

WORK INSTRUCTION

Field Audit & Quality - CIAW Option 2 & Option 1 URD Final Audits Work Instruction

Document ID: JEQA4UJ443MT-150-347
(Formerly 12-15-W0004 and 12-15-W0022)

Purpose	<p>This Work Instruction documents the overall process for Field Audit & Quality (FA&Q) group audits of Option 2 projects (both UG and OH) and Option 1 URD projects.</p> <p>It is intended for use by project stakeholders and details the end-to-end audit process from audit initiation to issue of an Approved Network Final Audit report.</p> <p>It does not cover the Project Delivery group's CIAW processes associated with project design approval, subdivision Consent to Statement of Compliance or tie-in connection to the electricity network.</p>
Application	<p>This Work Instruction applies to all Powercor UG and OH electrical distribution system projects up to 22kV constructed by both approved external resources (Recognised Option 2 Electrical Contractors and VEDN endorsed Civil Contractors) under the Powercor Option 2 process; and also URD projects constructed by Powercor resources and VEDN endorsed Civil Contractors under the Option 1 process.</p> <p>These projects are subject to mandatory Final Audit and an approved audit must be obtained before tie-in connection to the CitiPower/Powercor electrical network.</p> <p>CitiPower "Contestable" projects are not covered by this Work Instruction as the contestable model employed by CitiPower does not include recognised external contractors. The current CitiPower Resource Partner contractors are generally utilised for this activity.</p>
Qualifications and Skills	<p>Audit applications may only be received from Recognised Project Management companies endorsed in the appropriate categories by the CP/PAL Field Audit and Quality Manager. Applications must also nominate the recognised PM1/2 and all recognised project service providers (contractors), however note that Cable Detailers are endorsed separately by the Manager Design Performance and the TR&DS group (refer to Related Documents).</p>

The field audit activities outlined may only be undertaken by CP/PAL personnel authorised by the Field Audit and Quality Manager and who hold and maintain the following qualifications and skills:

- Relevant Electricity Industry qualifications and experience
- Appropriate CP/PAL Network Access authority
- VESI authorities and training identified by the VESI Skills Matrix for the role of Auditor. A current Australian Electricity Supply Industry Passport must be maintained.
- Authorised VEDN Network Auditor (CP/PAL)

Warnings and Hazards

Audits are often conducted on private land and the work area may also be deemed as a construction site. Where available the auditor must contact the site manager/civil contractor on arrival to determine any specific hazards and site compliance requirements.

The electrical assets subject to audit are not yet alive and have not been cleared for service - they are classified as “under construction”. However other adjacent electrical assets in the area may be alive, or there may be existing live electrical assets within the project area. Prior to commencement of the audit the auditor must identify all electrical assets in the vicinity, confirm the electrical status of the assets to be audited and maintain appropriate Safe Approach Distances from any adjacent live assets. A Modiewark voltage test may be undertaken on the “under construction” assets to confirm their status as a secondary assessment only.

Due consideration and caution must also be shown to the assets of other authorities that may be charged, pressurised or in-service.

Refer to Work Instruction JEQA4UJ443MT-150-438 “Conduct Field Audit & Quality Group Audits” for further safety considerations.

Definitions and Acronyms

Definitions, acronyms and abbreviations used in this document:

- CIAW - Customer Initiated Augmentation Work
- CP/PAL - CitiPower Pty/Powercor Australia Ltd
- OH and UG - Overhead and Underground
- Option 1/2 - A customer selection indicating if a project is to be constructed by CitiPower/Powercor resources (Option 1) or a recognised external service provider (Option 2). Only applicable to projects deemed contestable.
- Salesforce - Web based IT application adopted by CP/PAL for audit management.
- URD - Underground Residential/Reticulated Distribution/Development. Generic industry term for underground distribution to customers and also applies to industrial subdivisions and lighting schemes.
- VEDN - Victorian Electricity Distribution Network. Panel with representatives from all Victorian electricity distribution companies whose purpose is to regulate civil contractor accreditation and auditor endorsement for electrical infrastructure works. Sub-committee of VESI. Refer: www.vesi.com.au

- VEDN Network Auditor - Person authorised by the Electricity Network Owner to carry out audit inspections on its behalf.
 - VESI - Victorian Electricity Supply Industry. Panel with representatives from all Victorian electricity distribution companies whose purpose is to review, develop and document common business activities. Refer: www.vesi.com.au
 - PM1/PM2 - Recognition categories for Opt. 2 external client Project Managers.
 - PDS/PDL - Project Delivery Specialist or Project Delivery Leader. Opt. 1 internal Powercor Project Managers.
 - TR&DS - CitiPower/Powercor Technical Records and Drafting Services
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Related Documents

This Work Instruction supports the following documents :

- Field Audit & Quality Audit Policy JEQA4UJ443MT-150-336
- Field Audit & Quality Audit Procedure (TBA)

This Work Instruction is supported by the following documents :

- Field Audit & Quality - Submitting a Salesforce Option 2 Network Final Audit Request Work Instruction JEQA4UJ443MT-197-11
 - Field Audit & Quality CIAW Option 2 & Option 1 URD Final Audits Guideline JEQA4UJ443MT-160-93
 - Conduct Field Audit & Quality Group Audits JEQA4UJ443MT-150-438
 - Field Audit & Quality Audit Scoring Procedure JEQA4UJ443MT-150-385
 - Salesforce - Field Audit & Quality “How to” notes and instructions on the Field Audit & Quality Team Site
 - Recognised Contractors List for Customer Initiated Augmentation Works JEQA4UJ443MT-151-64 (formerly 04-30-G0002) refer: www.powercor.com.au
 - List of Recognised Cable Detailers for CitiPower-Powercor Contestable Works JEQA4UJ443MT-160-96 (formerly 04-30-G0008) refer: www.powercor.com.au
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Issue Number, Date & Review

The Issue Number of this Work Instruction is: Issue No. 3

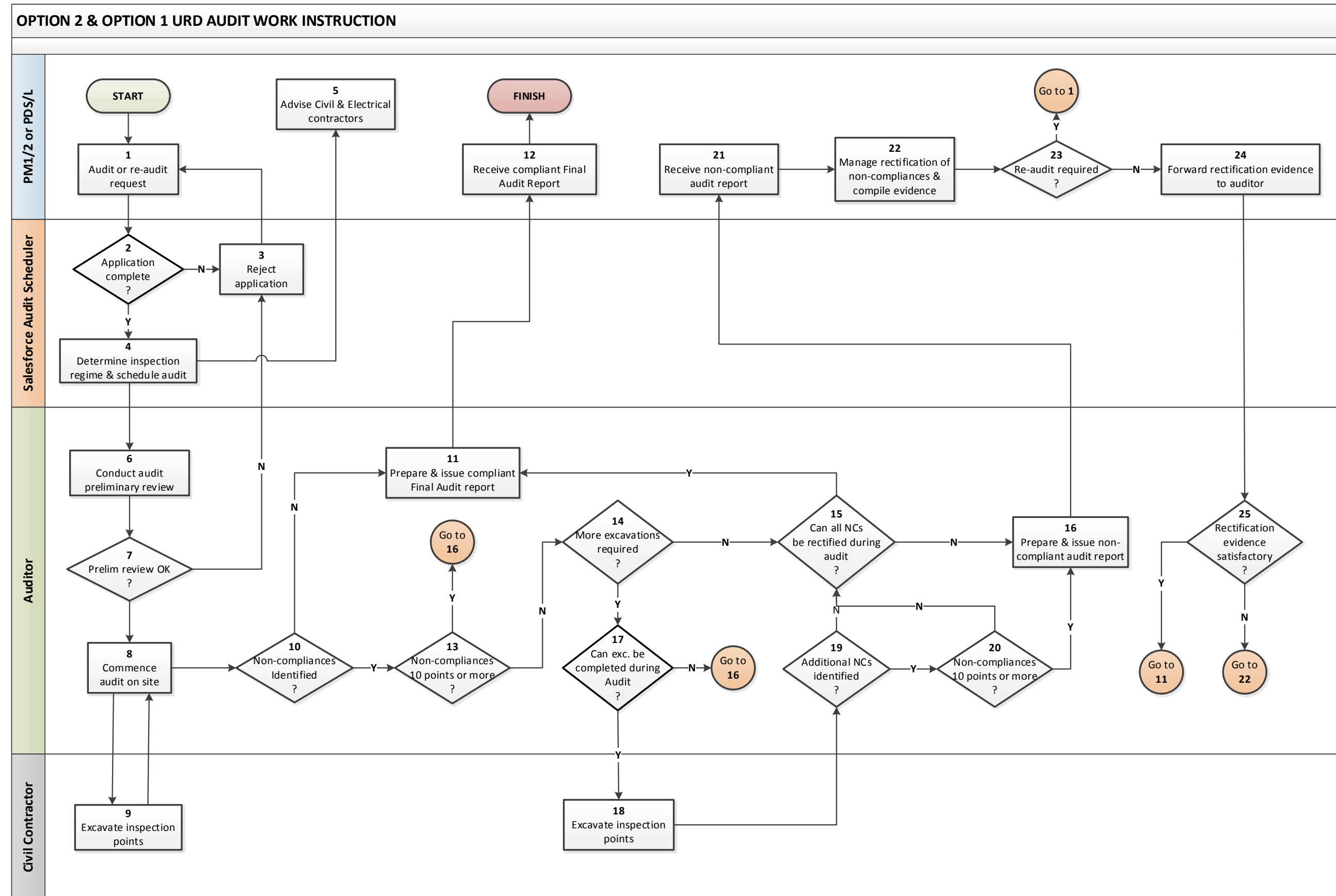
The Issue Date of this Guideline is: August 2017

The Guideline was last reviewed by the Business Process Owner on: August 2017

Document Owners

- Business Process Owner (BPO) title: **Field Audit and Quality Manager**
 - Business Process Analyst (BPA) title: **Quality Assurance Officer**
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Process Outline



Process Steps

- 1. Audit Initiation**

Action by PM1/2 or PDS/L.

Option 2 Final Audit Request applications for both new audits and re-audits are submitted in Salesforce in accordance with the instructions outlined in “Field Audit & Quality - Submitting a Salesforce Option 2 Network Final Audit Request Work Instruction JEQA4UJ443MT-197-11. Re-audits must accept the re-audit fee.

Option 1 audit and re-audit requests are currently submitted directly to the FA&Q email inbox fieldauditandquality@powercor.com.au , and the required documentation is the same as specified in the above Work Instruction, but must also include a “Network Final Audit - URD Projects” request form , document number JEQA4UJ443MT-160-182 (formerly 12-15-F0040).

For Option 2 applicants that do not have a Salesforce log-in account, final audit requests may be sent to the above email address and must include a completed Final Audit request form as noted above. Re-audits must also include an “Acceptance of Re-audit Costs” form JEQA4UJ443MT-160-102 (12-15-F0036).

Requests for a Salesforce account can be forwarded to the email inbox which is the preferred contact point for all correspondence in relation to audits.

Note: Powercor’s aim is for new URD audits to be scheduled to occur in 5 to 6 business days from request and for reports to be issued within 10 business days. Audit reports are often issued the same day, but may be issued up to 3 days after the audit day. Re-audits are given a lower priority than new audits and, subject to auditor availability, may be scheduled up to 10 business days from application.

The audit request day is day 0 and requests received after normal business hours (4.30pm) will be considered to have been received the following day.

 - 2. Review Application**

Action by Powercor Salesforce Scheduler.

Audit and re-audit request information and documentation is reviewed for completeness and compliance to the requirements outlined in “Field Audit & Quality - Submitting a Salesforce Option 2 Network Final Audit Request Work Instruction JEQA4UJ443MT-197-11.

 - 3. Application Rejection**

Action by Powercor Salesforce Scheduler.

Incomplete or non-compliant audit request applications will generally be rejected within 2 business days following receipt. Applications submitted by Salesforce will receive notification stating the rejection reasons generated by Salesforce, applications submitted by email will receive an email outlining the reasons.

Applications may be rejected after the audit has been scheduled following more rigorous review by the auditor. In this case the audit date will be cancelled.

All rejected audits will be removed from the audit queue subject to provision of the requested information, and the application will then commence from the step 1.
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4. Schedule audit

Action by Powercor Salesforce Scheduler.

The scheduler determines when the audit can be completed based on auditor resource and availability, and schedules the audit in Salesforce. The audit is allocated to the auditor and Salesforce generates a meeting request to the PM1/2 or PDS/L that specifies the audit day, date and commencement time together with the auditor name and contact details. If this date or time is not suitable, respond to fielddauditandquality@powercor.com.au as soon as possible - do not reply to the Salesforce meeting request email.

Satisfactory audit requests are generally scheduled within 2 business days following receipt and the audit commencement date is generally 5-6 business days following receipt for new audits. Re-audits may take a little longer as they are generally completed by the auditor who conducted the initial project audit and therefore subject to auditor availability.

For URD or underground projects the applicable project audit inspection regime is determined by Salesforce from the combined average audit performance rating of the civil contractor and electrical constructor for the previous 12 months. This is a real-time calculation based on completed (closed status) audit rating scores for each contractor for the previous rolling 12 months. The audit scores for each contractor are averaged (summed and divided by the number of projects) and then combined and averaged to produce the applicable rating and inspection regime for the current project. A minimum of one project must have been completed by a contractor for the previous 12 month period to produce a rating score, and where this has not occurred a project will be allocated a normal inspection regime.

When the audit is allocated to the auditor the scheduler specifies the excavation regime applicable to the project. This does not apply to re-audits – refer step 6.

Rating	Inspection Regime	Minimum No of Projects Excavations Required
A – Superior (99-100 points)	Reduced & Desktop	1 in 3 projects
B – Good (96-98 points)	Reduced	1 in 2 projects
C – Acceptable (91-95 points)	Normal	All projects
D – Under Performing (≤ 90 points)	Enhanced	All projects plus additional excavations

5. Advise Contractors

Action by PM1/2 or PDS/L.

The external or internal Project Manager advises the civil and electrical contractors of the scheduled audit date and time so that they can attend site.

For URD projects the civil contractor must provide excavation equipment (backhoe or Non-Destructive Digging - NDD) on site for the audit commencement time, including a VEDN endorsed operator for mechanical plant. The auditor will advise the PM1/2 or PDS/L with suitable notice if the project does not require excavations.

6. Preliminary Review **Action by Auditor.**

The auditor conducts a review of the Open Trench audit information, together with the construction and as-built drawings to determine points of interest for site checks and prospective excavation locations (if required). Excavation locations are advised on the day of the audit and the number of excavations for an initial project audit is based on project complexity parameters as follows:

Parameter
Kiosk sub/HV switch cabinet
HV assets (includes future conduits)
LV mains cable related assets
Cable Head Poles (HV/LV)
Project > 30 lots
Public Lighting Projects Only
Public Lighting project only
Public Lighting project > 12 poles

No of parameters	Minimum Excavations Required
5	5
4	4
3	3
2	2
1	1

For re-audits the auditor reviews submitted rectification evidence and amended as-built drawings if required. Excavation points are not determined by project parameters. The auditor determines the extent of the re-audit required based on the extent of the project assets already inspected, the non-compliances detected and the reason for the re-audit. This may range from verifying a few specific locations not able to be excavated and inspected during the initial audit, to effectively a full re-audit of the whole project.

Where necessary the auditor will provide prior notification of any special audit requirements, such as support of large lighting poles, traffic control required, etc.

7. Audit Rejection**Action by Auditor and Salesforce Scheduler.**

Following detailed review of the project documentation the auditor may reject the scheduled audit for a number of reasons, for example :

- Permit to Work (PTW) not supplied where required, or does not adequately cover the assets involved.
- Safety hazards not identified or adequately provided for.
- Issues identified on the Open Trench Report have not been addressed.

Some issues identified by the auditor during preliminary review may not warrant audit rejection and may be covered as a project non-compliance or addressed on the audit day; however significant safety hazards or Network Operational breaches will result in the audit being rejected. The auditor notifies the Salesforce scheduler who will liaise with the PM1/2 and cancel the audit.

8. Commence Audit**Action by Auditor.**

The auditor will report to the project site manager (or representative) upon arrival and determine any site specific hazards or requirements (if any). The audit will not commence unless there are site representatives on a construction site. However, for some audits, particularly where there are no excavations required, the audit may proceed without site representatives if the auditor's Job Safety & Environmental Assessment (JSEA) confirms it is safe to proceed.

The auditor will advise and show the site manager or civil contractor the excavation locations and inspection points required (where applicable). Further locations may also be requested during the audit based on audit findings or assets noted on site.

9. Excavate Inspection Points**Action by VEDN Endorsed Civil Contractor or NDD Sub-contractor.**

The civil contractor shall arrange excavation(s) at the nominated inspection point(s). Excavation holes shall be prepared to allow safe entry by the auditor and sufficiently sized to allow adequate inspection of the required assets (particularly NDD prepared holes). Holes deeper than 1m need to have steps cut or a slope to aid entry, otherwise a ladder must be used. Auditors must not enter an excavated hole deeper than 1.5m without being accompanied and being satisfied that the hole is adequately benched, battered or shored to prevent collapse.

10. Audit Completion**Action by Auditor.**

The auditor proceeds to conduct the audit inspections and identify any non-compliances, if any. Non-compliances are assigned to the stakeholder deemed responsible for the outcome, e.g. civil contractor (civil), electrical constructor (construction), Project Manager etc. This information feeds into the Option 2 Contractor Rating Program and is also the basis for calculating the audit inspection regime. Refer Step 4.

Non-compliances may state if the auditor wishes to physically inspect the rectification on site, or if photo evidence will suffice.

- 11. Compliant Report Issue** **Action by Auditor.**
- If there are no non-compliances detected during an initial audit, all identified non-compliances are rectified during the audit or all non-compliances (for both initial and re-audits where applicable) have been resolved to the auditor's satisfaction; the auditor will issue an Approved Audit Report via Salesforce to the PM1/2 or PDS/L.
- In many cases the audit report will be issued on the same day as the audit is carried out, but in line with Powercor's overall audit response timeframe, may be issued up to 3 business days following the audit. This depends on auditor commitments, particularly where non-compliance rectification evidence needs to be reviewed.
- If the auditor cannot issue the report within 1 business day of a completed audit (not evidence review), he should contact the PM1/2 or PDS/L to advise an anticipated issue time.
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- 12. Compliant Report Receipt** **Action by PM1/2 or PDS/L.**
- Following receipt of an Approved Final Audit report, for Option 2 projects the PM1/2 may then submit the relevant project documentation to the Powercor Responsible Officer to enable both subdivision Consent to Statement of Compliance issue and tie-in connection to the electricity network. This process is completely separate to the audit process and should be discussed with the Powercor Responsible Officer (Project Delivery Lead or Specialist) for the project.
- For Option 1 projects the process is essentially the same but managed by the PDS/L themselves.
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- 13. Audit Fail** **Action by Auditor.**
- "Walk Away" Policy:**
- If during an audit a project accumulates a total of 10 non-compliance points at any stage (not including issues determined at preliminary review) it will be deemed to have failed the audit. A single major non-compliance (10 points) identified will be an immediate failure. Once this limit has been reached the audit will cease and no further inspections are to be carried out. The project will be subject to a re-audit, refer to the re-audit information in Step 16.
- Contributing issues may include (but are not limited to) civil, electrical, detailing, hazards, scope compliance and inadequate site references.
- It is not feasible to provide a definitive URD non-compliance listing as Powercor's documentation includes numerous unrelated other audit types and activities and is situationally risk based, i.e. the same issue in a different situation or location may carry a different non-compliance weighting. They are also based on regulatory expectations by Powercor's technical regulator Energy Services Victoria (ESV).
- All documented non-compliances have a concise explanation in the audit report, but this usually does not include a technical standards reference (where applicable).
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14. Additional Excavations **Action by Auditor.**

Audit excavation points are selected based on a desk-top review of the Open Trench audit report and drawings during preliminary review, together with the nominated inspection regime and complexity parameters - refer steps 4 & 6.

However, the auditor may request additional excavations based on assets and issues identified once on site, or to verify potential multiple occurrences of an identified non-compliance (to validate if it does occur at multiple locations or was a "once-off" issue).

15. Rectification During Audit **Action by Auditor, Civil & Electrical Contractors (Where Applicable).**

If a number of minor or medium civil or electrical non-compliances are identified during the audit (less than 10 points total - refer step 13), and the contractor(s) are able to rectify these whilst the auditor is on site; then it makes sense to do so, so that the auditor can verify compliance directly and possibly issue an Approved Audit Report. (An approved report may not be able to be issued if there are other issues to be resolved such as detailing and drawing updates.)

Rectification can occur whilst the auditor is completing checks of lighting poles, service pits and other assets on site, but the auditor cannot wait around while rectification work is completed if he has no other reason to remain on site.

Similarly, If a major non-compliance is detected or cumulative 10 points are achieved towards the end of the audit, the auditor may remain on site (subject to the auditor's discretion) if the issue(s) can be satisfactorily resolved and an Approved Audit Report issued.

16. Unapproved Audit Report **Action by Auditor.**

The auditor records audit non-compliances directly into Salesforce including assignment to the responsible stakeholder (refer step 10) and a concise description of the issue. Technical Standards references are generally not included to encourage stakeholders to read the standards and locate the relevant section; however a written enquiry may be made to a Quality Assurance Officer via the email inbox fieldauditandquality@powercor.com.au for further explanation if necessary.

The auditor issues the unapproved audit report to the nominated Project Manager (PM1/2 or PDS/L) via Salesforce and this will be noted as an unapproved report with or without a re-audit being required.

An unapproved audit report without re-audit required means that the auditor requires evidence that only the nominated issues have been rectified or addressed.

Where a re-audit is requested this means that in addition to the nominated issues being rectified, further inspections will be required on site that may identify additional non-compliances. For a URD project a re-audit generally requires additional excavation points and these are not subject to the inspection regime and complexity parameters specified in steps 4 & 6.

The following criteria may apply when a project is recorded as requiring a re-audit:

1. If a project accumulates 10 non-compliance points at any stage during the site audit it will be deemed to have failed the audit and a re-audit will be required.
2. Where additional excavation points are required to verify potential multiple occurrences of an identified non-compliance and excavations could not be completed or inspected during the initial audit.
3. Where the auditor is of the opinion that an audit cannot be completed on the project, e.g. no survey pegs on site, work or final surface levels incomplete and the project is deemed not ready for Final Audit. This requirement must be confirmed with a Quality Assurance Officer.

The auditor determines the extent of the re-audit required, based on the extent of the project assets already inspected, the non-compliances detected and the reason for the re-audit. This may range from verifying a few specific locations not able to be excavated and inspected during the initial audit, to effectively a full re-audit of the whole project.

Unless unavoidable, the auditor who conducted the initial audit will also conduct the re-audit.

Note that all audit non-compliance points are cumulative for the initial and any subsequent re-audit(s) for the purpose of contractor performance rating.

Refer to step 1 for creation and submission of re-audit requests. There is a fee for re-audits and cost acceptance is required with application.

Following issue of the unapproved audit report if any non-compliance is challenged or disputed, a review may be undertaken by a Quality Assurance Officer. A review will only be carried out following a written request to the nominated email inbox including valid reasons and supporting evidence. Note however that auditors' record non-compliance evidence and frivolous challenges will not be tolerated. The Field Audit and Quality Manager will be responsible for Final Arbitration where necessary.

17. Excavation completion

Action by Civil Contractor and Auditor.

Where the auditor requests additional excavation points on site, where possible these should be completed whilst the auditor is on site - particularly if a satisfactory audit result may be achieved.

18. Excavate Additional Points

Action by Civil Contractor.

Refer step 9.

19. Additional Non-compliances

Action by Auditor.

If additional non-compliances are detected are the total project audit score remains less than 10 points, the audit may continue. Refer also to steps 13 & 15.

20. Audit Fail **Action by Auditor.**

See step 13.

21. Receipt of Unapproved Report **Action by PM1/2 or PDS/L.**

The PM1/2 or PDS/L receives an Unapproved Audit Report issued from Salesforce. Salesforce records the email recipient(s) together with the date and time of receipt.

22. Manage Rectification **Action by PM1/2 or PDS/L.**

The PM1/2 or PDS/L must manage resolution of all identified non-compliances by relevant stakeholders and compile evidence. This may include:

- Rectification of civil and electrical construction non-compliances.
- Amendment and update of drawings.
- Obtaining Variation Approvals from the Powercor Responsible Officer (PDS/L) or Council as nominated.
- Obtaining permission from other service utilities or authorities.
- Obtaining a Dispensation Approval from the CP/PAL Network Safety group for non-compliance to a CP/PAL technical standard or policy. (Contact the project Responsible Officer for more information regarding this process. Dispensations may take considerable time duration and should be applied for during project design or before project completion.)

The auditor may specify if a site visit is required to verify compliance or if a photo will suffice for construction non-compliances. Rectification of some non-compliances may have been inspected on site during the audit, in which case these will be marked as resolved on the audit report. Otherwise if non-compliances are marked as unresolved, it is assumed that photo evidence is to be obtained for rectifications.

If photo evidence is not obtained and provided with the re-audit request for construction items, then rectification must be inspected on site during the re-audit and this may involve re-excavation of the location and lost time. Accordingly it is desirable that rectification evidence is supplied with re-audit requests.

Furthermore for re-audits, the civil and electrical contractors can expect additional excavations at locations similar to those where non-compliances were identified. So rather than only rectifying the identified issues (i.e. just using the audit report as a "fix list"), they should prudently check all similar locations or assets on site to prevent further non-compliances being detected. This is a common occurrence.

23. Re-audit Required **Action by PM1/2 or PDS/L.**

The Unapproved Audit Report will clearly specify if a re-audit is required or not.

If a re-audit is required the application should include information and evidence regarding how each audit non-compliance has been addressed or rectified.

Refer to step 1 for creation and submission of re-audit requests. There is a fee for re-audits and cost acceptance is required with application.

**24. Forward
Evidence****Action by PM1/2 or PDS/L.**

If an Unapproved Audit Report does not require a re-audit, the PM1/2 or PDS/L forwards the rectification evidence directly to the auditor via email for review.

If the auditor is away or unavailable (an out-of-office email response is received), the information should be sent to the Field Audit and Quality email inbox: fieldauditandquality@powercor.com.au

**25. Review
Evidence****Action by Auditor**

The auditor will review the rectification evidence supplied to determine compliance and this may include a site visit to verify compliance if previously arranged.

Reviews will generally be completed promptly, but may be completed within 3 days following receipt of the information.

If the evidence is satisfactory the auditor will issue an Approved Audit Report (refer step 11), otherwise he will contact the PM1/2 or PDS/L and request further information (refer step 22).
