

NRC INSPECTION MANUAL

NMSS/DFM

INSPECTION MANUAL CHAPTER 2600 APPENDIX B

NRC CORE INSPECTION REQUIREMENTS

Effective Date: *07/27/2023*

IMC 2600 Appendix B: NRC Core Inspection Requirements Tables 1, 2, and 3

PURPOSE:

This appendix identifies the NRC core and resident inspection requirements for each type of fuel facility by inspection procedure.

Table 1: Fuel Fabrication Facilities¹

| | | Category I Fuel Fabrication Facility | | Category II Fuel Fabrication Facility | | Category III Fuel Fabrication Facility | |
|--------------------------|-------------------------------------|--------------------------------------|----------------------------------|---------------------------------------|----------------------------------|--|----------------------------------|
| Function/Program Areas | Procedure or Procedure Suite | Inspection Frequency | Estimated Resources per IP (hrs) | Inspection Frequency | Estimated Resources per IP (hrs) | Inspection Frequency | Estimated Resources per IP (hrs) |
| SAFETY OPERATIONS | | | | | | | |
| Plant Operations | 88020 | Semi-annual | 52.5 | Semi-annual | 60 | Semi-annual | 60 |
| | 88135 (Resident Inspection Program) | Annual | 752 | - | - | - | - |
| Criticality Safety | 88015 | Semi-annual | 60 | Semi-annual | 45 | Semi-annual | 30 |
| Fire Protection | 88055 | Biennial | 30 | Biennial | 60 | Biennial | 60 |
| SAFEGUARDS | | | | | | | |
| MC&A | Procedures as in IMC 2683 | Semi-annual | 60 | Annual | 60 | Biennial | 60 |
| | MC&A Observation | Triennial | 20 | Quadrennial | 20 | Quadrennial | 20 |
| Physical Protection | HEU Security Measures (PS1) | | | | | | |
| | 81700.01 | Biennial | 18 | - | - | - | - |
| | 81700.02 | Annual | 27 | - | - | - | - |
| | 81700.04 | Biennial | 40 | - | - | - | - |

¹ The details related to the distribution of inspection hours will be described in the licensee's inspection scheduling letter.

| | | Category I Fuel Fabrication Facility | | Category II Fuel Fabrication Facility | | Category III Fuel Fabrication Facility | |
|---------------------------------|-----------------------------------|--------------------------------------|----------------------------------|---------------------------------------|----------------------------------|--|----------------------------------|
| Function/Program Areas | Procedure or Procedure Suite | Inspection Frequency | Estimated Resources per IP (hrs) | Inspection Frequency | Estimated Resources per IP (hrs) | Inspection Frequency | Estimated Resources per IP (hrs) |
| | 81700.05 | Triennial | 70 | - | - | - | - |
| | 81700.06 | Triennial | 20 | - | - | - | - |
| | 81700.07 | Biennial | 25 | - | - | - | - |
| | 81700.08 | Triennial | 24 | - | - | - | - |
| | 81700.11 | Annual | 8 | - | - | - | - |
| | LEU Security Measures (PS2) | | | | | | |
| | 81421 | - | - | Triennial | 24 | - | - |
| | 81431 | - | - | - | - | Triennial | 14 |
| | 81810 | - | - | | | Triennial | 2 |
| | Transportation Security (PS3) | | | | | | |
| | 81335 | Triennial | 4 | Triennial | 8 | - | - |
| | 81340 | Triennial | 4 | - | - | - | - |
| | Other | | | | | | |
| | 96001 | Triennial | 360 | | | - | - |
| Classified Material and INFOSEC | 81820 ² (INFOSEC) | Annual | 2 | Annual | 48-160 | - | - |
| | 81815 (Access Authorization) | - | - | Annual | 8 | - | - |
| RADIOLOGICAL CONTROLS | | | | | | | |
| Radiation Protection | 88030 | Biennial | 60 | Biennial | 60 | Biennial | 60 |
| Environmental Protection | 88045 (Effluent Control and Env.) | Triennial | 30-60* | Triennial | 30-60* | Triennial | 30-60* |
| Transportation | 86740 | Triennial | 30-60* | Triennial | 30-60* | Triennial | 30-60* |
| FACILITY SUPPORT | | | | | | | |
| Emergency | 88050 | Biennial | 30 | Biennial | 30 | Biennial | 30 |

| | | Category I Fuel Fabrication Facility | | Category II Fuel Fabrication Facility | | Category III Fuel Fabrication Facility | |
|---------------------------------|------------------------------|--------------------------------------|----------------------------------|---------------------------------------|----------------------------------|--|----------------------------------|
| Function/Program Areas | Procedure or Procedure Suite | Inspection Frequency | Estimated Resources per IP (hrs) | Inspection Frequency | Estimated Resources per IP (hrs) | Inspection Frequency | Estimated Resources per IP (hrs) |
| Preparedness | 88051 (Exercise Observation) | Biennial | 48 | Biennial | 48 | Biennial | 48 |
| Plant Modifications (Annual) | 88070 | Annual unless 88072 is performed | 30-90* | Annual unless 88072 is performed | 30-90* | Annual unless 88072 is performed | 30-90* |
| Plant Modifications (Triennial) | 88072 | Triennial | 90* | Triennial | 90* | Triennial | 90* |
| Corrective Action Plan | 88161 | - | - | - | - | - | - |

¹ The details related to the distribution of inspection hours will be described in the licensee's inspection scheduling letter.

² This IP is only applicable to facilities with a classified materials program and the hours and frequency listed reflect the estimated resources for those facilities with a classified materials program.

Table 2: Other Fuel Facilities

| | | Uranium Conversion Facility | | Gas Centrifuge Facility | | | | Laser Enrichment Facility | |
|--------------------------|------------------------------------|-----------------------------|----------------------------------|-------------------------|----------------------------------|------------------------|----------------------------------|---------------------------|----------------------------------|
| Function/Program Areas | Procedure or Procedure Suite | Inspection Frequency | Estimated Resources per IP (hrs) | Inspection Frequency | Estimated Resources per IP (hrs) | Approved CAP Frequency | Estimated Resources per IP (hrs) | Inspection Frequency | Estimated Resources per IP (hrs) |
| SAFETY OPERATIONS | | | | | | | | | |
| Plant Operations | 88020 | Semi-annual | 45 | Semi-annual | 45 | Semi-annual | 45 | - | - |
| | 88135 (Resident Inspector Program) | - | - | - | - | - | - | - | - |
| Criticality Safety | 88015 | - | - | Semi-annual | 30 | Semi-annual | 30 | - | - |
| Fire Protection | 88055 | Biennial | 60 | Biennial | 60 | Triennial | 60 | - | - |
| SAFEGUARDS | | | | | | | | | |
| MC&A | Procedures as in IMC 2683 | - | - | Biennial | 60 | Biennial | 60 | - | - |
| | MC&A Observations | - | - | Quadrennial | 20 | Quadrennial | 20 | - | - |
| Physical Protection | HEU Security Measures (PS1) | | | | | | | | |
| | 81700.01 | - | - | - | - | - | - | - | - |
| | 81700.02 | - | - | - | - | - | - | - | - |
| | 81700.04 | - | - | - | - | - | - | - | - |
| | 81700.05 | - | - | - | - | - | - | - | - |
| | 81700.06 | - | - | - | - | - | - | - | - |
| | 81700.07 | - | - | - | - | - | - | - | - |
| | 81700.08 | - | - | - | - | - | - | - | - |
| | 81700.10 | - | - | - | - | - | - | - | - |
| | 81700.11 | - | - | - | - | - | - | - | - |
| | LEU Security Measures (PS2) | | | | | | | | |
| | 81431 | Triennial | 22 | Triennial | 14 | Triennial | 14 | - | - |
| 81810 | Triennial | 2 | Triennial | 2 | Triennial | 2 | - | - | |

| | | Uranium Conversion Facility | | Gas Centrifuge Facility | | | | Laser Enrichment Facility | |
|---------------------------------|---------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|------------------------|----------------------------------|---------------------------|----------------------------------|
| Function/Program Areas | Procedure or Procedure Suite | Inspection Frequency | Estimated Resources per IP (hrs) | Inspection Frequency | Estimated Resources per IP (hrs) | Approved CAP Frequency | Estimated Resources per IP (hrs) | Inspection Frequency | Estimated Resources per IP (hrs) |
| | Transportation Security (PS3) | | | | | | | | |
| | Other | | | | | | | | |
| | 96001 | - | - | - | - | - | - | - | - |
| Classified Material and INFOSEC | 81820 (INFOSEC) | - | - | Annual | 48-160 | Annual | 48-160 | Annual | 104-120 |
| | 81815 (Access Authorization) | - | - | Annual | 8-16 | Annual | 8-16 | Annual | 16 |
| RADIOLOGICAL CONTROLS | | | | | | | | | |
| Radiation Protection | 88030 | Biennial | 60 | Biennial | 60 | Triennial | 60 | - | - |
| Environmental Protection | 88045 (Effluent Control & Env.) | Triennial | 30-60* | Triennial | 30-60* | 5 Years | 30-60* | - | - |
| Transportation | 86740 | Triennial | 30-60* | Triennial | 30-60* | 5 Years | 30-60* | - | - |
| FACILITY SUPPORT | | | | | | | | | |
| Emergency Preparedness | 88050 | Biennial | 30 | Biennial | 30 | Biennial | 30 | - | - |
| | 88051 (Exercise Observation) | Biennial | 48 | Biennial | 48 | Biennial | 48 | - | - |
| Plant Modifications (Annual) | 88070 | Annual unless 88072 is performed | 30-90* | Annual unless 88072 is performed | 30-90* | | | - | - |
| Plant Modifications (Triennial) | 88072 | Triennial | 90* | Triennial | 90* | Triennial | 90* | - | - |
| Corrective Action Program | 88161 | - | - | - | - | Triennial | 90* | - | - |

*Note: The actual planned inspection hours will depend on information developed from routine inspections, changes to the ISA Summary, discussions with Project Inspectors, Project Managers, and staff, etc.

Table 3: As Needed Inspection Procedures

| IP Number | Title |
|------------------------------------|--|
| Management Measures | |
| 71152 | Problem Identification and Resolution |
| 88071 | Configuration Management Programmatic Review |
| 88161 | Corrective Action Program (CAP) Implementation at Fuel Cycle Facilities |
| Enforcement | |
| 92702 | Follow-Up on Traditional Enforcement Actions Including Violations, Deviations, Confirmatory Action Letters, and Orders |
| 92722 | Follow-Up Inspections for Any Severity Level I or II Traditional Enforcement Violation or For Two or More Severity Level III Traditional Enforcement Violations in a 12-Month Period |
| 92723 | Follow-Up Inspection for One Severity Level III and Two Severity Level IV Traditional Enforcement Violations or for Three or More Severity Level IV Traditional Enforcement Violations in the Same Area in a 12-Month Period |
| Event Response | |
| 88003 | Reactive Inspection for Events at Fuel Cycle Facilities |
| 88075 | Event Follow Up |
| 93800 | Augmented Inspection Team |
| 93812 | Special Inspection Team |
| Safety Culture | |
| 40100 | Independent Safety Culture Assessment Follow-up |
| 93100 | Safety-Conscious Work Environment Issue of Concern Follow up |
| 95003.02 | Guidance for Conducting an Independent NRC Safety Culture Assessment |
| Strike Preparation/Recovery | |
| 92709 | Contingency Plans for Licensee Strikes or Lockouts |
| 92711 | Implementation of Licensee Contingency Plans During a Strike/ Lockout |
| 92712 | Resumption of Normal Operations After a Strike/Lockout |
| 81700.10 | Protection of Safeguards Information at Category I Fuel Cycle Facilities |

END

Attachment 1: Revision History Table for IMC 2600 Appendix B

| 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 Numbers (Pre-Decisional, Non-Public) |
|----------------------------|---|---|--|--|
| N/A | 04/26/07 CN-07-014 | Revised to incorporate the new inspection procedures developed to address changes to 10 CFR Part 70 and to reflect enhancements made to the fuel facility inspection program. | N/A | ML070610109 |
| N/A | 08/15/07 CN-07-025 | Remove "OFFICIAL USE ONLY - SENSITIVE INTERNAL INFORMATION" designation from entire manual chapter to make publicly available. (1) Revised to correct estimated resources per year for Plant Operations [Cat. III and Uranium Conversion], MC&A [Cat I], and Radiation Protection [Cat. I]; (2) Revised to delete Procedure 84900, 'Low Level Waste.' The procedure was combined into Procedure 88035, 'Waste Management.' | N/A | ML072070181 |
| N/A | ML080660565 03/21/08 CN 08-011 | Revised to incorporate Gas Centrifuge Facility inspections into the fuel facility inspection program A | N/A | N/A |
| N/A | ML093170399 01/27/10 CN 10-003 | Revised to incorporate Gas Centrifuge Facility inspections into the fuel facility inspection program. | N/A | N/A |
| N/A | ML112720197 11/07/11 CN 11-028 | Revised to incorporate revised hours of IP 88015 and 88017. | N/A | ML112720208 |

| | | | | |
|-----|--------------------------------------|--|-----|--|
| N/A | ML13311A662 02/07/14 CN 14-005 | <p>Significant revision to:</p> <ul style="list-style-type: none"> • Deleted Cat III Fuel Assembly Facility Type as FCSS & DFFI no longer has this type of facility in its jurisdiction. • Revised to include adjustment to Gaseous Diffusion Plant resident inspection hours as described in ML12284A329. • Revise to make total core hours for Gaseous Diffusion Plant consistent with the core hours described in ML12284A329. • Removed Operator Training hours and made it “as needed.” • Changed MC&A hours to reflect the sum of estimated hours in the IPs. • Removed Management Organization and Controls hours and frequency as inspections requirements were transferred to other IPs. Made this IP “as needed.” • Updated IP 88054 and 88055 inspection hours. All inspection hours will be charged to the triennial procedure every three years. The triennial inspection hours have been increased to reflect that 88055 will not be charged during this 3rd year. • Reduced the Radiation Protection (88030) inspection hours to be performed at the Category 1 fuel facilities. This reduction allows for the same resource allocation as the Category 3 and Conversion facilities. The evaluation for this change included the safety significance of the facilities and the radiation protection evaluations included in 88135. • Added new Corrective Action Programs for Fuel Cycle Facilities inspection procedure. • The Environmental Protection, 88045, inspection hours were increased to correspond to the new material included in the inspection procedure revision. • The Waste Management (88035) inspection hours were increased to correspond with the new material included in the inspection procedure revision. The inspection frequency has been reduced to biannual, from annual | N/A | |
|-----|--------------------------------------|--|-----|--|

| 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 Numbers (Pre-Decisional, Non-Public) |
|----------------------------|---|---|--|--|
| | | <p>inspections, due to the amount of waste management activities at the site.</p> <ul style="list-style-type: none"> The Transportation inspection procedure (IP 86740) was not revised. The change in hours reflect the current recommendation in hours from the Resource Estimate section of the inspection procedure. The frequency of the IP was changed to biennial, from annual, to keep the total number of inspection hours consistent with the current level of risk for this activity. This change addresses an audit finding which stated that the App B hours should be consistent with the recommended hours of the inspection procedure. <p>The column headings were revised to simplify the chart and to decrease the number of footnotes applicable.</p> | | |
| N/A | ML14119A212 06/27/14 CN 14-014 | Table revised to add columns for Laser Enrichment Facility and rows for Classified Material and Information Security. | N/A | ML14119A214 |

| 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 Numbers (Pre-Decisional, Non-Public) |
|----------------------------|---|--|--|--|
| N/A | ML15070A286 09/24/15 CN 15-018 | Revision includes: <ul style="list-style-type: none"> • Removed reference to GDP from Table 1. • Inspection procedures 88015, 88016, and 88017 were merged into one procedure. The chart was updated and hours adjusted accordingly. • Table 2, As Needed Inspection Procedures, was added to appendix. NRR communicated that listing inspection procedures in the IMC was essential for administratively including IPs in RPS. • As needed Inspection Procedures 88005, 88010, 88161, and 92702 were removed from Table 1 and included in Table 2. • The table which included the resident inspection hours for GDP and Category 1 facilities was deleted and information consolidated in Table 1. • Resident inspection responsibilities for Gaseous Diffusion Plant were removed. The inspection procedures removed from the IMC are 88100, 88102, 88103, and 88105. • 88135 inspection hours for NFS was reduced from 1504 to 752 hours/year. This corresponds with the NRC staffing change at the facility; from two resident inspectors to one. | None | ML15070A287 |
| N/A | ML17299B292 12/20/17 CN 17-030 | Editorial changes to reflect the latest revision to IMC 2681 and its associated procedures. | N/A | N/A |

| 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 Numbers (Pre-Decisional, Non-Public) |
|----------------------------|---|--|--|--|
| N/A | ML18099A226 06/12/18 CN 18-015 | <ul style="list-style-type: none"> • Revision includes changes to estimated resource hours for Category I Fuel Facilities in the areas of Plant Operations and Fire Protection to reflect a transfer of hours from IPs 88020 and 88055 to IP 88135 (Resident Inspector Program). • Revised to include changes to 88070 and 88072 regarding annual implementation versus triennial. Added 3 inspection procedures to Table 2: 40100, 71153, and 84850 | N/A | N/A |
| N/A | ML20211L835 12/14/20 CN 20-071 | Revision to implement the recommendations from the Smarter Inspection Program (ML20077L247 and ML20073G659). Deleted waste management and maintenance and surveillance IPs and incorporated risk significant elements into other IPs to reduce overlaps in the inspection guidance. | Completed by December 2020 | N/A |
| N/A | ML21043A178 02/18/21 CN 21-009 | Revised to clarify inspection frequency for Plant Operations, Criticality Safety, and MC&A inspections. Added columns on page 2 for facilities with approved CAP to be consistent with the rest of the table. | N/A | N/A |
| N/A | ML23180A241 07/27/23 CN 23-021 | Updated Category II Fuel Fabrication Facility inspection frequencies and estimated resources. Split up Table 1 into separate tables for fuel fabrication facilities and enrichment facilities. | N/A | N/A |