

# NRC INSPECTION MANUAL

IRIB

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## INSPECTION MANUAL CHAPTER 0307 APPENDIX B

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### REACTOR OVERSIGHT PROCESS BASELINE INSPECTION PROCEDURE ASSESSMENTS AND REVIEWS

Effective Date: 08/25/2017

#### 0307B-01 PURPOSE

The Reactor Oversight Process (ROP) self-assessment program evaluates the overall effectiveness of the ROP in meeting its goals and intended outcomes. This procedure provides the process for baseline inspection procedure leads to conduct periodic assessments and reviews of his or her assigned baseline inspection procedures (IP) in support of the overall ROP self-assessment program.

#### 0307B-02 OBJECTIVES

02.01 To evaluate the effectiveness of the baseline IPs.

#### 0307B-03 APPLICABILITY

As stated in Manual Chapter (IMC) 0307, Reactor Oversight Process Self-Assessment Program, there are multiple catalysts to change ROP baseline IPs. Those catalysts include feedback submitted in accordance with IMC 0801, Reactor Oversight Process Feedback Program; information gathered during assessments conducted by the IP lead for each baseline IP; and outcomes of focused and effectiveness reviews conducted for select baseline IPs when identified by Division Directors. The collective purpose of these activities is to evaluate the effectiveness of the baseline IPs.

#### 0307B-04 RESPONSIBILITIES AND AUTHORITIES

04.01 Director, Division of Inspection and Regional Support, Office of Nuclear Reactor Regulation; Division of Security Operations and Division for Preparedness and Response, Office of Nuclear Security and Incident Response; and Regional Directors, Divisions of Reactor Safety and Reactor Projects

- a. Identify inspection procedures for focus and effectiveness reviews.
- b. Review and approve any significant resource changes to IPs.

04.02 Chief, Reactor Inspection Branch (IRIB)

- a. Ensure data from all sources are collected and consolidated to facilitate assessments and reviews of IPs.
- b. Ensure that satisfactory assessments and reviews are conducted on IPs that fall under the responsibility of the branch.
- c. Review and approve final assessment and review documentation.

| 04.03 Branch Chiefs of IP Lead(s)

- a. Ensure that satisfactory assessments and reviews are conducted on IPs that fall under the responsibility of the branch.

04.04 Inspection Manual Chapter 0307B Lead

- a. Develop schedule and coordinate meetings.
- b. Facilitate identification of baseline inspection procedures and areas for focus and effectiveness reviews and coordinate process.
- c. Obtain input from supporting organizations for IP lead's assessment.
- d. Collect IP assessment summaries from IP leads.
- e. Facilitate, consolidate and issue assessments.
- f. Provide input to the Commission paper on ROP self-assessments.

| 04.05 Baseline Inspection Procedure Lead(s)

- a. Perform assessments of assigned IPs.
- b. Perform focus areas and effectiveness reviews of assigned IP, if **directed**.
- c. Periodically observe/participate in inspections in the field, working with the regional points of contact (POCs).
- d. Present results of assessments, focus area, and effectiveness reviews.
- e. Revise IP, if required.

- f. Identify and conduct training if required, based on IP revision.

#### 04.06 Chief(s), Regional Technical Support Branch

- a. Identify regional POCs for IP leads to obtain inspector perspective.
- b. Provide comments on proposed IP changes.

#### 04.07 Regional Points of Contact

- a. Provide input on inspections and IPs to IP leads.

### 0307B-05 REQUIREMENTS

#### 05.01 Scope and Process

The Inspection Procedure lead shall remain cognizant of the implementation of his or her assigned IP(s) by addressing questions raised by the regions and inspectors, addressing input provided through the feedback form process, participating in industry meetings, reviewing relevant operating experience, and participating in or observing inspections. Additionally, the IP lead is responsible for conducting the following assessments and reviews:

- a. Biennial Assessment of IPs

Every two years, the IP lead shall conduct an assessment of his or her assigned IP(s) in accordance with the review criteria and processes provided in Attachment 1. The IP lead shall conduct the assessment, assessing the adequacy of the IP(s), giving consideration to possible improvements in scope, focus, and clarity. The IP lead will be provided with information to aid in his or her assessment and shall coordinate with the regional POCs to obtain inspectors' perspectives on the IP implementation. Periodically, the IP lead shall observe or participate in inspections in the field. The IP lead shall coordinate inspection observation or participation through the regional POCs.

The summary of the biennial assessment and an outline of any proposed changes to the IP shall be documented using the outline provided in Attachment 2. The IP lead will present the results of the assessment summary to both the IRIB branch chief (BC), and his or her BC. The assessment may result in changes to the IP and, if necessary, training for the inspectors. The final IP assessment summary will be provided to the IMC 0307B lead to be consolidated with the other IP assessment summaries and placed into ADAMS. The IMC 0307B lead will use the information contained in the assessment summaries as input for the next ROP self-assessment report to the Commission.

This assessment is not intended to audit the performance of the regions in implementing the baseline IPs, however large disparities in regional implementation shall be noted and brought to the attention of the IRIB Chief for consideration of further action.

At a minimum, in accordance with IMC 0307, Reactor Oversight Process Self-Assessment Program, and IMC 0307 Appendix A, Reactor Oversight Process Self-Assessment Metrics, each IP will be reviewed at least once every four years. In order to document that the review of the baseline procedures has been completed, issuance of the IMC 0307 Appendix B assessment summary may be considered sufficient documentation or alternatively, the procedure may be reissued noting in the Revision History Table that a detailed review has been performed and a revision to the document was not warranted. The IMC 0307 Appendix B assessment summary may not be used to take credit for completion of the four year review requirement for non-baseline procedures.

b. Focus Area Review

When identified by Division Directors, a focus area review shall be performed on a baseline IP or group of baseline IPs (inspection area). The purpose of this review will be to take a close look at a specific baseline IP or inspection area as a result of recent internal or external events and lessons learned. See IMC 0307 for additional governance on conducting focus area reviews.

c. Effectiveness Review

When identified by the Division Directors, an effectiveness review shall be performed on a baseline IP or group of baseline IPs that had previously had a focused area review. The purpose of the effectiveness review is to evaluate the changes that were made as a result of the focus review. The effectiveness review shall follow the effectiveness review process described in IMC 0307.

If a recommendation for a resource change to a baseline IP is identified as a result of an assessment or review, the recommendation shall be included in the summary of the assessment or review and presented for approval by the appropriate BCs and Division Directors.

## 05.02 Timeline

The timeline for the process is provided in Attachment 3.

## 0307B-06 REFERENCES

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

IMC 0307, Reactor Oversight Process Self-Assessment Program

IMC 0308, Reactor Oversight Process Basis Document

IMC 0801, Reactor Oversight Process Feedback Program

IMC 2523, NRC Application of the Reactor Operating Experience Program in NRC Oversight Processes

# Assessment Process Using Established Review Criteria

<u>Review Criteria</u>		<u>Organizational Support</u>	<u>Product/Process</u>	<u>Phase (Like Tasks)</u>
Fundamentals of Reactor Oversight	1) Maintain inspection elements which are fundamental to the ROP as defined in IMC 0308, "Reactor Oversight Process Basis Document" and supporting documents.	N/A	IP lead <b>shall</b> review applicable basis documents for <b>his or her</b> IP(s) to understand fundamentals of IP.	Phase 1 – IP lead research
	2) Review and assess changes to Performance Indicators (PI) in the past three years to ensure there has not been a reduction or unintended gap in the key safety attributes of each safety cornerstone.	Performance Assessment Branch PI Lead	PI lead <b>shall</b> provide a summary of PI changes in the last three years to IP leads.	Phase 2 – IP lead provided information for their analysis
Program Optimization	3) Review and assess changes to rulemakings, requirements (Standard Technical Specifications (STS) and Code of Federal Regulations), and backfits.	Rulemaking Branch Lead TS Branch Lead	Rulemaking Branch <b>shall</b> provide a list of rulemakings and TS Branch <b>shall</b> provide list of STS changes in the last three years to the IP leads.	Phase 2 – IP lead provided information for <b>his or her</b> analysis
	4) Adjust inspection requirements <b>and</b> governance based on review and assessment of risk significant events and adverse trends identified through the Operating Experience (OpE) process per IMC 2523, NRC Application of the Reactor Operating Experience Program in NRC Oversight Processes. This review encompasses OpE drawn from significant events/unanalyzed conditions, inspection findings, and reactive inspections from the past one to three years. Take caution not to delete past significant operating experience that may still be currently applicable.	OpE Branch Lead	OpE <b>shall</b> provide input to the IP leads with information identified during OpE reviews performed per IMC 2523. OpE lead may be requested to participate in any discussions between the regions and IP lead.	Phase 2 – IP lead provided information for their analysis

## Assessment Process Using Established Review Criteria

<u>Review Criteria</u>		<u>Organizational Support</u>	<u>Product/Process</u>	<u>Phase (Like Tasks)</u>
Quantitative	5) Review and assess improvements which can increase the effectiveness of IPs based on the following quantitative analysis: number of findings per 1000 hours, traditional enforcement violations, percentage of NRC identified finding, and color of findings. <b>Unexplained significant trends, as well as significant departures from the historic mean levels of activity shall be identified and the cause explored.</b>	IRIB Reactor Program System (RPS) Data Lead	IRIB RPS data lead <b>shall</b> pull data from RPS for each IP and provide to IP lead (See Exhibit 3 for example).	Phase 2 – IP lead provided information for their analysis
Program Optimization	6) Review and assess adjustments to align the inspector scope (actual inspection hours charged) with the allocated inspection hours (estimated inspection hours listed in IP).	IRIB RPS Data Lead Regions (Technical Support Branch Chief (TSAB BC), POC)	IRIB RPS data lead <b>shall</b> pull data from RPS for each IP and provide to IP lead. IP lead <b>shall</b> facilitate a conference call with <b>the Regions and any other appropriate inspection staff</b> for his or her assigned IP(s) to obtain inspector perspective on inspection scope (See Exhibit 3 for example).	Phases 2 & 3– IP lead provided information for their analysis; IP lead facilitate discussions
	7) Review and assess changes that will improve baseline inspection effectiveness through enhanced flexibility of procedure requirement.	Regions (TSAB BC, POC)	IP lead <b>shall</b> facilitate a conference call with <b>the Regions and any other appropriate inspection staff</b> for his or her assigned IP(s) to obtain inspector perspective on flexibility.	Phase 3 – IP lead facilitate discussions
	8) Review and assess strategies to increase inspection efficiency for IPs which inspect related areas.	Regions (TSAB BC, POC), Other IP Leads for related IPs	IP lead <b>shall</b> facilitate a conference call with <b>the Regions and any other appropriate inspection staff</b> for his or her	Phase 3 – IP lead facilitate discussions

# Assessment Process Using Established Review Criteria

<u>Review Criteria</u>		<u>Organizational Support</u>	<u>Product/Process</u>	<u>Phase (Like Tasks)</u>
			assigned IP(s) to obtain inspector perspective on increasing efficiency. Other IP leads may be asked to participate.	
	9) Review and assess potential adjustments to align the allocated inspection hours (estimated inspection hours listed in IP) with the required IP samples (sample range in IP).	Regions (TSAB BC, POC)	IP lead <b>shall</b> facilitate a conference call with <b>the Regions and any other appropriate inspection staff</b> for <b>his or her</b> assigned IP(s) to obtain inspector perspective on inspection hours and samples.	Phase 3 – IP lead facilitate discussions
	10) Review and assess inspector and region feedback, taking into consideration value added inspector field observations that do not result in a finding but where there is an observed safety impact; self-revealing findings; Agency initiatives; feedback forms; internal surveys; and licensees past inspection performance.  This is a good opportunity to collectively discuss open feedback form(s) <b>and</b> address the input and close-out feedback form(s) as part of the assessment process and any resulting IP revisions.	Regions (TSAB BC, POC)	IP lead <b>shall</b> facilitate a conference call with <b>the Regions and any other appropriate inspection staff</b> for <b>his or her</b> assigned IP(s) to obtain inspector perspectives <b>and</b> value added inspector field <b>observations pertaining to safety</b> ; self-revealing findings; Agency initiatives; feedback forms; internal surveys; and licensees past inspection performance.	Phase 3 – IP lead facilitate discussions

## Inspection Procedure Assessment Summary and Outline of Proposed Changes

Inspection Procedure (No. and Title):  
Inspector Procedure Lead:  
Estimated Hours to Complete Review:  
**Date Review Completed:**

1.a. Results of review of IMC 0308, ROP basis document review (Review Criteria 1)

1.b. Assessment of Results

2-3.a. Results of review of any applicable changes to Pls, Rules, STSs (Review Criteria 2 & 3)

2-3.b. Assessment of Results

4.a. Results of review of recent Operating Experience (Review Criteria 4)

4.b. Assessment of Results

5-6.a. Results of review based on RPS data (Review Criteria 5 & 6)

5-6.b Assessment of Results

6-10.a. Results of discussions with regions (Review Criteria 6-10)

6-10.b. Assessment of Results

Summary of any field observations/inspections.

Outline of proposed changes to Inspection Procedure including needed training or statement that no changes were identified. Include any proposed changes to resources.

Recommendation to perform a focus or effectiveness review on this procedure?



### Timeline for Assessment of Inspection Procedures

<u>Activity</u>	<u>Month</u>	<u>Lead</u>	<u>Participants</u>
Layout schedule and coordinate meetings.	Communicate during routine meetings.	IMC 0307B Lead	-
Identify inspection areas for focus area and effectiveness reviews.	Division Director (DD) Counterpart Meeting or DD Periodic Calls	IMC 0307B Lead; DD	-
Obtain input from supporting organizations for IP lead's review.	November-December	IMC 0307B Lead	PI, Rulemaking, TS, OpE, RPS Leads
Identify Regional POC for IP leads to obtain inspector perspective.	November-December	TSAB BCs	IMC 0307B Lead
Conduct kick-off meeting for IP leads.	January	IMC 0307B Lead	IP Leads; IRIB and IP Lead BCs, TSAB BCs
Perform and document assessment of assigned IPs and propose changes.*	January-April	IP Leads	Regional POC
Focus area and effectiveness reviews may take longer but any changes to the IPs should be completed by the end of Dec.	As requested/scheduled	IP Leads	Regional POC
Collect IP assessment summaries.	April-May	IMC 0307B Lead	-
Conduct meeting(s) to present results of IP assessments.	May-June	IMC 0307B Lead; IP Leads, IRIB and IP Lead BCs	Regional POCs, TSAB BCs, DD
Issue assessment results.	June-July	IMC 0307B Lead	-
Revise IP, if required.	July-December	IP Leads	-
Identify and conduct training if required, based on IP revision.	July-December	IP Leads	-
Implement revised IP	Beginning January	Inspectors	-
Provide input for ROP Self-Assessment SECY.	January	IMC 0307B Lead	-

\* Field observations/participation in inspections may take place at any time during the **biennial period**. Insights will be discussed and rolled into the next scheduled IP assessment.

Reactor Program System  
Data for Inspection Procedure \_\_\_\_\_

	Year X	Year Y	Year Z	3 Year Average
<u>Findings/1000 Hours</u>				
<u>Hours Expended</u>				
Region 1				
Region 2				
Region 3				
Region 4				
Total				
<u>Hours Expended</u>				
1 Unit Sites				
2 Unit Sites				
3 Unit Sites				
<u>Findings</u>				
Region 1				
Region 2				
Region 3				
Region 4				
Total				
<u>Finding Types</u> (for example)				
Green				
NCV Green				
SL IV				
<u>Number of Findings by Cross Cutting Area</u> (for example)				
HP				
PIR				
SCWE				

Attachment 4  
Revision History for IMC 0307 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 Number (Pre-Decisional, Non-Public)
N/A	01/25/07 CN-07-003	Initial issuance of Appendix B to IMC 0307.	N/A	ML070120373
N/A	04/09/09 CN 09-011	Revisions to incorporate several recommended changes from regional Division Directors	N/A	ML090640898
N/A	10/13/11 CN 11-019	Revisions made to incorporate several recommended changes that resulted during the implementation of the 2011 ROP realignment.	N/A	ML112990461
N/A	ML15187A398 11/23/15 CN 15-025	Complete rewrite of IMC to incorporate lessons learned from ROP Enhancement – Baseline Inspection Program and Self-Assessment Projects. Changes include incorporating annual assessment of BIP that was previously addressed in IMC 0307; adding focus and effectiveness reviews; addressing resource changes as part of the annual assessment and focus and effectiveness reviews in lieu of a separate realignment, and providing additional details to the assessment process to aid the Inspection Procedure Leads.	N/A	ML15225A113
N/A	ML17165A508 08/25/17 CN 17-016	Revised to reduce frequency to biennial vice annual and for clarity of language. Many aspects of the inspection program operate on a two year cycle and as such there is insufficient meaningful data to perform a yearly assessment.	N/A	ML17167A017