
INSPECTION PROCEDURE 69020 APPENDIX G

INSPECTION OF ELECTRICAL CABLE AT NON-POWER PRODUCTION AND UTILIZATION FACILITIES

Effective Date: March 25, 2025

PROGRAM APPLICABILITY: IMC 2550

69020.G-01 INSPECTION OBJECTIVES

- 01.01 To determine if work and related activities associated with safety-related electrical cables at non-power production and utilization facilities (NPUF) are being performed in accordance with regulatory requirements, the licensing basis, specifications, drawings, and work procedures.
- 01.02 To determine if the applicant/licensee's system for preparing, reviewing, and maintaining records relative to safety-related electrical cable reflect work accomplishment consistent with specifications and procedures.
- 01.03 To verify the as-built condition of safety-related electrical cables meets the specified design requirements, specifications, and drawings.
- 01.04 To determine if the implementation of the quality assurance program (QAP) related to work activities for safety-related electrical cables is effective and to verify that deviations from requirements are appropriately resolved.

69020.G-02 INSPECTION REQUIREMENTS

- 02.01 For the safety-related electrical cables selected for inspection, determine if appropriate and adequate procedures in the following areas are compatible with the QAP and prescribe adequate methods to meet the specifications:
 - a. receipt inspection
 - b. storage
 - c. installation
 - d. construction quality control inspection
 - e. construction testing
- 02.02 Determine if the applicant/licensee has an established audit program (including plans, procedures, and audit schedule) for assessing the adequacy of work control functions and requirements in the area of electrical cable activities. Confirm that the audit program ensures that examination, inspection, and test personnel associated with performing tests and inspections of electrical cable activities are qualified and/or certified to perform their assigned work.

02.03 Determine if the following safety-related electrical cable activities are being controlled and accomplished in accordance with the requirements of the documents reviewed in Section 02.01, above:

- a. receipt inspection
- b. storage
- c. installation (in-process, completed work, as-built verification)
- d. construction quality control inspection
- e. construction testing
- f. configuration management

02.04 Review the documentation generated for the safety-related electrical cable activities. Determine if the applicant/licensee/contractor system for documenting safety-related work is functioning properly. Records should be complete, reviewed by quality control, engineering personnel, or designee and readily retrievable.

- a. receipt inspection and material certification (if applicable)
- b. installation inspection
- c. nonconformance/deviation record(s)
- d. training/qualification records of craft, and quality inspection personnel (as required)
- e. configuration management records

69020.G-03 INSPECTION GUIDANCE

General Guidance

The term “cable” includes all conductors such as fiber optics wires, cables, and busbars. The term “termination” refers to all electric-conductor terminations such as lugs, splices, connectors, and terminal strips that directly contribute to the electrical continuity of the circuit. Terminations also include potheads, bushing, stress cones, taping, compounds, and other devices or techniques that directly contribute to the continuity of the electrical insulation system.

Inspectors should review the facility description in the safety analysis report (SAR) or equivalent and be familiar with the requirements for safety-significant electrical cables being installed at the site. The purpose of these as-built inspections is to verify that the assumptions and critical attributes reviewed during the licensing review process remain valid; the design was appropriately translated to construction specifications; the licensee/applicant constructed the facility in accordance with these specifications; and any changes made to the design described in the SAR comply with the licensee’s configuration management program.

Inspectors should also be familiar with the licensee’s QAP and use IP 69021, “Inspections of Quality Assurance Program Implementation During Construction of Non-Power Production and Utilization Facilities,” to perform “vertical slice” inspections as described in the body of this IP. Inspectors should complete this appendix by inspecting the attributes listed in this appendix for with a focus on safety-related electrical cables.

Inspectors should contact the applicant/licensee prior to the onsite inspection to help determine what electrical cables are to be inspected. Observation during in-progress installation of the electrical cables is desirable but not required. If necessary, inspectors may select completed electrical cables for inspection. Inspectors should not attempt to inspect all electrical cables on the site but may expand if significant concerns with the applicant/licensee’s control of electrical

cables installation/construction arise. Samples should include components or systems within risk-significant areas of the facility. Samples should include work of different subcontractors and work performed at various times throughout the project.

Inspectors should collect applicant/licensee procedures, electrical cable specifications, and work completion records in advance, if possible. If unable to review these documents in advance of the onsite inspection, then the licensee should be notified that these documents, and any other relevant documents, should be available when the inspector(s) arrives at the site.

Inspectors should choose one or more safety-related electrical cables and review the areas listed in Sections 02.01 through 02.04 to the extent practical and may use their judgment in determining which areas to concentrate on if time is limited. However, inspectors should gain an understanding of the applicant/licensee's program to the extent necessary to determine if the applicant/licensee conforms to regulatory requirements. Not all items in the inspection requirements section will be applicable or required in all situations for all safety-related structures, systems, and components.

03.01 Inspection Requirement 02.01

- a. Review construction specifications related to safety-related electrical cables and determine if the specified technical requirements conform to the commitments contained in the licensing basis.
- b. Review electrical cable procedures and verify that they specify provisions for adequate onsite engineering direction, are appropriate and adequate related to procurement and use of materials, specify adequate control of hold points, and provide adequate controls for design changes and incorporation of design changes into as-built drawings.
- c. Determine if appropriate and adequate procedures in the following areas are compatible with the QAP, and prescribe adequate methods to meet the construction specifications:

1. Receipt inspection

- (a) Verify that requirements contained in the approved QAP have been adequately translated into the licensee's receipt inspection procedures, including provisions assuring that:
 - (1) Cable, busways (power, control, and data), and termination materials are in conformance with purchase specifications including special requirements.
 - (2) Adequate marking and identification are provided.
 - (3) As-received cleanliness and protection are adequate.
 - (4) Receiving inspection reports are complete.
 - (5) Control and disposition of non-conforming items are adequate.
- (b) Received components are as specified, properly identified, and controlled or otherwise noted.

- (c) Input from other groups or other organizations to be used during receiving inspection activities are obtained and properly used, such as the results of source inspections, environmental qualification tests, and other required quality tests.
 - (d) Procurement requirements, such as qualification tests (seismic, environmental, etc.), functional tests, certificate of conformance, and other quality tests (material, physical, and chemical), have been successfully completed, or status of how and when such requirements will be satisfied is documented and adequately controlled.
2. Storage. Provide means to ensure the following:
- (a) The proper storage environments (as specified by the construction specifications and the manufacturers) are established for the various types of electrical components and meet applicable storage-classification levels, regardless of the location of the stored component.
 - (b) Storage inspection procedures require initial verification of storage conditions and periodic verifications for the duration of the storage period. They should also ensure that special and in-place storage requirements are met.
3. Installation
- (a) Procedures should require verification that loading requirements (both thermal and mass) are not exceeded in final cable routings in trays, busways, conduits, etc. This verification should include review of actual cable routing, cable routing records, and design calculations.
 - (b) Work procedures are established to verify the following:
 - (1) raceway completion (edge softeners, bushings, supports, grounding, routing location, pull fittings, pull cords, identification, sharp edges, etc.) and condition (free of debris) before use
 - (2) cable/ busway type and size
 - (3) cable temperature (if stored in cold weather)
 - (4) cable splices (where allowed)
 - (5) pulling attachments, lubricating compounds, and tension (including calibration of tension devices)
 - (6) bending radius (during and after installation)
 - (7) cable identification/ color coding/ imprinted information
 - (8) cable routing
 - (9) separation and independence
 - (10) segregation (power, control, data instrument)

- (11) cable supports (grips)
- (12) handling of cable and termination materials to ensure protection from damage and contamination (includes protection of cable ends from moisture)
- (13) protection of cables from adjacent construction activities
- (14) hold points
- (15) termination activities such as: application of materials (lugs, tapes, stress cones, connectors, punch down blocks, terminal blocks, etc.); use of calibrated torque wrenches and crimping tools; and termination preparation procedures (insulation stripping, compression tools, labeling, polishing (fiber optics))
- (16) raceway loading
- (17) fire barriers and seals as required
- (18) less than maximum tensile force applied pulling (cable tensile rating)
- (19) shield grounding (as applicable)

d. Construction quality control inspection

1. The licensee or contractor procedures involved will differ between facilities and may take various forms, such as formal procedures, instructions, checklists, drawings, etc. Review the construction quality control inspection procedures and compare with the applicable requirements and construction specifications. Evaluation should indicate if adequate quality-related procedures are established and are based on appropriate criteria, and further, if the results of the licensee's inspection will be transmitted to responsible quality control and management personnel.
2. Provisions should include procedures for monitoring or surveillance of installed cables by construction quality control inspection personnel. They should ensure that maintenance requirements are satisfied and that adequate protection is provided against possible damage from adjacent construction activities, including construction traffic. (Where protective means used during construction may affect proper operation, provisions should be provided for timely removal.)
3. Inspection procedures have been established to ensure the following:
 - (a) Positive identification of the cable system and/or activity to be inspected and the specific inspection method(s) to be used.
 - (b) All safety-related aspects of construction specifications, drawings, and work instructions are included in the scope of planned inspections.
 - (c) The technical aspects of inspection requirements and acceptance criteria are sufficient to determine if installation, testing, maintenance, and protection conform to applicable design and construction specifications.

- (d) Records of initial and follow-up inspections include the specific results of the inspection. This should include the specific characteristics being inspected (or the actual measured values), the inspectors' determination of acceptability, and identification of any non-conformances found.

4. Construction testing

- (a) This item does not include preoperational testing. Construction testing generally verifies that certain components pass specific tests as required but is not a test of system capability, especially systems that include non-electrical equipment. The intent of this requirement is to determine if adequate procedures have been established to assure that the required testing is satisfactorily completed, and corrective actions are properly performed. Procedures for cable system and component testing provide means to ensure that:
 - (1) Required construction testing is controlled and performed, as specified, using qualified personnel.
 - (2) Cable systems and components to be tested are properly identified, along with tests to be conducted.
 - (3) Proper type of test equipment (range, accuracy, calibration, etc.) is specified.
 - (4) Test parameters (e.g., voltage level) are according to standards and manufacturer's recommendations.
 - (5) Special conditions of testing, prerequisites, sequence, precautions, etc., and acceptance criteria, are specified and meet requirements.
 - (6) Type of data to be recorded and method of reporting results are specified.
 - (7) Qualified personnel evaluate test results.
 - (8) Discrepancies are resolved.
- (b) Procedures for safety-related electrical cable testing provide means to ensure that:
 - (1) Cables to be tested and the related test procedures are properly identified and controlled. Procedures specify which construction tests are to be performed on each component requiring testing.
 - (2) Proper type of test equipment (range, accuracy, etc.) is specified.
 - (3) Type of data to be recorded and method of reporting results.
 - (4) Review and evaluation of test results by qualified personnel.
 - (5) Resolution of discrepancies.

- (6) Special conditions or testing, prerequisites, sequence, precautions, etc., and acceptance criteria are specified and meet requirements.

03.02 Inspection Requirement 02.02

- a. Review applicant/licensee's established audit program (including plans, procedures, and audit schedule) for assessing the adequacy of work control functions and requirements for safety-related electrical cable construction activities.
- b. Review audit program to verify if examination, inspection, and test personnel associated with performing tests and inspections of electrical cable construction activities are qualified and/or certified to perform their assigned work.
- c. Verify records establish that the required audits were performed and that deficiencies identified during audits were appropriately resolved.

03.03 Inspection Requirement 02.03

Determine if the following applicable safety-related electrical cable activities are being controlled and accomplished in accordance with the requirements of the documents reviewed in Section 02.01, above:

Note: Choose a sampling of safety-related cables. The sampling may include power, control, and data cables (fiber optic, communications, coax, twisted, multi-conductor, twisted, and shielded). The sampling may also be from a variety of locations, uses and types (e.g.: large motors; diesel generators; motor-operated valves; solenoid valves; control centers; control room panels and cabinets; local panels and cabinets; coaxial and triaxial connectors; fiber optic connectors; and stress-cone terminations).

- a. Receipt inspection. Evaluate portions of receipt inspection activities pertaining to the electric power, control, data cables and associated items selected for inspection.
 - 1. Determine if receipt inspection activities are being controlled and performed in accordance with the licensee's commitments and procedures. Receipt inspections may include the following:
 - (a) Components and receiving documents are properly identified.
 - (b) Physical conditions (damage, deterioration, etc.) are documented.
 - (c) Documentation related to design specification requirements (e.g., results of functional and qualification testing) received with cables and associated items is reviewed and meets the requirements. Where qualification testing of cables and associated items to be placed in a harsh environment is not a requirement of the specification, determine what means will be used to ensure that applicable environmental qualification will be satisfied.
 - (d) Control of nonconforming cables and associated items is conducted in accordance with applicable procedures and meets requirements.
 - (e) Adequately, qualified personnel are available to perform the receipt inspection function.

2. Received components are as specified, properly identified, and controlled or otherwise noted.
 3. Verify procurement requirements such as qualification tests, certificate of conformance, functional tests and other quality tests (material, physical, and chemical) have been successfully completed or status of how and when such requirements will be satisfied is documented and adequately controlled. Fire barriers and cable-penetration seals may require qualification. The tests and criteria may reference the American Society of Testing and Materials (ASTM) E 814 and/or American National Standards Institute/Underwriters Laboratory Inc. (ANSI/UL 1479). Refer to the applicant/licensee's licensing basis for tests and criteria requirements.
- b. Storage. Special storage requirements are typically specified by the manufacturer or an industry standard, committed to by the licensee. The requirements should include such things as taping or sealing cable ends, controlling material and cable or cable reel identification, maintaining proper ambient temperature, separation from nonconforming items, and placement on dunnage.
1. Observe and evaluate storage activities and conditions for the selected components. Determine if:
 - (a) Electric power, control, data cables and associated items are stored in the proper storage level designation.
 - (b) Cables, busways, and associated items are properly identified.
 - (c) Storage conditions (temperature, humidity, cleanliness, etc.) and requirements are controlled and monitored as directed by the applicable procedures and by the manufacturer's specifications.
 - (d) Licensee and contractor inspection and monitoring activities are being performed in accordance with procedural requirements.
 - (e) Nonconforming cables and associated items placed in storage are identified and/or segregated as required.
 - (f) In-place storage requirements are satisfied.
 - (g) Adequately qualified personnel are available to perform the required storage functions.
- c. Installation
1. In-Process Installation. If installation is in progress during the inspection, evaluate in-process installation to determine if the licensee is following their procedures pertaining to the components and associated items selected in the appropriate subsections of Section 02.02. Inspect a sampling of the following attributes:
 - (a) The latest approved revision of applicable construction specifications, drawings, and/or construction procedures are available and used by the installers. (Verify later that pull card data are consistent with the latest cable tabulation sheets.)

- (b) Cables, busways, associated materials, and pulling compounds are as specified.
- (c) Pulling attachments and tensions used are acceptable.
- (d) Cable temperature is acceptable before handling and installation.
- (e) Raceway completion and condition are adequate before cable is installed.
- (f) Cables are protected from sharp edges, hostile environments, and adjacent construction activities (especially welding and cutting activities).
- (g) Cable routing is correct.
- (h) Separation criteria for physical independence are maintained.
- (i) Segregation is maintained (e.g. power, control, and instrument).
- (j) Cable identification is preserved.
- (k) Proper bending radius is maintained (during and after installation).
- (l) Less than maximum tensile force is applied for pulling based on cable tensile rating.
- (m) Cable and other conductor supports are provided.
- (n) Cable entry to terminal point is acceptable.
- (o) Shields are grounded per construction drawings and specifications.
- (p) Torque wrenches and crimping tools are in proper working order and properly calibrated.
- (q) Jumpers are controlled.
- (r) Terminations are of the correct type and properly located.
- (s) Shield terminations for I&C cables are installed in accordance with the appropriate detail drawing requirements, using the appropriate lead connections.
- (t) Shields for cables rated 5 kV and above are terminated with appropriate materials, including voltage stress relief devices that do not compromise the integrity of the cable's shield or insulation system, in accordance with project design standards.
- (u) All cable shields are grounded appropriately per the project document requirements.
- (v) Tightness of connections is acceptable.

- (w) Appropriate scaffolding, walkways, and climbing aids are used in lieu of cable trays, conduits, etc.
 - (x) Cabinets, control centers, cable trays, junction boxes, etc. are maintained free of debris (periodically cleaned).
 - (y) Coiled cables are properly secured (i.e., not draped from cable trays, lying on floor, coil supported by single tie wire, etc.).
 - (z) Un-terminated cable ends or un-terminated instrument cable shielding are properly protected (i.e., moisture protection).
 - (aa) Specified fire barriers, compartment boundary seals, and fire-retardant materials are being installed or applied, where specified.
 - (ab) Electricians are properly qualified.
 - (ac) QC inspectors are properly qualified and are present and performing their assigned tasks during handling and installation activities.
 - (ad) Non-conformances are identified and handled in accordance with procedures, including adequate justification for use-as-is disposition.
 - (ae) Installation and inspection activities are being documented during the activity.
2. Completed Work. Evaluate the completed installation of cables and associated selected items and compare completed configuration with procedures, construction specifications, etc.:
- (a) Busway, cable, wire, and termination materials (lugs, tapes, stress cones, splice kits, connectors, terminal blocks, etc.) are as specified.
 - (b) Cable routing is as specified on latest approved drawings.
 - (c) Cable identification is preserved and located where specified.
 - (d) Bending radius is as required.
 - (e) Required separation criteria for physical independence are maintained.
 - (f) Segregation is maintained (power, control, and instrument).
 - (g) There is no evidence of damage to cable.
 - (h) Terminations are properly located and made (entry, tightness, etc.) and are of the correct type.
 - (i) Cable supports are provided and are adequate.
 - (j) Cables are protected from sharp edges, hostile environments, and adjacent construction activities (welding, etc.).

- (k) Cable tray, conduit, etc. are adequately protected and not being used as ladders, walkways, etc.
 - (l) Clearances between cable and adjacent components such as piping, ducts, and supports are as specified.
 - (m) Cabinets, panels, cable trays, junction boxes, etc. are maintained free of debris (periodically cleaned).
 - (n) Specified fire barriers, compartment boundary seals and fire-retardant materials are installed or applied.
 - (o) Specified inspections are made by qualified personnel.
 - (p) Documentation of completed installation and inspection activities is properly completed, in a timely manner.
 - (q) Nonconforming conditions are identified and handled in accordance with approved procedures, including adequate justification for use-as-is disposition.
 - (r) Conductive grease and electrical contact lubricant (NO-OX-ID) has been applied to power connectors as required by construction drawings and specifications.
3. As-Built Verification. When electrical power, control, and data cables, and associated items, as selected in appropriate subsections of Section 02.02, are completely (or essentially) installed and inspected, the latest revisions (as-built, if available) of installation drawings pertaining to the cables and items selected for verification. Review construction specifications and other applicable work instructions referenced by the drawings. Compare the actual installation with the above drawings and associated documents.
- (a) Before performing the above, verify the number and status of outstanding design changes on the selected drawings and related specifications.
 - (b) Discrepancies observed may result from in-process changes, such as those initiated in the field. If in-process changes are involved, determine if the licensee has properly controlled and documented these changes for engineering review, approval, and subsequent incorporation into the final as-built drawings.
- d. Construction quality control inspections. For the activities observed during Inspection Requirement 02.03., items 3-5 above for in-process installation, completed work, and as-built verification, and item 7 for cable testing, verify if construction quality control inspectors are properly qualified and are present and performing their assigned tasks during handling and installation activities. Verify Construction quality control inspections documentation is complete and accurately reflects the inspection performed and results. Nonconformances are appropriately documented and resolved as required.

e. Construction Testing.

1. If possible, observe a sampling of the following cable-testing activities applicable for the sample selected in the appropriate subsections of Section 02.02:

- (a) high potential tests on high-voltage power cables and 4160-volt cables
- (b) insulation resistance tests
- (c) continuity tests
- (d) connector termination opacity test on...after cable
- (e) connection resistance testing on DC battery connectors
- (f) fiber optic cable testing, including acceptance testing prior to installation, pre-installation continuity test, and post-installation continuity test

2. Determine if the following requirements are being met for the above tests:

- (a) use of and compliance with the proper procedure,
- (b) calibration of the test equipment is current and test personnel qualified to use the equipment,
- (c) results are properly and accurately recorded, and
- (d) test results are within specifications limits or discrepancies are identified for resolution.

f. Configuration management. For the activities observed during Inspection Requirement 02.03., verify if changes occurred during these construction activities, the applicant/licensee properly controlled and documented these changes for engineering review, approval, and subsequent incorporation into the final as-built drawings. Verify these actions were completed in accordance with their procedures and QAP.

03.04 Inspection Requirement 02.04

Determine if for the electrical cable activities, the applicant/licensee/contractor system for documenting safety-related work is functioning properly.

a. Receipt Inspection and Material Certification. Select records applicable to the receipt of lots or shipments. Select records applicable to the storage, and storage inspection of lots or groups of electrical cables and associated items.

- 1. Records confirm that required material characteristics, performance tests, environmental qualification tests, and other specification requirements are met.
- 2. Receipt inspection and storage records indicate that, where appropriate, defective or incorrect components, parts, and materials are controlled and prevented from installation and possible use.

3. Documentation has been prepared and maintained as required by receipt inspection and documentation storage instructions.

b. Installation Inspection

1. Records confirm that specified materials and components were installed as specified and that the required construction inspections were performed, and acceptance criteria are defined. A sample selection should include installation records, cable-testing records, and raceway loading records.
2. The records selected should represent a diversity of cable and associated items and include some cable and terminations located inside the process facility. If possible, the sample selection should include records associated with:
 - (a) various safety related power, control, signal, data and instrument cables (including thermocouple wire);
 - (b) cable connectors, splices, and support grips;
 - (c) terminations, lugs, NO-OX-ID compound tapes, and pulling compounds; and
 - (d) fire barriers, seals, and retardants.
3. Review and evaluate pertinent quality records in a sampling of the areas listed below. Determine if:
 - (a) adequate preparation; control, review, and evaluation of these records have been made;
 - (b) they reflect that appropriate requirements have been met; and
 - (c) the system of records is functioning properly.

c. Nonconformance/Deviation Record.

1. Records include current status of these items. Nonconformance reports include the status of corrective action or resolution, (e.g., determine if adequate corrective action is being taken when moisture density test results are not within tolerance or acceptance criteria.)
2. For the inspection, review and evaluate a sampling of reports applicable to non-conformances or deviations in cables, terminations and cable system installation. Determine if:
 - (a) Records are complete and promptly reviewed by qualified personnel.
 - (b) Records have been routinely processed, evaluated in a timely manner and controlled through established channels, for resolution of the root-cause as well as the immediate problem.
 - (c) Records are properly identified and stored, indicate current status, and can be retrieved in a reasonable time.

- (d) Non-conformance reports include the status of corrective action or resolution, and adequate justification is provided for use-as-is disposition.
- d. Training/Qualification Records of Craft, and Quality Inspection Personnel. Records establish that quality inspection personnel are adequately qualified for their assigned duties and responsibilities and that craft personnel have been trained in their assigned tasks.
 - 1. Verify if a program has been established for ensuring that all craft, examination, and inspection personnel associated with safety-related electric cable systems are trained and qualified to perform their assigned duties. The program includes:
 - (a) The proper use of installation equipment (tension devices, pulling compounds, etc.).
 - (b) The proper handling, supporting and protection of cables and cable segments stored in place.
 - (c) Approved methods for cable end protection.
 - (d) Identification of requirements for the installation of safety-related cables.
 - (e) Approved methods for cable termination and splices.
 - (f) Approved methods for fiber optic/data cable termination and inspection.
- e. Configuration Management Records. Review and evaluate a selected sample of configuration management records, and determine if:
 - 1. Records associated with design and field changes, as well as related work and IP changes, reflect that timely review and evaluation of design and field change documents have been performed by personnel who are qualified.
 - 2. Records of periodic inspections ensure that only the most recent approved documents, including design changes, were used in the field.
 - 3. Design changes are subject to adequate design control, including consideration of the impact of the change on the overall design and on as built records.
 - 4. Records of nonconformance's to design requirements include preparation of a nonconformance report even if the nonconformance is resolved through the design-change process.

03.05 Additional Guidance

Note: Determine if enough adequately-qualified quality-control inspection personnel are at the construction site, commensurate with the work in progress, and adequately performing their assigned duties through the established organizational structure.

Prevalent Errors and Concerns. Prevalent errors and recent concerns are areas in which the inspector should be alert to potential generic issues. These areas include:

- a. Adequate procedures or other means have not been established to assure and document that all safety-related or risk significant structures, systems, and components (SSCs) systems have met applicable criteria, or to specifically document non-conformances.
- b. Inspection procedures do not include adequate inspection requirements and acceptance criteria.
- c. Inadequate means to control location and status of electric cable and components—especially during removal for repair or replacement.
- d. Inadequate procedures to control the evaluation, approval and use of field changes. (The licensee or contractor also should establish means to assure that only the latest approved field changes and other revisions or changes are being used for installation and inspection activities.)

69020.G-04 RESOURCE ESTIMATE

The appendices, or sections of the appendices, and inspection samples and hours, applicable to a specific facility should be in the range of 40–80 hours. Inspection preparation, including review of licensing basis, safety analysis report (SAR), and applicable codes and standards, is not included in this estimate.

69020.G-05 PROCEDURE COMPLETION

This inspection procedure appendix is complete when one inspection sample is complete. Refer to Section 69020-05, “Procedure Completion,” of IP 69020, “Inspection of Safety Related Items (and Services) During Construction of Non-Power Production and Utilization Facilities,” for details on what constitutes a completed inspection sample. Inspectors are not expected to complete every activity in the appendices of this IP. Instead, inspectors should prioritize inspection activities based on 1) importance of the activity to safety, 2) availability of the onsite activity at the time of the inspection, and 3) available inspection resources. An appendix to this IP need not be completed if there are no safety-related items (or services) covered by that appendix at an NPUF.

69020.G-06 REFERENCES

Refer to licensing basis requirements for applicable codes and standards for each fuel facility.

American Society of Testing and Materials (ASTM) E 814 and/or American National Standards Institute/Underwriters Laboratory Inc. (ANSI/UL 1479)

END

List of Attachments:

Revision History for IP 69020 Appendix G

Attachment 1 – Revision History for IP 69020 Appendix G

Commitment Tracking Number	Accession Number Issue Date Change Notice	Description of Change	Description of Training Required and Completion Date	Comment and Feedback Resolution Accession Number (Pre-Decisional, Non-Public)
N/A	ML24264A199 03/25/25 CN 25-005	Procedure was rewritten for conformance with changes to IMC 2550 and is now a standalone appendix to IP 69020.	N/A	N/A