

NRC INSPECTION MANUAL

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INSPECTION MANUAL CHAPTER 2550

**NON-POWER PRODUCTION AND UTILIZATION FACILITIES (NPUFs) LICENSED
UNDER 10 CFR PART 50: CONSTRUCTION INSPECTION PROGRAM (CIP)**

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2550-01 PURPOSE

The purpose of this Inspection Manual Chapter (IMC) is to define the Construction Inspection Program (CIP) for non-power production and utilization facilities (NPUFs) holding a construction permit and pursuing an operating license under 10 CFR Part 50. This CIP will provide reasonable assurance that the **final** design and construction of NPUFs have been completed in accordance with applicable regulations, license requirements, and commitments.

Note: Throughout this IMC, the term “**permit holder**” is used to refer to a construction permit (CP) holder. **However, the NPUF CIP may also be applied to construction permit applicants performing safety-significant pre-construction and procurement activities.**

2550-02 OBJECTIVES

The primary objective of this IMC is to **define the CIP for inspecting construction and operational readiness activities at NPUFs holding a CP. It may also apply to NPUF CP applicants if safety-significant pre-construction or procurement activities are in progress.**

- 02.01 Provide reasonable assurance that regulatory requirements and **permit holder** commitments for quality assurance (QA) are included in the design, procurement, and construction of the NPUF.
- 02.02 Provide reasonable assurance that NPUFs are constructed in accordance with the applicable regulations, quality assurance program, and the NPUF’s licensing basis (**e.g., Preliminary Safety Analysis Report (PSAR), Construction Permit (CP), and Operating License (OL) application.**
- 02.03 Verify the effective implementation of the **permit holder’s** QA program.
- 02.04 Conduct **risk-informed** inspections of Structures, Systems, and Components (SSCs), pre-operational testing, and operational readiness activities to support the issuance of an **OL.**

2550-03 APPLICABILITY

- 03.01 This IMC provides inspection program guidance for the NPUF CIP. The NPUF CIP applies to all construction activities including design, procurement, fabrication, construction, pre-operational testing, and operational readiness activities. Implementation of this IMC will begin at the NRC issuance of the CP and will continue through completion of construction. **It may also apply to NPUF CP applicants if safety-significant pre-construction or procurement activities are in progress.**
- 03.02 As necessary, archived IMCs, inspection procedures (IPs), and temporary instructions (TIs) may be re-issued and used to perform the required inspections or reviews of design, licensing, and regulatory issues for the NPUF CIP.
- 03.03 NPUFs will remain within the scope of the Commission's current Enforcement Policy for facilities in the construction phase.

2550-04 DEFINITIONS

Additional definitions can be found in IMC 2506, “Construction Reactor Oversight Process General Guidance and Basis Document.”

- 04.01 Items Relied on for Safety (IROFS). IROFS are structures, systems, equipment, components, and activities of personnel that are relied on to prevent potential accidents at a facility that could exceed the performance requirements in 10 CFR 70.61 or to mitigate their potential consequences. IROFS may be designated for NPUF facilities that include a Part 70 license application (in addition to their Part 50 CP) or for NPUF facilities that use IROFS as part of their Part 50 licensing basis. Typically, IROFS are only part of the licensing basis when special nuclear material is processed at the facility.
- 04.02 Safety-related. NPUFs may define the term “safety-related” differently than the definition found in 10 CFR Part 50.2 for power reactors. Inspectors should be familiar with facility-specific terminology prior to planning and conducting inspections.

In general, the term “safety-related” may be defined as physical structures, systems, components and activities that are relied on to prevent potential accidents at a facility that could exceed the applicable performance requirements, or to mitigate their potential consequences. This does not limit the permit holder from identifying additional SSCs, equipment, or activities of personnel (i.e., beyond those in the minimum set necessary for compliance with the performance requirements) as IROFS.

2550-05 RESPONSIBILITIES AND AUTHORITIES

- 05.01 Office of Nuclear Reactor Regulation (NRR)
- a. Responsible for coordinating CIP activities with the applicable NRC inspection organizations.
 - b. Responsible for providing technical support for NPUF construction inspections. This may include providing personnel with specific expertise to support inspections, providing responses to technical questions posed by NPUF inspectors, and providing insight into the safety significance of SSCs for inspection planning purposes.
 - c. Responsible for providing technical assistance, if required, to inspection organizations to develop site-specific construction inspection plans.
 - d. Responsible for inspection plan development and coordination of inspections of the operational programs needed to support issuance of an OL.
 - e. Responsible for making the determination to authorize the commencement of operations.
 - f. Responsible for the approval of this IMC, interpretations of this IMC, and resolution of issues that arise if this IMC lacks specific guidance necessary to complete the NPUF CIP.
 - g. Responsible for the development and maintenance of the CIP for NPUFs.

- h. Responsible for oversight of vendors or manufacturers, if required by the individual NPUF construction inspection plan, that provide safety-related SSCs, or services to NPUFs under construction.
- i. Responsible for coordinating NPUF CIP interfaces with state and local government.

05.02 Region II

- a. Responsible for ensuring that adequate resources, as necessary to carry out the onsite portion of the construction inspection process described in this IMC, are provided to the staff.
- b. Responsible for the planning, performance, and documentation of inspection and enforcement activities associated with the portions of the NPUF CIP that are performed by Region II.
- c. Responsible for notifying NRR when all construction inspection activities assigned to Region II are complete.
- d. Responsible for developing NPUF-specific onsite construction inspection plans and coordinating the onsite construction inspection plan with NRR.
- e. Responsible for making a recommendation to NRR, based on the results of the CIP, as to whether the permit holder is ready to transition to operations.

05.03 Office of Nuclear Security and Incident Response (NSIR)

Except for research and test reactors, responsible for overall policy, guidance, and oversight of NPUF security and emergency planning. Note: NRR provides oversight of research and test reactor security and emergency planning.

05.04 Office of Nuclear Material Safety and Safeguards (NMSS)

- a. Responsible for providing technical support for NPUF construction inspections, as necessary. This may include providing personnel with specific expertise to support inspections, providing responses to technical questions posed by NPUF inspectors, and providing insight into the safety significance of SSCs for inspection planning purposes.
- b. Responsible for providing technical assistance, if required, to inspection organizations developing NPUF-specific construction inspection plans.
- c. Responsible for providing support to NRR, if required, for the determination to authorize the commencement of operations.

05.05 Director, Office of Enforcement (OE)

- a. Responsible for ensuring consistent application of the enforcement process to noncompliances with NRC regulations with the appropriate focus on the severity level of violations.

06.01 General

The NPUF CIP provides the inspection requirements for selectively assessing the adequacy of NPUF **procurement, manufacturing, and onsite** construction activities. This includes the implementation of the **permit holder's** QA program, performance of pre-operational tests, and development of operational programs that **are** needed for operation of the NPUF. Emphasis is placed on the inspection of SSCs **and activities** that are important to safety.

Emphasis is also placed on the **permit holder's** oversight of principal contractors who are performing IROFS-**related** (if applicable) or safety-related activities. Inspections will evaluate if contractors are implementing an acceptable QA program in accordance with the **permit holder's** QA program. The inspection program should include direct inspections as necessary to determine whether the elements of the license's QA program are being effectively implemented throughout all stages of construction, including equipment fabrication, assembly, installation, and **testing**.

06.02 NPUF Facility Specific Assessment and Review Group (FSARG)

For NPUFs that are designed to process irradiated material or **special nuclear material** (e.g., a radioisotope production facility), an FSARG may be assigned to assist **NPUF construction project inspectors and their management** with the **oversight** program. An FSARG is an advisory group comprised of representatives from NRR, NMSS, **and** Region II. The purpose of the FSARG is to assist **inspection staff** in development and implementation of the inspection program to verify that the construction of the NPUF is completed in accordance with applicable regulatory requirements. The FSARG may also assist **inspection staff** in determining if sufficient inspection has been performed to determine if the construction inspection program is complete for the facility. The NRR representative **is** responsible for coordinating group activities.

06.03 Inspection Planning and Scheduling Considerations

The NPUF construction inspection schedule should be based on the **permit holder's** construction schedule and should be modified and updated periodically during the entire construction period.

Inspections should normally be announced, coordinated, and scheduled with the **permit holder** such that the efficiency and effectiveness of the inspection effort are enhanced and unnecessary burden to the **permit holder** is minimized. However, as appropriate, inspections of various construction activities may be scheduled as unannounced inspections.

Emphasis should be placed on early identification of problems. Inspections will be conducted periodically throughout construction. Comprehensive construction program reviews aimed at determining underlying causes and extent of problem areas should be conducted if significant deficiencies occur. Inspection depth and frequencies may be expanded to assure problem areas have been corrected. Corrective action programs are essential to effective resolution of deficiencies. Inspection effort should be planned to specifically evaluate corrective action program effectiveness. Refer to appendix C of this IMC for further guidance on evaluating the effectiveness of corrective action programs.

NRR, Region II, and other inspection organizations as applicable, will coordinate to develop, maintain, and implement an inspection schedule for NPUF construction projects. The schedule will include the scope and the inspection procedures that will be used for the inspections. The list of procedures used for conducting inspections is provided in appendix A of this IMC. The schedule will provide flexibility to address emerging issues that require additional inspection efforts, receipt of allegations, or changes in scheduled activities by the permit holder.

06.04 Inspection and Technical Personnel Considerations

Inspectors will be assigned responsibility for the conduct of applicable inspection requirements consistent with their experience. Inspectors should be trained and/or experienced in the areas of QA, engineering, procurement, and construction activities applicable to the activities they are to inspect. Specialists may accompany or assist inspectors to provide expertise in specific areas to enhance or expand the inspection effort.

2550-07 GUIDANCE

07.01 General

The permit holder is ultimately responsible for quality of construction at the facility. The NRC ensures, through inspection sampling, that this responsibility is carried out in an effective manner. The CIP presented in this IMC is considered the minimum necessary to achieve an acceptable level of confidence in the quality of construction at the facility.

This IMC emphasizes a systematic evaluation of the adequacy and effectiveness of the permit holder's QA and construction programs and their implementation. NRC staff will perform inspections of selected activities at the construction site. Inspections may also be performed, as necessary, at the facilities of the permit holder's consultants, contractors, and suppliers.

07.02 Inspection Areas

The specific areas to be inspected will include a risk-informed sampling of SSCs and regulatory and safety commitments as identified in licensing documents. SSCs will be chosen for inspection based on risk significance and will include multiple safety and engineering disciplines (e.g., civil, mechanical, and electrical). Construction and pre-operational testing inspections will be performed as a part of QA implementation inspections covering test control. Operational program inspections will be performed in accordance with IP 69022, "Inspection of Operational Readiness during Construction of Non-Power Production and Utilization Facilities." Inspectors should consult with NRR for risk insights for specific facilities, if necessary. These inspections will provide reasonable assurance that the as-built NPUF meets its approved design and licensing bases.

07.03 Inspection Procedures (IPs)

IPs are listed in appendix A. Some IPs may cover more than one CIP area and additional IPs may be used as necessary.

07.04 Implementation

NRR, Region II, and other applicable inspection organizations shall coordinate the implementation of the inspection program described in this IMC. This IMC is intended to provide the framework for managing the inspection effort.

The inspection staff is expected to plan and conduct inspections based on safety considerations, current construction activities, and prior inspection results. Inspection staff should develop a schedule of inspections to be conducted based on the anticipated site activities that are to be performed. Inspection staff should review and revise the schedule as needed to account for changes in site activities. The activities for conducting inspections should include the following:

- a. Developing and documenting detailed inspection plans.
- b. Scheduling and coordinating inspection activities in accordance with this IMC.
- c. Communicating inspection results to appropriate NRC and permit holder management.
- d. Documenting completed inspections, findings, and open items.

07.05 Inspection Requirements

Inspections will be based on 10 CFR Part 50 and other applicable regulations, commitments, and construction permit conditions, including the documents (such as topical reports) included as part of the licensing basis. Inspections will confirm that applicable regulations, requirements, and commitments have been met. Selection of inspection attributes will be based on safety considerations, complexity of work activities, and construction experience.

07.06 Focus of Inspections

In order to effectively and efficiently allocate inspection resources, the NRC will perform sampling-type inspections to verify that the permit holder complies with NRC regulations.

Inspection staff will use applicable information from licensing basis documents to identify those SSCs whose failure would most greatly impact safety. This approach will identify safety significant SSCs so that the construction and pre-operational inspection samples are focused on those SSCs. The amount of inspection and activities selected for inspection should be consistent with the importance to safety of the SSCs and informed by prior inspection results in those construction areas.

Inspection activities should emphasize the early identification of problem areas. It is important that inspectors evaluate whether noted problems represent isolated cases or are symptomatic of more systemic problems. To provide the perspective for performing this evaluation, inspectors should consider:

- a. The extent and the effectiveness of permit holder's oversight of quality related activities.
- b. Resolution of previously identified problem areas and/or recurring problems.
- c. The adequacy of the permit holder's corrective action program to identify, track, trend, resolve, and prevent problem recurrence.

- d. Deficiencies, assessment findings, and problems identified by the **permit holder** or by its consultants, contractors, or suppliers identifying trends and/or problem areas.
- e. Whether additional NRC inspection efforts are merited in areas of concern. The inspection plan should be considered a living document and can be modified based on inspection findings and **the quality of construction activities**.

07.07 Management Entrance and Exit Meetings

Inspectors are required to meet with **permit holder** management as part of every inspection. Inspectors should conduct an entrance meeting with the senior **permit holder** representative who has responsibility for the areas to be inspected. Each inspection must include the discussion of inspection results with **permit holder** management at a scheduled exit meeting. Entrance and exit meetings with **permit holder** personnel should be scheduled to minimize the impact on other **permit holder** activities that are necessary to assure the safe and proper construction of the facility.

07.08 Inspection Reports (IR)

Inspection findings shall be documented in inspection reports in accordance with appendix B, "NPUF Construction Inspection Reports." When possible, inspection findings should be integrated into a single inspection report to encompass findings from in-office inspections, and/or one or more **onsite inspections**. **Reactive inspections performed in accordance with NRC Management Directive 8.3, "NRC Incident Investigation Program,"** may be documented in a separate inspection report. Inspection issues that cannot be resolved at the time of the inspection will be documented as open items (i.e., partial inspections), inspection follow-up items (**IFIs**), or unresolved items (**URIs**), in accordance with appendix B. **Inspection staff** will track open items and subsequent inspections will include resolution of these issues.

07.09 Communication with State and Local Government

NRR personnel are responsible for coordinating the interface with state and local government and other Federal agencies. NRR will coordinate with the **host region** State Liaison Officer for communications with state government. Inspectors should be aware of NRR's role and **inspection staff** should **follow** internal protocols to ensure that NRR is notified of, and consulted on, issues that might involve communications with state and local governments and other Federal agencies.

07.10 Inspection Findings and Enforcement

More-than-minor inspection findings identified during the construction and pre-operational periods will be documented in accordance with the guidance in appendix B "NPUF Construction Inspection Reports," after they have been placed in context and assessed for safety significance. Potential violations from inspection activities will be processed in accordance with the NRC Enforcement Policy (available on the NRC public web site at <http://www.nrc.gov>). Inspection **findings** will be categorized as violations, non-cited violations (**NCVs**), apparent violations (**AVs**), **notices of deviation (NODs)**, **notices of non-conformance (NONs)**, **URIs**, or **IFIs**. This includes the use of notices of violations for violations of severity level IV and above and civil penalties, as appropriate.

It is important to note that if the NRC determines that construction is not in accordance with the permit holder's commitments, then issuance of an operating license (OL) may be denied. The failure of the permit holder to meet commitments specified in the license application (including the Safety Analysis Report (SAR) and Quality Assurance Program Description) or other licensing basis documents that are of more than minor significance shall be documented in the inspection report(s) as noted above. It is imperative that findings are appropriately documented in the inspection reports so that subsequent inspections can verify that the permit holder implemented the appropriate corrective actions. The failure of the permit holder to take the appropriate corrective actions to address the open items by the end of the construction phase could result in a denial of an OL.

07.11 Assessment

The focus of NPUF construction assessment is the quality of construction of the facility. This includes the quality of manufactured and procured components. The NRC's objective for the NPUF construction oversight program is to attain reasonable assurance that the facilities are constructed in accordance with their design and licensing bases. Throughout this IMC, the terms "quality," "construction quality," and similar terms are used in the following context—the facility is built and will operate in accordance with the facility's design and licensing bases.

The NRC reaches reasonable assurance of quality through 1) verifying that inspection samples of SSC construction and manufacture meet design and performance requirements in the licensing basis, and 2) verifying that quality assurance attributes for the sampled SSCs are implemented such that the NRC has confidence that other SSCs in that construction area will also meet design and performance requirements. Different types of construction activities may require differing levels of inspection effort to provide reasonable assurance of quality depending on the safety significance of the work, the complexity of the work, and the amount of construction experience available for the activity.

Increases or decreases in inspection oversight will be based on an assessment of the quality of the as-built facility. Quality is assessed continuously as inspection results are evaluated for significance (trends, common weaknesses, etc.), then inspection scope, depth, and timing are adjusted as necessary.

Appendix C, "NPUF Construction Assessment Process," describes the methodology for conducting and documenting continuous assessments of project quality for NPUFs. NRR and Region II shall coordinate the assessment of inspection results and other information such as allegations, permit holder reports to the NRC, and industry construction experience. The applicable inspection organizations, with NRR input, shall adjust the inspection plans for specific facilities based on these assessments. All findings are processed in accordance with the NRC's Enforcement Policy and Enforcement Manual and shall be considered during continuous reviews when determining the need for more detailed follow-up in response to escalated enforcement actions or violations in one of the traditional enforcement areas of willfulness, impacting the regulatory process, or actual safety consequences.

07.12 Operational Readiness Inspection

An operating license will not be issued until the NRC staff verifies through inspection that construction of the facility has been substantially completed in conformity with the requirements of the CP. An operational readiness inspection is a tool to provide input for NRC decisions regarding the operational readiness of permit holder programs or processes that might not have been implemented during construction, but that will be needed for safe operation of the NPUF. When making a decision on whether to allow operations, NRC senior management considers the state of readiness for facility operation based, in part, on the results of the operational readiness inspection. Specific programs and processes to be inspected will vary depending on the commitments in the specific NPUF licensing documents. Existing IPs, used in conjunction with IP 69022, “Inspections of Operational Readiness During Construction of Non-Power Production and Utilization Facilities,” may be used to perform operational readiness inspections.

Previously identified inspection findings and applicable permit holder corrective actions are also considered during the decision-making process. Operational readiness inspections shall include an evaluation of outstanding inspection items and significant permit holder identified items requiring corrective action.

Operational readiness inspections shall also include a status of planned SSC, QA, and pre-operational inspections. The operational readiness inspection should identify if all planned inspections have been completed or if additional inspections need to be performed to complete the NPUF CIP. If all planned inspections have been completed, the operational readiness inspection report will serve as notification from Region II and the other cognizant inspection organizations to the NRR Office Director that the CIP has been completed. If additional inspections are needed, then the operational readiness inspection report will note this, and a separate notification of CIP completion will be documented by Region II and other applicable inspection organizations once all planned inspections have been completed. Completion of the CIP does not mean that inspection staff will stop inspecting NPUF activities. It means that all required inspections to meet the minimum requirements of this IMC have been completed. Additional inspections may be performed to ensure continued compliance with the licensing basis.

07.13 Transition to Operations

Before the NRC issues an OL, the NRC staff must find, in accordance with 10 CFR 50.57, “Issuance of Operating License,” that: “(a)(1) Construction of the facility has been substantially completed, in conformity with the construction permit and the application as amended...”; “(a)(2) the facility will operate in conformity with the application as amended...”; and (a)(3)(ii) there is reasonable assurance that the facility will be operated “in compliance with the regulations....”

The NRC staff uses the results of construction inspections to support the findings in 10 CFR 50.57(a)(1), 50.57(a)(2), and 50.57(a)(3)(ii). Specifically, completion of the inspections identified in IP 69020, “Inspections of Safety-Related Items (and Services) During Construction of Non-Power Production and Utilization Facilities,” and IP 69021 “Inspection of Quality Assurance Program Implementation During Construction of Non-Power Production and Utilization Facilities” support the findings required by 10 CFR 50.57(a)(1) and 50.57(a)(2). Completion of the inspection identified in IP 69022, “Inspections of Operational Readiness During Construction of Non-Power Production and Utilization Facilities,” supports the finding required by 10 CFR 50.57(a)(3)(ii).

Licensees are expected to notify the NRC in writing when construction of the facility is substantially complete. Additionally, licensees are expected to provide a complete list of remaining construction and preoperational test activities that must be addressed prior to operation. At the time a licensee notifies the NRC that construction is substantially complete, the NRC expects that the safety-related SSCs required for initial startup; handling and storage of special nuclear material; shutdown of the facility; and prevention of accidents and the mitigation of consequences of accidents of the NPUF will have been installed at the site. The NRC also expects that the construction and pre-operational tests necessary to ensure the functionality of safety-related SSCs will have been performed and documented by the licensee in accordance with a formal plan. The licensee should have developed the operational test programs necessary to demonstrate that safety-related SSCs will remain functional during normal conditions and during and following design basis events.

Note: Notification by the licensee does not serve as the formal 10 CFR 50.57(a)(1) finding that construction is substantially complete; the NRC makes this finding based on the results of inspection activities described in this IP. Notification by the licensee only serves to inform the NRC that the licensee believes that construction has progressed to the point that Region II personnel can implement the provisions of this IP and determine that the facility is substantially complete.

After receipt of the “substantially complete” notification by the licensee, NRR staff, in coordination with Region II, will assess the status of the facility as described in the notification by reviewing the results of baseline inspections and the status of any planned inspections that have not been completed. If NRR staff conclude that the findings in 10 CFR 50.57(a)(1), 50.57(a)(2), and 50.57(a)(3)(ii) are supported by the results of inspections and any necessary licensee actions, they will notify the Director, NRR, that it is reasonable to make the findings required by 10 CFR 50.57(a)(1), 50.57(a)(2), and 50.57(a)(3)(ii). This notification recommendation will be in the form of a memorandum from the cognizant NRR Division Director to the NRR Office Director. The memorandum will include, as appropriate, appendices that address: (1) a description of any incomplete operational readiness inspections. Inspection items remaining to be completed should be discussed in sufficient detail to understand their impact on the proposed issuance of the operating license, (2) pending or open enforcement actions, and (3) an assessment of whether any open allegations can potentially affect the outcome of any of the three findings¹.

If the applicant experiences significant delays in completion of construction of the facility following the notification of substantial completion of construction, including: 1) the development of operational programs, 2) performance of construction and pre-operational testing, 3) closure of remaining open items, or 4) the discovery of significant technical errors in the design of the facility after the Readiness Memorandum is issued, then the NRR staff and Region II should assess whether additional inspection activities should be conducted and a follow-up Readiness Memorandum should be issued. NRR staff will promptly notify the Director, NRR, of any significant performance deficiencies or test failures that occur after the Readiness Memorandum is issued, but

¹ Allegations received after the Readiness Memorandum is issued, will be handled in accordance with Management Directive MD 8.8, “Management of Allegations,” and Allegation Guidance Memorandum 2011-001, “Late-Filed Allegations.” (Agencywide Documents and Access Management System (ADAMS) Accession No. ML11227A241).

prior to issuance of the operating license. Any issues identified after issuance of the operating license will be addressed through the NRC's operational inspection, assessment, and enforcement processes.

2550-08 REFERENCES

IMC 0620, "Inspection Documents and Records"

MD 8.8, "Management of Allegations"

MD Volume 12, "Security"

NRC Enforcement Policy

NEI 99-04, "Guidelines for Managing NRC Commitment Changes"

NRC Enforcement Manual

SECY-99-070, "Implementation Plan for the Public Communications Initiative (DSI-14)"

SECY-00-0045, "Acceptance of NEI 99-04, 'Guidelines for Managing NRC Commitments'"

END

Appendix A: Inspection Procedures

Inspection procedures may be added or deleted as required. Portions of these inspection procedures may not apply to all types of NPUFs.

Construction Inspection Procedures	
IP 69020	Inspections of Safety-Related Items (and Services) During Construction of Non-Power Production And Utilization Facilities
IP 69021	Inspections of Quality Assurance Program Implementation During Construction of Non-Power Production and Utilization Facilities
IP 81810	Protection of Safeguards Information (As Implemented by IMC 2681)
IP 92702	Follow-Up on Traditional Enforcement Actions Including Violations, Deviations, Confirmatory Action Letters, and Orders
Operational Readiness Inspections	
IP 69022	Inspections of Operational Readiness During Construction of Non-Power Production and Utilization Facilities

END

Appendix B: Non-Power Production And Utilization Facility (NPUF) Construction Inspection Reports

1.0 PURPOSE

To provide guidance on inspection report content, format, and style for NPUF inspection reports.

2.0 OBJECTIVES

To ensure that inspection reports:

- 2.1 Clearly communicate significant inspection results to **permit holders**, NRC staff, and the public.
- 2.2 Provide conclusions about the effectiveness of the programs or activities inspected. The depth and scope of the conclusions should be commensurate with the depth and scope of the inspection.
- 2.3 Provide a basis for enforcement action.
- 2.4 **Continuously assess permit holder performance and present assessment information in inspection reports** in a manner that will be useful to NRC management in developing longer-term, broad assessments of **project quality**

3.0 RESPONSIBILITIES

All NRC inspectors are required to prepare NPUF construction inspection reports in accordance with the guidance provided in this appendix. General and specific responsibilities are listed below.

- 3.1 General Responsibilities. Each inspection of an NPUF **permit holder or supplier** shall be documented. A narrative inspection report consisting of a cover letter, a cover page, an executive summary, and inspection details is required for escalated enforcement actions. **Inspection of NPUF suppliers may be performed and documented either as part of the Vendor Inspection Program, or as part of the NPUF CIP. The choice of which inspection program is used should be coordinated through the NRR project office.**
- 3.2 Report Writing
 - a. Inspectors have the primary responsibility for ensuring that observations and findings are accurately reported, that referenced material is correctly characterized, and that the scope and depth of conclusions are adequately supported by documented observations and findings. Advice and recommendations are not to be included in inspection reports.
 - b. Inspectors are responsible for ensuring that the content and tone of the report, as issued, are consistent with the content and tone of the exit meeting presentation. When the report differs significantly from the exit meeting, the inspector (or the report reviewer) should discuss those differences with the **permit holder** before the report is issued.

- c. Report writers and reviewers should ensure that inspection reports follow the general format given in this chapter.

3.3 Report Review and Concurrence

- a. Before issuance, each inspection report should, as a minimum, be reviewed by a member of NRC management familiar with NRC requirements in the area inspected.
- b. The report reviewer (i.e., the member of management referred to above) should establish that conclusions are logically drawn and sufficiently supported by observations and findings, and that the observations, findings, and conclusions are consistent with NRC policies and requirements.
- c. The report reviewer should ensure that assessments made in the inspection report represent the judgment of the issuing organization and established NRC policy rather than solely the personal views of an individual inspector or group of inspectors.

- 3.4 NRC inspection organizations should follow internal procedures to provide a record of inspectors' and reviewers' concurrences. The procedures should address how to ensure continued inspector concurrence when substantive changes are made to the report as originally submitted, and how to treat disagreements that occur during the review process. As a minimum, substantial changes should be discussed with the inspector or inspectors involved to ensure continued concurrence, and disagreements that cannot be adequately resolved should be documented.

3.5 Report Issuance

The applicable **inspection organization** division director or designated branch chief is responsible for the report content, tone, conclusions, and overall regulatory focus.

3.6 Report Timeliness

Typically, **team inspection** reports are issued no later than 45 calendar days after inspection completion. **However**, more than one inspection may be integrated into one periodic report. If this is done, the integrated report should be issued no later than 45 calendar days after the final calendar day of the reporting period. For example, if a periodic report includes inspection activity for a quarter, then the report should be issued no later than 45 calendar days after the end of the quarter.

3.7 Reports Preceding Escalated Enforcement Actions

Timeliness goals should be accelerated for inspection reports that include potential escalated enforcement actions. For specific enforcement timeliness goals, see the NRC Enforcement Manual.

3.8 Expedited Reports for Significant Safety Issues

If **NRC inspectors identify** an issue involving significant or immediate public health and safety concerns, then **the** NRC's first priority is public health and safety. Inspection report documentation or enforcement action is secondary. Based on the circumstances of the issue, an expedited inspection report may be prepared that is limited in scope to the issue, or expedited enforcement action may be taken before the inspection report is

issued. The NRC Enforcement Manual provides additional guidance on matters of immediate public health and safety concern.

4.0 GUIDANCE FOR INSPECTION REPORT CONTENT

4.1 General Guidance

- a. This section provides general guidance on the contents of an inspection report for NPUF construction inspections. **Inspection organizations** may prepare additional instructions or guidance on inspection reports based on the specific needs of the programs that they manage.
- b. The NRC inspection report shall state what was inspected and what conclusions were reached **related** to the inspection. Inspectors should avoid making statements that imply more general conclusions about **the quality of construction** in areas that weren't inspected.
- c. All enforcement actions, and other agency actions which may be derived from an inspection (such as orders) will be based upon the associated inspection report. Inspection reports must be clear, accurate, consistent, and complete.
- d. The inspection report will normally contain a cover page, an executive summary, and a set of report details. The report details will typically describe each specific area of inspection activity in two parts: the scope and the findings.
- e. A cover letter is used to transmit the inspection report results. The cover letter must never contain any significant information that is not also contained in the executive summary and supported in the report details.
- f. The executive summary section of the inspection report highlights the most significant conclusions. These are usually organized into sections by inspection area, corresponding to the sections of the report. **It** is not necessary that every conclusion in the report details be repeated in the Executive Summary. There should never be any conclusions in the summary, however, which are not clearly and directly derived from the detailed discussion.
- g. Guidance and letter formats for escalated enforcement actions vary. Guidance and sample cover letters are found in the NRC Enforcement Manual.

4.2 Cover Letter. The purpose of the cover letter is to transmit the inspection report results. Inspection reports are transmitted using a cover letter from the applicable NRC official as delegated by **the cognizant inspection organization** to the designated **permit holder** executive.

- a. Cover Letter Content. Cover letter content varies somewhat depending on whether the inspection identified findings. In general, however, every cover letter has the same basic structure, as follows:
 - Addresses, date, and salutation **are placed at** the top of the first page; the cover letter begins with the NRC seal and address, followed by the date on which the report cover letter is signed and the report issued.

- For cover letters transmitting reports with findings assigned an enforcement action (EA) number, the EA number should be placed in the upper left-hand corner above the principal addressee's name.
 - The name and title of the principal addressee are placed at least four lines below the letterhead, followed by the **permit holder's** name and address. Note that the salutation is placed after the subject line.
- b. Subject Line. The subject line of the letter should state the facility name (if it is not apparent from the Addressee line) and inspection subject. The words "NOTICE OF VIOLATION" (or "NOTICE OF DEVIATION," etc.) should be included if such a notice accompanies the inspection report. The entire subject line should be capitalized.
 - c. Introductory Paragraphs. The first two paragraphs of the cover letter should give a brief introduction, including the type of inspection report.
 - d. Body. In keeping with the "Plain English Initiative," which implements the requirements of SECY-99-070, "Implementation Plan for the Public Communications Initiative (DSI-14)," "the body of the letter should discuss the most important topics first."
 - e. The cover letter is written to transmit the inspection report to the **permit holder's** management, and to deliver the "big picture" message regarding the **inspection**. **Because** it is the highest-level document, it does not need to (and normally won't) detail all the **items inspected**, or the inspection procedures used. It will note the areas covered by the inspection.
 - f. The tone of the cover letter must have a correct balance. The NRC focuses on **quality** issues. If a **permit holder** performed some activity 100 times, and succeeded 99 times, we will be most interested in the single failure. That does not mean that the cover letter will make it appear that the **permit holder** rarely succeeded **in producing quality work**. The safety and regulatory significance of any **permit holder** failure will be a primary consideration, above and beyond the numerical frequency of failure compared to success.
 - g. The cover letter must always be consistent with the inspection report. In addition, it must be consistent with the information, which the inspector conveyed to **permit holder** managers at the exit meeting. If the inspector's understanding of the facts, or the perspective on the nature or significance of our findings changes after the exit meeting, the NRC shall contact the **permit holder** and re-exit **the inspection**. There should never be any surprises in a cover letter to anyone who was present at the exit meeting.
 - h. Lastly, the cover letter usually should not contain recommendations. There shouldn't be any statements to the effect, "The **permit holder** needs to...." or, "The **permit holder** should...." If the **permit holder** is not meeting safety or regulatory requirements, the statements should clearly show those facts. If the NRC believes that a **permit holder** cannot ensure the safety of its activities, then an Order or some similar official action may be appropriate. Guiding **permit holder** decision-making through the use of a cover letter to an inspection report is not the appropriate method for accomplishing this type of action.
 - i. Closing. The final paragraph consists of standard legal language that varies depending on whether enforcement action is involved.

- j. The signature of the appropriate NRC official is followed by the docket number(s), license number(s), enclosures, and distribution list.

4.3 Notices of Violation and Notices of Deviation

- a. Permit holders may be notified that they have failed to meet regulatory requirements with the issuance of an NOV, or a non-legally binding requirement with an NOD. NOV and NODs may be sent to permit holders as part of a package of documents which also includes a cover letter and associated inspection report. NOV and NODs may also be sent with a cover letter which refers to an inspection report that was distributed previously. An NOV or NOD should not be sent to the permit holder in advance of the inspection report.
- b. Every NOV and NOD must be clear, so that there is little doubt that the permit holder (or other interested reader) can understand the basis for the noncompliance. The permit holder may not agree with the NRC's basis, but they must understand the agency's position.
- c. Every NOV and NOD must clearly state what the requirement was that was not met. That may mean that the date and revision number of the applicable document will need to be provided. Then, a clear statement of what happened (including when if the timing is important) will be provided. The intention is that any interested reader will be able to clearly see and understand what the requirement was and how it was not met. For additional guidance on documenting noncompliances, refer to the NRC Enforcement Manual. The NOV or NOD should be an enclosure to the cover letter. Additional guidance on enforcement actions is found in section 5 of this appendix.

4.4 Cover Page. The report cover page gives a quick-glance summary of information about the inspection. It contains the docket/certificate number, report number, facility name, dates of inspection, names and titles of participating inspectors, and name and title of the approving NRC manager.

4.5 Executive Summary. The Executive Summary will contain the important conclusions reached by NRC as a result of the inspection. The statements provided in this section may duplicate or condense the conclusions provided in the various separate sections of the report details. There should never be anything in the Executive Summary which is new or different from the information provided in the detailed discussion. Not every conclusion contained in the inspection report needs to be repeated in the Executive Summary, but the important conclusions, which would provide the bases for the results of the inspection stated in the cover letter should be included.

4.6 Table of Contents. For reports that are considered complicated or are of significant length (i.e., the Report Details section to the Exit Interview section is more than 20 pages long), the writer should include a table of contents as an aid to clarity.

4.7 Report Arrangement. NPUF construction inspection reports should include the following elements, arranged in the order listed:

- Cover Letter
- Notice of Violation or Notice of Deviation (if applicable)
- Cover Page
- Executive Summary

- Report Details
- Exit Meeting Summary
- Partial List of Key **Permit Holder** Personnel Contacted
- List of Documents Reviewed
- List of Acronyms (if applicable)
- List of Inspection Procedures Used
- Summary of Items Opened, Closed and Discussed (if applicable)

4.8 **Report Details.** The detailed discussion in the report provides the information which forms the bases upon which the other sections of an inspection report are developed. In most cases, the detailed discussion will be organized into one or more sections, each addressing an area of inspection. Each area will in turn be divided into two parts: inspection scope and findings. These are discussed in more detail below.

- a. **Inspection Scope.** The scope portion of each area inspected will describe what was inspected. In most cases, the approach that can be used in writing the scope should be consistent with the inspection procedure (IP) which was used in performing that portion. Much of the write-up can be extracted from the "Inspection Objectives" section of the applicable IP. When describing the scope, it is acceptable to state either what the inspector(s) did, or what the inspection accomplished. That is, a scope section could be phrased, "This inspection included a review (or observation, or evaluation, etc.) of...." or it could be written as, "The inspectors reviewed (observed, evaluated) the...." The scope statements might also describe why certain items were inspected. For example, "...to determine compliance with...."

The scope section should not duplicate any portion of the findings section. Therefore, when findings are identified, much of the required detail listed below should be stated only in the findings section, resulting in a much shorter scope section.

When no findings are identified, the scope section should, when germane to the inspection, include (1) how the inspection was conducted (i.e., the methods of inspection), (2) what was inspected, (3) where the inspection took place (i.e., what room(s) or buildings), as well as (4) the inspection objectives and/or criteria for determining whether the **permit holder** is in compliance.

If a substantive portion of the inspection activity was conducted at a location other than the plant, (e.g., an in-office review or at a vendor facility), then identify where the inspection took place.

- b. **Findings.** **The findings section contains documentation of findings identified during the inspection.** There should always be a readily-identifiable connection between the stated inspection scope and the reported findings.

Violations are assessed for significance and documented using the guidance for traditional enforcement contained in the NRC Enforcement Policy and NRC Enforcement Manual. **Finding** documentation should include enough detailed information for an interested reader to understand what the requirement was, how it was not met, and how the significance of the **finding** was determined. The description of the **finding** should also include when the **finding** occurred, how long it existed, and planned or taken corrective actions. Assign each issue a tracking number starting with the **finding** type (NOV, NCV, AV, **NON**, **NOD**, URI) followed by the docket number, the inspection report number and a sequential number starting with "01." For example, the second NOV in inspection

report number 05000999/2021201 would be assigned the tracking number NOV 05000999/2021201-02.

Inspector follow-up issues (IFIs) are used to track issues where the inspector performed a partial inspection and wants to document an issue that requires inspection completion later. IFIs should contain enough information so that a different inspector can understand the issue and complete the inspection without further guidance. IFIs are assigned tracking numbers in the same format as **findings**.

If no **findings** of significance **more** than minor are identified during the inspection, include a statement **similar to** "No **findings** of more than minor significance were identified."

4.9 **Exit Meeting(s) Summary.** The final section of each inspection report briefly summarizes the exit meeting(s), which is also described in the first paragraph of the cover letter and identifies the most senior **permit holder** manager who attended the meeting(s), and includes the following information:

- a. **Absence of Proprietary Information.** At the exit meeting, the inspectors should verify that information which the inspector reviews during the meeting and intends to include in the report is not proprietary. If the **permit holder** does not identify any material as proprietary, the exit meeting summary should include a sentence to that effect.

Management Directive 12, "Security," addresses minimum handling requirements. For current instructions on actions to take if the report includes proprietary material, contact the **applicable NRC office** security advisor.

Note: Inspectors should be aware of minimum requirements for handling classified and sensitive-unclassified information (i.e., safeguards information, official use only, and proprietary information). When an inspection is likely to involve SUNSI or proprietary information (i.e., given the technical area or other considerations of inspection scope), how to handle such information should be discussed at the entrance meeting.

- b. **Subsequent Contacts or Changes in NRC Position.** The inspector should briefly discuss any contact with the **permit holder** management after the exit meeting to discuss new information relevant to an inspection finding. In addition, if the NRC's position on an inspection finding changes after the **initial** exit meeting, that change should be discussed with the **permit holder in a subsequent re-exit meeting** before the report is issued.

The following information is normally not included in the exit meeting summary.

- c. **Characterization of Permit Holder Response.** **Permit holder** responses should not be included in the summary except in cases where the **permit holder** disagrees with the inspection findings. In that case, the summary should state that the **permit holder** took exception to the findings.
- d. **Oral Statements and Regulatory Commitments.** If at the exit meeting or at any other time during the inspection, the **permit holder** makes an oral statement that it will take a specific action in response to a non-compliance, the statement may be documented in the body of the report. Details of statements made at the exit meeting should not be included in the exit meeting summary. Such statements should only be characterized in the report if the statements represent **permit holder** commitments in response to a

noncompliance to eliminate the need for a subsequent permit holder response. However, the report cover letter must include a provision for the permit holder to respond if the commitment documented in the report does not accurately reflect the permit holder's corrective actions or position. Otherwise, permit holder commitments are documented by permit holder correspondence, after which the inspector may reference the correspondence in the inspection report. For further guidance on managing regulatory commitments, see ADAMS Accession Nos. ML003680088 (NEI 99-04), ML003680078 (NEI Cover Letter), and ML003679799 (SECY 00-045 endorsing NEI 99-04 guidance).

Because regulatory commitments are a sensitive area, the inspector should ensure that any reporting of permit holder statements are paraphrased accurately and contain appropriate reference to any applicable permit holder document.

4.10 Report Attachments. The attachments discussed below are included at the end of the inspection report if applicable to the inspection. The attachments may be combined into a single attachment entitled "Supplementary Information."

- a. Key Points of Contact. The inspector lists, by name and title, those individuals who furnished relevant information or were key points of contact during the inspection (except in cases where there is a need to protect the identity of an individual). The list should not be exhaustive; a list of 5–10 individuals is sufficient. The alphabetized list includes the most senior permit holder manager at the exit meeting and NRC technical personnel who were involved in the inspection if they are not listed as inspectors on the cover page.
- b. List of Items Opened, Closed, and Discussed (Optional). The report should include a quick-reference list of items opened and closed. Open items that were discussed (but not closed) should also be included in this list, along with a reference to the sections in the report in which the items are discussed.
- c. List of Documents Reviewed. A list of the appropriate key documents and records reviewed during an inspection that are relevant to any finding, must be publicly available. Therefore, if a list is not otherwise made public, the report should include a listing of all the documents and records reviewed during the inspection that are not identified in the body of the report. (See IMC 0620, "Inspection Documents and Records.") "Reviewed" in this context means to examine critically or deliberately. The list does not include records that were only superficially reviewed. Lists consisting of more than six condition reports, documents reviewed or procedures, etc., should normally be removed from the body of the report and included as an attachment to facilitate reading.
- d. List of Acronyms. Reports whose details section exceeds 20 pages should include a list of acronyms. For reports in which a relatively small number of acronyms have been used, the list is optional. In all cases, however, acronyms should be spelled out when first used in inspection report text.

4.11 Release and Disclosure of Inspection Reports

- a. General Public Disclosure and Exemptions. Except for report enclosures containing exempt information, all final inspection reports will be routinely disclosed to the public. Information that should not appear in an inspection report is described in 10 CFR 2.790 and in 10 CFR 9.17. Management Directive 8.8, "Management of Allegations,"

addresses how an inspection report may be used to document allegation follow up activities. IMC 0620, "Inspection Documents and Records," gives guidance on acquiring and controlling NRC records, including inspection-related documents. Sensitive—unclassified information (i.e., Safeguards Information, Official Use Only, proprietary information) should not be released as per instructions from the Office of Administration, Division of Facility Security.

- b. Release of Investigation-Related Information. When an inspector accompanies an investigator on an investigation, the inspector must not release either the investigation report or his or her individual input to the investigation report. This information is exempt from disclosure by 10 CFR 9.17 and must not be circulated outside the NRC without specific approval of the OI approving official.

5.0 OTHER GUIDANCE

5.1 Minor Noncompliances

The NRC Enforcement Policy acknowledges that some noncompliances of minor safety, environmental, and regulatory concern are below the level of significance of Severity Level (SL) IV violations. Because of their minor nature, these minor noncompliances are not the subject of formal enforcement action and are not usually documented in inspection reports. Additional guidance concerning minor noncompliances is contained in the NRC Enforcement Policy and NRC Enforcement Manual.

Appendix E of IMC 0613, "Power Reactor Construction Inspection Reports," contains examples of construction-related minor issues which are violations of requirements but have insignificant safety or regulatory impact or have no more than minimal safety significance. Appendix E of IMC 0613 may be used as an aid to inspectors when determining if construction-related issues are minor. Do not reference IMC 0613 when documenting noncompliances that are more than minor.

In general, minor noncompliances should not be documented; however, certain exceptions apply. Documentation may be necessary as part of the resolution of an allegation. In other cases, while the noncompliance itself is minor, the associated technical information may relate directly to an issue of agencywide concern (e.g., the inspection was performed in response to an NRC temporary instruction (TI)). If, for these reasons or any other reason, the report writers and reviewers wish to document a minor noncompliance, then it should be documented as a minor violation, with a reference to section 2 of the NRC Enforcement Policy.

- 5.2 Documenting Findings. The primary guidance for all matters related to enforcement, including documentation, is given in the NRC Enforcement Policy and the NRC Enforcement Manual. The following discussion summarizes certain aspects of that guidance related to inspection reports.

- a. Types of Findings. The manner of documenting a finding in the inspection report depends on how that finding will be dispositioned. A finding may be addressed as a non-escalated enforcement action (i.e., an SL IV violation, a deviation, or a nonconformance); as an escalated enforcement action (i.e., a SL I, II, or III violation); or as an apparent violation (AV).

Note that a **violation** may not be documented simply as a "weakness," "**permit holder** failure," or a similar informal characterization. If the report narrative describes a condition or event in a manner that suggests to the reader that a **violation** may have occurred, then the **finding** must be clearly dispositioned. If a **noncompliance** does not exist (e.g., no requirement exists in this area), it may be appropriate to clarify the finding by stating that "this condition [or event] does not constitute a **noncompliance or violation** of NRC requirements."

1. **Non-Escalated Enforcement Actions.** Most violations that are more than minor fall into the SL IV category. SL IV violations will be dispositioned in the inspection report as either an NOV or an NCV. See the NRC Enforcement Policy for further guidance in determining if an NOV or NCV is appropriate. If, at the time of issuing the inspection report, an SL IV violation is determined to be an NOV, then the NOV is generally sent out with the inspection report as a "non-escalated" enforcement action. If the **permit holder's** corrective action program (CAP) has been determined to be effective by the NRC (see appendix C of this IMC for guidance on determining if a **permit holder's** CAP is effective), then the SL-IV violation is generally categorized as an NCV in accordance with the NRC Enforcement Policy section 2.3.2.a. The cover letter for reports that include non-escalated enforcement actions should follow the appropriate NRC Enforcement Manual guidance.

Notices of Deviation and **Notices of Nonconformance** are also considered non-escalated enforcement actions. When a **permit holder** fails to meet a regulatory commitment or to conform to the provisions of an applicable code or industry standard, the failure may result in a Notice of Deviation. When a vendor or **non-licensed manufacturer** fails to meet a contract requirement related to NRC activities, the failure may result in a Notice of Nonconformance. While less frequently issued than SL IV, NOV and NCVs, these non-escalated enforcement actions follow a similar format and require a similar level of report detail.

2. **Potential Escalated Enforcement Actions.** **Only a violation can be categorized as an "escalated enforcement action."** When a **violation** is being considered for escalated enforcement, the inspection report narrative should refer to the **violation** as an "apparent violation." The report details should not include any speculation on the severity level of such violations nor on expected NRC enforcement sanctions. Potential escalated actions, by their nature, require further agency deliberation (and usually additional **permit holder** input) to determine the appropriate severity level and NRC action.

Similarly, report narratives that discuss apparent violations should be carefully constructed to avoid making explicit conclusions (i.e., final judgments) about the safety significance of the issue. The report should include any available details that demonstrate safety significance, or that would help in making such a decision and should also describe any corrective actions taken or planned by the **permit holder**. However, since a potential escalated enforcement action automatically entails further evaluative steps, neither the inspection report details nor the accompanying cover letter should present a final judgment on the issue.

3. **Non-Cited Violations.** Section 2 of the NRC Enforcement Policy lists circumstances that result in consideration of an NCV not requiring a formal written response from a **permit holder**. When an NCV is issued, the report should briefly describe the

circumstances of the violation, briefly describe the **permit holder's** corrective actions, and conclude with the following boilerplate statement: "This violation is being treated as a Non-Cited Violation, consistent with section 2.3.2 of the NRC Enforcement Policy."

If the **permit holder's** CAP has been determined to be effective per appendix C of this IMC, then SL IV violations may be dispositioned as NCVs if the criteria of section 2.3.2.a of the NRC Enforcement Policy are met. When this is the case, briefly describe the **permit holder's** corrective actions and conclude with the following boilerplate statement: "This violation is being treated as an NCV, consistent with section 2.3.2 of the Enforcement Policy. The violation was entered into the **permit holder's** corrective action program as [####] to ensure actions are taken to correct the condition."

4. Minor Noncompliances. Minor **noncompliances** should not normally be documented in inspection reports. However, to the extent that documentation is necessary, the standard language should be used: "This failure constitutes a **noncompliance** of minor significance and is not subject to formal enforcement action."
5. Enforcement Discretion. There are various subsections in the NRC Enforcement Policy in section 3 where discretion is exercised, and formal citations are not issued. The approval of the Director, Office of Enforcement, in consultation with the Deputy Executive Director as warranted, is required for exercising discretion of the type described in section 3. Where discretion is being reviewed for a violation that meets the criteria of section 3 of the NRC Enforcement Policy, the subject report should state: "Discretion is being exercised after consultation with the Office of Enforcement pursuant to section 3 of the NRC Enforcement Policy and a violation is not being issued."
- b. Supporting Details and Discussions of Safety Significance. The discussion of noncompliance issues must be sufficiently detailed to substantiate any NRC safety and regulatory concerns and to support any enforcement sanction the NRC may choose to issue. At a minimum, for a violation, the report should state:
 1. What requirement was violated;
 2. How the violation occurred;
 3. When the violation occurred, and how long it existed;
 4. Who identified it, and when; Any actual or potential safety consequence;
 5. The root cause (if identified), and;
 6. What corrective actions have been taken or planned.

The degree of detail necessary to support an enforcement action is a function of the significance and complexity of the noncompliance.

Although supporting details clearly assist in determining the safety significance of the **finding**, inspectors should be cautious in making direct statements regarding safety significance in the inspection report details. Violation severity levels, as described in the NRC Enforcement Policy, are based on the degree of safety significance involved. In assessing the significance of a noncompliance, the NRC considers four specific issues: (1) actual safety consequences; (2) potential safety consequences, (3) potential for impacting the NRC's ability to perform its regulatory function, and (4) any willful aspects of the violation. As a result, if an inspection report refers to a noncompliance as being "of

low safety significance" (meaning, in a general sense, that the noncompliance did not result in any actual adverse impact on equipment or personnel), the writer may have inadvertently made it difficult for the NRC to subsequently decide that the potential for an adverse impact or the regulatory significance of the noncompliance warrants issuance of a SL III violation. Therefore, before characterizing a **noncompliance** as being of "low safety significance," the inspector should also address the potential consequences and regulatory consequences of the violation in addition to the absence of an actual adverse consequence.

- c. **Noncompliances Involving Willfulness.** Inspection reports should neither speculate nor reach conclusions about the intent behind a **noncompliance**, such as whether it was deliberate, willful, or due to careless disregard. As with any observation, the report discussion should include relevant details on the circumstances of the **noncompliance** without making a conclusion about intent:

Example: "The radiographer failed to activate his alarming rate meter, although he had informed the inspectors earlier that he had been properly trained on the use of the device"; not, "The radiographer deliberately failed to activate his alarming rate meter."

Conclusions about the willfulness of a **noncompliance** are agency decisions and are normally not made until after the OI has completed an investigation. A premature or inaccurate discussion of the **potential** willfulness of a **noncompliance** in the inspection report could result in later conflicts based on additional input and review. Inspection reports that include potentially willful **noncompliances** are to be coordinated with OI and the Office of Enforcement (OE).

6.0 RELEASE AND DISCLOSURE OF INSPECTION REPORTS AND ASSOCIATED DOCUMENTS

Except for report enclosures containing exempt information, all final inspection reports will be routinely disclosed to the public. Information that should not appear in an inspection report is described in 10 CFR 2.390 and in **10 CFR 9.17**. Management Directive 8.8, "Management of Allegations," addresses how an inspection report may be used to document allegation follow-up activities. IMC 0620, "Inspection Documents and Records," provides guidance on acquisition and control of NRC records, including inspection-related documents.

Information in inspection reports concerning a **permit holder's** physical protection, classified matter protection, or material control and accounting program, which is not otherwise designated as Safeguards Information or classified as National Security Information or Restricted Data, is withheld from public disclosure under 10 CFR 2.390. The cover letters are public, but the reports are not.

END

Appendix C: NPUF Construction Assessment Process

1.0 PURPOSE

This appendix provides guidance for assessing quality of construction and operational program readiness prior to an NPUF receiving an operating license. These assessment reviews should be conducted on a continuous basis throughout the construction phase of the project. The results of these reviews should:

- 1.1 Provide an assessment of quality in the applicable construction areas listed as appendices to Inspection Procedure (IP) 69020. This assessment shall be used to determine if the baseline inspection plan for the facility will be adjusted.
- 1.2 Provide an assessment of operational readiness by evaluating inspection results of selected operational programs as outlined in IP 69022. This assessment shall be used to determine if the operational readiness inspection plan will be adjusted.
- 1.3 Assess the adequacy of the permit holder's actions taken in response to significant noncompliances.
- 1.4 Inform the permit holder and the public of inspection and assessment results through periodic inspection reports or stand-alone assessment letters.

2.0 OBJECTIVES

- 2.1. To describe the processes for assessing the overall quality of construction and operational readiness at NPUFs under construction.
- 2.2. To ensure that the assessments are performed in a timely, effective, and efficient manner.
- 2.3. To describe the process for communicating assessment results associated with escalated enforcement actions.

3.0 EVALUATION FACTORS

Assessments should review the quality of NPUF construction and operational readiness. These assessments will determine if supplemental inspections, or adjustments to the baseline inspection plan are necessary. The NRC conducts supplemental inspections in response to significant quality issues that result in escalated enforcement violations. The NRC may need to increase the samples in the baseline inspection plan for specific construction areas if 1) insufficient activity was conducted in the construction area to adequately assess quality in that area, 2) inspection results indicate quality assurance weaknesses, that result in more-than-minor noncompliances, in a construction area or operational program and the NRC needs to conduct further inspections to verify the weaknesses are isolated and corrected, or 3) additional relevant information is obtained after the completion of baseline inspections in a construction area that indicate additional inspection is necessary to attain reasonable assurance of quality.

4.0 IMPLEMENTATION

- 4.1 Overall Assessment Process. The applicable inspection organizations (in coordination with the NRR project office and the FSARG, if applicable) will conduct assessments of the different construction areas and operational readiness programs under their cognizance on an on-going basis. If inspection results indicate that the NRC will perform a supplemental inspection due to an escalated enforcement action, then the output of this review is an assessment letter to the permit holder. Alternatively, this output may be included in a supplemental inspection report or letter providing the final disposition of an AV if escalated enforcement actions' final dispositions are included in those documents (either opened or closed). Otherwise, the NRC will include on-going assessment results in periodic inspection reports.

The assessments will be based on the findings and conclusions documented in NRC inspection reports and 1) the severity level and number of documented findings, and 2) the completion of baseline inspections in different construction areas and operational programs.

- 4.2 Assessment Reviews. The assessment process consists of assessment reviews which are described below.

- a. Routine Review. NRC inspection staff and their Branch Chiefs who participate or supervise inspection activities shall (in coordination with the FSARG if applicable) perform routine assessments of the inspected construction areas and operational programs after each inspection. This assessment will:

1. define the scope and timing of any supplemental inspections if the NRC has identified an escalated enforcement action, or
2. if no escalated enforcement actions have been identified, then determine if baseline inspection adjustments are needed to reach a reasonable assurance determination of quality in the inspected areas.

Inspection organizations shall notify the NRR program office when a routine assessment review results in a potentially escalated enforcement action or a significant change in the baseline inspection plan. The NRR program office will use this information to determine if adjustments to the NPUF CIP are necessary.

- b. Significant Quality Issue Resolution Review.

If the NRC has identified a significant quality issue, as indicated by an escalated enforcement violation, then the cognizant inspection organization will conduct a review of the resolution of the issue after the applicable supplemental inspection is complete.

The result of this review will determine if additional inspection is required for the NRC to verify that the issue has been adequately resolved, or if the issue can be closed. In either case, the NRC shall inform the permit holder of the review results in the associated supplemental inspection report, or in a stand-alone assessment letter.

- c. Corrective Action Program (CAP) Effectiveness Reviews. A fundamental goal of the NRC's oversight of new construction activities is to establish confidence that permit holders and their contractors are detecting and correcting problems in a manner that

ensures quality and safety. To this end, the **permit holder** must conduct construction activities in a manner that ensures each facility is constructed in accordance with the licensing basis and will operate safely. The NRC construction inspection program for NPUFs provides for review of CAP issues through the conduct of IPs 69020, "Inspections of Safety-Related Items (and Services) during Construction of Non-Power Production and Utilization Facilities"; 69021, "Inspections of Quality Assurance Program Implementation During Construction of Non-Power Production and Utilization Facilities"; and 69022, "Inspection of Operational Readiness During Construction of Non-Power Production and Utilization Facilities." Results of completed inspections using these IPs shall be used when assessing the effectiveness of **permit holder** corrective action programs.

It is important that sufficient **permit holder** CAP activity has occurred prior to designating a **permit holder's** CAP as effective. This CAP activity should be representative of all areas of construction (e.g., design, work management, change processes, and physical construction). It is also important that sufficient NRC inspection has been conducted to provide adequate information for the CAP assessment. As a minimum, one CAP implementation inspection as described in IP 69021, appendix P, "Inspection of Requirement 2.16 – Corrective Actions," shall be complete prior to a CAP effectiveness assessment. Additionally, results of completed IP 69020 and IP 69022 inspections involving nonconformance and deviation reports or other documents describing the status and resolution of corrective actions shall be used for the CAP effectiveness assessment. The CAP effectiveness assessment should cover diverse areas of construction (e.g., civil, mechanical, and electrical).

The CAP effectiveness assessment will consider the results of all inspections that have been performed at the facility up until the time of the assessment. The NRC will use inspection results from the inspections described above and the following criteria to assess the adequacy of the **permit holder's** implementation of the CAP:

- there were no findings associated with the IP 69021 CAP inspection(s) or the NRC has determined that any findings associated with the inspection(s) have been corrected, and
- the **permit holder** has corrected any weakness in the CAP (as confirmed by NRC follow-up inspection) that was, or contributed to, the cause of any findings documented prior to the effectiveness assessment.

The CAP effectiveness assessment **may be performed at any time if the conditions described above are met**. Once it is determined that the **permit holder's** CAP meets the above criteria **for effectiveness**, the NRC will notify the **permit holder** in the **associated inspection report** that its CAP has been adequately implemented. The NRC will continue to assess the adequacy of the **permit holder's** CAP throughout construction of the facility, even if the CAP has **previously** been determined to be effective.

The NRC will notify the **permit holder** in **a subsequent inspection report, or in a standalone** assessment letter if a substantive change in the effectiveness of the CAP has occurred. If the CAP is subsequently determined to be ineffective, then the NRC will not issue NCVs in accordance with section 2.3.2.a of the NRC Enforcement Policy until the CAP is reassessed. If the CAP is not determined to be effective during construction,

the NRC may continue to evaluate the effectiveness of the permit holder's CAP as part of the NRC operations inspection program.

4.3 Public Meetings with Permit Holder. The NRC should consider holding public meetings in the vicinity of the NPUF site to communicate CIP assessment results to permit holders and members of the public when:

1. the NRC finds significant quality issues as indicated by escalated enforcement violations, or
2. the NRC has completed the NPUF CIP for a facility and the decision for the issuance of an operating license (OL) is imminent, or
3. there is significant public interest in NRC oversight of construction of an NPUF.

Otherwise, assessment results are communicated through publicly available CIP correspondence such as inspection results and assessment letters.

Participants in the meeting may include applicable inspection organizations, the NRC host region, and the NRR program office.

The involvement of the public in the results of the NRC's assessment of NPUF construction quality is intended to provide an opportunity for the NRC to engage interested stakeholders on the quality of construction at the facility and the role of the NRC in ensuring safe and quality conduct of construction activities. Assessment review results described in section 4.2 provide the minimum performance information that should be conveyed to the permit holder in a public meeting. However, this does not preclude the presentation of additional facility performance information when placed in the proper context. The permit holder should be given the opportunity to respond at the meeting to any information contained in the assessment letter. The permit holder should also be given the opportunity to present to the NRC any new or existing programs that are designed to maintain or improve their current performance.

If a meeting is conducted with the permit holder, it will be a Category 1 public meeting in accordance with the Commission's policy on public meetings, with the exception that the meeting must be closed for such portions which may involve matters that should not be publicly disclosed under Section 2.390 of Title 10 of the *Code of Federal Regulations* (10 CFR 2.390). Members of the public, the press, and government officials from other agencies are considered as observers during the conduct of the meeting. However, attendees should be given the opportunity to ask questions of the NRC representatives after the conclusion of the meeting.

Public involvement in the results of the NRC's assessment of construction quality should focus on topics of interest to the public. In lieu of a public meeting, the format for the public involvement could include an open house, round table discussion, or poster board session. For higher-profile interactions, consideration should include NRC or non-NRC facilitators.

4.4 Assessment Areas. The following assessment areas and associated attributes should be used to assess NPUF construction quality. Depending on the stage of the construction project, not all assessment areas would be applicable during a given assessment period.

The primary goal of NPUF CIP assessment is to gain reasonable assurance that the facility is built and will operate in accordance with its licensing basis. Attaining reasonable assurance for the overall project is achieved by inspection of different construction areas (see IP 69020), quality assurance (see IP 60021), and of different operational programs and operational readiness activities (see IP 69022). Once reasonable assurance of quality is attained in all of the individual construction areas and operational programs, then the CIP is complete. With this in mind, reasonable assurance assessment inputs will include:

- a. Quality Assurance Program. The requirements of the QA program are effectively implemented.
 - b. Construction Oversight. Construction activities are conducted in accordance with the CP and QA program.
 - c. Operational Readiness Activities. Activities completed during the operational preparedness phase to support the transition from construction to operation **meet licensing requirements**.
 - d. Other Areas. Other areas may include special issues that arise but are not included in the review on a routine basis unless the significance of the issue rises to a level that is perceived to affect the quality of **construction activities**. Examples include quality of licensing submittals, deviations from commitments in Confirmatory Action Letters or Confirmatory Orders, and labor difficulties.
- 4.5 NRC Actions in Response to Construction Quality Issues. Assessment **reviews** will determine the NRC response to significant **quality** issues. Significant **quality** issues are defined as Severity Level I, II, and III violations. **Actions in IP 92702 will be used for follow-up of these quality issues.**

END

Attachment 1: Revision History for IMC 2550

Commitment Tracking Number	Accession Number Issue Date Change Notice	Description of Change	Description of Training Required and Completion Date	Comment Resolution and Closed Feedback Form Accession Number (Pre-Decisional, Non-Public Information)
N/A	ML15083A166 12/14/15 CN 15-029	Initial issuance to document Construction Inspection Program for Non-Power Production and Utilization Facilities Licensed under 10 CFR Part 50.	Inspectors should be trained or briefed on the NPUF Inspection Program before they perform NPUF related inspections.	ML15182A159
N/A	ML17205A247 05/01/18 CN 18-009	Routine update, also added language discussing assessing the effectiveness of a permit holder's CAP and CAM deviations.	N/A	ML17226A345
N/A	ML21208A134 12/07/21 CN 21-039	Routine update including organizational changes, changes to inspection report documentation guidance, and changes to IMC wording for applying the IMC to construction of non-radioisotope NPUFs.	Construction inspectors should be briefed of changes to inspection report guidance.	ML21208A112
N/A	ML24031A550 05/16/24 CN 015	Major revision to clarify inspection planning, enforcement, assessment, organizational responsibilities, traditional enforcement and licensing terms, and Part 50 specific terminology.	Inspectors involved in NPUF CIP inspections, and their direct supervision require briefing on the changes	ML24036A243