Personnel Communications; TOP-001 Transmission Operations) for dispatch/operating-instruction handling
- FERC Order No. 2003 / applicable state interconnection procedures for interconnection service requests
- State public utility commission service-request and record-retention rules
- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow

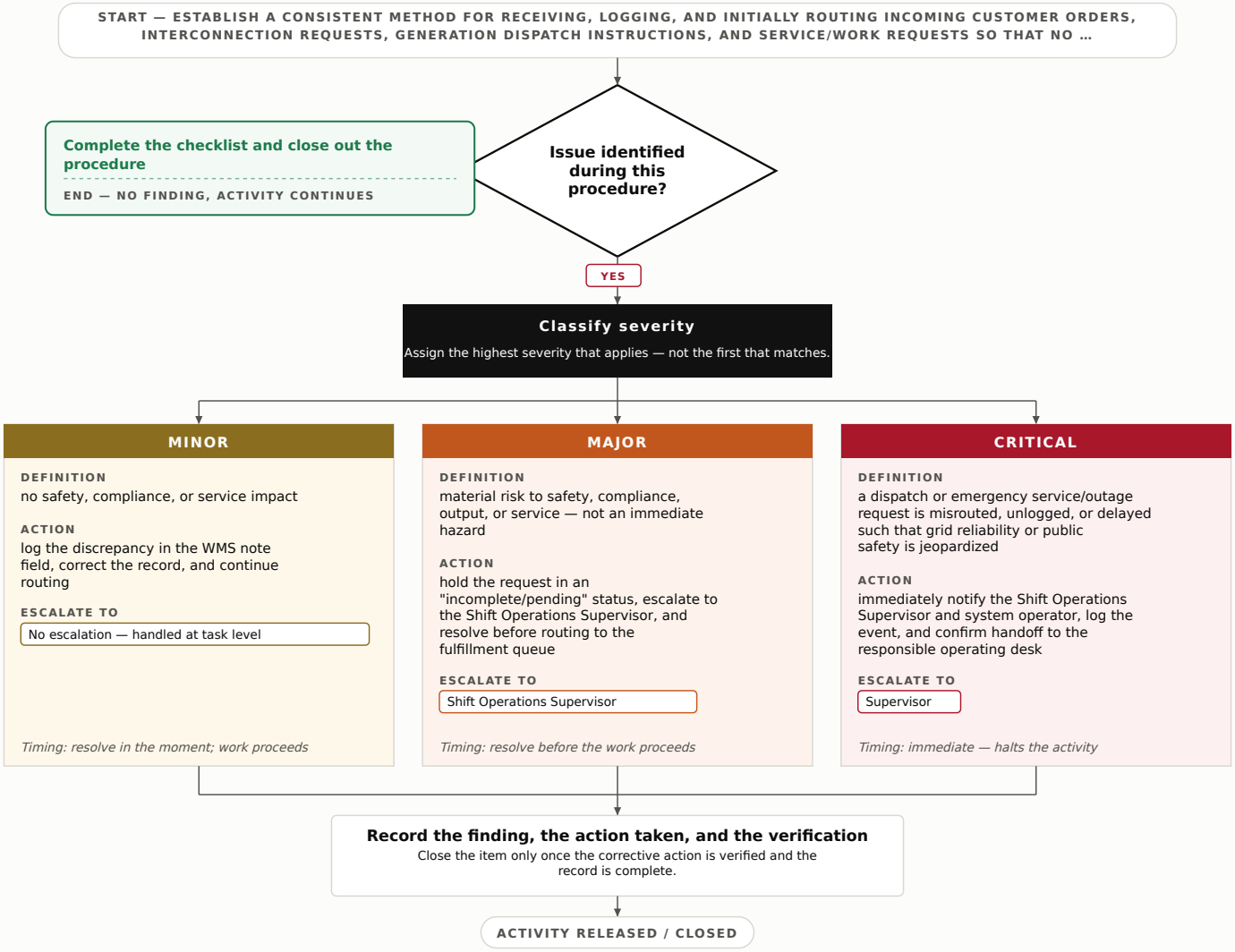
7. Step-by-Step Procedure

1. Receive the incoming request through an authorized channel (dispatch line, EDI feed from wholesalers, customer portal, email, or internal work-request form).
2. Verify requester identity and authority — confirm account number, interconnection ID, dispatch authority, or internal originating department.
3. Capture core data: date/time received, channel, requester contact, request type (dispatch, supply, interconnection, service/maintenance), and requested date or dispatch window.
4. Create a unique tracked record in the WMS and attach any supporting documents (order forms, one-line diagrams, EDI transaction records).
5. Assign a preliminary priority (routine, expedited, or emergency) based on service impact and requested timeframe.
6. Route the record to the correct queue — dispatch operations, wholesale/supply coordination, interconnection intake, or maintenance planning — without performing capability review (hand off to OD-007).
7. Send a receipt confirmation to the requester with the tracking ID and expected next-step timing.
8. Document all entries and time-stamp the log; note any missing information flagged for follow-up.

8. Decision Tree

OD-006 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Customer Order / Work Request Intake



READING THIS TREE

- **No finding** — Activity stands. Complete the checklist and continue.
- **Minor** — Handled in place at task level; no escalation.
- **Major** — Supervisory decision required before the next stage.
- **Critical** — Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- All mandatory data fields captured before the record is saved
- Unique tracking ID assigned and receipt confirmation issued
- Priority and routing match the request type and requested timeframe
- Zero unresolved Critical findings

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
Requester identity/authority verified		
Request type and requested date/window recorded		
Unique WMS tracking ID created		
Priority classification applied		
Routed to correct fulfillment queue		
Receipt confirmation sent to requester		
Supporting documents attached and log time-stamped		

11. KPIs

- Requests logged with complete required data ≥ 98%
- Average time from receipt to WMS entry ≤ 15 minutes
- Misrouted or unlogged requests < 1% of monthly volume

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

OD-007 — Order Verification & Acceptance Review

Estimated completion time: 45–90 minutes per order

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

This procedure confirms that an incoming generation, capacity, or equipment order can be met — verifying scope, technical specification, plant capability, and commercial terms — before Operations formally accepts and commits resources. It prevents the utility from accepting work it cannot deliver safely, reliably, or within regulatory limits.

2. Scope

Covers acceptance review of customer/dispatch orders and inbound equipment procurement (turbine sets, transformers, specialty electrical gear) against plant capability, specification, and terms. Excludes order logging, which is covered under OD-006, and scheduling/dispatch commitments, which are covered under OD-008.

3. Responsibilities

- Operations Shift Supervisor — owns the acceptance decision; verifies plant capability and generation/interconnection limits against the requested order.
- Contracts & Commercial Analyst — verifies commercial terms, delivery obligations, penalties, and specification conformance against the order document.
- Plant Engineer — confirms technical specification, equipment ratings, and applicable interconnection/reliability constraints.

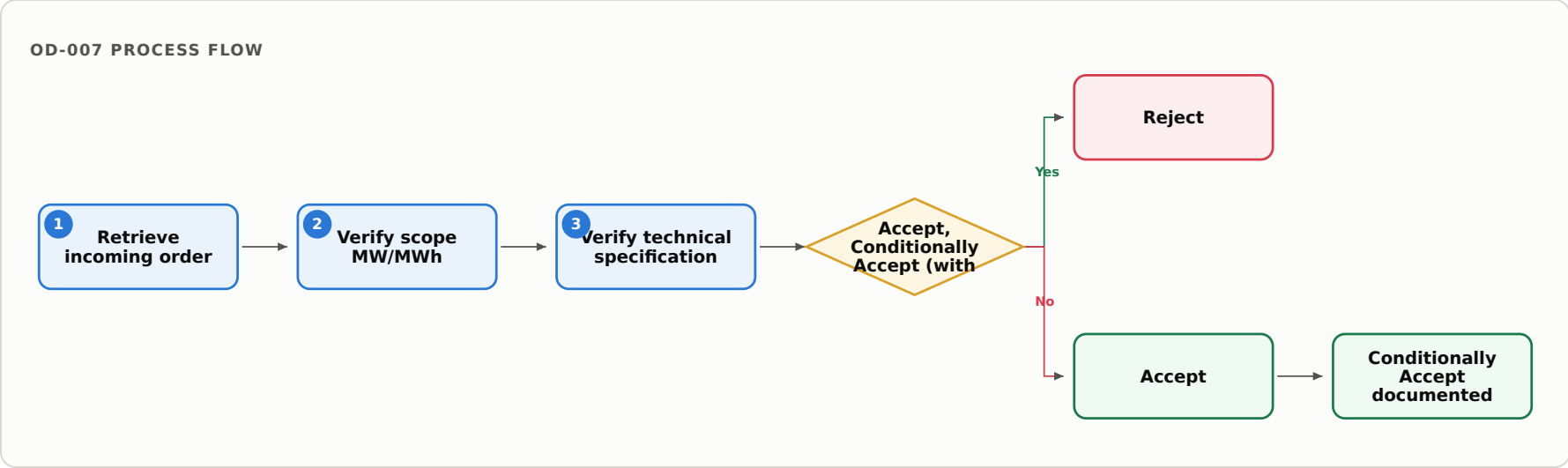
4. Required PPE & Lockout/Tagout

- Standard facility PPE if the review requires a walk-down of generation or switchyard assets; otherwise office/control-room attire.
- Not applicable — this is an administrative acceptance review; no hazardous energy is controlled by this procedure.

5. Regulatory References

- NERC Reliability Standards (FAC-002, FAC-008 facility ratings; MOD-025 capability verification)
- FERC Open Access Transmission Tariff / interconnection agreement obligations (18 CFR Part 35)
- Applicable state PUC service and capacity obligations; internal Operations Acceptance Policy
- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow



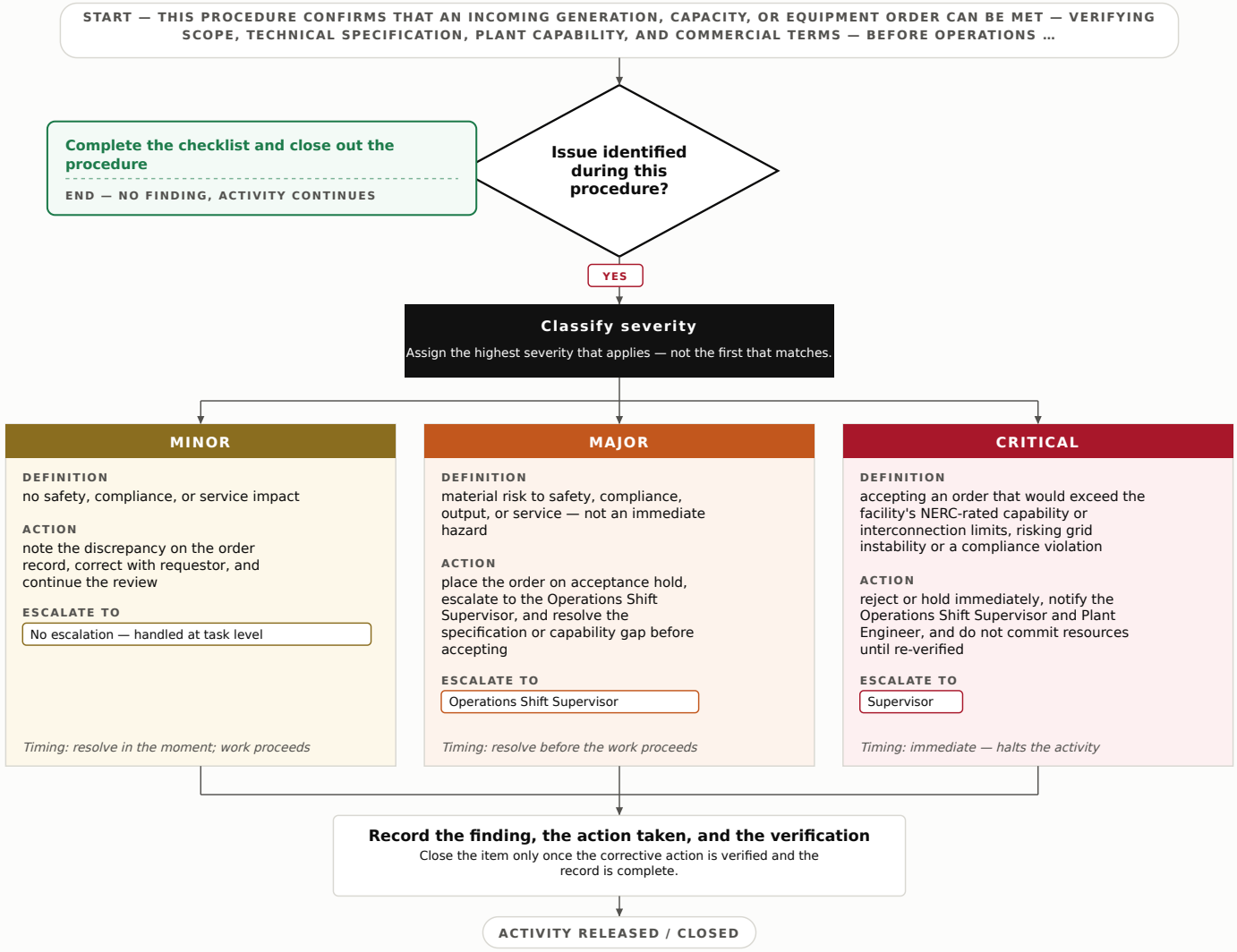
7. Step-by-Step Procedure

1. Retrieve the incoming order and supporting documents (already logged per OD-006); confirm order ID, requestor, and requested delivery window.
2. Verify scope — MW/MWh quantity, service type (energy, capacity, ancillary), duration, and delivery point are unambiguously stated.
3. Verify technical specification — voltage, frequency, ramp rate, power factor, and any equipment ratings match facility capability documents (FAC-008 ratings).
4. Confirm plant capability with the Shift Supervisor — available generating units, fuel availability, and current derates can meet the request without exceeding interconnection or NERC limits.
5. For inbound equipment orders, verify supplier specification and certification against purchase requirements (turbine sets, transformers, specialty electrical equipment) before acceptance.
6. Review commercial terms with the Contracts Analyst — pricing, penalties, delivery obligations, and regulatory compliance clauses are acceptable.
7. Render decision: Accept, Conditionally Accept (with documented conditions), or Reject; route accepted orders to scheduling (OD-008).
8. Document the acceptance decision, verifier names, and any conditions in the order record and obtain supervisor sign-off.

8. Decision Tree

OD-007 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Order Verification & Acceptance Review



READING THIS TREE

No finding
Activity stands. Complete the checklist and continue.

Minor
Handled in place at task level; no escalation.

Major
Supervisory decision required before the next stage.

Critical
Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- Scope, quantity, and delivery window verified against order document.
- Technical specification cross-checked against current FAC-008 facility ratings.
- Commercial terms and compliance clauses confirmed by Contracts Analyst.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
Order ID and requestor confirmed		
Scope (MW/MWh, service type, duration) fully specified		
Technical specification matches facility ratings		
Plant/unit capability verified against current derates		
Inbound equipment certification verified (if applicable)		
Commercial terms and penalties reviewed		
Acceptance decision and verifier names recorded		

11. KPIs

- Acceptance reviews completed within SLA (≤ 24 hrs of logging): ≥ 95%
- Accepted orders later found infeasible or non-conforming: ≤ 2%
- Critical capability/compliance findings caught at review (not post-acceptance): 100%

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

OD-008 — Job Scheduling & Sequencing

Estimated completion time: 45–90 minutes per scheduling cycle

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

Establishes a consistent method for placing accepted generation, switching, and grid-support work orders into the operating schedule so that priority, load-serving obligations, and due dates are met without compromising reliability. This ensures dispatchable resources and crew-ready tasks are sequenced against real-time demand at the ELECTRIC_UTILITY generation operation.

2. Scope

Covers intake of accepted work orders, priority classification, due-date validation, and sequencing into the daily/weekly operating schedule for generation and grid-support tasks. Excludes resource and crew assignment, which is covered under OD-009, and maintenance scheduling, which is covered under PM-008.

3. Responsibilities

- Operations Scheduler — builds and maintains the operating schedule, classifies priority, and validates due dates against dispatch obligations.
- Shift Operations Supervisor — reviews and approves the sequenced schedule and resolves conflicts between priority and reliability constraints.
- Control Room Operator (CRO) — confirms real-time system conditions and flags load/dispatch changes affecting the schedule.

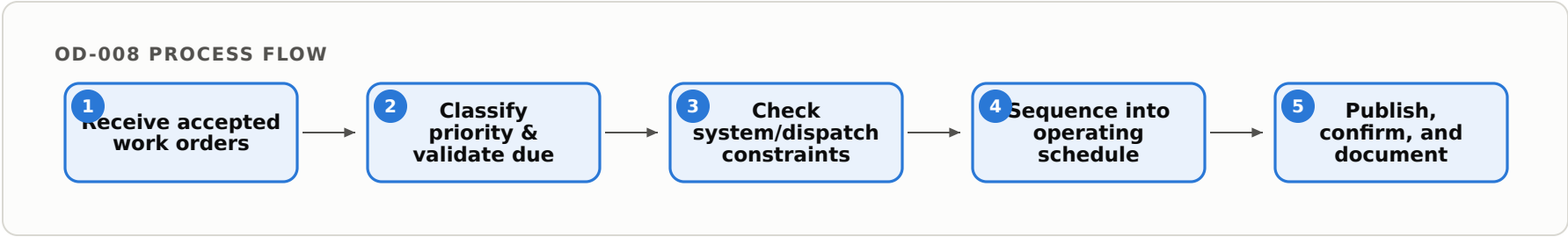
4. Required PPE & Lockout/Tagout

- Standard facility PPE only for control-room/office work (no field entry as part of scheduling itself).
- Not applicable — no hazardous energy involved in the scheduling activity; any field execution follows its own LOTO under the executing procedure.

5. Regulatory References

- NERC Reliability Standards BAL-005 (Balancing Authority Control) and TOP-001/TOP-002 (Transmission Operations & Operational Planning) as applicable to scheduled operating activity.
- FERC-approved operating and dispatch obligations under the applicable balancing authority tariff.
- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow



7. Step-by-Step Procedure

1. Retrieve all accepted work orders from the operations intake queue and confirm each carries a valid acceptance status and originating reference.
2. Classify each item by priority tier (regulatory/reliability-mandated, load-serving, routine operational) using the facility priority matrix.
3. Validate the stated due date against dispatch obligations, forecasted load, and any reliability-coordinator directives.
4. Check current and forecasted system conditions with the CRO for capacity, reserve margin, and switching-window availability.
5. Sequence items into the operating schedule so higher-priority and time-critical work is placed within its required window without violating reserve or reliability constraints.
6. Identify and flag scheduling conflicts (overlapping outages, contested windows, resource dependencies deferred to OD-009) for supervisor resolution.
7. Obtain Shift Operations Supervisor approval of the sequenced schedule and publish to the operating board/system of record.
8. Document the final schedule, priority rationale, and any conflict resolutions in the operations log with timestamp and scheduler identification.

8. Decision Tree

OD-008 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Job Scheduling & Sequencing

START — ESTABLISHES A CONSISTENT METHOD FOR PLACING ACCEPTED GENERATION, SWITCHING, AND GRID-SUPPORT WORK ORDERS INTO THE OPERATING SCHEDULE SO THAT PRIORITY, LOAD-SERVING OBLIGATIONS, AND DUE DATES ARE MET …

Issue identified during this procedure?

- **NO** → **Complete the checklist and close out the procedure**
  END — NO FINDING, ACTIVITY CONTINUES
- **YES** → **Classify severity**
  Assign the highest severity that applies — not the first that matches.

MINOR

DEFINITION
no safety, compliance, or service impact

ACTION
log the discrepancy in the operations log, adjust the sequence, and continue scheduling

ESCALATE TO
No escalation — handled at task level

Timing: resolve in the moment; work proceeds

MAJOR

DEFINITION
material risk to safety, compliance, output, or service — not an immediate hazard

ACTION
hold the affected schedule item, escalate to the Shift Operations Supervisor, and resolve the priority/due-date conflict before publishing

ESCALATE TO
Shift Operations Supervisor

Timing: resolve before the work proceeds

CRITICAL

DEFINITION
a scheduled sequence that would breach a NERC reliability limit or leave a load-serving obligation unmet (risk of undispatched capacity or reserve shortfall)

ACTION
immediately halt publication of the affected sequence and notify the Shift Operations Supervisor and Reliability Coordinator before proceeding

ESCALATE TO
Supervisor

Timing: immediate — halts the activity

Record the finding, the action taken, and the verification
Close the item only once the corrective action is verified and the record is complete.

ACTIVITY RELEASED / CLOSED

READING THIS TREE

- **No finding** — Activity stands. Complete the checklist and continue.
- **Minor** — Handled in place at task level; no escalation.
- **Major** — Supervisory decision required before the next stage.
- **Critical** — Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- Every accepted work order has a validated priority tier and due date before sequencing.
- Sequenced schedule verified against current reserve-margin and dispatch constraints with the CRO.
- Supervisor approval recorded prior to publication.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
All accepted work orders retrieved from intake queue		
Priority tier assigned to each item		
Due dates validated against dispatch obligations		
System/reserve constraints confirmed with CRO		
Scheduling conflicts flagged and resolved		
Supervisor approval obtained		
Final schedule and rationale logged with timestamp		

11. KPIs

- On-time placement of priority work within required window ≥ 98%
- Scheduling conflicts unresolved at publication = 0
- Schedule entries with complete priority/due-date documentation ≥ 99%

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

OD-009 — Resource & Capacity Allocation

Estimated completion time: 45–90 minutes per dispatch/shift cycle

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

This procedure assigns qualified personnel, generating and switching equipment, and workspace to scheduled operations work at a generating station, and confirms that the committed capacity — MW capability, crew, and equipment — is genuinely available before work begins. It prevents phantom-capacity commitments that risk reliability, safety, and dispatch obligations.

2. Scope

Covers allocation of Operations crews, generating units, auxiliary equipment (transformers, switchgear, cranes, test sets), and control-room/plant workspace to scheduled tasks, plus confirmation of real available capacity. Excludes verification of staffing presence and headcount coverage, which is covered under OD-003, and work sequencing, which is covered under OD-008.

3. Responsibilities

- Shift Operations Supervisor — owns the allocation; matches crews and units to scheduled work and confirms capacity is real before release.
- Control Room Operator — verifies real-time unit availability, MW derates, and reservation of switching/isolation resources against the EMS/SCADA display.
- Plant Resource Coordinator — reconciles equipment, tooling, and space reservations; flags conflicts and unavailable assets.

4. Required PPE & Lockout/Tagout

- Standard facility PPE for any walk-down to confirm equipment availability: arc-rated clothing, hard hat, safety glasses, hearing protection in turbine hall.
- Not applicable to the allocation activity itself (planning/coordination). Any physical equipment isolation required to reserve an asset is performed under the station LOTO program by the assigned crew, not by this procedure.

5. Regulatory References

- NERC BAL-002 / TOP-001 (available/contingency reserve and operational reliability obligations)
- NERC PER-005 (operating personnel training/qualification for assigned roles)
- OSHA 29 CFR 1910.269 (electric power generation, transmission, and distribution — qualified worker assignment)
- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow

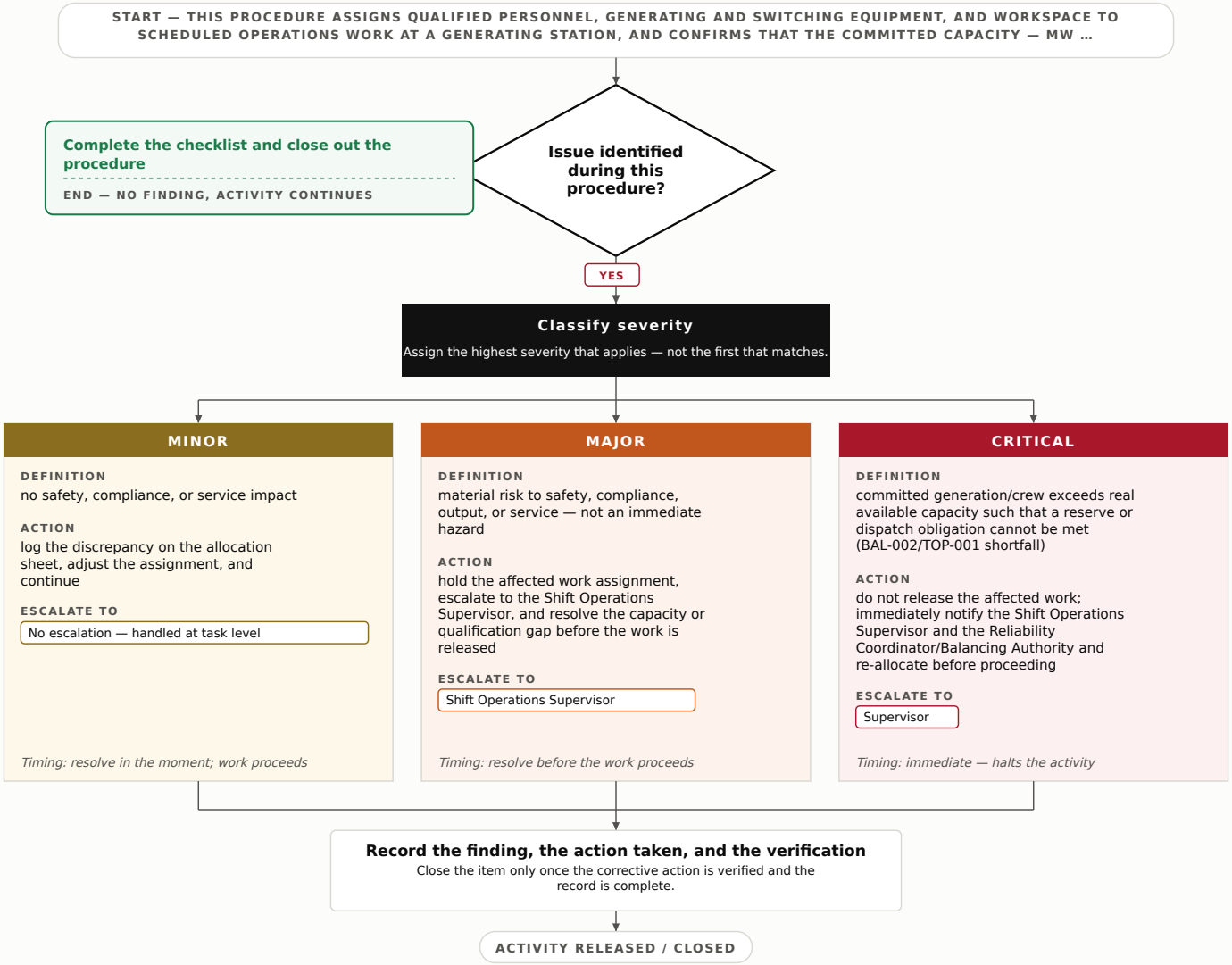
7. Step-by-Step Procedure

1. Pull the scheduled work list for the shift/cycle (sequence per OD-008) and list the MW, personnel, equipment, and workspace each task requires.
2. Query EMS/SCADA for each generating unit's current available capability, active derates, forced/planned outages, and reserve obligations under BAL-002.
3. Confirm auxiliary equipment (station transformers, breakers, cranes, portable test sets) is in service and not already reserved; walk down or contact the field to verify status where the display is ambiguous.
4. Match crews to tasks by qualification and PER-005 role requirements; confirm each assigned worker is a qualified worker per 1910.269 for the work (presence/coverage confirmed per OD-003).
5. Reserve control-room stations, work areas, and lay-down/isolation space; log each reservation to avoid double-booking.
6. Compare total committed resources against confirmed real availability; identify any over-commitment or phantom capacity (capacity assumed but derated, reserved, or unavailable).
7. Resolve conflicts — rebalance, defer, or escalate per Section 8 — until committed load ≤ confirmed available capacity for every resource.
8. Release the confirmed allocation to the crews and record it in the shift log/allocation sheet with unit availability, crew assignments, and reservations.

8. Decision Tree

OD-009 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Resource & Capacity Allocation



READING THIS TREE

No finding
Activity stands. Complete the checklist and continue.

Minor
Handled in place at task level; no escalation.

Major
Supervisory decision required before the next stage.

Critical
Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- Every committed unit's MW figure reconciles to real-time EMS/SCADA availability, not nameplate.
- Every assigned crew member's qualification matches the task per PER-005 and 1910.269.
- All equipment and workspace reservations are logged with no double-booking.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
Scheduled work list reflects required MW, crew, equipment, and space		
Unit availability confirmed against EMS/SCADA (derates/outages accounted)		
Reserve obligation (BAL-002) preserved after commitments		
Auxiliary equipment status verified and reserved		
Crew qualifications matched to assigned tasks		
Workspace/control-station reservations logged, no conflicts		
Allocation recorded in shift log and released		

11. KPIs

- Phantom-capacity incidents (committed > real available) per quarter: 0
- Allocation released before shift start: ≥ 98%
- Crew-qualification mismatches on assigned work: 0

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

OD-010 — Incoming Material / Supply Verification

Estimated completion time: 30–60 minutes per inbound delivery

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

Ensure that all inbound materials and supplies delivered to the generating station — transformers, turbine/generator components, protective relays, breakers, and consumables — match the purchase order and arrive in serviceable condition before they enter station stock or are released for installation.

2. Scope

Covers verification of inbound materials against the purchase order (line item, part number, quantity) and visual condition on receipt at Operations receiving areas. Excludes spec-conformance testing, which is covered under QC-003; putaway, covered under WH-006; and dock count, covered under SH-008.

3. Responsibilities

- Receiving Operator (OD) — physically verifies incoming items against the PO, records quantity and condition, and initiates holds on discrepancies.
- Operations Supervisor — reviews discrepancy logs, authorizes conditional acceptance or rejection, and coordinates supplier returns.
- Materials Coordinator — reconciles verified receipts with procurement records and notifies the requisitioning department.

4. Required PPE & Lockout/Tagout

- Standard facility PPE: hard hat, safety glasses, steel-toe footwear, cut-resistant gloves; arc-rated clothing when receiving energized-capable apparatus.
- Not applicable — no hazardous energy involved during verification; do not energize or connect received equipment during this procedure.

5. Regulatory References

- OSHA 29 CFR 1910.176 (materials handling — storage and clearance), 29 CFR 1910.269 (electric power generation — general); NERC facility material-quality provisions where applicable; internal procurement and receiving policy.
- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow

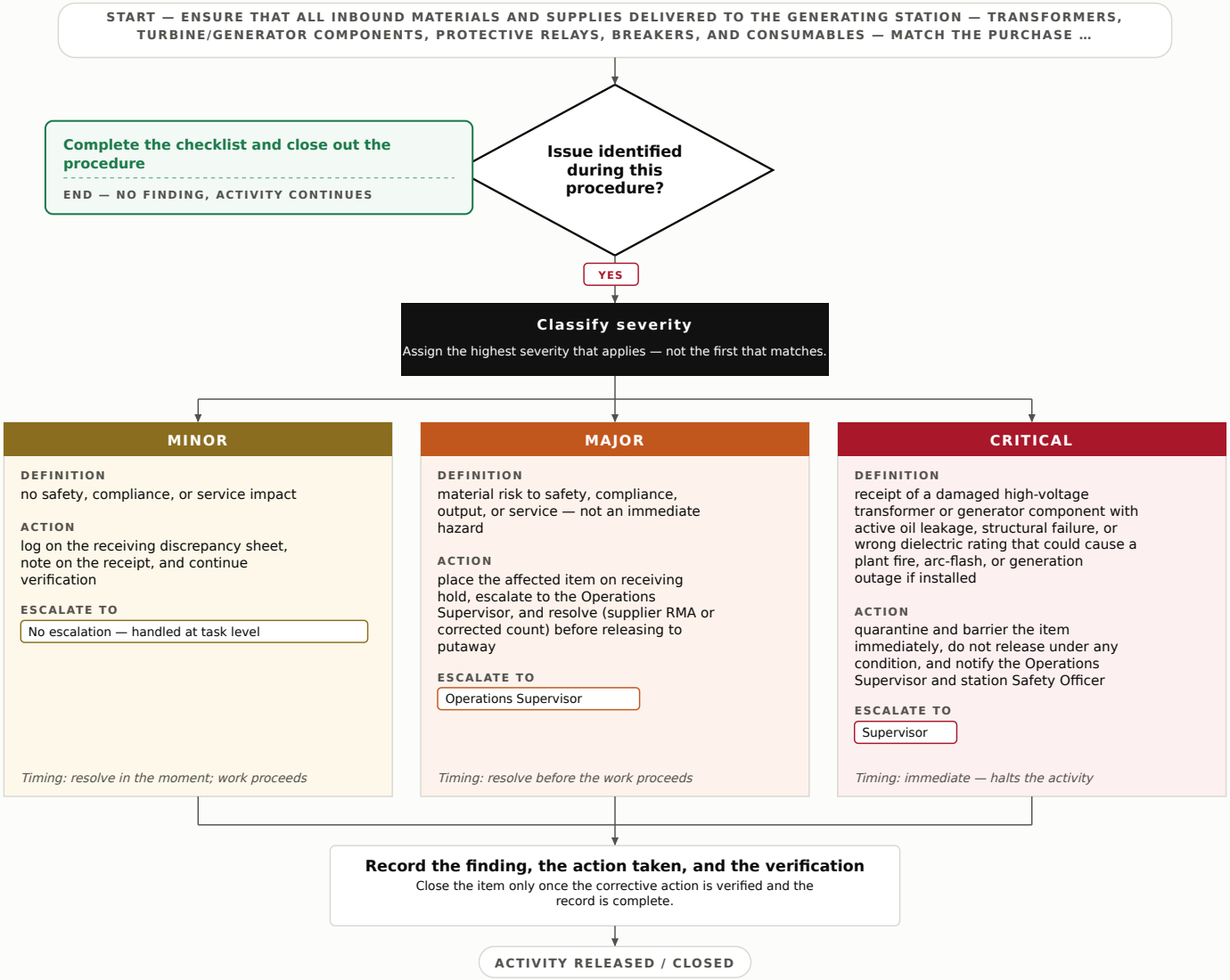
7. Step-by-Step Procedure

1. Retrieve the open purchase order and packing list; confirm the shipment is destined for this station and matches the PO number.
2. Match each carton/pallet label and part/model number against PO line items — including transformer type ratings, generator component part numbers, and relay/breaker catalog numbers.
3. Verify received quantity against PO quantity for each line item; note any over/short receipts.
4. Perform a visual condition inspection: check for shipping damage, moisture/oil leakage on transformers, cracked bushings, bent terminals, corroded hardware, and intact tamper/desiccant indicators.
5. Confirm required documentation accompanies the material (mill certs, test reports, MSDS/SDS for oils and chemicals) is present — do not evaluate test content (QC-003).
6. Segregate any damaged, mismatched, or short items to the receiving hold area; tag with a discrepancy hold ticket.
7. Record verification results in the receiving log (PO line, quantity received, condition status, inspector initials).
8. Release conforming material for putaway per WH-006 and notify the Materials Coordinator to close the receipt.

8. Decision Tree

OD-010 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Incoming Material / Supply Verification



READING THIS TREE

- **No finding** — Activity stands. Complete the checklist and continue.
- **Minor** — Handled in place at task level; no escalation.
- **Major** — Supervisory decision required before the next stage.
- **Critical** — Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- Every PO line item confirmed by part number and quantity before receipt closure.
- Visual condition documented for all major electrical apparatus.
- All discrepancies tagged, logged, and dispositioned by the Operations Supervisor.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
PO number and destination station match shipment		
Part/model numbers match PO line items		
Received quantity matches PO quantity		
No shipping damage / no transformer oil leakage		
Bushings, terminals, and hardware intact		
Accompanying documentation (certs/SDS) present		
Discrepancies tagged and logged		

11. KPIs

- PO line-item match accuracy ≥ 99%
- Inbound receipts verified same day ≥ 95%
- Discrepancies logged and escalated within 24 hours 100%

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

Phase 3 — Execution

OD-011 — Standard Work Execution & Process Adherence

Estimated completion time: 30–60 minutes per shift-log verification cycle; recurring each operating shift

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

This procedure ensures generation and dispatch work in the control room and on the plant floor is executed to the approved standard method — verified switching orders, unit startup/shutdown sequences, and dispatch instructions — so that deviations from the defined operating method are identified, logged, and corrected before they affect grid reliability or unit integrity.

2. Scope

Covers execution of approved standard operating procedures for turbine-generator operation, load dispatch, and switching activities in the Operations department, and identification/logging of deviations from the defined method. Excludes in-process quality checks (covered under QC-007) and safe-work method / hazardous-energy control (covered under SD-005).

3. Responsibilities

- Control Room Operator (CRO) — executes each step to the approved switching order or unit procedure, records actual vs. defined actions, flags deviations in the operating log.
- Shift Operations Supervisor — verifies adherence at shift turnover, dispositions logged deviations, authorizes any approved method change.
- Operations Compliance Coordinator — maintains the controlled procedure master set, tracks recurring deviations, coordinates NERC/procedure-currency reviews.

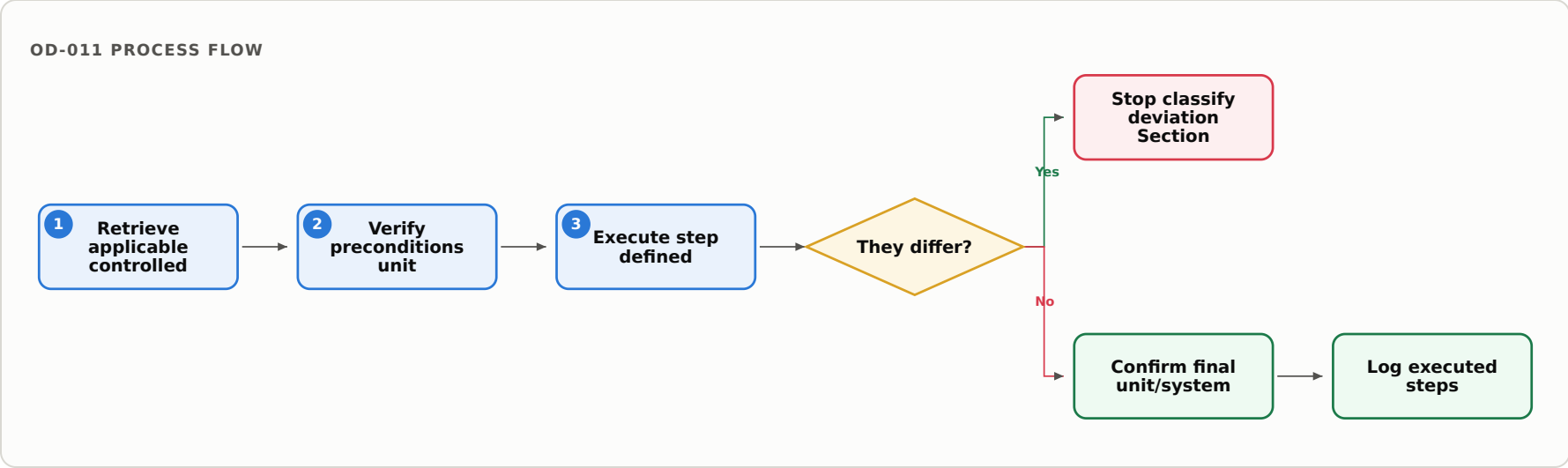
4. Required PPE & Lockout/Tagout

- Standard facility PPE for plant-floor rounds (arc-rated shirt, safety glasses, hearing protection in turbine hall); office/control-room work requires none beyond standard.
- Lockout/Tagout: hazardous-energy isolation is out of scope here and governed by SD-005; this procedure does not authorize isolation.

5. Regulatory References

- NERC Reliability Standards (e.g., PER-005 operator training, TOP-001 transmission/generation operations, VAR-001 voltage/reactive control)
- FERC-approved balancing authority operating procedures; NRC 10 CFR 50 (if nuclear-fueled units apply)
- Internal Controlled Operating Procedure master set (OD policy basis)
- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow



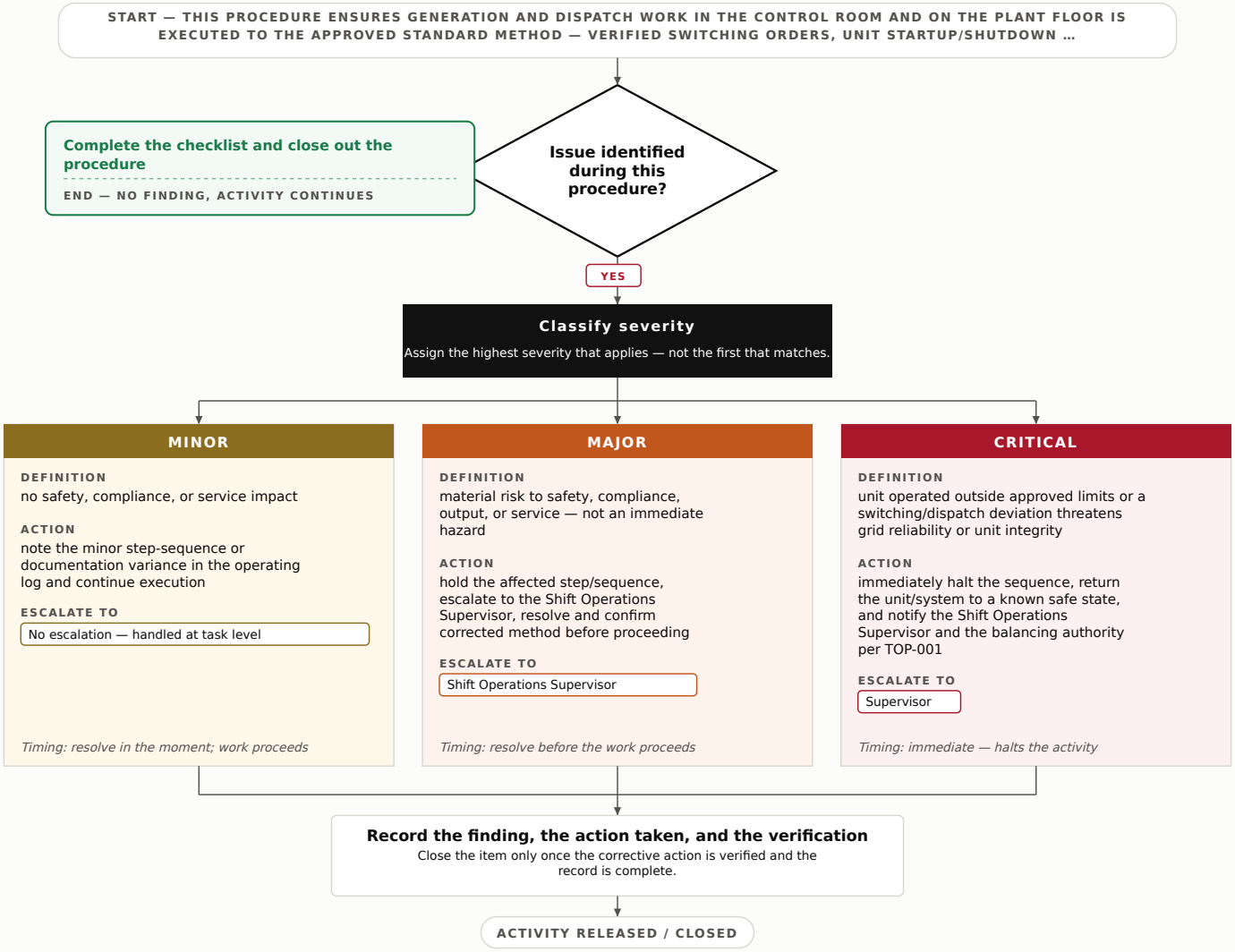
7. Step-by-Step Procedure

1. Retrieve the applicable controlled procedure, switching order, or dispatch instruction; confirm it is the current released revision against the master index.
2. Verify preconditions (unit state, breaker/switch positions, dispatch authority) match the procedure's stated starting conditions before initiating any step.
3. Execute each step in the defined sequence, reading the step aloud and confirming completion before advancing (no step skipping or reordering).
4. Record actual parameter values, timestamps, and switch/breaker positions against the defined method for each critical step.
5. At each transition point, compare actual state to the procedure's expected state; if they differ, stop and classify the deviation per Section 8 before continuing.
6. Confirm final unit/system state matches the procedure's defined end state.
7. Log all executed steps, any deviations, and their disposition in the operating log.
8. Complete the inspection checklist and hand off documented status to the incoming CRO at shift turnover.

8. Decision Tree

OD-011 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Standard Work Execution & Process Adherence



READING THIS TREE

No finding
Activity stands. Complete the checklist and continue.

Minor
Handled in place at task level; no escalation.

Major
Supervisory decision required before the next stage.

Critical
Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- Procedure revision confirmed current against master index before execution.
- Actual starting/ending states verified against defined method.
- All deviations logged with disposition and supervisor sign-off.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
Controlled procedure/switching order is current revision		
Starting preconditions match defined method		
Steps executed in defined sequence, no skips		
Actual parameters recorded at each critical step		
Final state matches defined end state		
All deviations classified and logged		
Shift turnover handoff documented		

11. KPIs

- Procedure adherence rate (steps executed to defined method) ≥ 99%.
- Unlogged deviations found at audit = 0.
- Critical operating-limit exceedances per quarter = 0.

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

OD-012 — Work-in-Progress Tracking & Status Update

Estimated completion time: 20–40 minutes per shift/handoff cycle

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

To ensure the current status of all active generation and maintenance jobs — unit derates, planned outages, breaker/transformer switching orders, and turbine PM work orders — is accurately recorded and visible to shift operators, so control-room and field crews share a single reliable picture of work in progress.

2. Scope

Covers status recording, work-order state updates, and shift-handoff visibility for active operations jobs at the generating facility. Excludes throughput/generation-volume measurement, which is covered under OD-014, and quality/conformance data, which is covered under QC-027.

3. Responsibilities

- Shift Operations Supervisor — owns the WIP board/CMMS status integrity for the shift; approves state changes and handoff sign-off.
- Control Room Operator — records real-time job status, derates, and switching-order progress in SCADA/logbook and CMMS.
- Field Maintenance Lead — reports work-order progress on turbine, transformer, and generator jobs and confirms hold/return-to-service status.

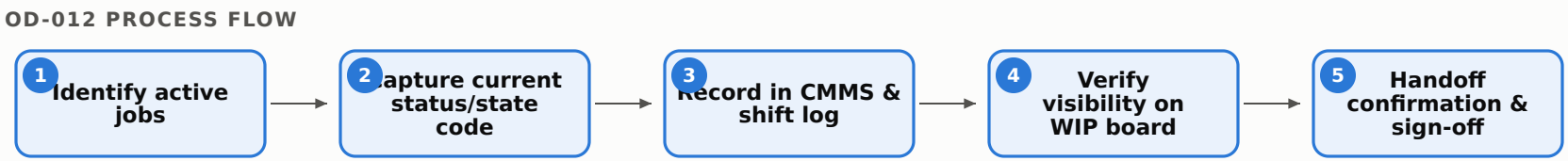
4. Required PPE & Lockout/Tagout

- Standard facility PPE when in plant areas (arc-rated clothing, safety glasses, hearing protection); none required for control-room data entry.
- Not applicable — this task records status only. Any LOTO on the referenced jobs is governed by the applicable clearance/tagout procedure, not by this update task.

5. Regulatory References

- NERC Reliability Standards (e.g., COM-002 operating communications, PER-005 personnel training, TOP-003 operational data specification) as applicable to the entity's registration.
- OSHA 29 CFR 1910.147 (referenced only where a tracked job involves hazardous-energy control).
- Internal policy: Operations Shift Log & Work-Order Status Management Procedure.
- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow



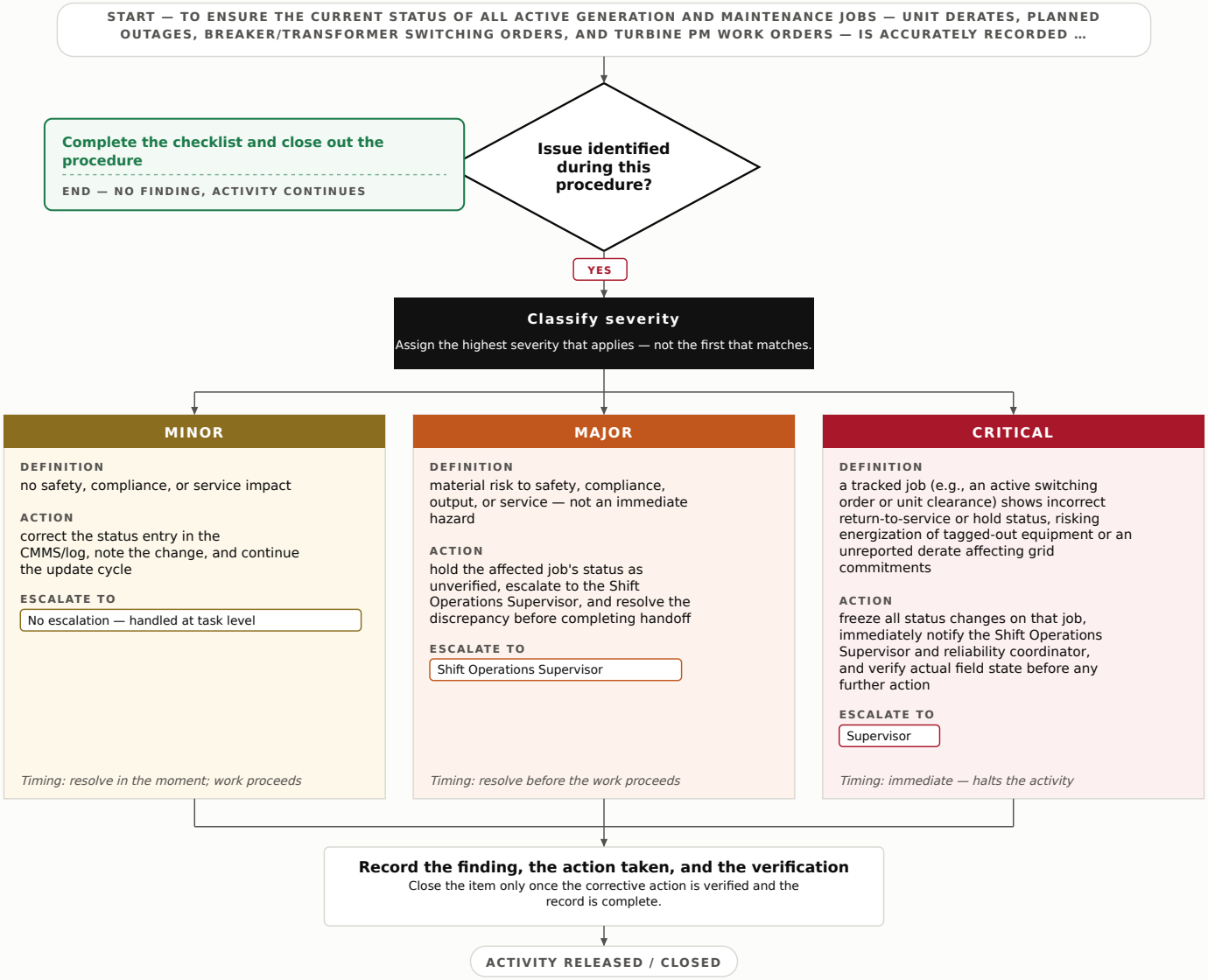
7. Step-by-Step Procedure

1. Pull the active job list from the CMMS/work-management system — planned outages, unit derates, switching orders, and turbine/transformer/generator PM work orders.
2. For each job, confirm the responsible field crew or operator and the current work state (queued, in progress, on hold, awaiting parts, return-to-service pending).
3. Record the correct status code and timestamp in the CMMS; note any derate MW value, affected unit/breaker, and expected completion window.
4. Update the control-room shift logbook and SCADA annotations so real-time status matches the CMMS entry.
5. Refresh the WIP status board/dashboard and confirm each active job is visible with owner, state, and expected clearance time.
6. Flag any job with a stale status (no update within the shift) and reconcile with the Field Maintenance Lead.
7. Conduct shift handoff: walk the outgoing and incoming operators through each active job's status and outstanding actions.
8. Document the handoff sign-off, unresolved items, and any escalations in the shift log; retain per internal records policy.

8. Decision Tree

OD-012 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Work-in-Progress Tracking & Status Update



READING THIS TREE

- **No finding** — Activity stands. Complete the checklist and continue.
- **Minor** — Handled in place at task level; no escalation.
- **Major** — Supervisory decision required before the next stage.
- **Critical** — Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- Every active job has a current status code and timestamp within the shift.
- CMMS, shift log, and WIP board agree for each job (no conflicting states).
- All holds and return-to-service statuses confirmed with the field crew.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
Active job list pulled and complete for the shift		
Each job has correct status code + timestamp		
Derate MW values / affected units recorded		
CMMS, shift log, and SCADA annotations reconciled		
WIP board shows owner, state, expected clearance time		
Stale-status jobs flagged and reconciled		
Handoff sign-off documented		

11. KPIs

- Active jobs with current status at handoff — 100%.
- Status discrepancies (CMMS vs. log/board) per shift — ≤ 1.
- Stale jobs (no update within shift) — 0.

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

OD-013 — Operational Handoff Between Work Stages

Estimated completion time: 20–45 minutes per handoff event

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

This procedure governs the controlled transfer of active generation work — unit startups, load changes, isolation, and switching evolutions — between successive work stages, crews, or control positions so that plant configuration, hazards, and pending actions are conveyed accurately and no in-progress evolution is lost, duplicated, or left in an unsafe state.

2. Scope

Covers stage-to-stage and crew-to-crew handoff of operational work within the generation facility, including boiler/turbine startup phases, switching order continuation, and clearance/tagging status transfer between operating positions. Excludes end-of-shift personnel handover, which is covered under OD-002, and stage quality release/acceptance, which is covered under QC-013.

3. Responsibilities

- Control Room Operator (CRO) — initiates and documents the handoff, confirms unit status, pending evolutions, and outstanding clearances on the handoff record.
- Outgoing Shift Supervisor — verifies configuration accuracy and formally releases the work stage to the receiving party.
- Incoming Crew Lead / Auxiliary Operator — reviews, questions, and acknowledges the handoff record before assuming responsibility for the evolution.

4. Required PPE & Lockout/Tagout

- Standard facility PPE for control room and plant floor: arc-rated clothing, safety glasses, hearing protection, and hard hat when leaving the control room.
- LOTO status is not applied during handoff itself, but all active clearances, tags, and hold-off conditions must be verified and transferred; no tag may be cleared or removed as part of this procedure.

5. Regulatory References

- NERC PER-005 (Operations Personnel Training) and NERC COM-002 (Operating Personnel Communications Protocols)
- OSHA 29 CFR 1910.269 (Electric Power Generation, Transmission, and Distribution)
- OSHA 29 CFR 1910.147 (Control of Hazardous Energy) — for clearance/tag status referenced during handoff
- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow

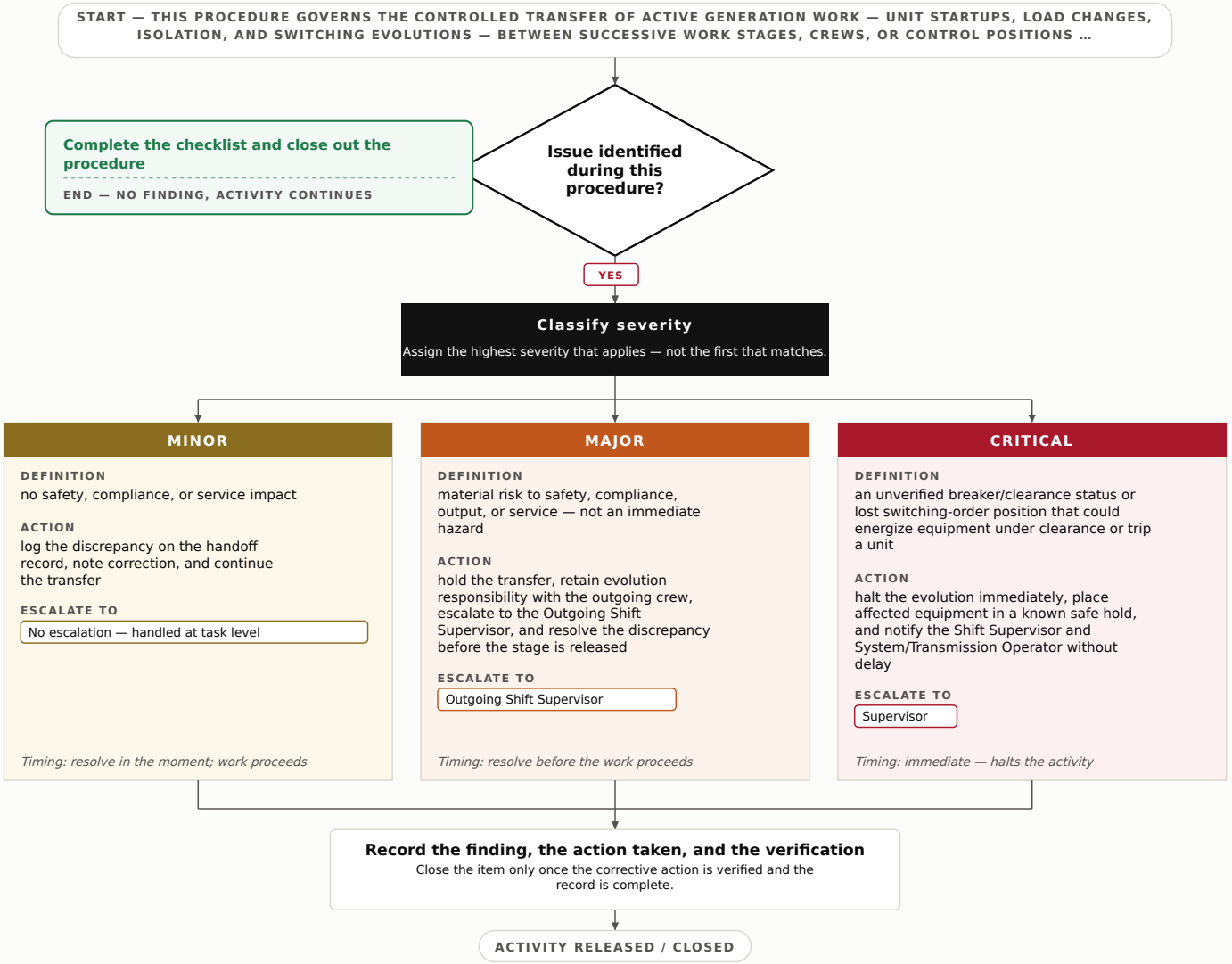
7. Step-by-Step Procedure

1. Outgoing CRO reaches a stable, documentable point in the evolution and freezes the current plant/unit status (load, breaker positions, valve lineups, running auxiliaries).
2. Populate the handoff record with unit state, active switching order step, outstanding clearances/tags, alarms in progress, and any deviations from normal lineup.
3. Verify each item against control board indication and the current switching/tagging log — do not transcribe from memory.
4. Conduct a face-to-face briefing with the incoming Crew Lead, walking through pending actions, hold points, and next required step in sequence.
5. Incoming Crew Lead repeats back critical items (per NERC COM-002 three-part communication) and raises any questions or discrepancies.
6. Outgoing Shift Supervisor confirms configuration accuracy and formally releases the stage; incoming lead formally accepts responsibility.
7. Both parties sign the handoff record; time and unit are recorded.
8. File the completed handoff record in the operations log and note the transfer in the control room narrative log.

8. Decision Tree

OD-013 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Operational Handoff Between Work Stages



READING THIS TREE

- **No finding** — Activity stands. Complete the checklist and continue.
- **Minor** — Handled in place at task level; no escalation.
- **Major** — Supervisory decision required before the next stage.
- **Critical** — Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- Handoff record fields fully populated and verified against live indication.
- Three-part communication completed and acknowledged by incoming crew.
- All active clearances and tags accounted for and status confirmed.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
Unit/plant status verified against control board		
Active switching order step confirmed and recorded		
Outstanding clearances/tags listed and status confirmed		
Pending actions and hold points briefed		
Repeat-back / three-part communication completed		
Both parties signed handoff record		
Transfer logged in control room narrative		

11. KPIs

- Handoff records fully completed and signed: 100%
- Handoff-related configuration errors per quarter: 0
- Repeat-back communication compliance (audited samples): ≥ 98%

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

OD-014 — Output Monitoring & Throughput Review

Estimated completion time: 30–60 minutes per shift review cycle

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

Monitor real-time and shift-cumulative generation output (net MW, MWh delivered, unit ramp rate) against the dispatch schedule and daily generation plan so deviations are detected early and corrective action is taken before they affect grid commitments.

2. Scope

Covers continuous and shift-boundary comparison of actual generating output against the ISO/RTO dispatch plan and internal generation targets for units at this facility. Excludes formal KPI trend review, which is covered under OD-028, and process capability analysis, which is covered under QC-026.

3. Responsibilities

- Control Room Operator (CRO) — reads real-time output against dispatch setpoint, logs deviations, initiates first-line corrective adjustments within authorized limits.
- Shift Operations Supervisor — reviews throughput against plan at shift boundaries, approves escalations, coordinates with dispatch on schedule changes.
- Operations Superintendent — owns generation plan reconciliation, authorizes derate acceptance, and signs off on throughput exception records.

4. Required PPE & Lockout/Tagout

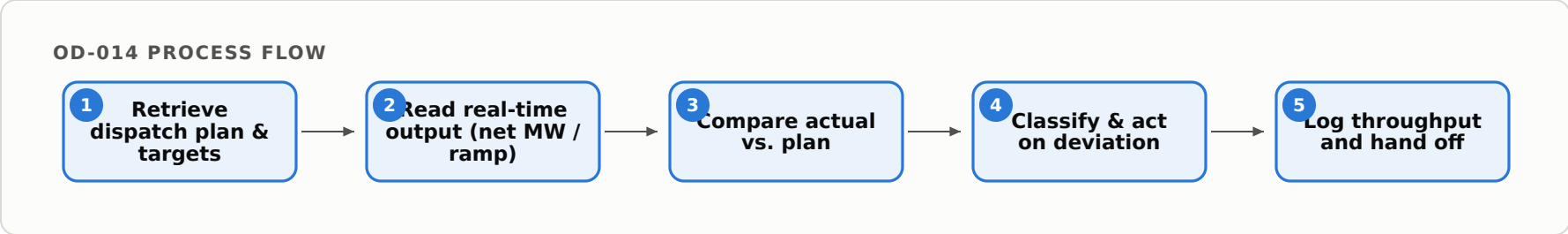
- Standard control-room attire; standard facility PPE (hard hat, safety glasses, hearing protection) if the review requires a walk-down to unit/turbine floor.
- Not applicable — this is a monitoring and review task with no hazardous energy interaction; any field verification triggering equipment work falls under the applicable maintenance LOTO procedure.

5. Regulatory References

- NERC BAL-001 (Real Power Balancing Control Performance) and NERC BAL-003 (Frequency Response) — output/generation obligations to the Balancing Authority.
- NERC TOP-001 (Transmission Operations) — operating within Interconnection Reliability Operating Limits.
- FERC-regulated ISO/RTO tariff dispatch obligations applicable to this facility.
- Internal Generation Dispatch & Output Monitoring policy.

- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow



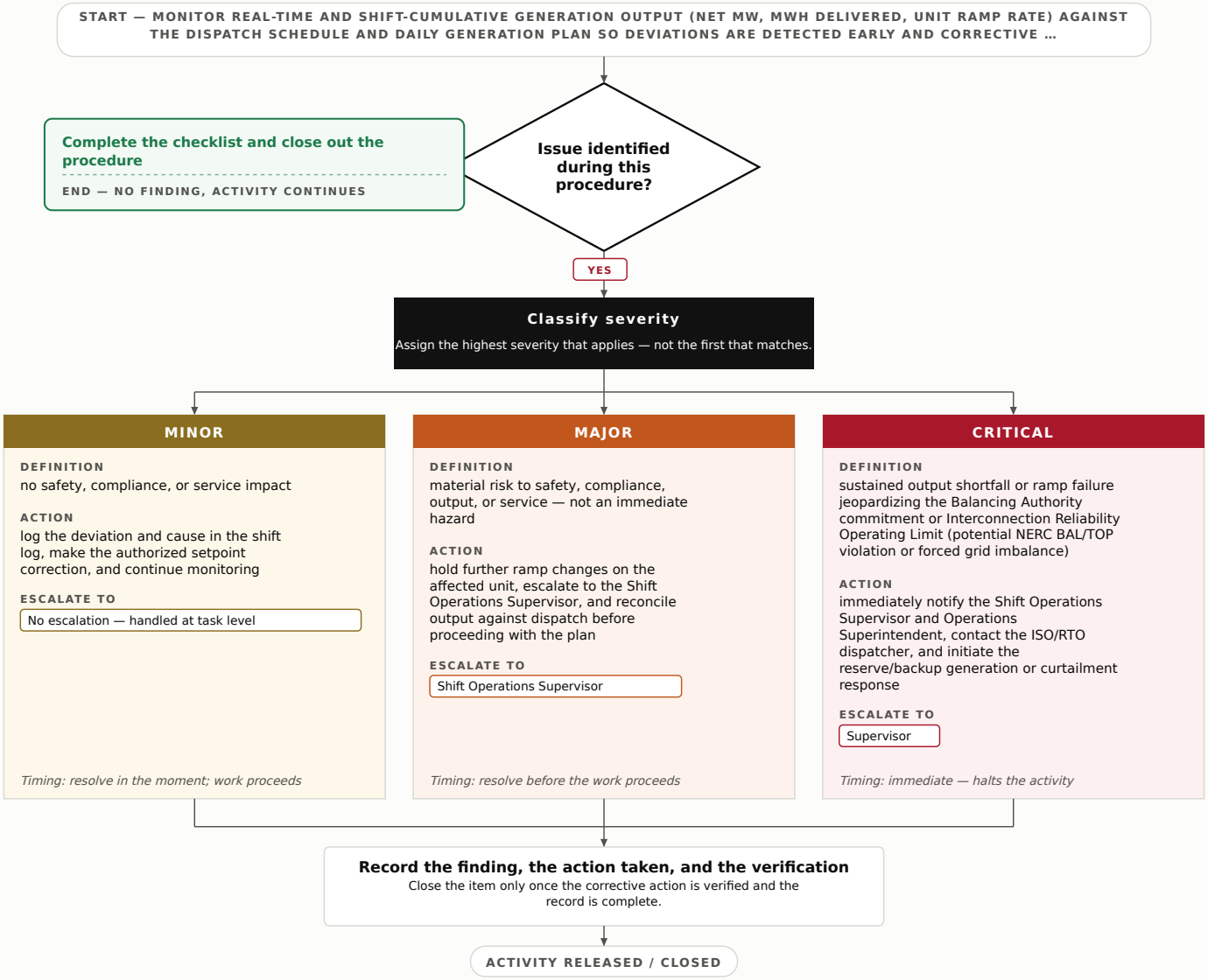
7. Step-by-Step Procedure

1. At shift start, retrieve the current ISO/RTO dispatch schedule, day-ahead generation plan, and any outstanding derate or curtailment notices from the EMS/SCADA.
2. Confirm each unit's assigned setpoint, authorized ramp rate, and net MW target for the review interval.
3. Read live output values from SCADA — net MW, gross vs. auxiliary load, cumulative MWh delivered — and note frequency/AGC status.
4. Compare actual output against dispatch setpoint and cumulative plan; calculate deviation (MW and %) and ramp-rate compliance.
5. For deviations within authorized operator limits, make the corrective setpoint adjustment and continue monitoring; annotate the cause (fuel, weather, equipment derate, dispatch instruction).
6. For deviations exceeding authorized limits or persisting, apply the Decision Tree (Section 8) and coordinate with the Shift Operations Supervisor and dispatch.
7. At shift boundary, reconcile cumulative MWh delivered against the daily generation plan and confirm all deviations are logged with cause and disposition.
8. Record the throughput review in the shift operations log and hand off open items to the incoming CRO.

8. Decision Tree

OD-014 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Output Monitoring & Throughput Review



READING THIS TREE

- **No finding** — Activity stands. Complete the checklist and continue.
- **Minor** — Handled in place at task level; no escalation.
- **Major** — Supervisory decision required before the next stage.
- **Critical** — Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- Dispatch setpoints and targets confirmed against current ISO/RTO schedule before comparison.
- Every deviation exceeding authorized limits has a logged cause and disposition.
- Shift-boundary cumulative MWh reconciled against the daily generation plan.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
Current dispatch schedule and generation plan retrieved		
Unit setpoints and authorized ramp rates confirmed		
Real-time net MW / MWh read from SCADA		
Actual-vs-plan deviation calculated and classified		
Corrective adjustments within authorized limits documented		
Cumulative MWh reconciled at shift boundary		
Open deviations handed off to incoming CRO		

11. KPIs

- Output-to-plan adherence ≥ 98% of scheduled MWh per shift.
- Deviations exceeding authorized limits resolved or escalated within 15 minutes.
- 100% of throughput deviations logged with cause and disposition.

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

OD-015 — Bottleneck Identification & Response

Estimated completion time: 30–90 minutes per identified constraint (excluding remediation)

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

Detect constraints that slow generation output or degrade reliable dispatch at the plant — such as fuel-feed restrictions, cooling limitations, transformer loading limits, or unit derates — and act on them promptly to sustain committed output and grid reliability.

2. Scope

Covers real-time and shift-level identification of operational bottlenecks across generation, auxiliary, and step-up transformer systems, and the immediate response to relieve or contain them. Excludes generation schedule changes (see OD-017) and capacity allocation between units (see OD-009), which are authored in those modules.

3. Responsibilities

- Control Room Operator (CRO) — monitors SCADA/DCS trends, flags emerging constraints, initiates first-response actions within operating limits.
- Shift Supervisor (Operations) — validates constraint severity, authorizes load or configuration adjustments, escalates to the balancing authority when reliability is at risk.
- Maintenance Lead — assesses whether a bottleneck stems from equipment condition and coordinates corrective or PM action.

4. Required PPE & Lockout/Tagout

- Standard facility PPE for control-room and plant-walkdown activity: arc-rated clothing, hard hat, safety glasses, and hearing protection when entering the turbine hall or transformer yard.
- LOTO applies only if a bottleneck response requires isolation of energized or rotating equipment; perform per plant LOTO program before any hands-on work.

5. Regulatory References

- NERC BAL-001 / BAL-003 (frequency and balancing performance)
- NERC TOP-001 / IRO-008 (real-time operations, operational reliability and constraint awareness)
- NERC PRC-023 (transmission relay loadability, where step-up interface limits apply)
- 29 CFR 1910.269 (operations near energized electric power generation equipment)
- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow

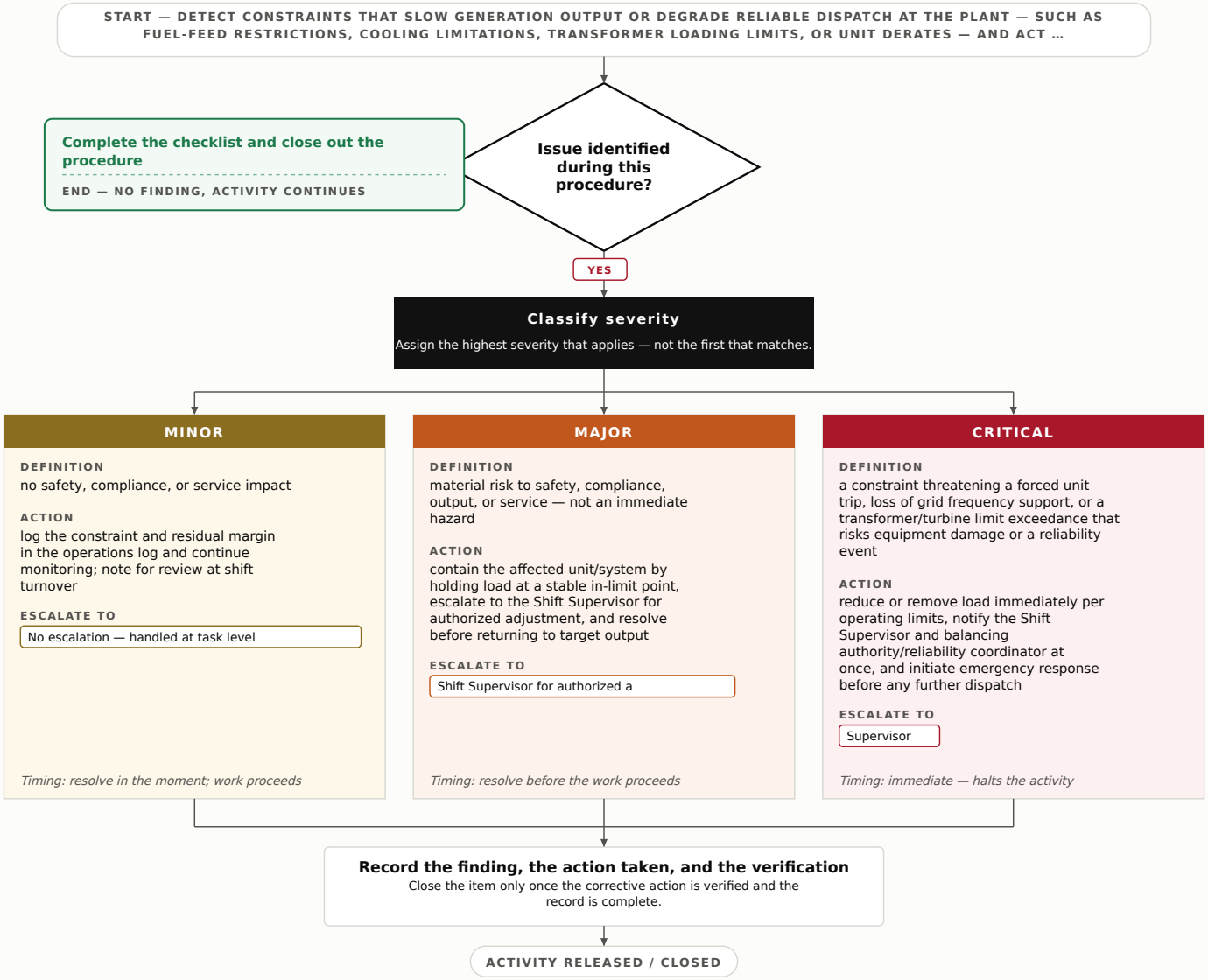
7. Step-by-Step Procedure

1. Review live SCADA/DCS trends against unit dispatch targets and rated capability at start of shift and continuously thereafter.
2. Compare actual net MW, auxiliary loads, cooling-water temperatures, and transformer loading against posted operating limits to spot any constraint holding output below target.
3. Identify the limiting system (e.g., fuel feed, condenser/cooling, boiler feed pump, GSU transformer thermal limit, or unit derate) using alarm history and parameter trends.
4. Confirm the constraint is genuine — not a sensor fault — by cross-checking redundant instrumentation or a field walkdown.
5. Apply the first available in-limit response: rebalance auxiliaries, adjust cooling, shift to redundant equipment, or reduce loading to a stable point without exceeding rated limits.
6. Notify the Shift Supervisor and, where equipment condition is the cause, the Maintenance Lead; escalate to the balancing authority if committed output cannot be sustained.
7. Verify output and limiting parameters return to a stable, acceptable state after the response.
8. Document the bottleneck, root system, response taken, and residual risk in the shift/operations log and constraint tracker.

8. Decision Tree

OD-015 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Bottleneck Identification & Response



READING THIS TREE

- **No finding** — Activity stands. Complete the checklist and continue.
- **Minor** — Handled in place at task level; no escalation.
- **Major** — Supervisory decision required before the next stage.
- **Critical** — Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- Constraint confirmed against redundant instrumentation before response action.
- Every response action verified to remain within posted rated limits.
- Root system and corrective hand-off recorded in the constraint tracker.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
Unit net MW compared to dispatch target and rated capability		
Auxiliary loads (BFP, fans, pumps) within normal range		
Cooling-water / condenser temperatures within limits		
GSU / step-up transformer loading within thermal rating		
Constraint validated against redundant instrumentation		
Response action confirmed within operating limits		
Bottleneck and hand-off logged in constraint tracker		

11. KPIs

- Mean time to detect a constraint from onset ≤ 10 minutes.
- Constraints resolved or contained within limits before output loss ≥ 95%.
- Unresolved Critical findings at shift turnover = 0.

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

OD-016 — Rework & Nonconforming Work Handling

Estimated completion time: 2–6 hours per nonconformance event (excluding scheduled re-run windows)

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

To segregate, physically contain, and coordinate the re-run of generation-station work products — repaired turbine components, rewound generator windings, tested transformers, protective-relay settings, and switchyard assemblies — that fail to meet engineering specification, so nonconforming work never reaches the grid or the wholesale channel.

2. Scope

Covers identification, tagging, quarantine, tracking, and controlled re-execution of nonconforming Operations work at the generating facility. Excludes formal disposition determination (use/repair/scrap decisions), which is covered under QC-014, and rework authorization approval, which is covered under QC-016.

3. Responsibilities

- Operations Shift Supervisor — confirms segregation, initiates the nonconformance record, and authorizes movement of held items to the quarantine area.
- Maintenance Lead — coordinates the physical re-run of failed equipment work and verifies LOTO before any rework begins.
- QA/Reliability Coordinator — maintains the nonconformance log, tracks re-run status to closure, and confirms hand-off to QC-014/QC-016.

4. Required PPE & Lockout/Tagout

- Standard facility PPE: arc-rated FR clothing, safety glasses, hard hat, dielectric gloves rated to circuit class, and hearing protection in turbine hall.
- Lockout/Tagout REQUIRED before any physical rework on generators, transformers, breakers, or turbine auxiliaries — verify zero-energy state per facility LOTO program prior to touching held equipment.

5. Regulatory References

- NERC PRC-005 (Protection System Maintenance) and NERC FAC standards for equipment returned to service
- 29 CFR 1910.147 (The Control of Hazardous Energy — Lockout/Tagout)
- 29 CFR 1910.269 (Electric Power Generation, Transmission, and Distribution)
- NFPA 70E (Electrical Safety in the Workplace)

- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow

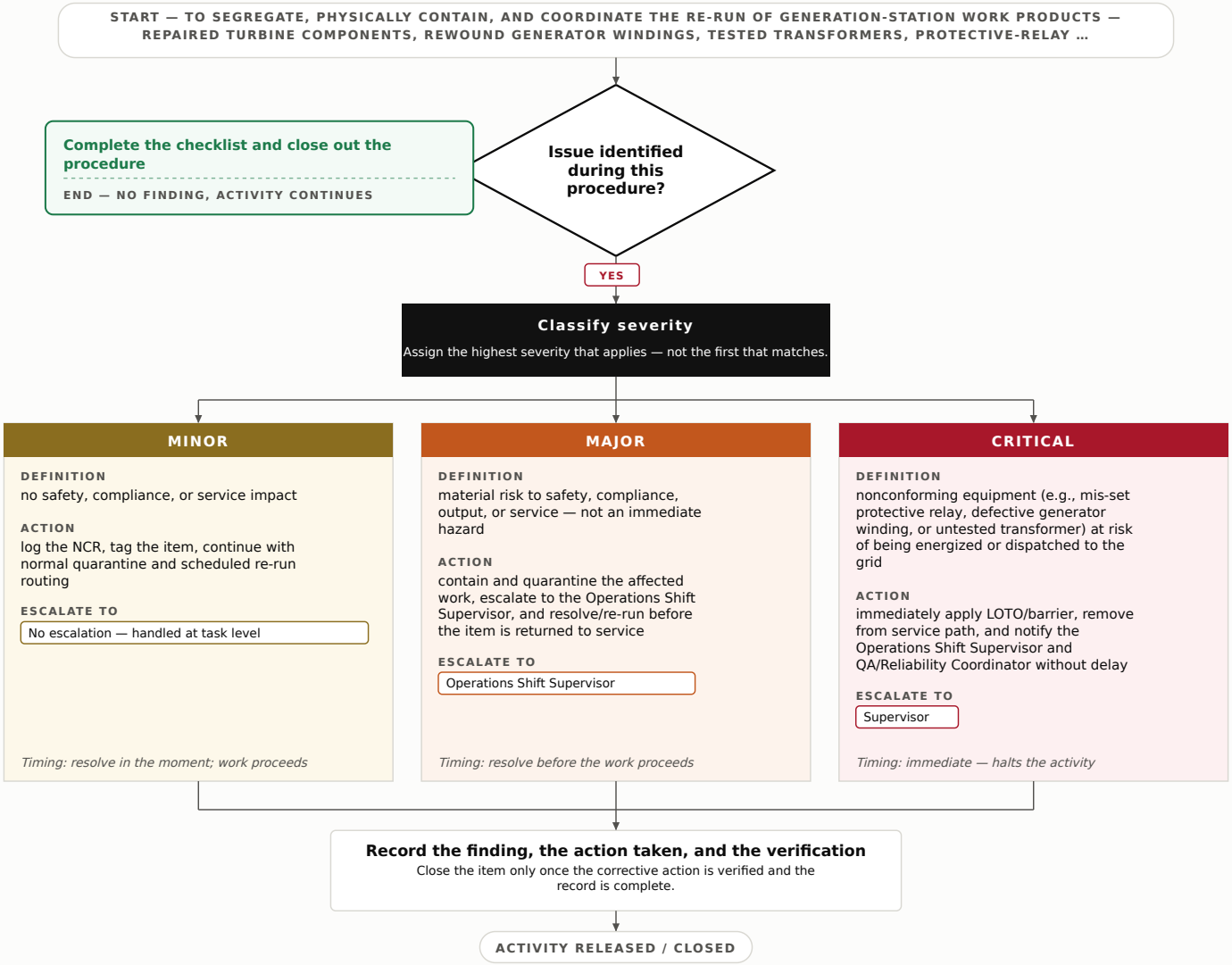
7. Step-by-Step Procedure

1. Upon detection of work failing spec (failed test result, out-of-tolerance winding, mis-set relay, defective repair), stop further processing and notify the Operations Shift Supervisor immediately.
2. Apply a "NONCONFORMING — DO NOT RETURN TO SERVICE" hold tag with unique NCR number, date, and defect description; ensure LOTO remains applied to any energized-capable equipment.
3. Physically segregate the item to the designated quarantine area (or apply barrier/lockout in place if the item cannot be moved) to prevent accidental installation or energization.
4. Open a nonconformance record in the log capturing item ID, work order, defect, spec reference, and detecting inspector.
5. Route the record to QC-014 for disposition determination and obtain rework authorization per QC-016 before any corrective work starts.
6. Once authorized, the Maintenance Lead re-verifies LOTO and coordinates the re-run of the failed operation against the original engineering specification.
7. Re-inspect the reworked item to the same acceptance criteria that triggered the original failure; do not release until it passes.
8. Update the nonconformance record with re-run results, re-inspection outcome, and closure signatures; retain per records retention.

8. Decision Tree

OD-016 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Rework & Nonconforming Work Handling



READING THIS TREE

- **No finding** — Activity stands. Complete the checklist and continue.
- **Minor** — Handled in place at task level; no escalation.
- **Major** — Supervisory decision required before the next stage.
- **Critical** — Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- Hold tag and NCR number applied and legible before item leaves the work area
- Item physically segregated or barriered from service-ready inventory
- Re-run performed only after QC-016 authorization confirmed
- Zero unresolved Critical findings

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
Nonconforming item tagged with unique NCR number		
Item segregated to quarantine or barriered in place		
LOTO applied/verified on energizable equipment		
Nonconformance record opened with spec reference		
Disposition/authorization hand-off logged (QC-014/QC-016)		
Re-run completed against original specification		
Re-inspection passed before release		

11. KPIs

- Nonconforming items segregated & tagged within 1 hour of detection: ≥ 98%
- Re-run first-pass acceptance rate: ≥ 90%
- Nonconforming items escaping to service without release: 0

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

OD-017 — Schedule Deviation & Change Management

Estimated completion time: 30–90 minutes per deviation event (longer for critical outage rescheduling)

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1. Purpose

This procedure governs how the Operations team records, evaluates, and approves changes, delays, and priority shifts to generation, maintenance, and outage schedules so that dispatch commitments, reliability obligations, and crew assignments remain under control at the Electric Utility facility.

2. Scope

Covers deviation intake, impact assessment, approval routing, and schedule re-baselining for planned generation runs, unit maintenance windows, and outage schedules at the plant. Excludes bottleneck/derate response actions, which are covered under OD-015, and customer/market notification, which is covered under OD-022.

3. Responsibilities

- Shift Operations Supervisor — logs the deviation, classifies severity, and authorizes minor schedule adjustments within delegated limits.
- Outage & Maintenance Coordinator — assesses maintenance-window and unit-availability impacts and re-baselines the affected schedule.
- Operations Manager — approves major and critical schedule changes and confirms hand-off to Reliability Coordinator for commitment revisions.

4. Required PPE & Lockout/Tagout

- Standard facility PPE if the deviation review requires entry to plant areas (hard hat, safety glasses, hearing protection, FR clothing); otherwise control-room/office attire.
- Not applicable — this is a scheduling and coordination task with no hazardous energy involved. Any physical work triggered downstream follows its own LOTO procedure.

5. Regulatory References

- NERC Reliability Standards TOP-003 (Operational Reliability Data), IRO-017 (Outage Coordination), and MOD-001 (Available Transfer Capability) as applicable to generation scheduling.
- FERC Open Access requirements where market/tariff commitments are affected.
- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow

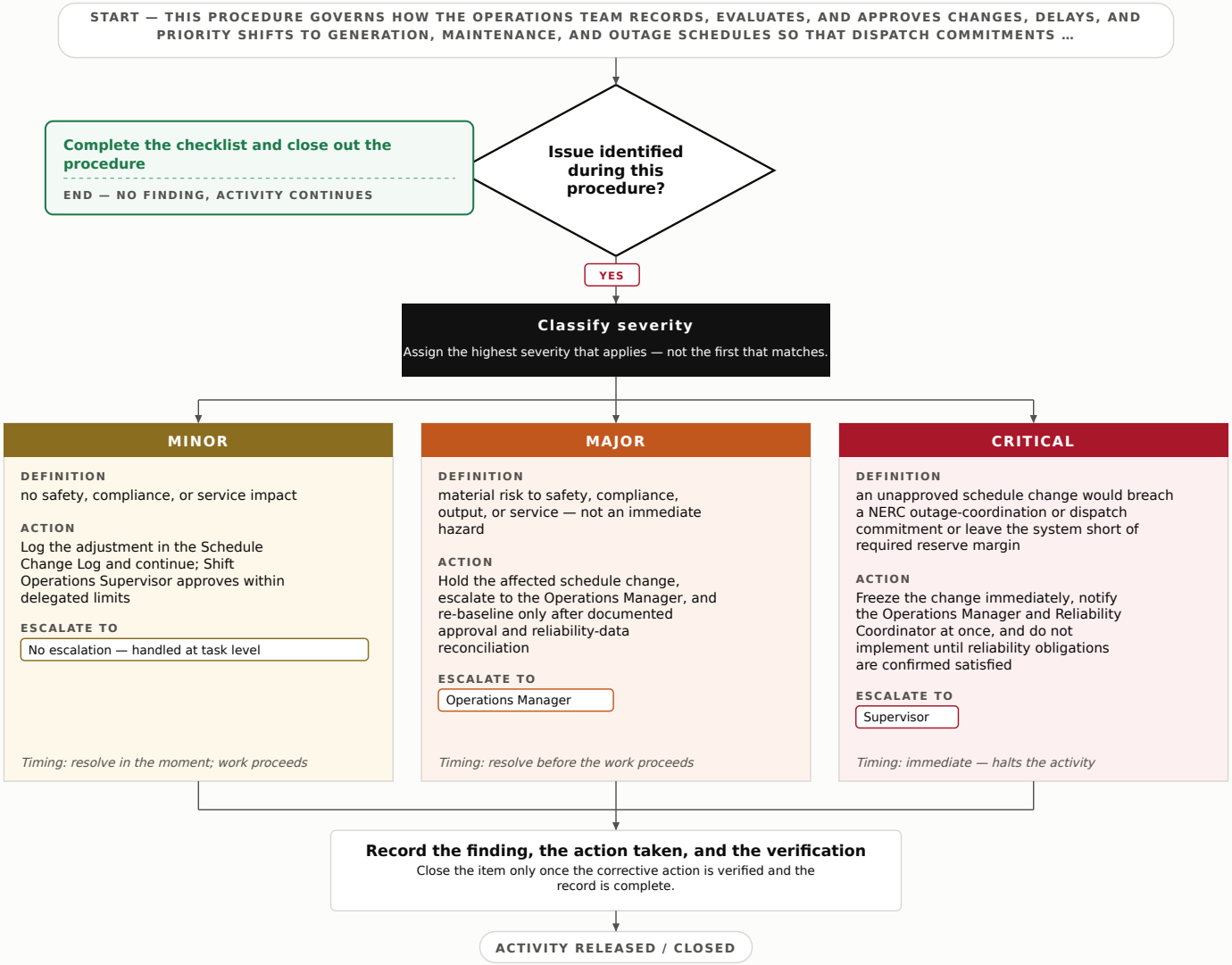
7. Step-by-Step Procedure

1. Capture the deviation in the Schedule Change Log: source (equipment delay, priority shift, resource shortfall, external directive), affected unit/window, and time requested.
2. Confirm current committed schedule state (dispatch plan, planned outage window, PM assignments) so the baseline being changed is unambiguous.
3. Assess impact: unit availability, reserve margin, downstream maintenance dependencies, and any standing reliability or market commitments.
4. Classify severity per Section 8 and route for the appropriate approval authority.
5. Obtain documented approval before altering any committed schedule; do not verbally reschedule committed units.
6. Re-baseline the affected schedule, re-assign or resequence crews and resources, and update the outage/maintenance calendar.
7. Trigger required hand-offs — bottleneck/derate impacts per OD-015 and any customer/market notification per OD-022 — without duplicating those procedures.
8. Record the final approved change, effective time, approver, and hand-offs in the Schedule Change Log and close the event.

8. Decision Tree

OD-017 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Schedule Deviation & Change Management



READING THIS TREE

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- **Minor** — Handled in place at task level; no escalation.
- **Major** — Supervisory decision required before the next stage.
- **Critical** — Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- Every deviation is logged with source, affected unit/window, and requested time before assessment.
- Severity classification and approval authority match the change scope.
- Baseline schedule is re-issued with a version/timestamp and all crew reassignments reflected.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
Deviation logged with source and affected unit/window		
Current committed baseline confirmed before change		
Reliability/commitment impact assessed		
Correct approval authority obtained and documented		
Schedule re-baselined and crews reassigned		
Required hand-offs (OD-015 / OD-022) triggered		
Change record complete and event closed		

11. KPIs

- Deviations logged before implementation ≥ 99%
- Unapproved schedule changes to committed units = 0
- Median time from deviation intake to approved re-baseline ≤ 60 minutes

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

OD-018 — Subcontractor & Vendor Coordination

Estimated completion time: 2–4 hours per coordination cycle (excludes multi-day mobilization windows)

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

This procedure governs how Operations schedules, briefs, and coordinates external subcontractors and vendors — turbine/generator OEM field crews, transformer specialists, and equipment suppliers — who perform a defined portion of generation-plant operations, ensuring their work aligns with plant dispatch, outage windows, and delivery expectations without disrupting the running facility.

2. Scope

Covers coordination logistics: work-order alignment, site access scheduling, delivery/staging sequencing, pre-job coordination briefings, and interface hand-offs for external providers at the generating station. Excludes contractor maintenance supervision (owned by MD-018) and contractor safety orientation and monitoring (owned by SD-023); reference those modules by ID at hand-off only.

3. Responsibilities

- Operations Coordinator — issues coordination work orders, confirms provider scope against the executed purchase order/contract, sequences deliveries and site access with the shift schedule.
- Shift Operations Supervisor — approves access to operating areas, confirms plant configuration and clearance availability, authorizes start of coordinated work windows.
- Procurement/Vendor Liaison — verifies vendor credentials, insurance, and inbound equipment against the order, resolves scope or delivery discrepancies with the supplier.

4. Required PPE & Lockout/Tagout

- Standard facility PPE for escort and staging-area walkdowns: hard hat, safety glasses, hearing protection in turbine hall, arc-rated clothing where entering switchgear vicinity.
- Not applicable to this coordination task — no hazardous energy is controlled here. Any LOTO/clearance for the actual work is established and owned under the maintenance/switching procedures (MD-018) before coordinated work begins.

5. Regulatory References

- NERC Reliability Standards (e.g., PER-005, FAC-008 asset data, and applicable BAL/EOP coordination requirements) as they govern work affecting BES equipment availability.
- NERC CIP-004 / CIP-006 — vendor personnel access management to physical and cyber security perimeters.

- OSHA 29 CFR 1910.269 (electric power generation, transmission, and distribution) — host/contract-employer coordination duties (see SD-023 for safety execution).
- Internal Operations Contract & Vendor Coordination Policy.
- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow

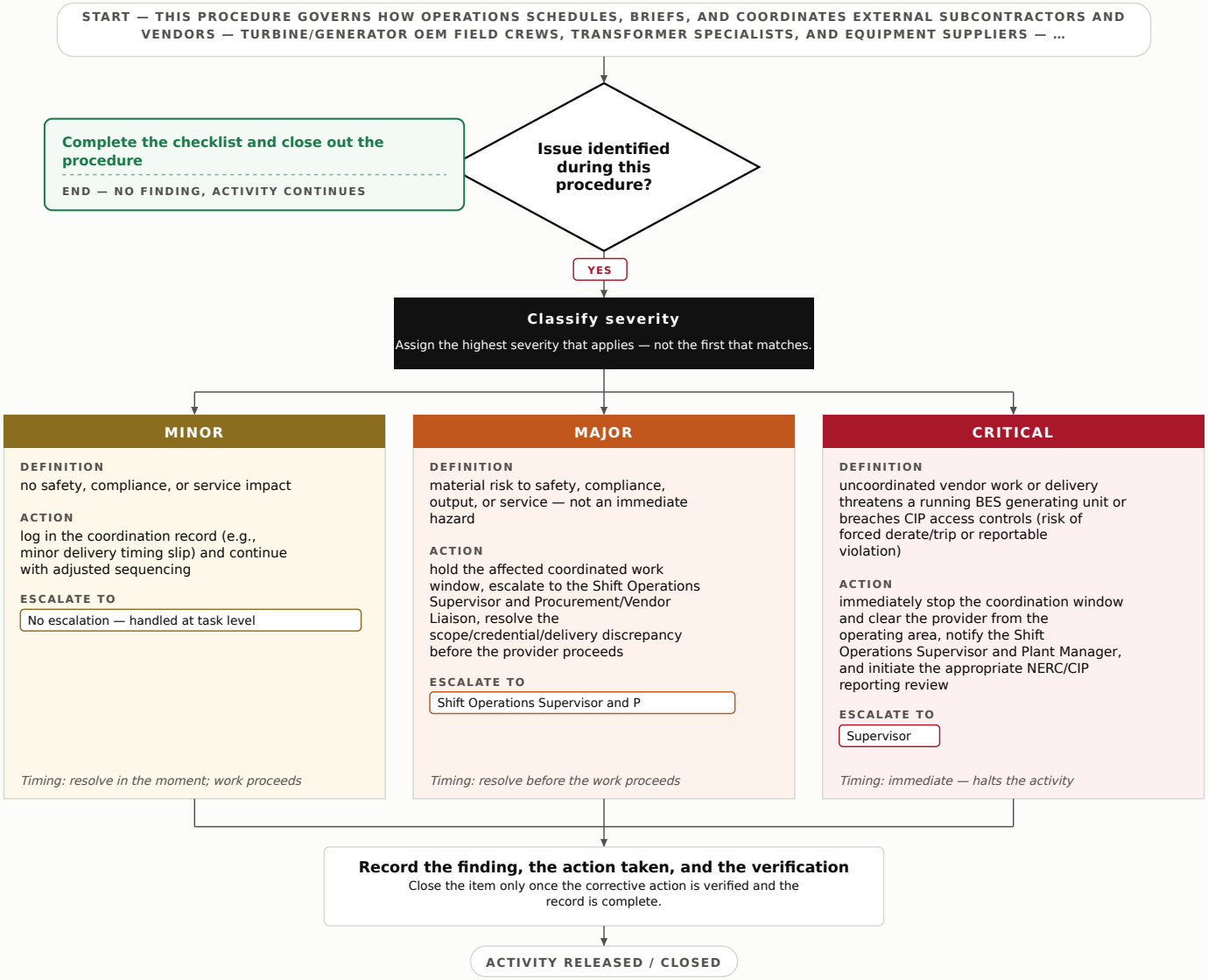
7. Step-by-Step Procedure

1. Retrieve the executed purchase order or service contract; confirm the provider, scope portion, deliverables, and delivery dates against the operations work request.
2. Verify vendor prerequisites with Procurement/Vendor Liaison: insurance certificate, credential/access status per CIP-004, and inbound equipment specs against the order (turbine/generator sets 333611, transformers 335311).
3. Align the coordinated window with the Shift Operations Supervisor against plant dispatch state and any scheduled outage; confirm required clearance is requested through MD-018 (do not author it here).
4. Sequence inbound deliveries and laydown/staging locations; confirm crane, rigging, and route availability without blocking operating access.
5. Hold the pre-job coordination briefing: review scope boundaries, interface points, hand-off responsibilities, and communication protocol; confirm safety orientation is completed per SD-023.
6. Coordinate live execution windows — track provider arrival, delivery receipt, and interface hand-offs; log any deviation from scope or schedule.
7. At completion, confirm deliverables received/accepted, staging area cleared, and access credentials deactivated; obtain provider sign-off.
8. Document the coordination record: work order, deviations, acceptance, and lessons learned; file per records policy.

8. Decision Tree

OD-018 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Subcontractor & Vendor Coordination



READING THIS TREE

- **No finding** — Activity stands. Complete the checklist and continue.
- **Minor** — Handled in place at task level; no escalation.
- **Major** — Supervisory decision required before the next stage.
- **Critical** — Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- Vendor scope, credentials, and insurance verified against the executed contract before mobilization.
- Coordinated window confirmed against dispatch/outage state and clearance availability (per MD-018).
- All interface hand-offs and deliveries logged with provider acknowledgment.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
Executed PO/contract matches operations work request		
Vendor insurance & CIP-004 access credentials verified		
Inbound equipment specs match order (333611/335311)		
Coordinated window aligned with Shift Supervisor & dispatch		
Pre-job coordination briefing held; SD-023 orientation confirmed		
Deliveries/staging sequenced without blocking operating access		
Close-out acceptance & credential deactivation documented		

11. KPIs

- Coordination windows started as scheduled: ≥ 95%.
- Vendor prerequisite verifications completed before mobilization: 100%.
- Scope/delivery discrepancies resolved before work proceeds: 100% (zero unauthorized starts).

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

OD-019 — Interdepartmental Coordination Review

Estimated completion time: 60–120 minutes per coordination cycle

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

This procedure aligns Operations with Maintenance, Engineering, System Dispatch, and Environmental/Compliance so that generation dispatch, planned outages, and switching activities at the plant are coordinated without conflict. It ensures every department touching the same unit or feeder shares one agreed schedule before work proceeds.

2. Scope

Covers the periodic coordination review between Operations and adjacent departments for shared work on turbine-generator units, transformers, and distribution interfaces — including outage scheduling, clearance handoffs, and load commitments. Self-contained within OD (cross-department coordination overview); this module does not author the technical procedures owned by those other departments, only the alignment touchpoint.

3. Responsibilities

- Shift Operations Supervisor — convenes the coordination review, presents current unit status and dispatch commitments, and owns the consolidated schedule.
- Operations Coordinator — collects inputs from Maintenance, Engineering, and Dispatch; logs agreements and open action items; distributes the confirmed schedule.
- Operations Manager — resolves cross-department conflicts, approves outage/clearance windows, and escalates unresolved reliability risks.

4. Required PPE & Lockout/Tagout

- Standard facility PPE if the review is held in a plant area; office/control-room attire otherwise. No field intervention performed during this task.
- Not applicable — no hazardous energy involved. This is a coordination and scheduling activity; actual clearances and tag-outs are executed under the owning department's switching procedure.

5. Regulatory References

- NERC Reliability Standards TOP-001 (Transmission Operations) and IRO-001 (Reliability Coordination) — coordination of operating actions.
- NERC PER-005 (Operations Personnel Training) — coordination roles and responsibilities.
- OSHA 29 CFR 1910.269 — coordination of work near energized electric power generation, transmission, and distribution.
- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow

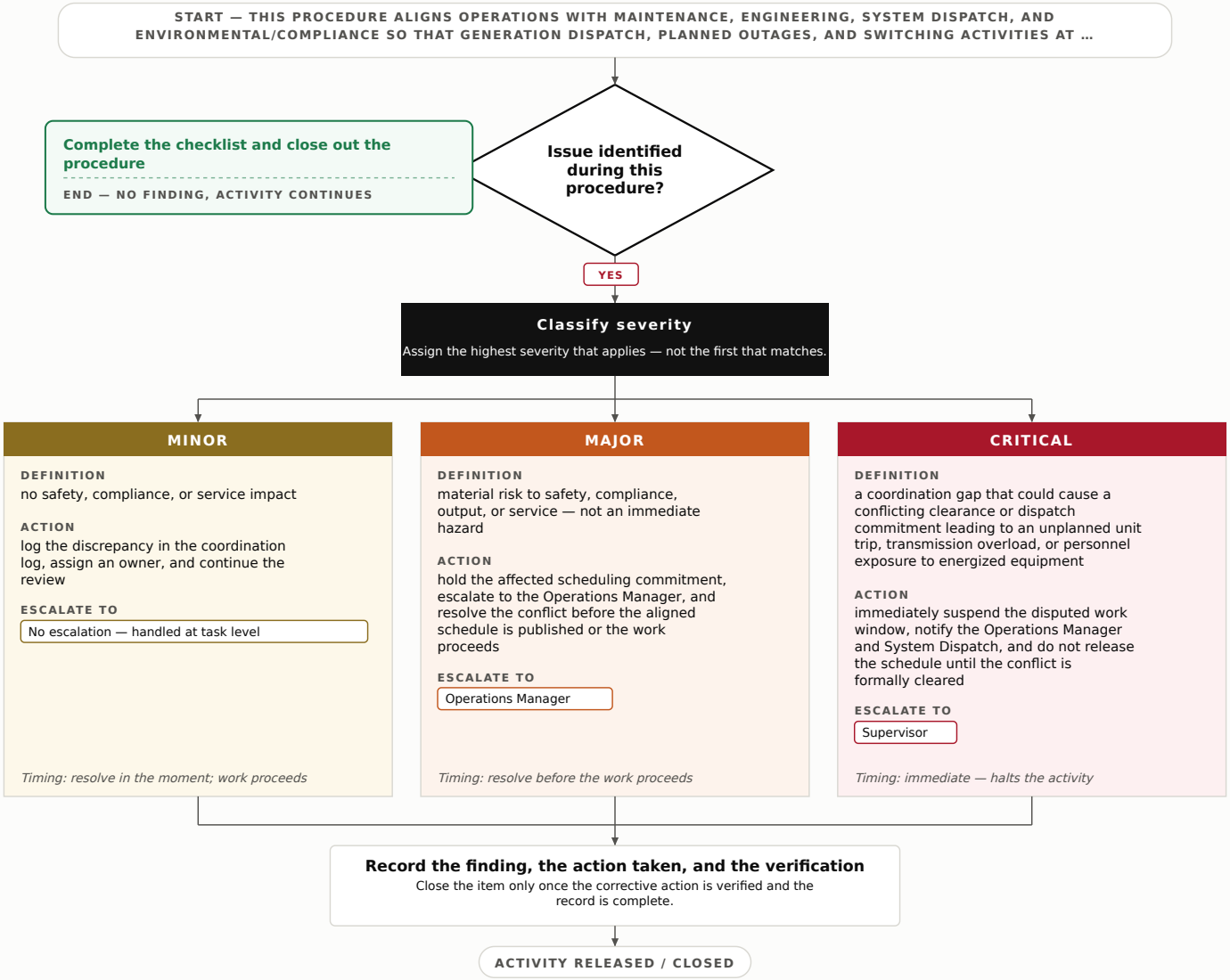
7. Step-by-Step Procedure

1. Confirm attendance or written input from Maintenance, Engineering, System Dispatch, and Environmental/Compliance for the review period.
2. Review current unit and equipment status — turbine-generator availability, transformer condition flags, and pending clearances.
3. Overlay planned Maintenance windows and Engineering work orders against Dispatch load and generation commitments.
4. Identify scheduling conflicts, overlapping clearances, or capacity shortfalls affecting the same unit, feeder, or transformer.
5. Negotiate revised windows and sequencing with the responsible departments until conflicts are resolved or escalated.
6. Confirm environmental/emissions constraints (permit limits, seasonal restrictions) do not conflict with the proposed dispatch or outage plan.
7. Record the agreed consolidated schedule, assigned owners, and target dates in the coordination log.
8. Distribute the confirmed schedule to all participating departments and document any open action items with due dates.

8. Decision Tree

OD-019 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Interdepartmental Coordination Review



READING THIS TREE

- **No finding** — Activity stands. Complete the checklist and continue.
- **Minor** — Handled in place at task level; no escalation.
- **Major** — Supervisory decision required before the next stage.
- **Critical** — Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- All four adjacent departments provided input or documented non-response for the review period.
- No overlapping clearances or conflicting commitments on any shared unit, transformer, or feeder.
- Environmental/permit constraints verified against the proposed plan.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
All participating departments represented or logged as non-responsive		
Current unit/equipment status reviewed and accurate		
Maintenance and Engineering windows reconciled with Dispatch commitments		
No conflicting or overlapping clearances identified		
Environmental/permit constraints confirmed		
Consolidated schedule recorded with owners and dates		
Confirmed schedule distributed to all departments		

11. KPIs

- Cross-department schedule conflicts detected after publication: ≤ 1 per quarter
- Coordination reviews completed with full department participation: ≥ 95%
- Open action items closed by target date: ≥ 90%

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

Phase 4 — Completion & customer handoff

OD-020 — Job / Order Completion Verification

Estimated completion time: 30–60 minutes per work order

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

To confirm that maintenance, repair, or service work on generation and substation assets is fully complete and conforms to the governing work order and design specification before the equipment is handed off for final inspection and release. This prevents partially completed or out-of-tolerance work from advancing toward energization.

2. Scope

Covers verification of work-order completeness, restoration of equipment to as-designed configuration, closeout of tooling/parts, and documentation for jobs performed on turbines, generators, transformers, and associated substation equipment in the Operations department. Excludes final inspection, which is covered under QC-012, and formal release/energization authorization, which is covered under QC-013.

3. Responsibilities

- Operations Shift Supervisor — owns the verification, confirms all work-order line items are closed, signs the completion record.
- Maintenance Lead — confirms physical work is complete to specification, tooling and jumpers removed, LOTO status reconciled.
- Control Room Operator — verifies equipment status/indications match the reported completion state before hand-off to QC-012.

4. Required PPE & Lockout/Tagout

- Arc-rated FR clothing, Class 2 rated gloves for any live-adjacent verification, hard hat, safety glasses, hearing protection in turbine hall.
- LOTO applicable — verify all locks/tags associated with the work order are still in place and reconciled to the LOTO log; do not remove any isolation during verification. Release of hazardous energy is authorized only under QC-013.

5. Regulatory References

- 29 CFR 1910.147 (Control of Hazardous Energy — LOTO)
- 29 CFR 1910.269 (Electric Power Generation, Transmission, and Distribution)
- NERC PRC-005 (Protection System, Automatic Reclosing, and Sudden Pressure Relaying Maintenance)
- NFPA 70E (Electrical Safety in the Workplace)
- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow

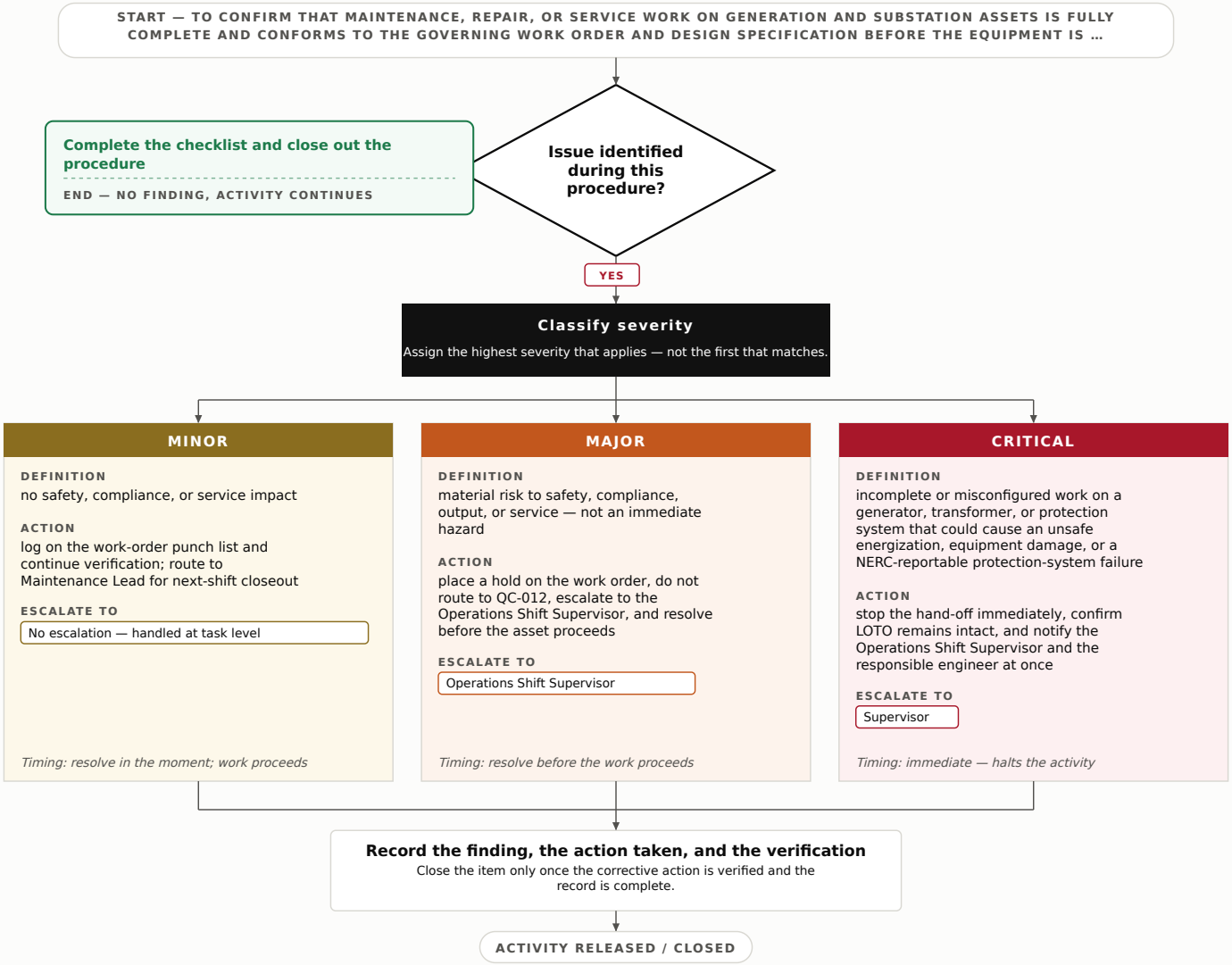
7. Step-by-Step Procedure

1. Retrieve the work order and design/spec sheet from the CMMS; confirm the job is marked mechanically/electrically complete by the crew.
2. Walk down the affected asset (turbine, generator, or transformer) against the work-order scope; confirm every line item is executed and none deferred without a documented waiver.
3. Verify replaced components match the specified part numbers and ratings received under receiving (see relevant supplier NAICS); check torque marks, tags, and nameplate data.
4. Reconcile all tooling, grounding jumpers, and temporary leads against the sign-out log — confirm none remain on the equipment.
5. Confirm LOTO isolation points are still intact and match the LOTO log; do not disturb — energization is authorized only under QC-013.
6. With the Control Room Operator, confirm equipment indications, relay/protection settings, and configuration match the as-designed state.
7. Resolve any open punch-list items or classify per the Decision Tree.
8. Complete the Inspection Checklist, sign the completion record, and route the asset to final inspection under QC-012.

8. Decision Tree

OD-020 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Job / Order Completion Verification



READING THIS TREE

- **No finding** — Activity stands. Complete the checklist and continue.
- **Minor** — Handled in place at task level; no escalation.
- **Major** — Supervisory decision required before the next stage.
- **Critical** — Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- All work-order line items confirmed executed against the spec sheet.
- All tooling, jumpers, and temporary leads reconciled and removed.
- Equipment configuration and protection settings verified against as-designed state.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
All work-order line items complete to specification		
Replaced parts match specified part numbers/ratings		
Tooling, grounding jumpers, temporary leads removed		
LOTO isolation intact and reconciled to log		
Equipment indications/configuration match as-designed		
Protection/relay settings verified per PRC-005		
Punch-list items closed or classified per Decision Tree		

11. KPIs

- Work orders verified complete on first pass ≥ 95%
- Assets routed to QC-012 with reconciliation errors ≤ 2%
- Critical findings escaping to final inspection = 0

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

OD-021 — Delivery / Service Turnover

Estimated completion time: 30–90 minutes per turnover event

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

This procedure governs the controlled release of generated power capacity and completed switching/energization work to the receiving party — the transmission operator, dispatch authority, or downstream electrical apparatus wholesaler — so that generation output transfers cleanly with verified point-of-interconnection status and complete turnover documentation.

2. Scope

Covers the operational turnover of finished generation output and energized assets at the point of delivery, including switching confirmation, metering baseline capture, and turnover-record handoff to the receiving party. Excludes loading/dispatch scheduling, which is covered under SH-014; and proof-of-delivery attestation, which is covered under SH-024.

3. Responsibilities

- Shift Operations Supervisor (OD) — authorizes release, confirms unit status and interconnection readiness, signs the turnover record.
- Control Room Operator — executes switching per approved order, captures metering baseline, verifies breaker/isolation status before release.
- Field Switching Technician — performs and confirms physical switching/verification at the point of interconnection and reports back to control room.

4. Required PPE & Lockout/Tagout

- Arc-rated FR clothing, insulated gloves rated to system voltage, hard hat, safety glasses, and hearing protection when at switchyard.
- LOTO applies where physical isolation/de-energization is part of the turnover; follow the facility hazardous-energy control program and confirm all tags removed only under the authorized switching order before energization.

5. Regulatory References

- NERC Reliability Standards TOP-001, COM-002, and VAR-002 (transmission operations, operating communications, generator reactive/voltage control).
- NERC PRC/interconnection coordination requirements; applicable regional entity (e.g., NPCC/WECC/SERC) procedures.
- OSHA 29 CFR 1910.269 (operation and maintenance of electric power generation, transmission, and distribution).
- FERC-approved interconnection agreement terms for the point of delivery.

- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow

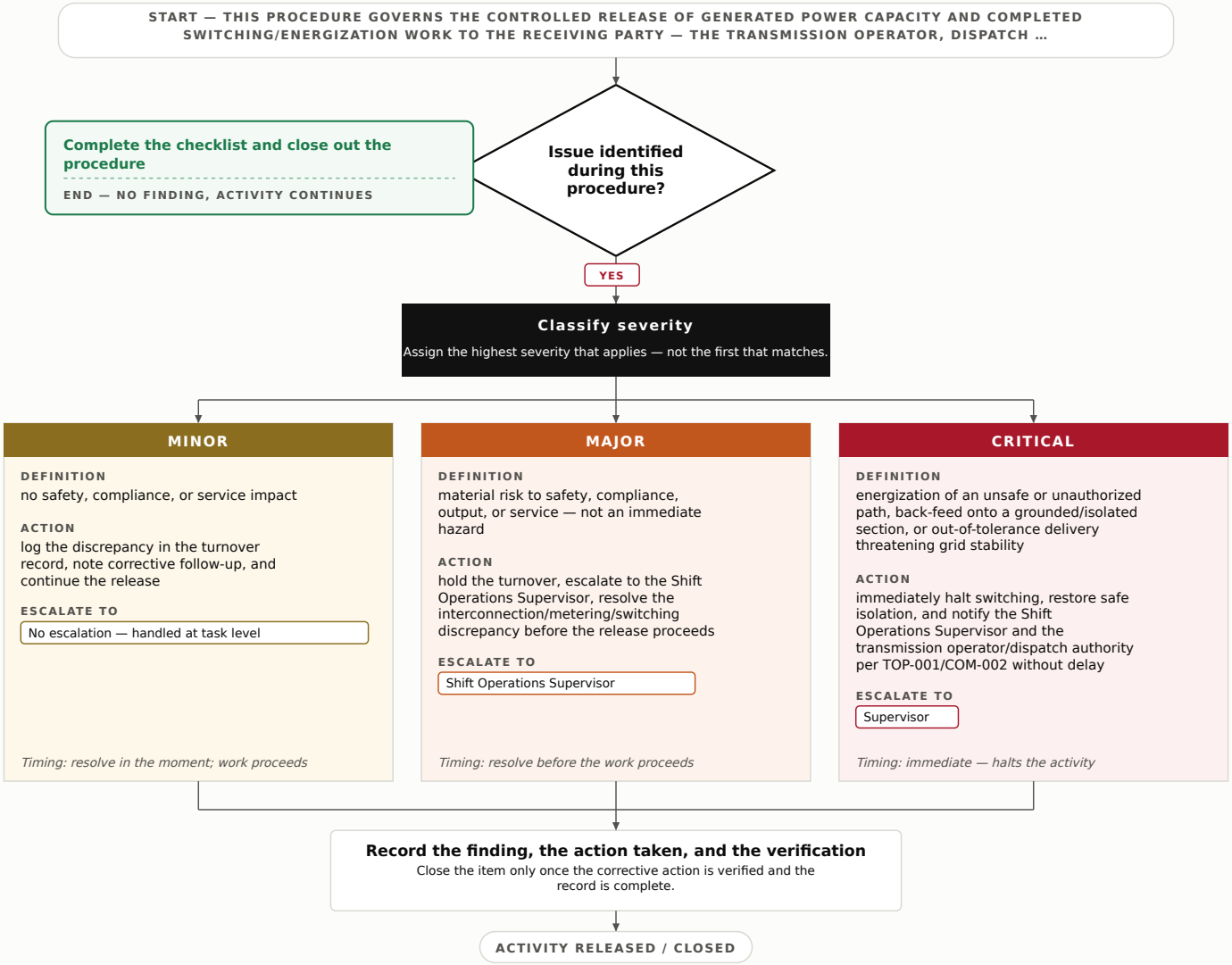
7. Step-by-Step Procedure

1. Confirm the release authorization and approved switching order are in place and that dispatch has cleared the unit for turnover (reference SH-014 for the originating dispatch instruction — do not re-author scheduling here).
2. Verify unit output parameters (MW/MVAR, frequency, voltage) are within interconnection agreement tolerances and stable.
3. Confirm breaker, isolation, and grounding status at the point of interconnection with the Field Switching Technician; verify all applicable LOTO tags cleared under the switching order.
4. Execute the authorized switching/energization sequence step-by-step, reading back each action between Control Room Operator and field.
5. Capture the metering baseline (kWh/MWh register, time-stamp, meter ID) at the moment of turnover for the delivery record.
6. Confirm receipt and status with the receiving party (transmission operator/dispatch or downstream wholesaler) via recorded operating communication per COM-002.
7. Note any anomalies; if none, proceed to close-out.
8. Complete the turnover record with unit ID, output values, meter baseline, switching-order reference, and both parties' confirmations, then file per records policy.

8. Decision Tree

OD-021 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Delivery / Service Turnover



READING THIS TREE

- **No finding** — Activity stands. Complete the checklist and continue.
- **Minor** — Handled in place at task level; no escalation.
- **Major** — Supervisory decision required before the next stage.
- **Critical** — Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- Unit output confirmed within interconnection agreement tolerances before release.
- Switching order fully executed with verified read-backs and all LOTO tags accounted for.
- Metering baseline captured, time-stamped, and matched with the receiving party.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
Release authorization / dispatch clearance verified		
Output MW/MVAR, frequency, voltage within tolerance		
Breaker/isolation/grounding status confirmed at POI		
Switching order executed with read-backs		
All applicable LOTO tags cleared under order		
Metering baseline captured and time-stamped		
Receiving-party confirmation recorded (COM-002)		

11. KPIs

- On-time turnover completion (within scheduled window): ≥ 98%.
- Metering baseline discrepancies at handoff: ≤ 0.5% of turnovers.
- Switching errors / miscommunication events: 0 per quarter.

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

OD-022 — Customer Communication & Status Notification

Estimated completion time: 15–45 minutes per notification cycle (longer for sustained outage events)

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

Ensure electric-service customers and downstream equipment wholesalers receive timely, accurate updates on service status, planned and unplanned outages, restoration estimates, and completion of work orders. Consistent notification maintains regulatory standing and customer trust during generation and distribution events.

2. Scope

Covers outbound status notifications for service interruptions, scheduled maintenance, restoration progress, and work-order completion across all Operations-owned communication channels (IVR, SMS, email, portal, outbound crew calls). Excludes complaint intake, which is covered under OD-023, and quality complaint investigation, which is covered under QC-021.

3. Responsibilities

- Operations Dispatch Coordinator — initiates status notifications, verifies outage/restoration data before release, logs each communication.
- Customer Communications Lead — approves messaging templates, manages channel content, escalates regulatory-threshold events.
- Shift Operations Supervisor — verifies restoration estimates against grid/generation status and authorizes customer-facing release of restoration times.

4. Required PPE & Lockout/Tagout

- Standard facility PPE (control-room/office setting; no field exposure for this task).
- Not applicable — no hazardous energy involved.

5. Regulatory References

- NERC Reliability Standards (EOP-011 emergency operations; event reporting per NERC Rules of Procedure) as applicable to reporting obligations.
- FERC Form 1 / DOE OE-417 electric emergency and disturbance reporting thresholds.
- State public utility commission (PUC) customer-notification and outage-communication rules (state-specific).
- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow

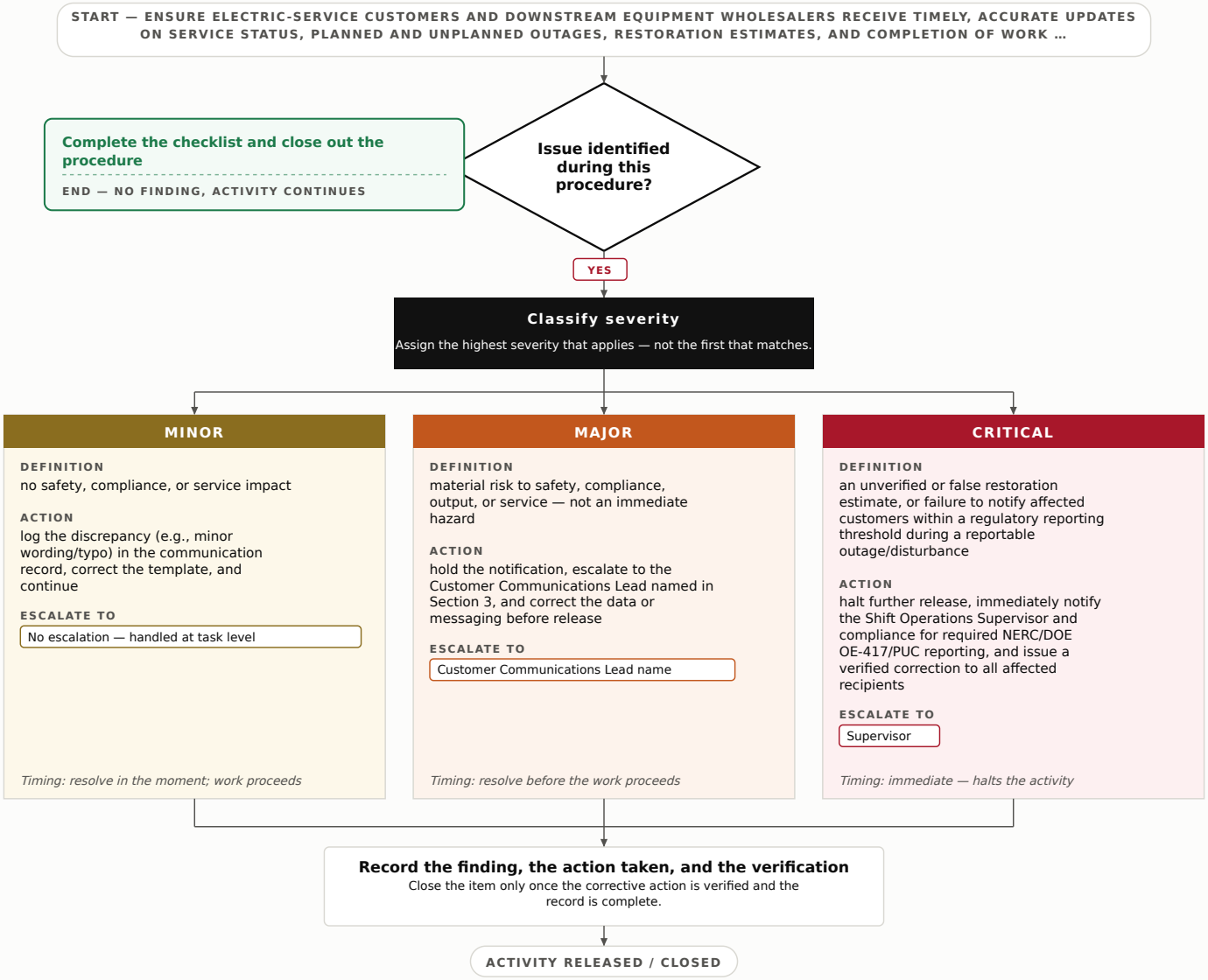
7. Step-by-Step Procedure

1. Receive trigger — outage, planned maintenance window, restoration milestone, or work-order completion from dispatch/SCADA or work-management system.
2. Verify the affected customer set, cause category, and current status with the Operations Dispatch Coordinator before drafting any message.
3. Obtain restoration-estimate confirmation from the Shift Operations Supervisor; do not publish an estimate that has not been validated against grid/generation status.
4. Select the approved messaging template matching event type (unplanned outage, planned interruption, restoration update, completion notice).
5. Populate template with verified fields (area, start time, estimated restoration, cause where releasable); have Customer Communications Lead approve if event meets regulatory-reporting threshold.
6. Release the notification through the appropriate channels (IVR/SMS/email/portal; outbound wholesaler notification to 423610 partners where service to their operations is affected).
7. Monitor for status changes and issue follow-up updates at defined intervals until restoration or completion is confirmed.
8. Log every notification (timestamp, channel, audience, content version, approver) in the customer-communication record and close out the notification cycle.

8. Decision Tree

OD-022 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Customer Communication & Status Notification



READING THIS TREE

No finding
Activity stands. Complete the checklist and continue.

Minor
Handled in place at task level; no escalation.

Major
Supervisory decision required before the next stage.

Critical
Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- Every restoration estimate confirmed by the Shift Operations Supervisor before release.
- Every regulatory-threshold event routed for Communications Lead approval and reporting check.
- All notifications logged with timestamp, channel, and approver.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
Affected customer set verified before drafting		
Restoration estimate confirmed by Supervisor		
Correct approved template used for event type		
Regulatory-threshold events approved by Comms Lead		
Notification released on all required channels		
Follow-up updates issued at defined intervals		
Communication logged with timestamp/channel/approver		

11. KPIs

- Initial customer notification issued within 30 minutes of confirmed outage event ≥ 95%.
- Restoration-estimate accuracy (actual within stated window) ≥ 90%.
- Notification logging completeness (all required fields) = 100%.

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

OD-023 — Customer Feedback & Complaint Intake

Estimated completion time: 15–30 minutes per intake contact

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

This procedure defines how the Operations team captures, logs, and routes incoming customer feedback and complaints — service reliability, billing disputes referred to Ops, voltage/quality concerns, and safety reports (downed lines, arcing equipment) — so each contact is recorded accurately and directed to the correct owner without delay.

2. Scope

Covers first-touch intake, classification, logging in the customer/outage management system, and routing of customer feedback and complaints received by any channel at the Operations desk. Excludes quality complaint investigation (QC-021) and corrective action (QC-019), which are owned by those modules; this procedure ends at verified routing.

3. Responsibilities

- Customer Intake Coordinator (OD) — receives contact, records details, classifies severity, logs and routes per this SOP.
- Operations Shift Supervisor — owns escalation for Major/Critical contacts and confirms hand-off to the responsible group.
- Records & Compliance Clerk — verifies log completeness and applies retention rules to complaint records.

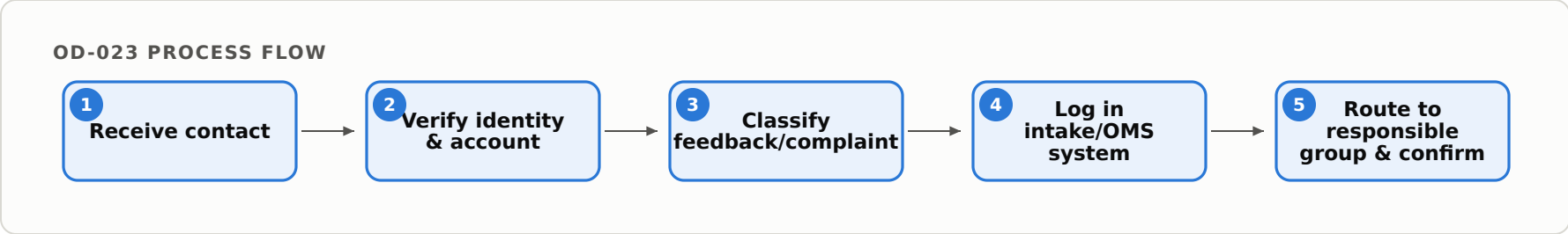
4. Required PPE & Lockout/Tagout

- Standard facility PPE; office/desk-based intake requires none beyond site rules.
- Not applicable — no hazardous energy involved. (Field safety reports are routed, not investigated, under this SOP.)

5. Regulatory References

- FERC/NERC reliability reporting expectations and applicable state Public Utility Commission complaint-handling and service-quality rules; internal Customer Service & Records Retention policy.
- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow



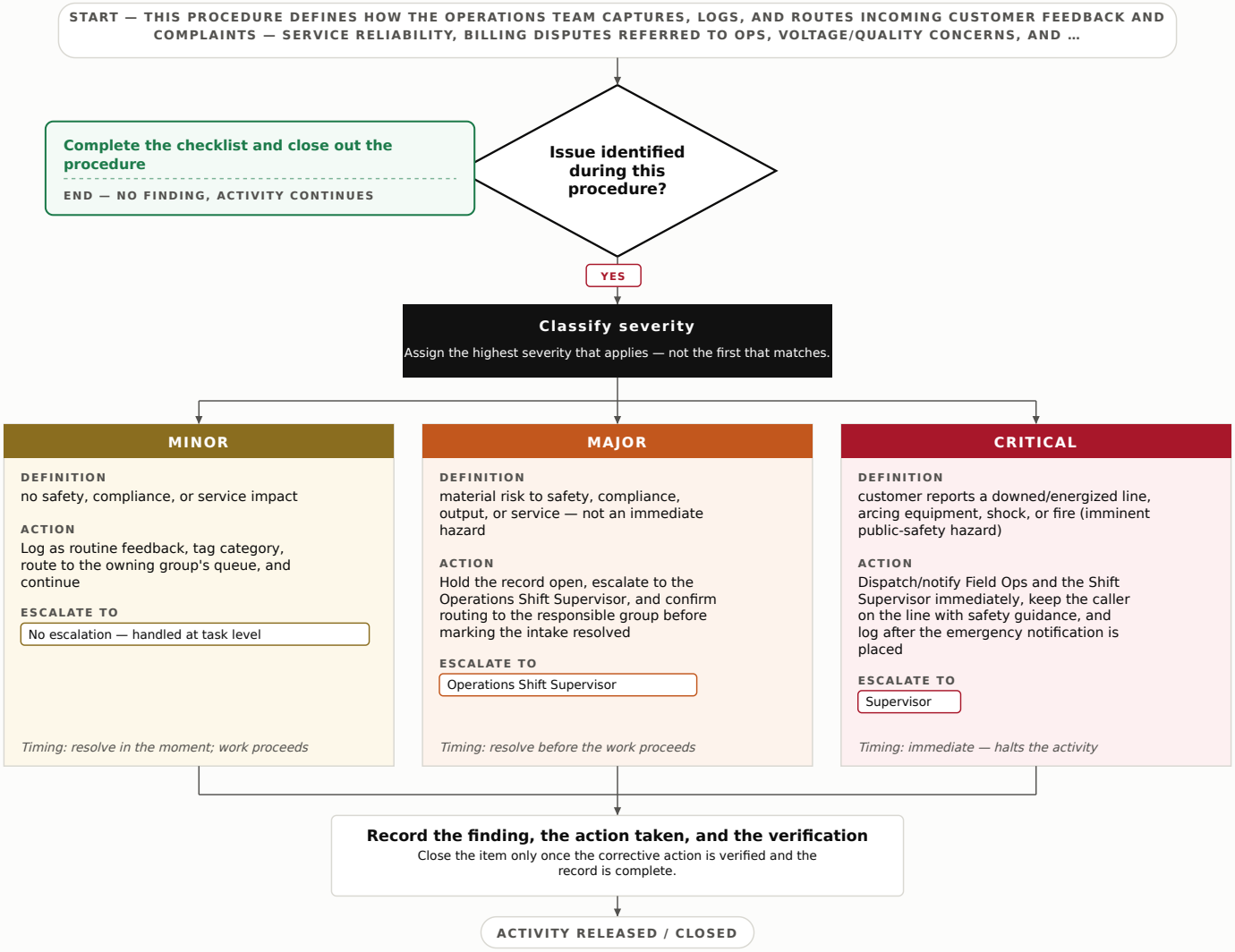
7. Step-by-Step Procedure

1. Answer or receive the contact (phone, portal, email, walk-in) and greet with account and reference-number capture.
2. Confirm the customer's account number, service address, and callback contact.
3. Determine the nature of the contact: feedback, billing dispute, service-reliability complaint, power-quality concern, or safety report.
4. For any report of a downed line, arcing, fire, or shock, immediately follow Step 8 Critical branch before continuing data entry.
5. Classify severity (Minor / Major / Critical) using Section 8 definitions.
6. Log the contact in the intake/outage management system with timestamp, category, severity, and verbatim description.
7. Route to the responsible group (Field Ops, Billing, Reliability, or QC-021 for investigation) and record the routing target and time.
8. Confirm hand-off acknowledgment, provide the customer a reference number, and close the intake record with disposition notes.

8. Decision Tree

OD-023 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Customer Feedback & Complaint Intake



READING THIS TREE

No finding
Activity stands. Complete the checklist and continue.

Minor
Handled in place at task level; no escalation.

Major
Supervisory decision required before the next stage.

Critical
Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- Account and contact details verified before logging.
- Severity classification matches Section 8 definitions.
- Routing target recorded with acknowledgment timestamp.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
Account number and service address confirmed		
Contact category correctly selected		
Severity classified per Section 8		
Verbatim complaint text captured		
Routed to correct responsible group		
Reference number issued to customer		
Retention tag applied to record		

11. KPIs

- Contacts logged within 5 minutes of first touch — ≥95%.
- Correct first-time routing (no re-route) — ≥90%.
- Critical safety reports escalated within 2 minutes — 100%.

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

Phase 5 — Oversight & continuity

OD-024 — Operational Incident Reporting & Response

Estimated completion time: 30–90 minutes per incident (initial report and classification); follow-up response may extend across shifts.

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

Establish a consistent method for control room and plant operators to report, classify, and respond to operational incidents and near-misses — such as unplanned generation trips, frequency/voltage excursions, dispatch deviations, and control-system anomalies — so that grid reliability, load commitments, and root-cause records are preserved.

2. Scope

Covers reporting, severity classification, and operational response for generation and dispatch incidents and near-misses at the plant during normal and emergency operations. Excludes personnel safety incident reporting, which is covered under SD-018, and equipment breakdown diagnosis and repair, which is covered under MD-009.

3. Responsibilities

- Control Room Operator (CRO) — detects, logs, and issues the initial incident report; performs first-tier classification and immediate stabilizing actions.
- Shift Supervisor (Operations) — validates classification, directs response, and authorizes escalation and external notifications.
- Operations Compliance Coordinator — verifies reportability against NERC/regional thresholds, files required external notifications, and owns the incident record and follow-up tracking.

4. Required PPE & Lockout/Tagout

- Standard control-room facility PPE; if incident response requires the plant floor, wear arc-rated FR clothing, safety glasses, and hearing protection per plant zone rules.
- Not applicable to reporting/classification itself — no hazardous energy manipulated. Any field isolation of affected equipment is performed under MD-009 LOTO procedures.

5. Regulatory References

- NERC EOP-004 (Event Reporting) and TOP-001/TOP-003 (Transmission Operations reliability data and reporting)
- NERC EOP-011 (Emergency Operations)
- DOE Form OE-417 (Electric Emergency Incident and Disturbance Report)
- Applicable regional entity (e.g., RF/SERC/WECC) and Balancing Authority operating agreements

- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow

7. Step-by-Step Procedure

1. Upon detecting an operational deviation, trip, near-miss, or alarm condition, the CRO records the timestamp, unit/asset ID, and observed condition in the operations log.
2. Take immediate stabilizing operational actions within CRO authority (load adjustment, mode change, notify Balancing Authority of MW impact) to protect grid reliability and personnel.
3. Capture supporting data — SCADA/EMS trends, sequence-of-events (SOE) records, DCS alarm history, and any dispatch instructions relevant to the event.
4. Perform first-tier severity classification using Section 8; notify the Shift Supervisor for validation.
5. Shift Supervisor confirms classification and directs the operational response; for potential reportable events, engage the Operations Compliance Coordinator.
6. Compliance Coordinator assesses reportability against NERC EOP-004 / DOE OE-417 thresholds and files required external notifications within mandated timelines.
7. Track corrective and preventive actions to resolution; near-misses are logged for trend review even when no external report is required.
8. Complete the incident record, attach all supporting data, obtain Supervisor verification, and close out.

8. Decision Tree

OD-024 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Operational Incident Reporting & Response

START — ESTABLISH A CONSISTENT METHOD FOR CONTROL ROOM AND PLANT OPERATORS TO REPORT, CLASSIFY, AND RESPOND TO OPERATIONAL INCIDENTS AND NEAR-MISSES — SUCH AS UNPLANNED GENERATION TRIPS, FREQUENCY/VOLTAGE …

Issue identified during this procedure?

- **NO** → **Complete the checklist and close out the procedure**
  - END — NO FINDING, ACTIVITY CONTINUES
- **YES** → **Classify severity**

Assign the highest severity that applies — not the first that matches.

MINOR

DEFINITION
no safety, compliance, or service impact

ACTION
Log the incident/near-miss in the operations log with SOE reference and continue operations; route to Compliance Coordinator for trend tracking

ESCALATE TO
No escalation — handled at task level

Timing: resolve in the moment; work proceeds

MAJOR

DEFINITION
material risk to safety, compliance, output, or service — not an immediate hazard

ACTION
Contain the affected operation (curtail/adjust load, isolate impacted process), escalate to the Shift Supervisor named in Section 3, and resolve/validate reportability before returning the unit to normal dispatch

ESCALATE TO
Shift Supervisor named in Section

Timing: resolve before the work proceeds

CRITICAL

DEFINITION
uncontrolled generation loss or grid-separation event causing load shed, frequency instability, or a reportable disturbance under EOP-004/DOE OE-417

ACTION
Execute emergency operating procedures immediately, notify the Balancing Authority and Shift Supervisor at once, and have the Compliance Coordinator file DOE OE-417 / NERC EOP-004 notifications within mandated timelines

ESCALATE TO
Supervisor

Timing: immediate — halts the activity

Record the finding, the action taken, and the verification

Close the item only once the corrective action is verified and the record is complete.

ACTIVITY RELEASED / CLOSED

READING THIS TREE

- **No finding** — Activity stands. Complete the checklist and continue.
- **Minor** — Handled in place at task level; no escalation.
- **Major** — Supervisory decision required before the next stage.
- **Critical** — Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- Incident timestamp, unit ID, and initial classification recorded within the shift the event occurred.
- SCADA/EMS and SOE supporting data attached to every Major and Critical record.
- Reportability determination documented against NERC EOP-004 / DOE OE-417 thresholds.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
Incident/near-miss logged with timestamp and unit/asset ID		
Immediate stabilizing action taken and recorded		
Severity classified and validated by Shift Supervisor		
SOE / SCADA-EMS data captured and attached		
Reportability assessed against EOP-004 / OE-417		
Required external notifications filed within timeline		
Corrective/preventive actions assigned and tracked		

11. KPIs

- Incidents/near-misses logged within the shift of occurrence: ≥ 98%
- Reportable events with external notification filed within mandated timeline: 100%
- Major/Critical incidents with completed root-cause and CAPA closure: ≥ 95% within 30 days

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

OD-025 — Emergency & Business Continuity Readiness Check

Estimated completion time: 3–5 hours per generating unit / control-area review cycle

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

Confirm that the generating operation can detect, absorb, and recover from disruptive events (grid loss, fuel interruption, cyber/physical incident, extreme weather) and resume dispatch within committed restoration timelines. Ensures continuity documentation, contact chains, and resource readiness are current and actionable.

2. Scope

Covers the periodic verification of business continuity plans (BCP), continuity-of-operations documentation, restoration priority lists, alternate-control arrangements, and readiness records for the generating station and its Operations control function. Excludes emergency drills and live incident response (see SD-015, SD-016) and backup power / on-site standby generation systems (see ED-027).

3. Responsibilities

- Shift Operations Supervisor — leads the readiness check, verifies control-room continuity procedures and contact chains are current.
- Plant Continuity Coordinator (OD) — maintains the BCP document set, restoration priority list, and spare-parts/vendor recall records; logs findings.
- Operations Manager — reviews classified findings, authorizes corrective actions, and signs off on readiness status before the cycle closes.

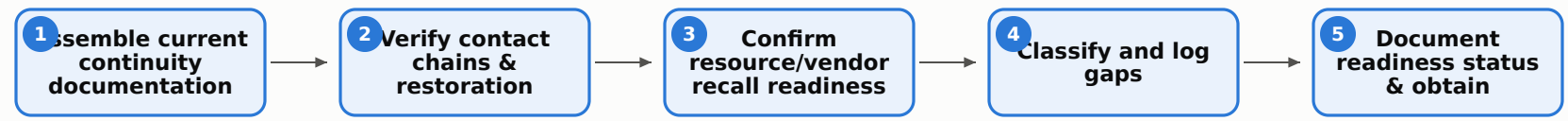
4. Required PPE & Lockout/Tagout

- Standard facility PPE for control-room and walkdown areas (arc-rated clothing, safety glasses, hearing protection when on the generating floor).
- Not applicable — this is a document, records, and readiness-verification task involving no hazardous energy isolation. If field walkdowns touch energized equipment, defer isolation to the owning maintenance procedure.

5. Regulatory References

- NERC EOP-004 (Event Reporting), EOP-005 (System Restoration from Blackstart Resources), EOP-011 (Emergency Operations)
- NERC CIP-008 (Cyber Security Incident Response Planning) and CIP-009 (Recovery Plans for BES Cyber Systems)
- FERC Order 693 (Mandatory Reliability Standards)
- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow



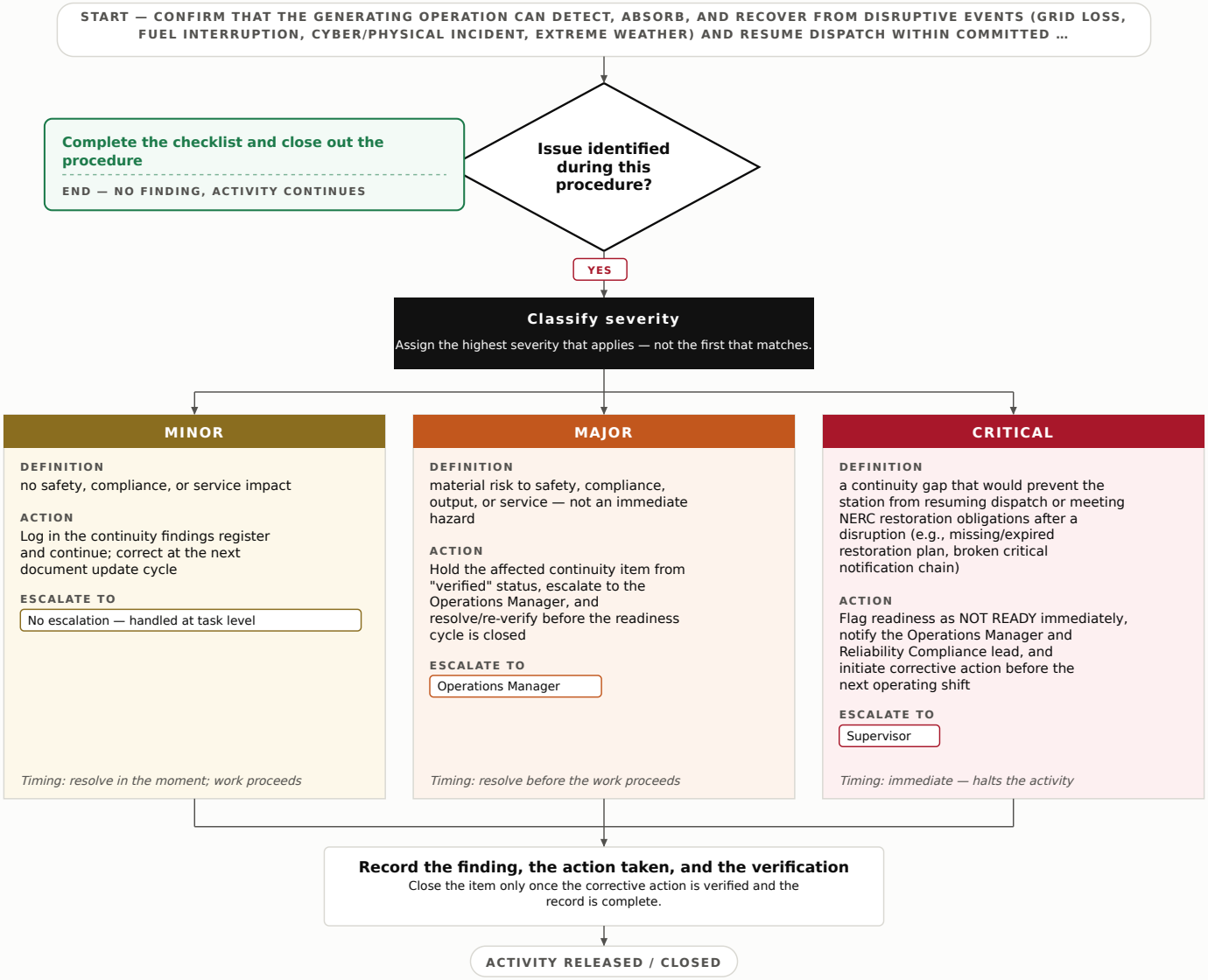
7. Step-by-Step Procedure

1. Retrieve the current BCP, continuity-of-operations, and system-restoration document set; confirm revision dates are within the review interval.
2. Verify the emergency contact and notification chain (control-area operator, dispatch, on-call engineering, key vendors) — validate names, numbers, and after-hours reachability.
3. Confirm restoration priority list identifies critical generating units, auxiliaries, and dispatch obligations in correct sequence, consistent with EOP-005/EOP-011.
4. Cross-check spare-parts and critical-component recall arrangements for turbine/generator sets, transformers, and specialty electrical equipment against current supplier agreements.
5. Verify alternate-control and communications fallback arrangements are documented and accessible; confirm hand-offs to SD-015/SD-016 (drills/response) and ED-027 (backup power) are referenced, not duplicated.
6. Confirm CIP-009 recovery-plan references for BES cyber systems are present and cross-linked to the BCP.
7. Classify any gaps per Section 8; record each with owner and target resolution date.
8. Complete the inspection checklist, document readiness status, and route to the Operations Manager for verification and sign-off.

8. Decision Tree

OD-025 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Emergency & Business Continuity Readiness Check



READING THIS TREE

- **No finding** — Activity stands. Complete the checklist and continue.
- **Minor** — Handled in place at task level; no escalation.
- **Major** — Supervisory decision required before the next stage.
- **Critical** — Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- All continuity documents current and within review interval.
- Notification chain validated end-to-end within the last cycle.
- Restoration priority list reconciled against current dispatch obligations.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
BCP / continuity-of-operations document set current and version-controlled		
Emergency notification / contact chain validated (incl. after-hours)		
System restoration priority list reconciled with EOP-005/EOP-011		
Critical spare-parts & vendor recall arrangements confirmed		
Alternate-control / communications fallback documented and accessible		
CIP-009 recovery-plan references present and cross-linked		
Findings register updated with owners and target dates		

11. KPIs

- Continuity document currency: 100% within review interval.
- Notification-chain validation: 100% of contacts confirmed reachable per cycle.
- Critical findings open at cycle close: 0.

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

OD-026 — Regulatory, License & Permit Currency Verification

Estimated completion time: 3–5 hours per verification cycle (quarterly)

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

To confirm that all operating licenses, permits, and registrations required to lawfully generate and dispatch electric power — including FERC market authorizations, state PSC/PUC certificates, air and water discharge permits, and NERC registration — remain current, unexpired, and in good standing. This prevents unplanned generation curtailment, penalties, or loss of market participation rights.

2. Scope

Covers currency tracking, renewal-window monitoring, and status verification of environmental, siting, market, and reliability permits/registrations for this generation facility. Excludes safety regulatory compliance (see SD-028) and permit-to-work authorization for field tasks (see MD-007), which are authored in their own modules.

3. Responsibilities

- Regulatory Compliance Coordinator (Operations) — maintains the permit/license register, tracks expiration dates, initiates renewals, and owns this verification.
- Operations Manager — reviews findings, authorizes escalation, and confirms operational impact of any lapse.
- Environmental & Permitting Specialist — verifies air (Title V), water (NPDES), and waste permit status with issuing agencies.

4. Required PPE & Lockout/Tagout

- Standard facility PPE only if entering plant areas to retrieve posted permits; otherwise office-based, no PPE required.
- Not applicable — no hazardous energy involved.

5. Regulatory References

- Federal Power Act market-based rate authorization (FERC, 18 CFR Part 35); NERC registration and reliability standards (per NERC Rules of Procedure); Clean Air Act Title V operating permit (40 CFR Part 70); NPDES discharge permit (40 CFR Part 122); applicable state Public Utility/Service Commission certificate of public convenience and necessity.
- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow

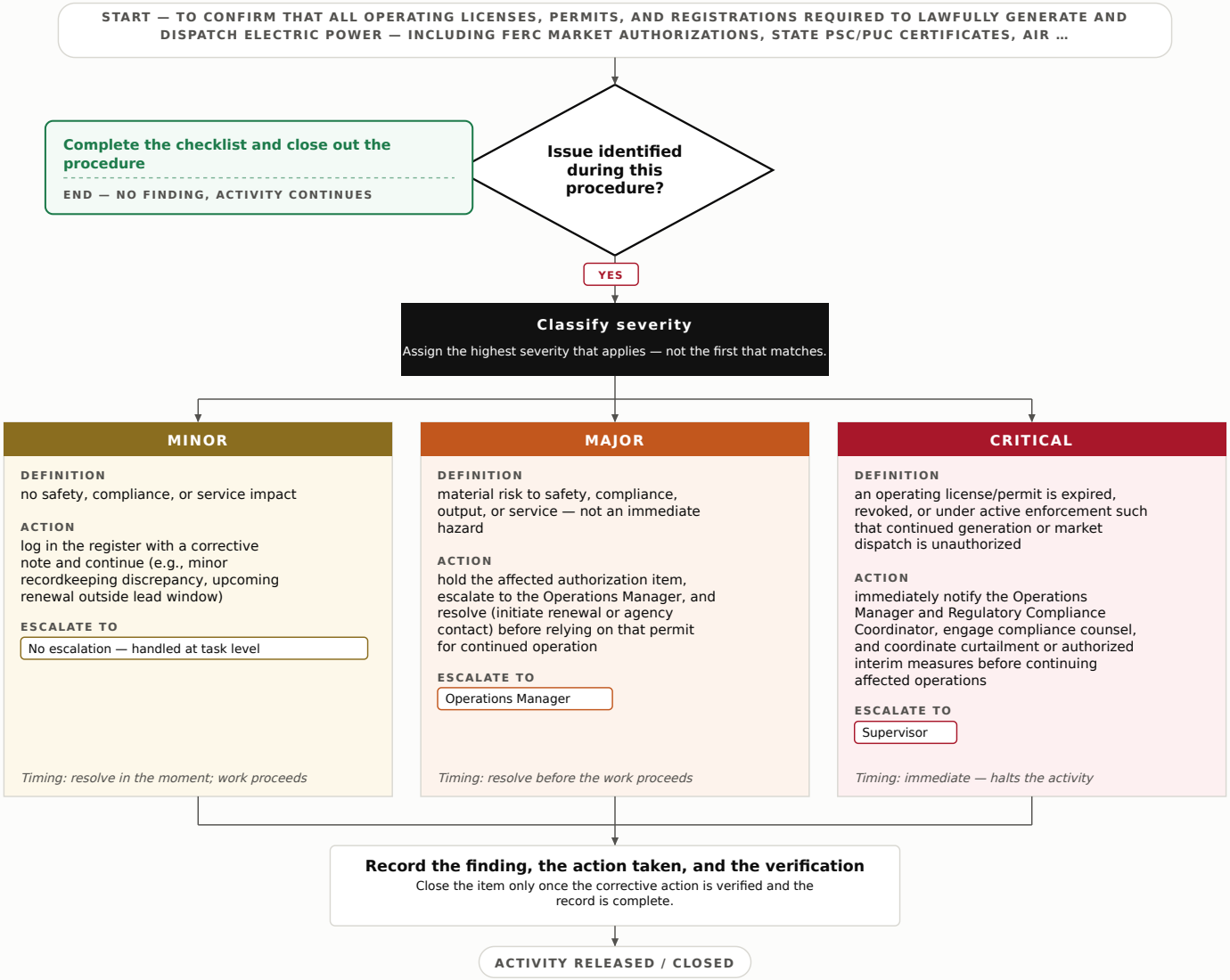
7. Step-by-Step Procedure

1. Open the master permit/license register and confirm it lists every active authorization (FERC MBR, NERC registration, Title V, NPDES, state PSC certificate, any waste or emergency-generator permits).
2. For each entry, retrieve the source document or portal record and note issue date, expiration date, and any conditional milestones.
3. Cross-check each status against the issuing authority's system of record (FERC eLibrary, NERC registry, state e-permitting portal, EPA ECHO) to confirm no revocation, modification, or pending enforcement.
4. Calculate days-to-expiration for each; flag any within its renewal-lead window (typically 90–180 days depending on agency).
5. Confirm all periodic reports/fees tied to each authorization (e.g., FERC annual charges, Title V compliance certification) are filed and current.
6. Classify any gap, lapse, or pending item per the Decision Tree in Section 8.
7. Initiate renewal or corrective action for flagged items and assign owner and due date.
8. Record verification results, evidence links, and sign-off in the compliance register; retain the completed checklist.

8. Decision Tree

OD-026 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Regulatory, License & Permit Currency Verification



READING THIS TREE

- **No finding** — Activity stands. Complete the checklist and continue.
- **Minor** — Handled in place at task level; no escalation.
- **Major** — Supervisory decision required before the next stage.
- **Critical** — Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- Every active authorization in the register has a verified, current status and documented evidence link.
- All renewal-window items have an assigned owner and target date.
- All periodic reports/fees tied to authorizations confirmed filed and paid.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
Permit/license register complete and matches active operations		
FERC market-based rate authorization current, no pending order		
NERC registration active and reliability filings current		
Title V air permit and NPDES discharge permit unexpired		
State PSC/PUC certificate valid and in good standing		
Periodic reports/fees filed and paid for all authorizations		
All renewal-window items flagged with owner and due date		

11. KPIs

- Authorizations verified current on schedule: 100% each quarterly cycle
- Lapsed or expired authorizations at time of verification: 0
- Renewals initiated within required lead window: ≥ 95%

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

OD-027 — Operational Risk Review

Estimated completion time: 4–6 hours per review cycle (quarterly)

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

Establish a periodic, structured review of operational risks and the controls that mitigate them across generation and dispatch operations, so that emerging threats to reliability, output, and regulatory standing are identified and treated before they cause an incident or violation.

2. Scope

Covers the quarterly review of the operational risk register, control effectiveness, and treatment actions for generating-unit operations, fuel handling, and grid-facing dispatch at this facility. Excludes safety hazard/risk assessment, which is covered under SD-004, and quality preventive action, which is covered under QC-020.

3. Responsibilities

- Operations Manager — owns the risk register, chairs the review, approves risk scores and treatment decisions.
- Shift Operations Supervisor — supplies operating-event data, control-failure observations, and near-miss trends from the control room.
- Reliability Compliance Coordinator — validates regulatory exposure (NERC/state), tracks treatment actions to closure, maintains records.

4. Required PPE & Lockout/Tagout

- Standard facility PPE if the review includes a plant walkdown; office attire for the register-review portion.
- Not applicable — no hazardous energy involved in the administrative review itself; any field verification of a control follows the applicable equipment LOTO procedure.

5. Regulatory References

- NERC Reliability Standards (e.g., TOP-001, IRO-002, PER-005) for operating reliability and personnel readiness
- FERC Order 693 (mandatory reliability standards)
- 18 CFR Part 39 (enforcement of reliability standards)
- Internal Operations Risk Management Policy (register scoring, escalation, retention)
- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow

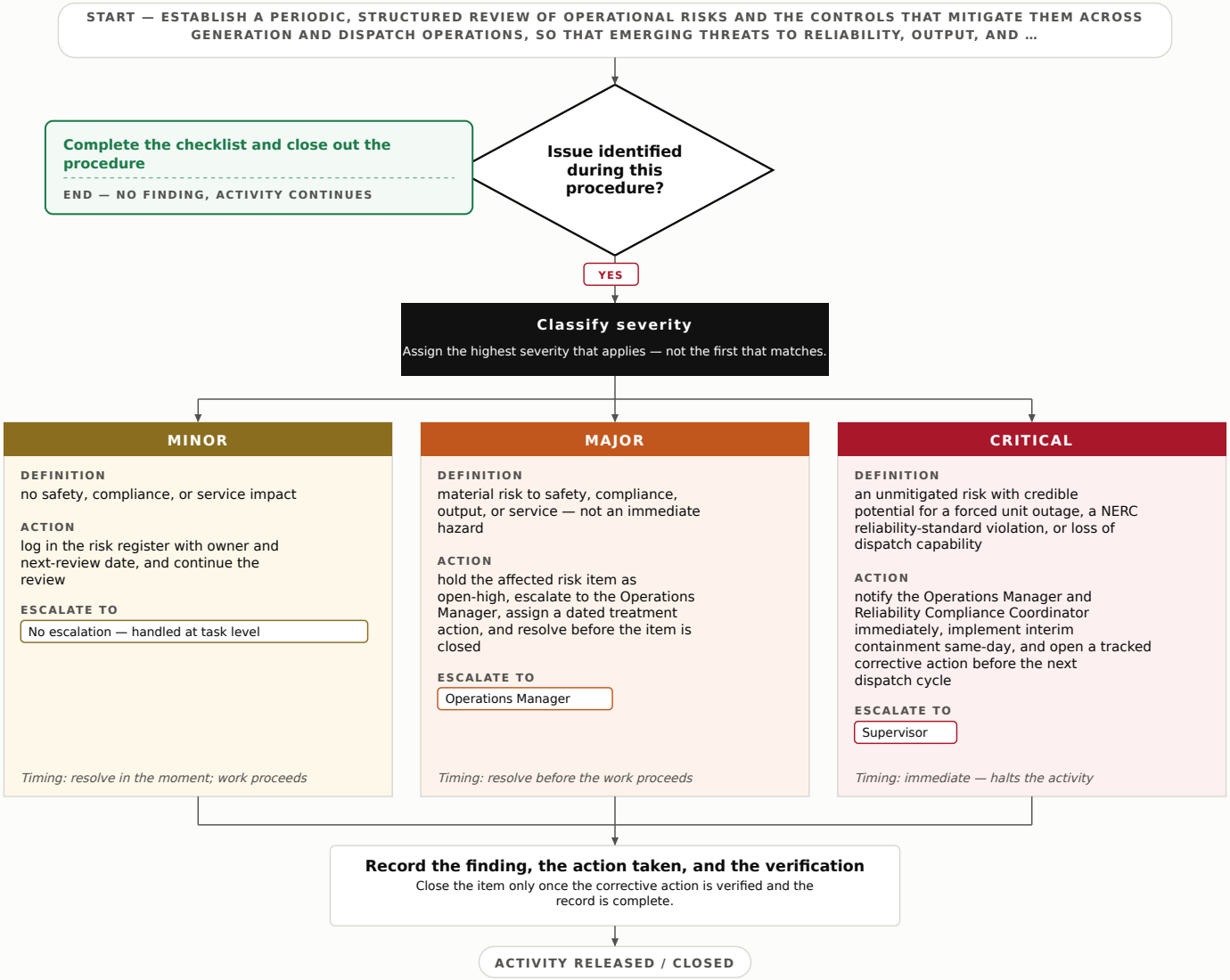
7. Step-by-Step Procedure

1. Gather inputs since last review: operating events, unit trips, derates, dispatch deviations, near-misses, audit findings, and supplier-driven risks (e.g., turbine-generator and transformer parts reliability).
2. Review each open item in the operational risk register; retire resolved entries and add newly identified risks with owner and category (reliability, output, compliance, personnel).
3. Score each risk for likelihood and consequence using the standard matrix; recalculate residual score after existing controls.
4. Assess control adequacy for each significant risk — confirm the control exists, is operating, and is evidenced; flag gaps or degraded controls.
5. Prioritize risks by residual score; classify each per the Decision Tree (Section 8).
6. Assign treatment actions with named owner and due date for any risk exceeding tolerance; confirm interim containment where a control gap is live.
7. Route Major/Critical items to the Operations Manager for decision and, where regulatory exposure exists, to the Reliability Compliance Coordinator.
8. Document the review minutes, updated register, scores, and treatment log; obtain supervisor verification and archive per retention policy.

8. Decision Tree

OD-027 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Operational Risk Review



READING THIS TREE

- **No finding** — Activity stands. Complete the checklist and continue.
- **Minor** — Handled in place at task level; no escalation.
- **Major** — Supervisory decision required before the next stage.
- **Critical** — Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- Every register entry has an owner, current score, and control-adequacy status.
- All Major/Critical risks carry a dated treatment action with an accountable owner.
- Regulatory-exposure items are validated by the Reliability Compliance Coordinator.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
Risk register current since last review cycle		
Likelihood/consequence scoring applied per matrix		
Control adequacy assessed for each significant risk		
Treatment actions assigned with owner and due date		
Regulatory-exposure items validated		
Review minutes documented and archived		
No Critical risk left without interim containment		

11. KPIs

- Review cycle completed on schedule: 100% of quarters on time
- Overdue treatment actions at cycle close: 0
- Critical risks open beyond one dispatch cycle: 0

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

Phase 6 — Performance, records & close

OD-028 — Operational KPI Review

Estimated completion time: 2–4 hours per review cycle

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

This procedure establishes a consistent method for reviewing operating performance of the generation fleet against defined targets — including net generation output, unit availability, forced outage rate, heat rate, and dispatch compliance — so that Operations leadership can identify deviations early and drive corrective action.

2. Scope

Covers the periodic review of operations-level KPIs for the generating station, including availability, capacity factor, forced/planned outage metrics, heat rate, and dispatch adherence. Excludes department-specific KPI reviews for maintenance, quality/compliance, and supply/dispatch, which are covered under MD-030, QC-030, and SD-030 respectively; this module's scope is operations measures only.

3. Responsibilities

- Operations Manager — owns the review, sets targets, approves corrective actions, and signs off on the cycle.
- Shift Operations Supervisor — supplies operating logs, unit run data, and event context for the review period.
- Operations Performance Analyst — compiles KPI data from the plant historian/DCS, validates figures, and prepares the review packet.

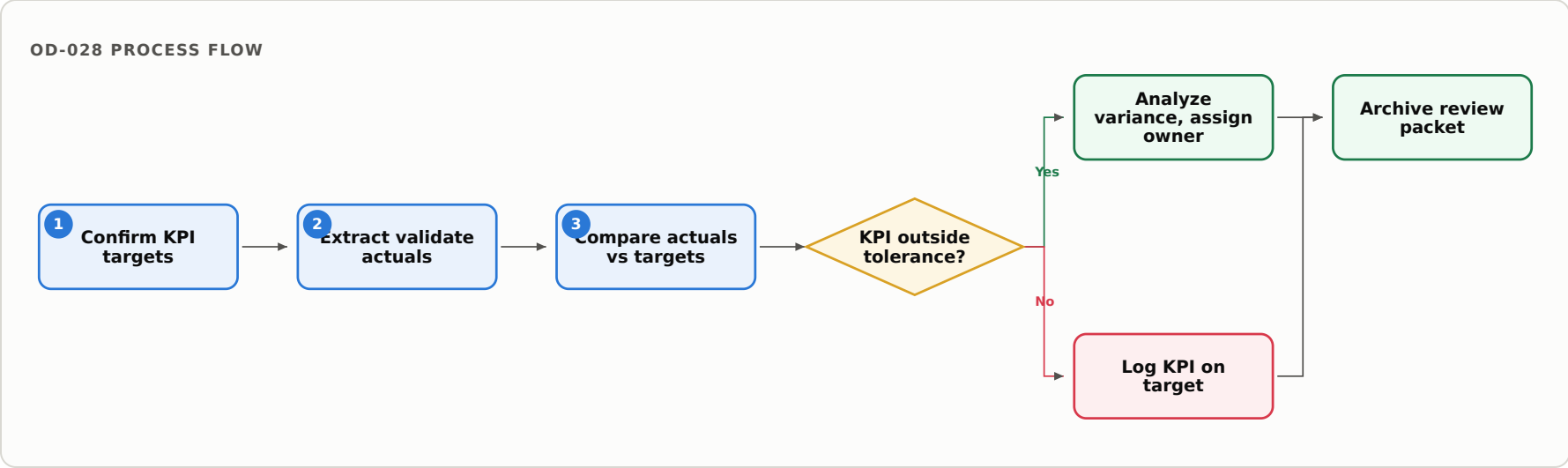
4. Required PPE & Lockout/Tagout

- Standard facility PPE if the review requires control-room or plant-floor data walkdown; office-based review requires none.
- Not applicable — no hazardous energy involved in this administrative review task.

5. Regulatory References

- NERC Reliability Standards (e.g., GADS data reporting per PRC/MOD families; BAL-001 for control performance)
- NAESB / ISO-RTO settlement and dispatch performance requirements as applicable to the interconnection
- FERC Form 1 operating statistics reporting basis
- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow



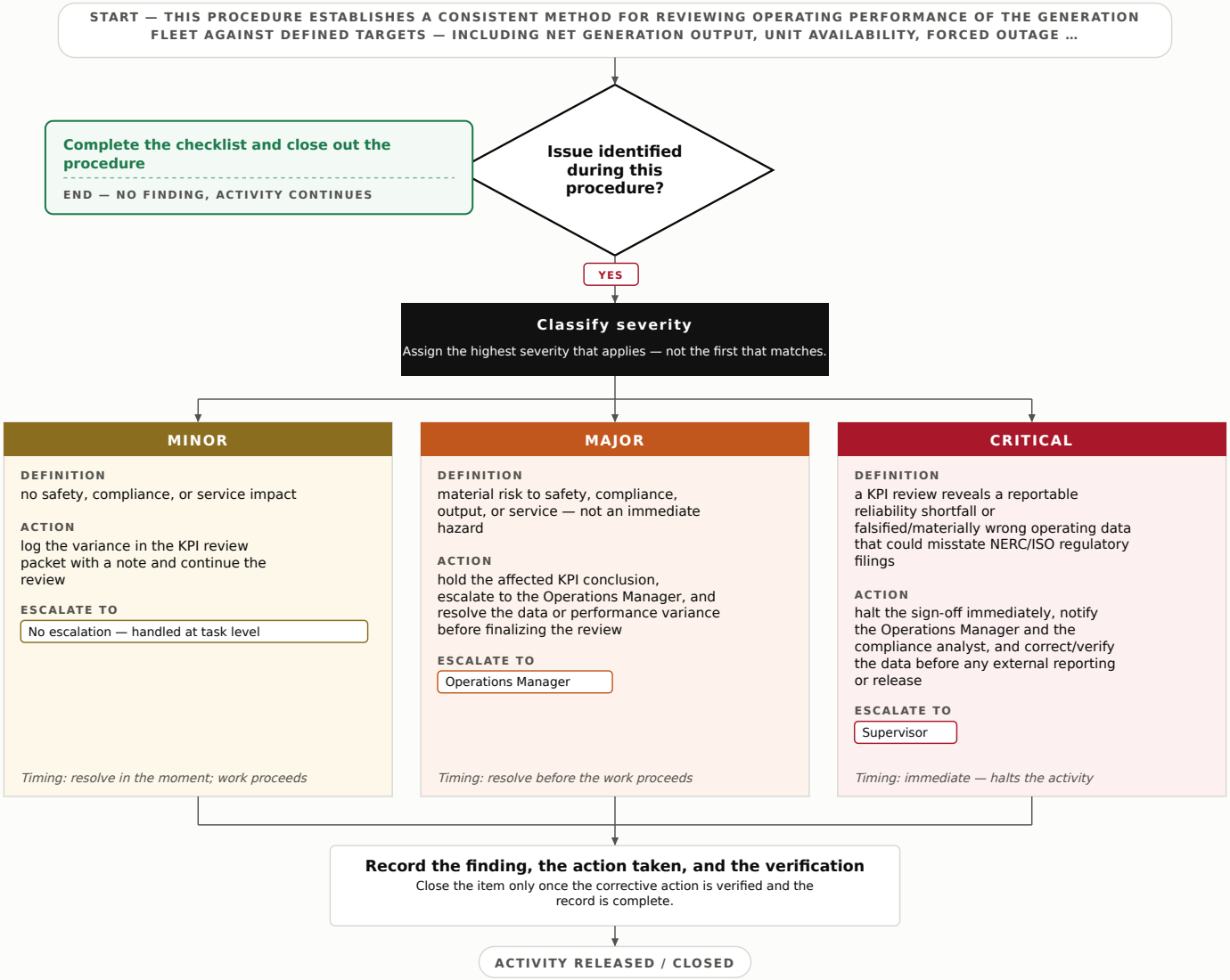
7. Step-by-Step Procedure

1. Confirm the review period and the KPI target set (net generation, equivalent availability factor, forced outage rate, heat rate, dispatch compliance) against the current operating plan.
2. Extract actuals from the plant historian/DCS, GADS event records, and ISO/RTO settlement data for the period.
3. Validate data integrity — reconcile metered net generation against settlement statements and flag any gaps, sensor faults, or missing event codes.
4. Compare each KPI actual to its defined target and calculate variance (absolute and percentage).
5. For any KPI outside tolerance, perform variance analysis with the Shift Operations Supervisor to identify contributing events (derates, trips, fuel constraints, ambient conditions).
6. Classify each deviation by severity per Section 8 and assign an owner and due date for corrective action.
7. Present findings to the Operations Manager and record decisions in the review packet.
8. Archive the completed KPI review packet, variance log, and action register in the operations records system.

8. Decision Tree

OD-028 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Operational KPI Review



READING THIS TREE

- **No finding** — Activity stands. Complete the checklist and continue.
- **Minor** — Handled in place at task level; no escalation.
- **Major** — Supervisory decision required before the next stage.
- **Critical** — Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- All KPI actuals reconciled against an independent source (settlement or metered data).
- Every variance outside tolerance has a documented root cause or an open investigation.
- All assigned corrective actions have a named owner and due date.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
KPI target set matches current operating plan		
Historian/DCS data extracted for full review period		
Net generation reconciled to settlement data		
GADS event codes complete and mapped to outages		
All out-of-tolerance KPIs have variance analysis		
Corrective actions assigned with owner and date		
Review packet archived in records system		

11. KPIs

- KPI data validation completeness ≥ 99% of required fields reconciled
- Review cycle completed within 5 business days of period close 100%
- Variances with documented root cause ≥ 95% of flagged deviations

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

OD-029 — Operational Records Retention & Documentation Audit

Estimated completion time: 3–5 hours per audit cycle (quarterly)

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

This procedure ensures that operational records generated by the generation facility — unit operating logs, dispatch and switching records, generation output data, and regulatory submittals — are complete, accurate, and retained for the required periods so the utility can demonstrate compliance during NERC, RTO/ISO, and state-commission audits.

2. Scope

Covers the identification, completeness verification, accuracy review, and retention-period confirmation of operational records held by the Operations Department for electric power generation (NAICS 22111). Excludes quality records (QC-029), safety records (SD-029), and HR records (HR-029), which are audited under their respective modules.

3. Responsibilities

- Operations Records Coordinator — compiles the record inventory, runs the completeness/accuracy checks, and maintains the retention schedule.
- Shift Operations Supervisor — verifies that unit logs, switching orders, and dispatch records for the audit period are authentic and correctly attributed to responsible operators.
- Compliance Manager — confirms retention periods against NERC/state requirements, signs off findings, and authorizes disposition of expired records.

4. Required PPE & Lockout/Tagout

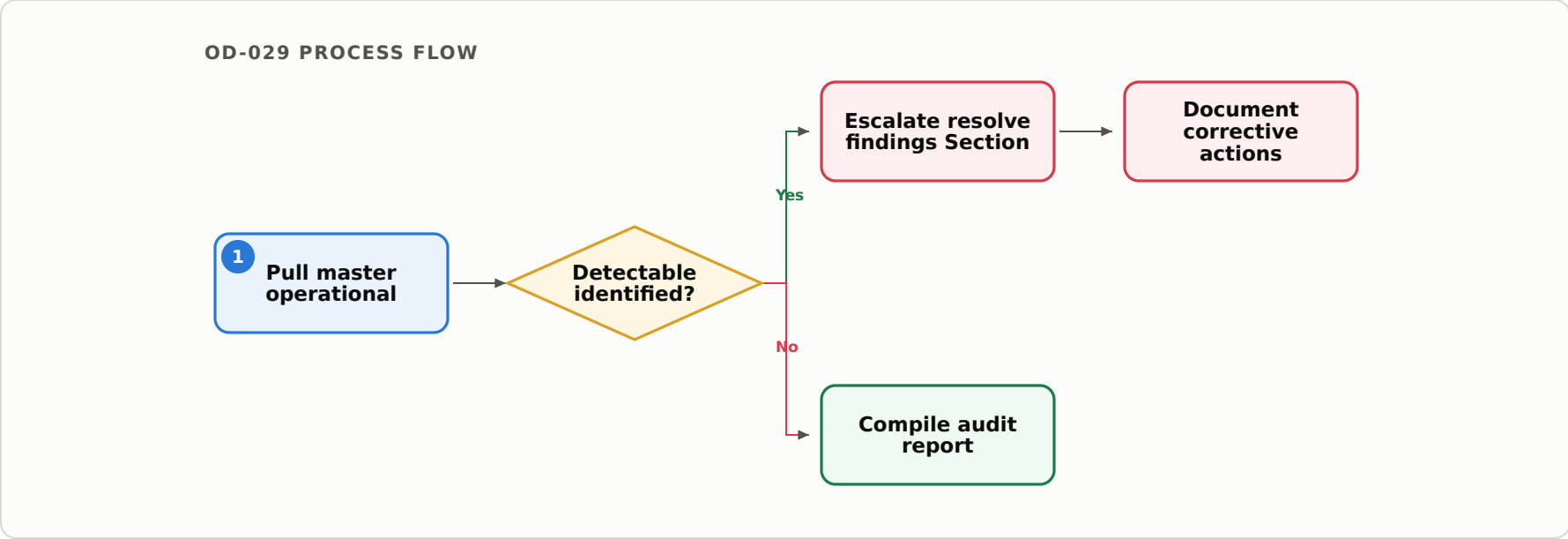
- Standard facility PPE if entering the plant floor to retrieve control-room or logbook records; office-standard otherwise.
- Not applicable — no hazardous energy involved (records/administrative task).

5. Regulatory References

- NERC Reliability Standards (records retention provisions embedded in FAC, VAR, PRC, and COM standards; evidence retention typically 3–6 calendar years or since last audit).
- FERC 18 CFR Part 125 — Preservation of Records for Public Utilities and Licensees.
- FERC Uniform System of Accounts (18 CFR Part 101) recordkeeping requirements.
- Applicable state public utility commission recordkeeping rules.

- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow



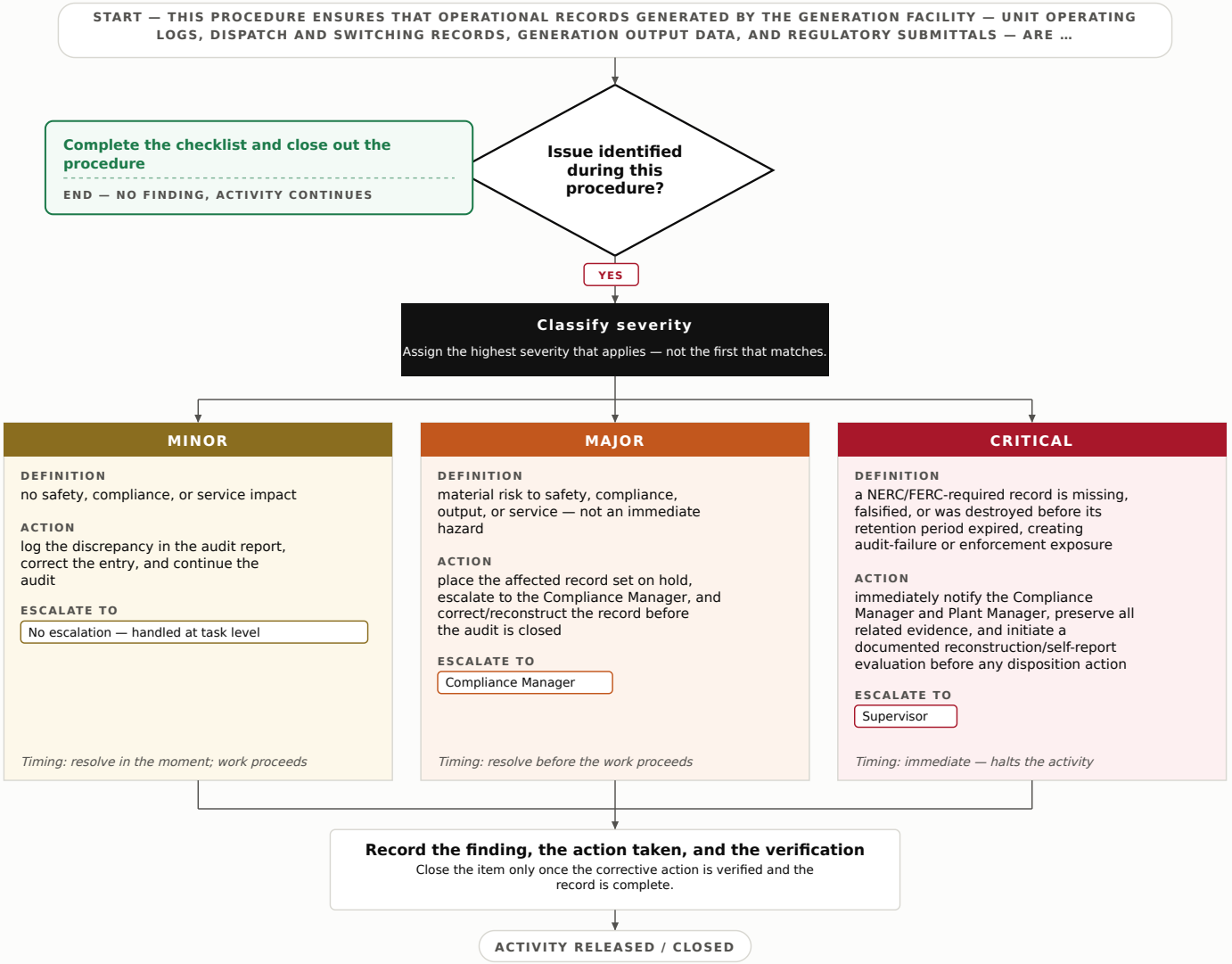
7. Step-by-Step Procedure

1. Pull the master operational records index and confirm which record types fall in scope (unit operating logs, dispatch/EMS output data, switching orders, tagging records, regulatory submittals, mandatory event reports).
2. Define the audit period and generate the expected-record list from generation schedules and shift rosters so gaps are detectable.
3. Retrieve each record from its system of record (control-room logbooks, historian/EMS exports, document management system) and match against the expected-record list.
4. Verify completeness — confirm every required entry, signature, timestamp, and operator attribution is present; flag missing or blank entries.
5. Verify accuracy — spot-check logged generation values, MW output, and switching times against historian/EMS data; reconcile discrepancies with the Shift Operations Supervisor.
6. Confirm retention status — check each record's retention clock against NERC/FERC/state schedules; flag records past disposition date and any due for imminent purge.
7. Escalate and resolve findings per Section 8; document corrective actions and re-verify affected records.
8. Compile the audit report, record findings and dispositions, obtain supervisor verification, and file the completed report and checklist in the document management system.

8. Decision Tree

OD-029 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — Operational Records Retention & Documentation Audit



READING THIS TREE

- **No finding** — Activity stands. Complete the checklist and continue.
- **Minor** — Handled in place at task level; no escalation.
- **Major** — Supervisory decision required before the next stage.
- **Critical** — Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- All in-scope record types identified and reconciled against the expected-record list.
- Completeness verified — no missing signatures, timestamps, or operator attribution.
- Retention periods confirmed against current NERC/FERC/state schedules.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
Master record index current and covers all in-scope record types		
Unit operating logs complete for full audit period		
Dispatch/EMS generation output data reconciled with historian		
Switching orders and tagging records signed and attributed		
Regulatory submittals present with confirmation of filing		
Retention periods verified; no premature disposition		
Audit report compiled and findings dispositioned		

11. KPIs

- Record completeness rate ≥ 99% of expected records present per audit cycle.
- Data accuracy on spot-check reconciliation ≥ 98%.
- Retention compliance = 100% (zero records destroyed before required retention date).

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2026-07-27	Generated to the locked 3-page Free/$99 Standard standard for ELECTRIC_UTILITY.	Archetype Content Team

OD-030 — End-of-Shift / End-of-Day Operations Closeout

Estimated completion time: 45–90 minutes

> Provided for general informational and operational purposes as part of the Electric Utility archetype library. Does not constitute a certified safety program. Verify all regulatory references and equipment-specific tolerances with a qualified engineer or safety professional before implementation.

1. Purpose

Establish a disciplined close of the operating period at a generating facility so that unit status, generation totals, and open work are secured, reconciled against control-room and metering records, documented, and positioned for the next crew. This protects grid reliability, regulatory reporting accuracy, and asset security.

2. Scope

Covers end-of-shift and end-of-day closeout for the operating crew: securing the control-room log, reconciling generation and fuel/dispatch data, confirming unit and switchyard configuration, documenting open items, and archiving the period record. Excludes shift-to-shift handover briefing (covered under OD-002) and start-of-period readiness (covered under OD-001).

3. Responsibilities

- Shift Operations Supervisor — verifies unit status and switchyard configuration, approves the closeout record, authorizes escalation.
- Control Room Operator — reconciles generation/metering logs, records alarms and abnormalities, completes the period log entry.
- Plant Security / Watch Officer — confirms perimeter, access control, and physical security of energized areas at close of period.

4. Required PPE & Lockout/Tagout

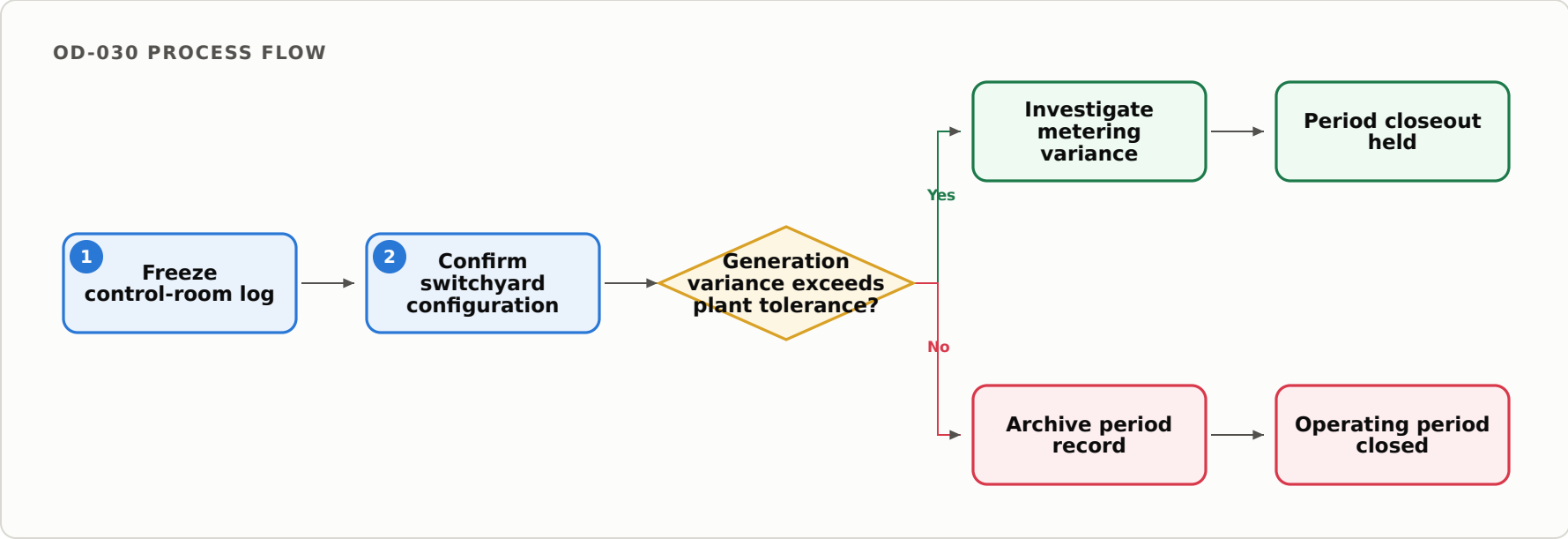
- Standard facility PPE for control-room and switchyard walkdowns: arc-rated clothing, hard hat, safety glasses, hearing protection, and dielectric footwear when entering energized areas.
- LOTO: Not applicable to the closeout task itself; confirm that any LOTO placed during the period is documented and current in the tag log before closing out. Do not clear or apply tags as part of this procedure.

5. Regulatory References

- NERC Reliability Standards: EOP-004 (event reporting), TOP-003 (operational data), COM-002 (operating communications), and PRC-004 (protection system misoperation records).
- FERC/ISO-RTO market settlement data submission requirements applicable to the plant's interconnection.
- OSHA 29 CFR 1910.269 (electric power generation, transmission, distribution) for securing energized-area access.
- EPA 40 CFR Part 75 (CEMS data continuity) for fossil units, where applicable.

- Note: confirm applicability of sector-specific standards and any state-plan equivalents for this facility before customer-facing release.

6. Process Flow



7. Step-by-Step Procedure

1. Freeze and time-stamp the control-room operating log; note current unit MW output, status (online/reserve/outage), and any active derates or curtailments.
2. Walk down or verify via SCADA the switchyard and unit configuration; confirm breaker positions, tie-line status, and any equipment out of service against the LOTO/tag register.
3. Reconcile total gross/net generation for the period against revenue metering and ISO/market telemetry; investigate any variance exceeding the plant tolerance.
4. Verify continuity of required monitoring data — CEMS (Part 75 units), AGC signals, and dispatch instructions — and flag any gaps for reporting.
5. Confirm any reportable events (trips, misoperations, exceedances) are logged and staged for EOP-004/PRC-004 reporting; do not close the period with an unreported reportable event.
6. Confirm physical security status with the Watch Officer: perimeter secure, energized-area access controlled, and any escorted contractors signed out.
7. Compile the open-items list (pending work orders, deferred alarms, watch conditions) for forward routing without duplicating the OD-002 handover briefing.

8. Complete, review, and archive the period closeout record; Supervisor signs to close the operating period.

8. Decision Tree

OD-030 · OPERATIONS · ELECTRIC UTILITY

Decision Tree — End-of-Shift / End-of-Day Operations Closeout

START — ESTABLISH A DISCIPLINED CLOSE OF THE OPERATING PERIOD AT A GENERATING FACILITY SO THAT UNIT STATUS, GENERATION TOTALS, AND OPEN WORK ARE SECURED, RECONCILED AGAINST CONTROL-ROOM AND METERING …

Issue identified during this procedure?

- **No finding** → Complete the checklist and close out the procedure → END — NO FINDING, ACTIVITY CONTINUES
- **Yes** → Classify severity

Classify severity

Assign the highest severity that applies — not the first that matches.

MINOR

DEFINITION
no safety, compliance, or service impact

ACTION
log it in the operating log with a note for the next crew and continue closeout

ESCALATE TO
No escalation — handled at task level

Timing: resolve in the moment; work proceeds

MAJOR

DEFINITION
material risk to safety, compliance, output, or service — not an immediate hazard

ACTION
hold the period closeout on the affected item, escalate to the Shift Operations Supervisor, and resolve or document the resolution plan before the period is signed closed

ESCALATE TO
Shift Operations Supervisor

Timing: resolve before the work proceeds

CRITICAL

DEFINITION
an unreported reportable event, an unaccounted-for energized-area tag, or a generation/metering discrepancy that could corrupt market settlement or NERC data

ACTION
do not close the period; immediately notify the Shift Operations Supervisor and, per EOP-004, the plant reliability coordinator/ISO desk, and secure all supporting records

ESCALATE TO
Supervisor

Timing: immediate — halts the activity

Record the finding, the action taken, and the verification

Close the item only once the corrective action is verified and the record is complete.

ACTIVITY RELEASED / CLOSED

READING THIS TREE

- **No finding** — Activity stands. Complete the checklist and continue.
- **Minor** — Handled in place at task level; no escalation.
- **Major** — Supervisory decision required before the next stage.
- **Critical** — Activity halts on the spot; escalation is immediate.

9. Quality Checkpoints

- Generation total reconciled to revenue metering within plant tolerance, variances explained.
- Unit and switchyard configuration matches SCADA and the tag register with no unexplained discrepancy.
- All reportable events logged and staged for regulatory submission.
- Zero unresolved Critical findings.

10. Inspection Checklist

ITEM	PASS / FAIL	NOTES
Control-room log frozen and time-stamped		
Unit status/derates confirmed against SCADA		
Switchyard configuration matches tag register		
Generation reconciled to revenue metering		
CEMS/AGC/dispatch data continuity verified		
Reportable events logged and staged		
Energized-area security confirmed with Watch Officer		

11. KPIs

- Period closed with signed record by end of shift: 100% of shifts.
- Generation-to-metering reconciliation variance resolved before signoff: ≤1% unresolved.
- Reportable events staged within regulatory clock: 100% on time.

12. Supervisor Verification

Printed Name: _____ Signature: _____ Date: _____

13. Revision History

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