

IMPLEMENTATION OF THE REACTOR OVERSIGHT PROCESS AT REACTOR
FACILITIES IN AN EXTENDED SHUTDOWN CONDITION FOR REASONS OTHER
THAN SIGNIFICANT PERFORMANCE PROBLEMS

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0351-01 PURPOSE

01.01 To establish guidance for Reactor Oversight Process (ROP) implementation at plants in an extended shutdown condition for reasons other than significant performance problems.

01.02 To ensure that when the plant is in an extended shutdown condition, the Nuclear Regulatory Commission (NRC) communicates unified and consistent oversight in a clear and predictable manner to the licensee, public, and other stakeholders.

01.03 To ensure other Federal agencies, such as the Federal Emergency Management Agency (FEMA), the Environmental Protection Agency (EPA), the Department of Justice (DOJ), and the Department of Homeland Security (DHS), and State and local government representatives are involved and informed as necessary.

0351-02 OBJECTIVES

02.01 To provide guidance for developing an inspection plan outlining the specific inspections related to the return of the plant to power operation and necessary adjustments to the baseline inspection.

02.02 To provide further guidance concerning the applicability of the Performance Indicators (PI's) that may be invalid in an extended shutdown condition.

02.03 To provide a mechanism for communicating status of NRC oversight activities to internal and external stakeholders.

0351-03 APPLICABILITY

This manual chapter may be implemented during an extended shutdown for reasons not directly related to performance problems. Consistent with IMC 0608, "Performance Indicator Program," an extended shutdown is defined as an outage lasting 6 months or longer. IMC 0351 provides guidance for ROP implementation at plants that had been operating (before they entered into an extended shutdown) under the provisions of the ROP and IMC 0305, "Operating Reactor Assessment Program." A plant in extended shutdown will still be assessed using IMC 0305 and the Action Matrix. For plants that are shutdown for lengthy periods of time (on the order of years), consideration should be given to development of a unique IMC, specific to that plant and the circumstances causing the lengthy outage. Plants that are under a Confirmatory Action Letter (CAL) that requires NRC approval to restart may be subject to IMC 0350, "Oversight of Reactor Facilities in a Shutdown Condition Due to Significant Performance and/or Operational Concerns."

0351-04 RESPONSIBILITIES AND AUTHORITIES

04.01 Director, Office of Nuclear Reactor Regulation (NRR).

- a. Develops assessment program policies and procedures.
- b. Ensures uniform program implementation and effectiveness.

04.02 Director, Division of Reactor Projects, applicable Region.

- a. Determines the applicability of this manual with input from NRR/DIRS, Resident Inspectors and Special Inspection Team (SIT), Augmented Inspection Team (AIT) or Incident Inspection Team (IIT) as appropriate.
- b. Responsible (delegates as necessary) for the development of the Inspection and Communication Plan.

04.03 Director, Division of Inspection and Regional Support (DIRS), NRR. Concur with the Regional decision to implement this IMC and any associated inspection plan.

04.04 Director, Division of Operating Reactor Licensing (DORL), NRR. Coordinates staff reviews of licensing actions and, where applicable, staff interaction with other Federal agencies (e.g. FEMA, EPA, DHS, DOJ,) pursuant to any applicable memoranda of understanding.

04.05 Director, Division of Preparedness and Response (DPR), Office of Nuclear Security and Incident Response (NSIR). Coordinates with FEMA and the Region regarding the offsite infrastructure and emergency preparedness capabilities to support plant restart in accordance with IMC-1601' "Communication and Coordination Protocol for Determining the Status of Offsite Emergency Preparedness Following a Natural Disaster, Malevolent Act, or Extended Plant Shutdown."

04.06 Director, Division of Security Operations (DSO), NSIR. Concur on the security inspection plan developed by the Region and coordinates with the Director, Division of Reactor Safety in the appropriate Region for the conduct of those inspections.

0351-05 BACKGROUND

An operating commercial nuclear power plant may shut down for a variety of reasons, potentially involving events or conditions not directly related to performance. The maintenance required to return the plant to service during such outages could be outside the realm of what is accomplished during shorter planned outages such as Refueling Outages (RFO) and could be complicated by unanticipated technical or design issues that may have resulted in the shutdown. In the past, guidance from IMC 0350 has been used in combination with informal guidance to oversee plants in extended shutdowns. Since the extended shutdown is not related to performance issues, IMC 0350 and the negative connotations associated with the extent of increased

oversight are not appropriate. Formalization of the IMC 0351 guidance should assist the regional offices in anticipating the impact on routine ROP activities and developing innovative approaches to implementing the ROP. While a plant in extended shutdown is still assessed using the ROP, the guidance in this chapter will help maintain consistent, reliable, and transparent oversight of power reactors in extended shutdown.

A plant will be considered for guidance of IMC 0351 when the plant is in, or the licensee anticipates, an extended shutdown. Recognizing that application of this guidance may not be necessary in all cases, Regional Management has the discretion not to implement the IMC 0351 guidance even though a plant may be in an extended shutdown.

When considering guidance of this IMC, Regional Management and NRR (if applicable) should carefully consider the following: (1) expected length of the plant shutdown, (2) the degree to which the licensee has performed an extent-of-condition evaluation pertaining to the reasons for the shutdown, and (3) the amount of discovery still required of the licensee to identify all of the technical and/or design problems associated with the shutdown.

0351-06 OUTAGE AND INSPECTION ACTIVITIES

06.01 Inspection Plan. If warranted, the Region can develop a unique inspection plan or modify the existing site inspection program to examine the root cause and corrective actions for any potential technical and/or design issues, and readiness to return the plant to full operational status. Specific areas of inspection will be dictated by the circumstances causing the extended shutdown and may change in focus or scope as shutdown activities progress. Inspection activities commensurate with the applicable column of the Action Matrix should be utilized to the maximum extent possible. When developing and modifying the inspection plan, the Region should use the baseline inspection procedures in accordance with Appendix A of IMC 2515, "Light Water Inspection Program – Operations Phase," to the extent they are practical based on plant conditions, the availability of samples, and anticipated plant activities. The inspection plan can include status of ongoing and completed inspection activities related to the extended shutdown as well as future inspection activities given the current schedule and known circumstances at the time the inspection report is developed.

Although some samples may not be inspected because of plant conditions, the intent of the baseline inspection program may still be met without an increase of inspection resources by performing alternate inspections. Inspection samples and hours specifically related to operations may need to be decreased because of plant conditions, while hours and samples may be increased in the areas of problem identification and resolution and refueling/outage activities. If inspection sample size must be reduced, guidance of Section 08.04 of IMC 2515 shall be followed. Additionally, Inspections listed in Appendix C of IMC 2515 can be performed with Regional Administrator approval in accordance with IMC 2515. Opportunities for completing the baseline inspection by performing alternate inspections shall be included

in the inspection plan. If re-allocation of the baseline inspection is necessary for a particular shutdown, the Director, DIRS/NRR (or designee), will concur with the inspection plan.

An area that might warrant inspection is the operational readiness of the licensee for reactor restart. Because the length of the outage can present challenges to the licensee's operational readiness, the number of units at the site is one variable that should be considered when assessing operational readiness. For example, a dual unit site may rotate operators between the shutdown plant and the operating plant while single unit site operators have no such opportunities to maintain their operational knowledge and skill and have a greater challenge of maintaining operational readiness. Equipment upgrades and maintenance, procedure updates, facilities maintenance, and the status of the corrective action program should be considered as potential areas for additional inspection. Ensuring the licensee has maintained safety-related equipment current by incorporating the latest vendor bulletins and other important information into plant procedures could be another area for additional inspection during an extended shutdown because some of these systems may not be required during a shutdown. The Region should also consider other opportunities for inspection not explicitly listed in this IMC when modifying the inspection plan.

If the circumstances require a unique inspection that is not currently documented in an inspection procedure, the inspection plan must be of sufficient detail for the inspectors to meet the clearly defined inspection objectives. The need for a new inspection procedure or temporary instruction to be created and issued in accordance with IMC 0040, "Preparing, Revising, and Issuing Documents for the NRC Inspection Manual," should be considered if the shutdown is generic in nature and may apply to other operating reactors.

Effort spent on baseline and supplemental inspections should be charged to the appropriate inspection procedure in accordance with IMC 0306, "Information Technology Support for the Reactor Oversight Process." Section 05.03 of IMC 0306 also provides guidance on documenting inspection procedures if the sample size must be modified. Direct inspection effort spent on special inspections as a result of an event should be charged to IP 93812 using the event response (ER) code, and the associated preparation and documentation should be charged to IP 93812 using the ERP and ERD activity codes respectively.

Inspection results should be documented in accordance with IMC 0612, "Power Reactor Inspection Reports," to the extent practical. Areas where no findings are identified may be documented in greater detail than required by IMC 0612, specifically the results of those inspection activities relating to an event, the basis for the extended shutdown, or operational/restart readiness.

The Inspection Plan should be reviewed and modified as necessary on at least a quarterly basis, to ensure that the inspection schedule is optimized with anticipated plant activities. Specific licensee actions directly related to reason(s) for shutdown and

the corresponding NRC activities can be listed in the inspection plan if deemed necessary by Regional Management.

06.02 Performance Indicator Program. Plants should continue to gather and submit PI data in accordance with IMC 0608 to the extent that the data are available under extended shutdown conditions. Some performance indicators in the initiating events, mitigating systems, and barrier integrity cornerstones may either be lapsed or may lack current data due to the extended shutdown, but indicators in the other cornerstones still provide useful indications of plant performance. The inspection plan should include consideration of any inspections necessary to compensate for performance indicators which lack current data.

Upon restart, several PIs will remain invalid until sufficient data have been collected to calculate each specific PI. In other words, the validity of each PI is dependent on the data needed to calculate the specific PI. The algorithms for calculating the different PIs, and in some cases the thresholds to determine their validity, are contained in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline." As an example, since the Unplanned Scrams and Unplanned Power Changes PIs in the Initiating Events cornerstone are not considered valid if there are fewer than 2,400 critical hours in the previous four quarters, it would typically take two quarters of operational data following restart for these indicators to be considered valid. Furthermore, starting up with only two quarters of critical hours makes this PI more volatile, meaning it could cross a threshold with a lower number of scrams than was intended. Mitigating System Performance Index is a valid indicator if supported by 3 years of data, so the validity of the indicator may need to be evaluated for a plant in an extended shutdown. On the other hand, the Reactor Coolant System (RCS) Activity and RCS Leakage PIs in the Barrier Integrity cornerstone are considered valid with the first quarterly data submittal following restart because the PIs can be calculated using a single months' reported value at steady state power. Questions regarding the potential validity of specific indicators should be referred to the Performance Assessment Branch in NRR.

06.03 Communication Plan. The Region will consider development of a communication plan to ensure effective communication with internal and external stakeholders and openness in the status of ongoing licensee activities and associated inspection activities. In addition to a general communication plan for routine interactions with internal and external stakeholders, the Region will follow guidelines of IMC 1601 if applicable.

NRC management will determine the need for, and the level of, NRC participation with public stakeholders on a case-by-case basis. The level of appropriate public stakeholder participation varies greatly and depends on the cause of the shutdown; the interest of State and local citizens, public interest groups, the media, and elected officials; and the concerns of other Government agencies. Public stakeholder meetings have proven to be a valuable vehicle for communications with external stakeholders. These meetings are held to describe the results of the NRC's review of the licensee's activities. Public stakeholder meetings in the local area should be strongly considered so that the concerns and comments on the licensee's shutdown activities can be heard.

FEMA should be involved in public stakeholder meetings that may involve significant discussion of the adequacy of offsite emergency preparedness to support plant restart, when appropriate. Furthermore, the Region, in coordination with NSIR, should anticipate and allow adequate time for FEMA to make a determination regarding the status of offsite emergency preparedness, as stipulated in IMC 1601.

The Region will ensure that efforts have been made to establish an open dialogue with local and State government officials and agencies. The Region should ensure that inquiries from the Office of Congressional Affairs, Congress, local and State government agencies, and various Federal agencies are promptly addressed. Inquiries regarding the adequacy of offsite emergency preparedness should be coordinated with FEMA. Appropriate caution should be exercised to avoid the release of pre-decisional, proprietary, or Safeguards Information when responding to inquiries. When interest extends to a foreign government (e.g., Canada), the Office of International Programs or its designee shall brief the foreign officials if the EDO deems a briefing appropriate.

06.04 ROP Web Page. PIs, inspection findings, and other applicable oversight information will be posted to the ROP Web page in accordance with IMC 0306, "Information Technology Support for the Reactor Oversight Process." Because plants under the guidance of IMC 0351 do not fall outside of the ROP, the applicable Column and description in the Action Matrix will be listed in accordance with IMC 0306. The Region should also consider developing and maintaining a specific Web page to facilitate ease of public access to key information. The Web site should contain important correspondence, public meeting slides and transcripts, NRC inspection reports, and other relevant information.

0351-07 RECORDS

Information on NRC and licensee actions related to the extended shutdown should be considered for inclusion in NRC inspection reports. Other forums, such as public correspondence between the licensee and the NRC or Commission papers, may be acceptable as well. The records developed for the shutdown could consist of the following, if applicable:

- a. The Inspection Plan.
- b. The Communication Plan.
- c. Inspection reports and related correspondence.
- d. Pertinent licensing actions completed by the NRC.
- e. Other agency and Government actions communicated to the NRC.

- f. Document(s) informing the licensee documenting the application of the IMC 0351 guidance.
- g. ROP Feedback Form via IMC 0801, "Reactor Oversight Process Feedback Program," or memorandum to DIRS providing the lessons learned to be considered for incorporation in the next revision to IMC 0351.

All documents relating to the extended shutdown may be included in the docket file and, to the extent permitted by 10 CFR 2.790, made public in accordance with NRC policy. Pre-decisional information will not be made public until after the applicable decision has been made.

0351-08 REFERENCES

IMC 0040, "Preparing, Revising, and Issuing Documents for the NRC Inspection Manual."

IMC 0305, "Operating Reactor Assessment Program."

IMC 0306, "Information Technology Support for the Reactor Oversight Process."

IMC 0350, "Oversight of Reactor Facilities in a Shutdown Condition Due to Significant Performance and/or Operational Concerns."

IMC 0608, "Performance Indicator Program."

IMC 0609, "Significance Determination Process."

IMC 0612, "Power Reactor Inspection Reports."

IMC 0801, "Reactor Oversight Process Feedback Program."

IMC 1601, "Communication and Coordination Protocol for Determining the Status of Offsite Emergency Preparedness Following a Natural Disaster, Malevolent Act or Extended Plant Shutdown."

IMC 2515, "Light Water Reactor Inspection Program - Operations Phase."

NRC Management Directive 8.3, "NRC Incident Investigation Program."

END

Attachment

1. Revision History for IMC 0351

ATTACHMENT 1

Revision History for IMC 0351

Commitment Tracking Number	Issue Date	Description of Change	Training Required	Training Completion Date	Comment Resolution Accession Number
N/A	ML110030073 04/05/11 CN 11-005	<p>Researched commitments for 4 years and found none.</p> <p>No explicit guidance exists that governs ROP implementation during extended outages not related to performance. In the past, guidance from IMC 0350, "Oversight of Reactor Facilities in a Shutdown Condition Due to Significant Performance and/or Operational Concerns," has been used in combination with informal email guidance for plants in extended shutdowns. While plants in this condition still fall under the ROP, the reason for the extended shutdown is not related to performance issues so IMC 0350 and the negative connotations associated with the extent of increased oversight are not appropriate.</p>	No	N/A	ML11082A009