

NRC INSPECTION MANUAL

NMSS/DFM

INSPECTION MANUAL CHAPTER 2600

FUEL CYCLE FACILITY OPERATIONAL SAFETY AND SAFEGUARDS INSPECTION PROGRAM

Effective Date: 01/01/2021

TABLE OF CONTENTS

2600-01	PURPOSE.....	1
2600-02	OBJECTIVES.....	1
2600-03	APPLICABILITY	1
2600-04	DEFINITIONS OF INSPECTION FREQUENCIES.....	1
04.01	As Needed (AN).....	1
04.02	Core Inspection Program Completion	2
2600-05	RESPONSIBILITIES AND AUTHORITIES	2
05.01	Director, Office of Nuclear Material Safety and Safeguards (NMSS)	2
05.02	Regional Administrator, Region II.....	2
05.03	Director, Division of Fuel Management (DFM)	2
05.04	Director, Division of Fuel Facility Inspection.....	3
05.05	Director, Nuclear Security and Incident Response (NSIR)	3
05.06	Chief, Regional Fuel Facility Inspection Branch	3
05.07	Chief, Inspection and Oversight Branch (IOB), Division of Fuel Management.....	3
05.08	Chief, Material Control & Accounting Branch (MCAB), Division of Fuel Management ..	3
2600-06	PROGRAM DESCRIPTION.....	4
06.01	General.....	4
06.02	Material Control and Accounting Inspection Program.....	4
06.03	Physical Protection and Transport of Special Nuclear Material (SNM) Program.....	4
2600-07	FUEL CYCLE FACILITY INSPECTION PROGRAM ELEMENTS	4
07.01	Program Elements	4
07.02	Core Inspection Program	4
07.03	Plant-specific Reactive Inspections.....	5
07.04	Plant-specific Supplemental Inspections	5
07.05	Generic Safety Issue Inspections.....	5
07.06	Licensee Performance Reviews.....	6
07.07	Backshift Inspections	6
07.08	Inspections During the Construction, Preoperational, and Startup Phases.....	6
2600-08	PROGRAM IMPLEMENTATION	6
08.01	Master Inspection Plan	6
08.02	Establishment of the Core Inspection Program	7
08.03	Program Adjustments	8
2600-09	EVENT REVIEW AND RESPONSE	8
2600-10	PLANNING FOR INSPECTIONS.....	9
10.01	Inspection Planning.....	9
10.02	Review of Open Allegations	9
2600-11	CONDUCTING INSPECTIONS	9
11.01	Entrance and Exit Meetings	9
11.02	Findings Related to Non-NRC Regulations	10
11.03	Performance-based Inspection Focus.....	11
11.04	Third Party Assistance	11
11.05	Findings Outside of Inspector's Qualifications.....	11
11.06	Review of Potential Issues Involving Lack of Clarity in the Licensing Basis.....	12
11.07	Coordination of Headquarters Technical Support for Regional Inspection Activities	12
11.08	Inspection Documentation.....	13
11.09	Independent Inspection Effort	13
11.10	Open Item Guidance.....	13
11.11	Witnessing Unsafe Situations	14

11.12	Inspector Functions During Period of Lapsed Appropriation.....	14
2600-12	ASSESSING FACILITY PERFORMANCE.....	15
12.01	Licensee Performance Review (LPR)	15
12.02	Agency Action Review Meeting (AARM)	15
12.03	Ongoing Assessments of Facility Performance	15
2600-13	ASSESSING PROGRAM IMPLEMENTATION	16
ATTACHMENT 1	Revision History for IMC 2600	Att1-1

2600-01 PURPOSE

To establish the policy for the fuel cycle facility inspection program.

2600-02 OBJECTIVES

02.01 To define the minimum core inspection effort to be performed at each type of fuel cycle facility.

02.02 Provide guidance for developing Master Inspection Plans (MIPs) for each facility.

02.03 To establish an inspection program to determine whether licensed fuel cycle facilities are operated safely in accordance with U.S. Nuclear Regulatory Commission (NRC) regulations.

02.04 To determine the causes of declining performance before such performance reaches a level that may result in an undue risk to public health and safety.

02.05 To identify those safety or safeguards significant issues that might have generic applicability.

02.06 To provide guidance for assessing facility performance in real time, interfacing with the Licensee Performance Review (LPR) process, and preparing for the annual Agency Action Review Meeting (AARM).

02.07 Provide guidance for adjusting inspection effort on the basis of facility performance.

2600-03 APPLICABILITY

The fuel cycle inspection program applies to operating fuel cycle facilities licensed by the NRC including nuclear fuel fabrication facilities, uranium enrichment plants, and uranium conversion plants.

Inspection and assessment activities for facilities undergoing construction, pre-operation, startup, major modifications, or having ceased operations in preparation for decommissioning should be handled on a case-by-case basis. Fuel cycle facilities in non-operating status generally do not pose the same levels of risk as operating facilities. Certain inspection procedures (IPs) may not be applicable in these cases, and others may need to be adjusted to the given situation to reflect the actual level of risk attached to each situation.

Facilities with approved Decommissioning Plans, or for which project management responsibility has been transferred out of the Division of Fuel **Management (DFM)**, are not addressed in this chapter.

2600-04 DEFINITIONS OF INSPECTION FREQUENCIES

04.01 As Needed (AN). The inspection effort should be performed when the activity or event occurs at the facility as specified in the guidance section of

specific inspection procedures (e.g., outages).

04.02 Core Inspection Program Completion and Deviations. Core Inspection Program completion for an annual inspection cycle is defined to be completion of each core inspection procedure listed in Appendix B for each facility, as detailed in the MIP, except where deviations are approved in advance by the Director, DFM.

Deviations are defined as changes to the inspection program that result in not meeting the inspection completion as defined in the individual inspection procedure, including not completing the inspection at the frequency specified in Appendix B.

2600-05 RESPONSIBILITIES AND AUTHORITIES

05.01 Director, Office of Nuclear Material Safety and Safeguards (NMSS).

Provides overall program direction for the fuel cycle inspection program.

05.02 Regional Administrator, Region II.

- a. Provides direction for management and implementation of the inspection program elements.
- b. Ensures, within budget limitations, that the regional office staff includes adequate numbers of inspectors in the various disciplines necessary to carry out the inspection program described in this chapter, including that which may be needed for regional supplemental and reactive inspections.
- c. Directs the implementation of the supplemental inspection program.
- d. Applies inspection resources, as necessary, to deal with significant issues and problems at specific facilities.

05.03 Director, Division of Fuel Management.

- a. Develops and directs the implementation of policies, programs, and procedures for inspecting applicants, licensees, and other entities subject to NRC jurisdiction.
- b. Assesses the effectiveness, uniformity, and completeness of the fuel cycle inspection program.
- c. Approves changes to the fuel cycle facility inspection program.
- d. Approves changes to the MIP that involve proposed deviations from the inspection program described herein.

05.04 Director, Division of Fuel Facility Inspection (DFFI).

- a. Manages the implementation of the inspection program elements.
- b. Develops and updates the MIPs for fuel cycle inspections.
- c. Coordinates with DFM to obtain specialized technical expertise, as necessary.
- d. Communicates significant changes to the core inspection program hours to DFM, submits deviations from the core inspection program to DFM, and coordinates with DFM on inspections of high visibility.

05.05 Director, Nuclear Security and Incident Response (NSIR).

- a. Oversees the implementation of the safeguards portion of the fuel cycle inspection program (information security/physical security).
- b. Applies inspection resources, as necessary, to deal with significant issues and problems at specific facilities.

05.06 Chief, Regional Fuel Facility Inspection Branch.

- a. Implements the fuel cycle inspection program.
- b. Develops the Branch MIP input.
- c. Coordinates with other appropriate inspection organizations in assessing facility performance.

05.07 Chief, Inspection and Oversight Branch (IOB), Division of Fuel Management.

- a. Proposes changes to the fuel cycle inspection program.
- b. Coordinates with Region II and DFM in assessing facility performance.

05.08 Chief, Material Control & Accounting Branch (MCAB), Division of Fuel Management.

Proposes changes to the material control and accounting (MC&A) portion of the fuel cycle inspection program.

2600-06 PROGRAM DESCRIPTION

06.01 General. The program described herein is designed to determine whether licensed fuel cycle facilities are operated safely and securely and in accordance with regulations and their license. The program defines the minimum core inspection effort to be performed at each type of fuel cycle facility and provides guidance for reactive, supplemental, and generic safety issue inspections.

This inspection program also provides guidance on responding to events at licensee facilities. Depending on the significance of an event, additional guidance for determining the level of agency response to an event is contained in NRC Management Directive (MD) 8.3, "Incident Investigation Program."

06.02 Material Control and Accounting Inspection Program. This inspection program is described in Inspection Manual Chapter (IMC) 2683, "Material Control and Accounting Inspection of Fuel Cycle Facilities." The associated inspections are included in the MIP.

06.03 Physical Protection and Transport of Special Nuclear Material (SNM) Program. This inspection program is described in IMC 2681, "Physical Protection and Transport of Special Nuclear Material and Irradiated Fuel Inspections of Fuel Facilities."

2600-07 FUEL CYCLE FACILITY INSPECTION PROGRAM ELEMENTS

07.01 Program Elements. The inspection program described in this IMC is comprised of the following major program elements:

- a. Core Inspections, including Resident Inspections where applicable.
- b. Plant Specific Reactive Inspections.
- c. Plant Specific Supplemental Inspections.
- d. Generic Safety Issue Inspections.
- e. Licensee Performance Reviews (LPRs).

Inspection procedures identify requirements that the inspectors must consider while evaluating the associated area. These requirements may not be the same as NRC requirements placed on a specific licensee. As such, it is not implied or intended that inspection program requirements are to be levied on the licensee.

07.02 Core Inspection Program. Each inspection procedure is complete when the applicable inspection requirements of that procedure are satisfied. The resource estimate in each procedure is an estimate for planning purposes; it is not an expected level of effort. Inspections of different licensees will require different levels of effort to complete the objectives. The resource estimate is an estimate of the nominal effort to meet the objectives; more or less hours may be appropriate depending on specific site circumstances such as the amount of change in licensee programs.

(In some cases, where inspections draw from a suite of available inspection procedures, rather than a single inspection procedure, the suite will be considered as a single procedure for resource planning.) The core inspections for each type of facility are specified in Tables 1 and 2 of Appendix B. **Inspectors shall obtain Branch Chief approval for increases or decreases greater than 10 percent of individual inspection procedure hours. The basis for the approval shall be documented in the "Notes" section of the Replacement Reactor Program System (RRPS) software program, or other program containing the MIP, for the applicable procedure. Any decreases in inspection procedure hours, that result in the inability to meet the inspection objectives, are considered deviations and should be documented in a memorandum from the Director DFFI to Director DFM. Any significant increases in inspection procedure hours should be documented and communicated to Director DFM.**

Resident inspectors are assigned to certain fuel cycle facilities that require such oversight because of their complexity of operation, risk, or other significant factors. However, a resident inspector may occasionally perform inspections other than resident inspections in coordination with regional management if he/she is qualified to do so. The resident inspection program is described in more detail in Appendix C.

07.03 Plant-specific Reactive Inspections. Reactive inspections include follow-up for events through additional inspections, Special Inspection Teams (SITs), Augmented Inspection Teams (AITs), and Incident Investigation Teams (IITs). A graded approach to reactive inspections is taken depending on the actual or potential risk-significance of an event or conditions. As more information is developed during an inspection, management may change the type of inspection, for example from an AIT to a SIT. In addition to events, reactive inspections may also be conducted for a significant change in the conditions involving licensed activities, such as a threatened or actual strike, a major layoff of plant personnel, or the occurrence (or pending occurrence) of a natural phenomenon or offsite event.

07.04 Plant-specific Supplemental Inspections. The plant-specific Supplemental Inspections provide diagnostic inspections of identified problems and issues beyond the Core Inspections. Supplemental Inspections are performed as a result of performance issues that are identified by Core Inspections, reactive inspections, or during the LPR. The depth and breadth of specific Supplemental Inspections chosen for implementation will depend upon the risk, safety, or safeguards significance. Supplemental inspections might also be conducted due to allegations. Depending on the risk significance and breadth of the identified performance issues, the supplemental inspections provide a graded response, which includes oversight of the licensee's root cause evaluation of the issues, expansion of Core Inspection reviews to increase depth and/or breadth of review, or a focused team inspection (as necessary to evaluate extent of condition); or a broad scope, multi-disciplined team inspection, which would include inspection of areas that appear to be root cause contributors such as a Problem Identification and Resolution system. The decision to conduct a Supplemental Inspection should be made through the assessment process, as further discussed in Section 8.0.

07.05 Generic Safety Issue Inspections. Concerns with generic safety or safeguards issues that arise may be addressed solely through the NMSS or NSIR review processes and the use of regulatory communications issued to licensees. Some issues are of such safety or safeguards significance that it is appropriate to perform a one-time inspection under the generic safety issues program element.

These inspections may be established by Temporary Instructions (TIs). For example, when it is determined that an issue addressed in a bulletin, generic letter, Nuclear Energy Institute (NEI) initiative, NEI program, or identified by operating experience requires inspection verification or follow-up, requirements and guidance for the inspection will be developed and issued in a TI. Unless such a TI is issued, inspection follow-up is not required to verify completion of licensees' actions discussed in a bulletin, generic letter, or NEI program. The plants to be inspected will be designated in the TIs.

Specific criteria for closing a TI will be addressed in the TI itself. In general, TIs should not be closed until all relevant safety or safeguards issue items have been completed by the licensee and verified by inspection. However, exceptions may be considered when the licensee's schedule for completing items remaining is acceptable, properly documented, and is not a critical element to resolving the safety or safeguards issue.

In addition, the need may arise for specific inspections to address major evolutions limited to one or a few licensees, such as adding new process lines or changing the assay of material processed in a facility. The need for these inspections will also be assessed on a case-by-case basis, and they can be conducted under the guidance of a TI or by using existing IPs in a customized inspection plan as Supplemental Inspections.

07.06 Licensee Performance Reviews. LPRs are conducted in accordance with IMC 2604, "Licensee Performance Review," as part of the overall licensee performance oversight.

07.07 Backshift Inspections. There is not a specific goal for performing backshift inspections. Backshift inspections should be performed for safety and safeguards activities that are ongoing on backshift and whenever required to complete the intended scope of the inspection. (See Appendix C for resident inspector backshift guidance.)

07.08 Inspections During the Construction, Preoperational, and Startup Phases. Inspections for the startup of new or modified facilities are handled on a case-by-case basis through the implementation of a project-specific inspection plan or IMC.

2600-08 PROGRAM IMPLEMENTATION

08.01 Master Inspection Plan. Prior to the start of each calendar year, a MIP will be developed for each of the facilities covered by this IMC. The details of inspections within the MIP will be based on the core inspection program, specific performance issues from the LPR, and ongoing or planned activities at each facility. Inspections that deviate from the core inspections in Appendix B will be approved by the Director, **DFM, as defined in Section 04.02 of this IMC, "Core Inspection Completion."** For each facility, the MIP will identify all planned inspections to be performed, including Core, Supplemental, or Generic Safety Issue inspections. The estimated staff hours to complete each item on the MIP will also be included. Note that advanced planning for certain activities such as supplemental and reactive inspections may not be possible.

The MIP shall be maintained by Region II. These inspections will be coordinated to ensure that: (1) inspections are performed as defined in Appendix B, or modified in writing in accordance

with this chapter; (2) inspections do not overlap in such a way to cause undue adverse impacts on normal operations at the facility; and (3) major fuel facility inspection program activities, such as LPRs, can be scheduled with minimum interruption of scheduled inspections. Any inspections that are not to be conducted with the periodicity in Appendix B must be addressed as a program adjustment to the MIP (see Section 08.03).

Inspections normally should be announced, with adequate advance notice given to the licensee to ensure that appropriate licensee personnel can be made available and inspectors can arrange to observe certain activities not conducted on a routine basis. However, inspection staffs retain the prerogative to conduct inspections on an unannounced basis where appropriate. Resident inspections for those sites with an assigned resident inspector are considered unannounced.

Most inspections are conducted on-site using direct observations and performing on-site reviews of documentation and interviews with personnel. Direct observation shall be regarded as the preferred method of inspection. Where appropriate, supplementing on-site with remote inspection techniques may be used when warranted, e.g., document reviews, interviews. Remote inspection of activities that are normally directly observed should be approved by management.

08.02 Establishment of the Core Inspection Program. The annual core inspection program for a specific facility is complete when the inspections in Appendix B are completed for that facility. The Agency's ability to assess the adequacy of facility performance is the controlling factor in determining the inspection effort necessary to complete the Core Inspections. Appendix B provides an estimate of the hours associated with each inspection procedure.

- a. The Core Inspection procedures are contained in Table 1 of Appendix B. The inspection effort is expressed for five different facility types:
 1. Category I Fuel Fabrication Facilities.
 2. Category III Uranium Fuel Fabrication Facilities.
 3. Uranium Conversion Facilities.
 4. Gas Centrifuge Facilities.
 5. Laser Enrichment Facilities.
- b. Appendix B shows a list of IPs required to be used in the Core Fuel Cycle Facility Inspection Program. They are grouped by Function and Program Area.
- c. For the MC&A Program Area, inspectors select the appropriate procedures to use from the suite of procedures listed in IMC 2683. Estimated hours for planning are determined using the guidance in the IMC.
- d. For the Physical Protection Program Area, inspectors conduct the inspection procedures contained in the inspection procedure suites described in IMC 2681. The estimated hours for each suite are contained in Appendix B of this IMC.

08.03 Program Adjustments and Deviations. The program provides Region II flexibility to adjust the frequencies, focus, and intensiveness of inspections for different functional areas at facilities. Periodic adjustments will be based on LPR results, and will take into account the complexity, risk level, and previous operating history of the facility. Occasional adjustments may also occur in response to other events or activities as determined by DFFI or DFM management. These adjustments should be coordinated between the DFFI and DFM Branch Chiefs and documented in a memorandum. If the change impacts the approved MIP, then the change must be approved by the Director, DFM, and the Director, DFFI, or their designee. Minor adjustments involving the exact timing of an inspection within the calendar year, may be performed at the discretion of DFFI management. It is the intent of the program that line management use the built-in flexibility to make the most effective and efficient use of NRC resources to address changes in plant status and licensee operations.

A reasonable allowance for responding to events or special licensee activities should normally be included in resource planning. In some cases, necessary adjustments may be difficult to implement within the constraints imposed by limited inspection resources. In such cases, implementation may involve a shift in the focus of already scheduled inspection resources for the subject facility, or a shift in allocated inspection resources from other facilities that are not exhibiting performance problems. Changes in inspections at a facility that will reduce the planned inspections below that of the MIP must be approved by the MIP change process with appropriate management approvals.

Program deviations, as defined in Section 04.02, should be submitted via memorandum from Director DFFI to the Director DFM and should include how reasonable assurance will be maintained after implementation of the change. Where practicable, the deviation should be submitted in advance of the change being implemented.

2600-09 EVENT REVIEW AND RESPONSE

Region II is responsible for determining the seriousness of reported events and whether an inspection (either reactive or core follow-up) is necessary. This determination is performed in coordination with NMSS and, when appropriate, NSIR. Reported events that are determined to require inspection will be addressed in the inspection report in accordance with IMC 0616. Information related to industry operating experience, that describes recent events or conditions at a facility, can be useful to NRC inspectors during their review of licensee activities and should be considered in inspection planning. Therefore, all events, including events that do not require any inspection (e.g., a non-safety related concurrent report), should be entered for tracking in the Reactor Program System, Fuel Cycle Operating Experience Database or equivalent tracking database with the appropriate detail and justification.

Non-reportable events are those events which fall outside of the NRC's reporting criteria. Although these events are not reported formally to NRC, licensees occasionally contact NRC staff informally to describe the event. Licensees are often required, through license conditions, to maintain records of off-normal events onsite. Inspections should examine non-reportable events, and associated licensee responses, for the particular program area being inspected in order to obtain a perspective on emerging problems or declining performance. Technical details of the issue may provide useful insight on equipment, system reliability, or human performance.

The agency's response to significant events is described in NRC MD 8.3, "NRC Incident Response Program."

2600-10 PLANNING FOR INSPECTIONS

10.01 Inspection Planning. Prior to conducting an inspection, the inspectors shall prepare an inspection plan. The inspector will do sufficient coordination to identify commitments contained in confirmatory action letters (CALs) or confirmatory orders including ADR confirmatory orders as described in Inspection Procedure 92702, "Follow-Up on Traditional Enforcement Actions Including Violations, Deviations, Confirmatory Action Letters, and Orders." Planning should address the creation of tracking numbers for action items identified in CALs and confirmatory orders if this has not already been done. As a minimum, the inspection plan should state the facility to be inspected (including docket number and report number); the dates of the inspection; names of inspectors conducting the inspection; what procedures or suites of procedures will be used; the events, open items, orders, or any special issues that will be reviewed as part of the inspection; and should include an approval block showing that the plan was approved by the cognizant supervisor.

Where possible, inspectors should seek to maximize efficiencies in inspection planning and preparation with the use of technology; including the use of electronic sharing platforms to facilitate accessibility of key facility documentation and the use of electronic reading rooms for in-office review and to inform sample selection.

10.02 Review of Open Allegations. Inspectors shall review all open allegations pertaining to areas which they will be inspecting as part of their inspection preparation. The purpose of this review is to allow inspectors to become aware of concerns in the areas which they may be inspecting. Inspectors shall not document performance of their allegation review in inspection reports. Inspectors shall contact the NMSS or regional allegation coordinator when issues similar to the ones identified in the open allegations are found in order to determine what additional inspections, if any, should be performed.

2600-11 CONDUCTING INSPECTIONS

11.01 Entrance and Exit Meetings. Inspectors are required to meet with licensee management as part of every inspection. An example outline for an entrance and exit meeting is shown in Appendix D. Inspectors should hold an entrance meeting with the senior licensee representative who has responsibility for the areas to be inspected. At the conclusion of an inspection, inspectors must discuss their preliminary findings with the licensee's management at a scheduled exit meeting. Potential safety or safeguards significant findings should be promptly communicated to the licensee so that appropriate corrective actions or compensatory measures can be initiated. Management entrance and exit meetings with licensee personnel should be scheduled to have the minimum impact on other licensee activities necessary to ensure the safe operation of the facility.

Time spent on scheduled and periodic entrance and exit meetings (including preparing for the meetings) is considered inspection time and should be divided among the procedures being performed for the entire inspection. Daily communications with licensee management are considered to be an integral part of every inspection procedure and the time used for such routine communications should be charged to the inspection procedures used.

Communicating inspection observations is also an integral and important part of every inspection, whether done daily during the course of an inspection, or periodically with status meetings. Licensees have expressed the desire to hear inspectors' insights or other operation experience items related to safety/regulatory performance even in instances where they do not reach the threshold for documentation in an inspection report, such as deviations from regulatory guidance. When deciding which observations and insights to pass on to the licensee, inspectors should consider the following:

- a. Inspectors should share the same insights with their regional managers and the senior resident inspector prior to the exit meeting.
- b. The insights must relate to areas within NRC's jurisdiction and responsibilities.
- c. Comments should be objective and supported with examples when possible. Avoid generalizations such as "procedure adherence was good." Instead, just state the objective facts: "Procedures were followed in each case we observed." Negative observations or insights must be supported with specific examples.
- d. Inspectors should not express an expectation for actions taken by licensee managers. The inspectors may comment on whether or not the actions comply with NRC requirements.
- e. Inspectors should determine before the exit if the licensee wants to hear the observations and insights at the exit meeting. If the licensee does not want the observations or insights at the exit meeting, the inspectors should not discuss them.

Inspectors may choose to provide the licensee with a pre-exit meeting to communicate inspection results and informal observations to the licensee, if desired by the inspection team and the licensee.

- f. Inspectors must avoid "consulting" for the licensee and not advise them on how to improve draft documents or in-process work or pass on to licensees how others do the same thing.

11.02 Findings Related to Non-NRC Regulations. Inspections might uncover safety issues or other problems outside the scope of NRC regulatory authority. The Occupational Safety and Health Administration (OSHA) has authority and responsibilities regarding plant conditions that result in an occupational risk, but do not affect the safety of licensed radioactive materials. For example, there might be exposure to toxic non-radioactive materials and other industrial hazards in the workplace. NRC supports OSHA by reporting any such conditions it learns about to the licensee, NRC, and OSHA so appropriate action(s) can be initiated. Additional actions are described in IMC 1007, "Interfacing Activities Between Regional Offices of NRC and OSHA." Follow-up inspections are not required on the part of the NRC unless the potential hazard directly involves radiological health or safety and is a regulatory issue.

NRC has authority and responsibilities regarding radiation risk or chemical risk produced by radioactive materials and for plant conditions that affect the safety of radioactive materials and thus present an increased radiation risk to workers. In all cases where the finding involves a potential effect on the safety of radioactive material, the inspector should ask what actions the licensee plans to take. Findings associated with safety issues that could impact the safety of radioactive materials should be reviewed during subsequent inspections until the licensee has satisfactorily addressed the concern.

11.03 Performance-based Inspection Focus. Inspectors should focus their attention on activities important to safety using a performance-based, risk-informed approach. Performance-based inspection emphasizes observing activities and the results of licensee programs over reviewing procedures or records. For example, an inspector might identify an issue through observing a plant activity in progress, monitoring equipment performance, or the in-plant results of an activity (e.g., an engineering calculation), and then let the observed discrepancy or uncertainty lead to evaluation of other associated areas. Discussions with plant personnel and reviewing documents should be used to enhance or verify performance-based observations. These techniques are designed to emphasize observation of activities or those portions that are most risk-significant in terms of safety or safeguards.

Potential risk-significant inspection findings and regulatory non-compliances will be handled in accordance with the 'NRC Enforcement Policy.' Findings not covered by the current license will be forwarded to the appropriate NRC branch for resolution.

Although inspectors are primarily focused on their scheduled inspection areas, the inspectors should be cognizant of any "targets of opportunity" that may arise during the course of their inspection. Due to the limited amount of inspection hours spent on-site, the inspectors should attempt to witness any significant testing or maintenance activities that occur during that time, even if the area is outside the current inspection. These may include observing significant testing or maintenance activities associated with other core inspection areas. For example, observing annual criticality accident alarm system (CAAS) testing, cleanouts of major pieces of equipment, live fire testing, etc. The inspectors can identify these activities during their walkdowns or by asking the licensee prior to and during the inspection if any maintenance and testing activities of risk-significant operations are scheduled to be performed while they are on-site. The inspectors should communicate with the lead inspector for that facility regarding the specific item observed for follow-up or documenting the witnessed activity in the current inspection report.

11.04 Third Party Assistance. On occasion licensees ask inspectors for recommendations for obtaining help solving programmatic problems. Inspectors are prohibited from recommending the services of individuals or organizations for a project under NRC regulatory jurisdiction. Providing such a recommendation violates 5 CFR 2635.702, which prohibits Federal employees from using public office for endorsement of any product, service, or enterprise.

11.05 Findings Outside of Inspector's Qualifications. Inspectors sometimes identify issues or violations outside of the inspector's qualifications or expertise. In these cases the inspector is responsible for (1) determining if an immediate threat to public or worker health or safety exists, and if one does

exist to notify licensee management immediately, and (2) determining if the issue is better addressed by an inspector with different qualifications. Inspectors may follow issues outside of their qualifications or expertise with the concurrence of an NRC manager responsible for the area associated with the issue and the inspector's supervisor.

The inspector's time associated with the issue is charged to the baseline procedure that best corresponds to the issue.

11.06 Review of Potential Issues Involving Lack of Clarity in the Licensing Basis

In some exceptional cases, an inspector may identify a concern where there is a lack of clarity in the licensing basis that results in a question as to whether the licensee needs to take an action to be in compliance with its licensing basis. In these cases, the inspector should consider the risk significance of the concern, as well as the response to and resolution of that concern, when determining the appropriateness of increased inspection effort.

If the inspector is unable to reach a conclusion following a reasonable period of review that is commensurate with the overall perceived significance of the concern, the inspector should consult with their management to determine if suspending the review is appropriate. Any determination should be documented in the inspection report. Similarly, if the licensee can resolve the concern (i.e. provide information that shows the concern is not within the licensing basis or provide other measures of confidence to demonstrate safety), no further inspection effort may be necessary.

If an inspector is unsure of the appropriate level of effort to expend, he or she should consult with management. Together they should weigh the perceived significance of the concern (e.g., considering the kinds and quantities of material, potential for exposure or contamination, resolution of the issue by the licensee, programmatic impact, etc.) with the estimated level of effort required to determine if there is a violation and the actual significance of that violation (age of the issue, availability of records, potential outcome, etc.) to determine whether additional effort is warranted.

If the review of the concern is suspended, the inspector should still discuss the concern with licensee management to ensure that any necessary actions have been taken to address the potential for recurrence, and should document the concern and the determination in the inspection report, so that the matter may be reviewed again in the future if the NRC receives new information about the concern (e.g., information that it is within the licensing basis or is more significant than initially perceived).

11.07 Coordination of Headquarters Technical Support for Regional Inspection Activities

Regional inspectors are technically qualified in the areas in which they inspect, though there are times that inspectors may seek different levels of technical guidance or assistance in inspection activities. This may include seeking support from HQ technical staff with specific areas of expertise.

It is important that the inspector and the technical support staff communicate clearly the context for the questions along with the questions themselves, and the level of support the inspector is seeking. Whatever the level of support, the inspectors must make it clear what the expectations

are for the support they are seeking. The following guidelines are for regional requests to HQ which are seeking to understand and to inform regionally developed documents finalized and approved by the region.

1. **Minimal Effort Needed (\leq approximately 4 hours):** Inspectors have a question in a technical area they are inspecting (or preparing to inspect) and contact a technical point of contact in the region or HQ with specific questions. These occur frequently and typically take minutes to a couple of hours to respond. The time and level of support efforts are self-managed between the regional inspector and HQ staff. A response from HQ staff to the inspector is typically verbal or via email.
2. **Slightly More Effort Needed (approximately 4 – 8 hours):** Inspectors have a complex question or set of questions that may take more than a few hours for the technical staff to respond to. The inspector and HQ technical staff should discuss the level of effort needed for a response. The time and level of support efforts are managed by the regional and HQ staff with HQ branch chief permission (inspectors must respect the technical staff's time and work priorities). A response from HQ staff to the inspector is verbal or via email.
3. **Request for Direct Support Throughout an Inspection ($>$ approximately 8 hours up to the duration of the inspection):** Occasionally, an inspection team leader determines the need for HQ technical experts to support their inspection, either remotely or directly onsite throughout the inspection. When this occurs, the inspectors must request the technical staff participation through their regional branch chief to the HQ technical branch chief, due to the significant amount of time needed. The requesting inspectors must inform the relevant facility project manager for their awareness. A response from HQ staff to the inspector is verbal or via email.

Occasionally, when routine channels are exhausted for resolving an issue, or the issue has become protracted or progress has stalled, or for requests that may take more than a reasonable amount of time (as agreed between the inspector/technical staff and their supervisors), then the inspectors must use a formal process such as the one described in NMSS P&P 7-05, "Procedures for Processing of Technical Assistance Requests" (TAR) or a formal request memorandum, since this is expected to be a significant resource commitment. Examples are to provide a basis to dispute a licensee position, or a technical determination stemming from the inspection efforts to make final inspection determination, or requires other expertise (legal, etc.).

11.08 Inspection Documentation. Inspections shall be documented in accordance with the requirements of IMC 0616, "Fuel Cycle Safety and Safeguards Inspection Reports."

11.09 Independent Inspection Effort. As a general rule, inspections should be conducted in accordance with inspection procedures. However, it is not possible to anticipate all the unique circumstances that might be encountered during the course of a particular inspection. Therefore, individual inspectors are expected to exercise initiative in conducting inspections, based on their expertise, experience, and risk insights, as needed to ensure that all the inspection objectives are met.

11.10 Open Item Guidance. Inspection findings can be tracked as one of the following types of Open Items:

- URI: An Unresolved Item (URI) involves an issue that requires more information to determine whether a violation has occurred. Because each URI is a potential safety or safeguards issue, every effort must be made to obtain the required information. As such, the inspector should identify what information is required to close the URI to the licensee at the exit meeting and a schedule for obtaining that information should be obtained. Additionally, the inspector should obtain the licensee's rationale for why the process is safe prior to leaving the site (e.g., a compensatory measure is in place, the equipment is shut down, etc.).
- NOV: A Notice of Violation (NOV) is a citation of non-compliance with NRC requirements. A licensee response is required when corrective actions have not yet been completed by the licensee. The inspector should not leave the site until understanding why the process is safe at that time. NOV's should be closed upon verification that the licensee has implemented the corrective actions that they committed to perform in their response to the NOV as soon as practicable after the date when implementation is scheduled to be complete. The inspectors should review the licensee's evaluation of the cause of the violation and short-term and long-term corrective actions.
- DEV: A Deviation (DEV) is a licensee's failure to satisfy a written commitment or conform to the provisions of code, standard, guide, or accepted industry practice when the code, standard, guide, or practice involved has not been made a legally binding requirement by the Commission, but is expected to be implemented. Examples of licensee's commitments include responses to bulletins, generic letters, or 10 CFR 70.22(d) requests. These items should be handled in the same manner as a URI.

Open items will be entered in the item tracking system. Closeout of items is the responsibility of the organization that opened them or by another organization by agreement between management of those organizations. If closure occurs in an inspection report issued by another organization, it remains the responsibility of the issuing organization to ensure that the item is closed in a timely manner in the item tracking system.

11.11 Witnessing Unsafe Situations. If NRC inspectors identify unsafe work practices or violations which could lead to an unsafe situation, they shall make every reasonable attempt to prevent them from occurring in their presence. When such situations are identified, the inspector shall promptly notify a licensee representative so that corrective preventive measure can be taken.

11.12 Inspector Functions During Period of Lapsed Appropriation. NRC Management Directive 4.5, Contingency Plan for Periods of Lapsed Appropriations, has defined the resident and selected region-based inspector function as an excepted NRC activity that will continue during the period of restricted NRC operations. Both resident and region-based inspectors will continue with their respective functions defined below.

a. Region-based inspection function:

1. Includes event response requiring regional specialist expertise.

2. Does not include the approval or issuance of inspection reports.
- b. Resident inspection function includes the following activities:
1. Completion of **all** the activities that are normally assigned to a resident inspector; including the performance of this manual chapter and its appendices.
 2. Completion of reactive inspection activities pursuant to NRC Management Directive 8.3, NRC Incident Investigation Program. The decision to initiate a reactive inspection shall be made in consultation with the “excepted function” Regional and Program Office managers.
 3. Completions of core, reactive and supplemental inspection activities not covered above that had been or are approved by regional management as being within the technical expertise of the residents at the site and that are scheduled for completion during the period of lapsed appropriation.
 4. Emergency response, incident response, allegation, enforcement, public communication, and support for emergency licensing action activities that are typically performed by resident inspectors.
- c. The ‘resident inspection function’ does not include program activities that require substantial support or approval from the Regional Office or Program Office. This exclusion includes the issuance of inspection reports under IMC 0616, “Fuel Cycle Safety and Safeguards Inspection Reports.” The resident inspectors do not inherit signature authority unless it is covered by separate authorization.

2600-12 ASSESSING FACILITY PERFORMANCE

12.01 Licensee Performance Review (LPR). LPRs are conducted in accordance with IMC 2604 as part of the overall licensee performance oversight.

12.02 Agency Action Review Meeting (AARM). The information and performance assessments arising from the inspection program should be the primary inputs to management discussions in preparation for the annual AARM, which are conducted per MD 8.14, “Agency Action Review Meeting.”

12.03 Ongoing Assessments of Facility Performance. NRC inspectors perform a basic mission in determining whether a licensee operates the facility safely and securely and meets current regulatory requirements. Limiting inspection to identification of specific instances where a licensee fails to meet such requirements and commitments could result in correction of symptoms rather than correction of underlying causes of licensee problems. Thus, the inspection program requires that inspectors and their managers evaluate problems to determine if follow-up inspections are necessary to diagnose whether a safety concern represents an isolated case or may signify a broader, more serious problem based on the evaluated significance of the issues.

2600-13 ASSESSING PROGRAM IMPLEMENTATION

NMSS expects inspectors to identify problems in implementing the fuel cycle facility inspection program, and to recommend changes to the program for NMSS' consideration. Any such feedback and recommendations should be submitted to NMSS/**IOB**.

END

Attachments: Appendix A Guidance for Conducting Fuel Cycle Inspections
Appendix B NRC Core Inspection Requirements - Tables 1 and 2
Appendix C Fuel Cycle Resident Inspection Program
Appendix D Fuel Cycle Facility Inspection Planning

ATTACHMENT 1

Revision History for IMC 2600

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 Information)
N/A	ML070190057 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.	None	ML070190069
N/A	ML072070146 08/15/07 CN 07-025	Remove "OFFICIAL USE ONLY - SENSITIVE INTERNAL INFORMATION" designation from entire manual chapter to make publicly available.	None	ML072080010
N/A	ML080670196 03/21/08 CN 08-011	Revised to incorporate direction regarding follow-up of issues related to confirmatory orders.	None	N/A
N/A	ML091120247 05/13/09 CN 09-012	Revised to incorporate additional direction regarding follow-up of issues related to confirmatory orders.	None	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 Information)
N/A	ML093170158 12/02/09 CN 09-029	Added requirement for inspectors to review all open allegations pertaining to the inspection during preparation as part of regulatory improvements resulting from Peach Bottom Lessons	None	N/A
N/A	ML093420698 01/27/10 CN 10-003	Revised to incorporate Gas Centrifuge Facility inspections into the fuel facility inspection program.	None	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 Information)
N/A	ML15058A287 09/24/15 CN 15-018	<p>Included section on Lapsed Appropriations in reference to changes in MD 4.5 and Oct 4, 2013 briefing memo (ADAMS Accession No. ML13276A057) required by SRM-COMSECY-14-0017 (ADAMS Accession No. ML14196A064).</p> <p>Removed reference to certificates/ Gaseous Diffusion Plants and fuel assembly facilities.</p> <p>Program description general notes were out of date and removed. Updated organizational names and acronyms. Updated organizational roles since implementation of criticality safety, MC&A, and information security inspections moved to Region II.</p> <p>Removed reference to IMC 0610 and replaced with IMC 0616.</p>	None	ML15058A223
N/A	ML17299B312 12/20/17 CN 17-030	Editorial changes to reflect latest revisions to IMC 0616 and IMC 2681 and its associated procedures.	None	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 Information)
N/A	ML18099A225 06/12/18 CN 18-015	Removed "implementation of" from section 05.03 (b). This edit was done to clarify the programmatic role of FCSE.	None	N/A
N/A	ML19031C214 03/11/19 CN 19-010	Revision to clarify that not all reported events (e.g., non-safety related concurrent reports) require inspection and documentation.	None	N/A
N/A	ML20211L835 12/14/20 CN 20-071	Revision to implement the recommendations from the Smarter Inspection Program (ML20077L247 and ML20073G659); and to add flexibility to conduct remote inspections. Also added guidance for coordinating headquarters technical support for regional inspection activities.	Complete by December 2020	N/A