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## INSPECTION PROCEDURE 69022

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### INSPECTIONS OF OPERATIONAL READINESS DURING CONSTRUCTION OF NON-POWER PRODUCTION AND UTILIZATION FACILITIES (NPUFS)

PROGRAM APPLICABILITY: 2550

#### 69022-01 INSPECTION OBJECTIVES

- 01.01 Evaluate the status of the construction inspection program
- 01.02 Evaluate the status of construction and preoperational testing and identify incomplete system acceptance and testing by the licensee.
- 01.03 Evaluate the status of the construction of the facility and identify areas where construction is incomplete.
- 01.04 Evaluate the licensee's readiness to perform activities during operation of the facility.
- 01.05 Evaluate the status of open items and their significance.

#### 69022-02 INSPECTION REQUIREMENTS AND GUIDANCE

02.01 Background. An operating license will not be issued until the Commission verifies through inspection that the facility has been constructed in accordance with the requirements of the license. An operational readiness inspection is a tool to provide input for NRC decisions regarding the issuance of an operating license. The resulting inspection report will serve as the vehicle for informing NRR management of the status of Construction Inspection Program (CIP) implementation and the readiness of the licensee to begin operating the facility. The inspection report documenting the operational readiness inspection should be forwarded to the NRR Research and Test Reactors Licensing organizations. The cover letter transmitting the inspection report should include a summary of the results of the inspection, and a recommendation as whether the licensee is ready to transition to operations.

#### 02.02 Inspection Requirements.

##### a. Inspection Planning

- 1. The inspection planning process is especially important for operational readiness inspections because the scope and schedule for the inspection will depend on the specifics of the facility being inspected.

2. The operational readiness inspection should be scheduled after construction is substantially complete, but prior to the issuance of the operating license.
  3. Region II should coordinate with NMSS, NRO, NRR, NSIR and (if appropriate) OE in the planning for the operational readiness inspection. The facility specific plan for development of an operational readiness inspection will be developed by the NPUF Facility Specific Assessment and Review Group (FSARG). Items to be considered for inclusion in the inspection include:
    - Status of significant findings identified either by the licensee (10 CFR 50.55.e, 10 CFR Part 21, etc.) or by the NRC during previous inspections.
    - Status of operational programs (e.g., operator training, radiation protection, Security, etc.). If operational programs are to be included in the scope of the inspection, Region II Regional Project Inspection should coordinate with the appropriate organizations to ensure that personnel with the applicable technical expertise are included on the inspection team.
    - Adverse trends or problem areas identified through the assessment process
    - Pre-operational testing activities.
    - SSC turnover process from construction to operation
    - Licensee use of contractors and turnover to their control.
  4. This Inspection Procedure (IP) addresses suggested topics for inclusion in the operational readiness inspection. Inspection planning may identify that not all of the topics are applicable/appropriate for the specific facility being inspected. Inspection planning may also identify additional topics that need to be covered, even though they are not directly addressed in this IP.
- b. CIP Status.
1. Verify that all inspections required for completion of the NPUF CIP have been completed. If all required inspections have been completed, this should be noted in the inspection report. If additional inspections are needed, they may be incorporated into the overall operational readiness inspection (using the appropriate IP). If the remaining inspections cannot be completed during the operational readiness inspection, this should be noted in the inspection report, along with a listing of the inspections that still need to be completed.
- c. Construction and Pre-Operational Testing.
1. Evaluate the status of construction and pre-operational testing activities required by the facility licensing documents. Verify that the testing is either complete, or that the schedule supports the issuance of an operating license.
  2. If additional inspections of construction and/or pre-operational testing are needed (either to support the completion of the CIP, or to address findings, adverse trends, etc.) the inspections can be performed during the operational readiness

inspection using the appropriate IP (e.g., Appendix K of IP 69021). If additional inspections of pre-operational testing need to be performed, this should be noted in the inspection report.

d. Construction Status

1. Evaluate the status of the construction of the facility. If construction of safety related items is complete, note this in the inspection report. If construction is not complete, verify that construction schedules support issuance of an operating license, and identify any construction activities that still need to be inspected.

e. Operational Program Inspections

1. Evaluate the adequacy of operational programs required by the facility licensing documents. Inspection planning should identify which, if any, operational programs need to be included in the operational readiness inspection. Operational programs are those programs required to be implemented by the licensee during operations, but which might not have been implemented during construction (e.g., criticality control, radiation protection, etc.).
2. Operational program inspections are not intended to take the place of licensing reviews. The focus of the inspection should be on the readiness of the license to implement operational programs described in licensing documents (e.g., the radiological protection program would be described in licensing documents, and it would be reviewed/approved by the NRC during licensing. The inspection should focus on how the licensee will implement the approved program, such as having adequate implementing documents, personnel training, etc.).
3. Operational programs should be performed by personnel with the appropriate expertise (such as personnel from NRR's Research and Test Reactors oversight organization).
4. Inspectors should use existing operational IPs as guidance for performing the inspection (e.g., criticality control inspection procedures used for inspections of operating research and test reactors should be used to inform the operational readiness inspection).

f. Open Items

1. Evaluate the status of significant items requiring corrective action. Such items might include 10 CFR 50.55e, 10CFR Part 21, significant NRC inspection findings, licensee identified deficiencies, etc.
2. Identify any open items that need to be completed prior to operation of the facility, and then evaluate the plans for completing the required actions.
3. Evaluate whether planned actions support the issuance of an operating license.

4. Note any conclusions in the inspection report.
  5. Include any recommended license conditions related to operation
- g. Inspection Report
1. An inspection report and any findings will be prepared, approved, and released in accordance with Inspection Manual Chapter 2550.
  2. The inspection report documenting the operational readiness inspection should be forwarded to NRR's Research and Test Reactors Licensing organization via memo. The cover letter transmitting the inspection report should include a summary of the results of the inspection, and a recommendation as to whether the licensee is ready to transition to operations.

#### 69022-03 RESOURCE ESTIMATE

The resource estimate for conducting the operational readiness inspection is approximately 200 hours of direct inspection effort. However, the scope of the inspection needs to be based on the specific circumstances of the facility to be inspected, so the actual hours could be either more or less than 200 hours. The ORR inspection may be spaced out by technical area if recommended by the NPUF FSARG.

#### 69022-04 REFERENCES

10 CFR Part 21, "Reporting of Defects and Noncompliance."

10 CFR 50.55, "Conditions of construction permits, early site permits, combined licenses, and manufacturing licenses."

#### 69022-05 PROCEDURE COMPLETION

For construction activities, implementation of this IP is considered complete when the activities identified during the inspection planning process have been inspected.

END

Attachment 1 - Revision History for IP 69022

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	ML15083A165 12/14/15 CN 15-029	Initial Issue to provide guidance for the Operational Readiness inspections of Radionuclide Production Facilities licensed under Part 50.	Briefing for inspectors – prior to performing inspections covered by this IP	N/A