

NRC INSPECTION MANUAL

IQMB

INSPECTION PROCEDURE 40500

EFFECTIVENESS OF LICENSEE PROCESS TO IDENTIFY, RESOLVE, AND PREVENT PROBLEMS

PROGRAM APPLICABILITY: 2515

FUNCTIONAL AREA: OTHER

40500-01 INSPECTION OBJECTIVE

To evaluate the effectiveness of licensee processes for identifying, resolving, and preventing issues that degrade the quality of plant operations or safety.

40500-02 INSPECTION REQUIREMENTS

02.01 Inspection Preparation

Obtain and review a sampling of materials, to obtain an overview of the licensee's strengths and weaknesses, and to determine appropriate areas to focus the scope of the inspection. Utilize a performance-based, risk-informed approach to prepare for and conduct the inspection. Place special emphasis on identifying potential problems in licensee controls for identification, evaluation, resolution, and prevention of problems. Such as:

- a. Review the strengths, weaknesses, and trends in licensee controls identified within each assessment area during implementation of NRC inspection procedures (IPs), the last two plant performance reviews (PPRs), enforcement history for the past 18 months, the Plant Issues Matrix for the assessment period, performance indicators, licensee event reports (LERs), operating activities, licensee maintenance rule periodic evaluation reports, NRC management trip reports, and management meeting reports.
- b. Review the results of licensee self-assessments, placing special emphasis on the conclusions and corrective actions.
- c. Review strengths and weaknesses of the independent safety engineering group (ISEG) (or equivalent) identified during IP 37550, "Engineering," if performed during the evaluation time frame.

- d. Obtain, through discussion and inspection report review, the resident inspector's assessment of licensee strengths and weaknesses.
- e. Obtain licensee administrative procedures that control the identification, evaluation, and resolution of problems. Also obtain licensee procedures and practices for self-assessment. Selected licensee documents needed to support the inspection may be obtained during a pre-inspection trip to the site or requested to be available when the inspectors arrive on site.
- f. Obtain and review procedures and documentation on licensee efforts to identify, resolve and prevent structure, system and component (SSC) performance problems through performance monitoring, root cause analysis, cause determination and corrective action to meet the monitoring requirements of the maintenance rule (MR) (10 CFR 50.65).
- g. Obtain and review other documents that would be valuable for the in-office review, such as a list of corrective action documents issued from the time of the last inspection of the corrective action program (e.g. a list of work orders, work requests, temporary modifications, calibration failures, condition/problem identification reports, operability evaluations and determinations, etc.).

02.02 Corrective Actions and Corrective Action Process

Perform inspection activities to assess the effectiveness of corrective action in the corrective action process, such as:

- a. Review the deficiencies tracked in the corrective action and maintenance rule monitoring programs.
 - 1. Review the general statistics of items/issues tracked in corrective action and maintenance rule monitoring processes. (e.g. How many items are identified? How long for resolutions? How many unresolved? How many repetitive items? Are operability reviews promptly conducted? How many systems? Degree of management involvement? Risk significance of these issues?)
 - 2. Review/sample to verify the licensee is identifying significant issues and implementing timely corrective actions which achieve lasting results.
 - 3. Review/sample to verify the adequacy of root-cause analyses.
 - 4. Review/sample deferred items, or interim resolutions for consideration of issues such as risk, impact on safety, monitoring, plans for final resolution, etc.
 - 5. Review/sample to verify that the licensee is monitoring SSCs within the scope of the maintenance rule as necessary to recognize required transition to 10 CFR

50.65(a)(1) status. Determine if corrective actions, goals and monitoring for 10 CFR 50.65(a)(1) SSCs are adequate. Review MR repetitive maintenance preventable functional failures (MPFFs) for indications of weaknesses in the licensee's corrective action program. Review any instances where performance measures or goals were exceeded and verify if the licensee established adequate corrective actions and goals to improve SSC performance. Identify strengths and weaknesses in the MR monitoring program. Refer to IP 62706 for additional information on the review of corrective actions to meet the maintenance rule.

- b. Through interviews with a broad sample of individuals selected at random from various parts of the licensee's staff, ascertain the licensee management's commitment to the corrective action program, the extent of their understanding of the licensee's problem identification process, and their willingness to report problems.
- c. Review the results of licensee audits that evaluated the effectiveness of the associated corrective action programs. Were the audits comprehensive and were effective actions taken to correct problems or weaknesses identified.
- d. If applicable, evaluate the licensee's use of the individual plant examination (IPE) to prioritize corrective actions as a strength or weakness. Refer to IP 93804 for additional information on IPEs.
- e. If applicable, evaluate the licensee's corrective action and maintenance rule monitoring processes for broad implementation problems or program deficiencies if the above review indicates the potential for such problems.

02.03 Licensee's Resolution of Problems

Conduct detailed analysis of selected issues or problems.

- a. Using the list below, review for issues, that should have been identified on corrective action documents but were not; that indicate adverse trends or patterns (e.g. recurring or longstanding problems) but were not identified as such; or for any other event or issues that may indicate a lack of effectiveness in identifying and correcting problems. Select problems which involve equipment or activities with a relatively high risk significance based on IPEs or risk-based inspection guides. For additional guidance on IPEs, see IP 93804. Do not neglect less significant issues that if taken collectively could be significant or precursors to more significant problems.
 1. Operational events, testing, or maintenance activities (such as temporary repairs or troubleshooting activities).

2. Deficiencies or modifications requiring safety evaluations or operability determinations.
 3. Procedural adherence deficiencies and procedure change backlog.
 4. QA audits and self-assessments.
 5. Repetitive equipment deficiencies.
 6. Other corrective action documents reviewed in Section 02.01 or 02.02.
 7. Check with the resident inspector(s) for specific examples of recurrent problems that have not been corrected.
 8. Any other program that identifies issues or problems that are not considered as being adverse to quality (e.g., "fix-it-now" programs, work requests and work orders, test failure reports, etc.).
- b. Analyze in detail the problems selected above. Determine the licensee's effectiveness in performing the following:
1. Initial identification and characterization of the problem, including risk significance.
 2. Elevation of problems to proper level of management for resolution (internal communications and procedures).
 3. Root-cause analysis or cause determination.
 4. Disposition of any operability/reportability issues.
 5. Implementation of corrective actions including evaluation of repetitive conditions.
 6. Expansion of the scope of corrective actions to include applicable related systems, equipment, procedures, and personnel actions.
- c. Identify any strengths and evaluate the root causes of any weaknesses or slow response identified during the detailed analysis above. Possible root causes might include lack of training, lack of accountability, unclear responsibility, procedure inadequacy, undue schedule pressure, or inaccuracy in design-basis documents.
- d. In addition, identify any problems with root cause analysis or cause determination and corrective action for SSCs experiencing repetitive MPFFs or exceeding their goals or performance criteria. Licensee's root cause analysis or cause determination should focus on maintenance problems identified and corrective actions that will eliminate a failure mode or large amounts of unavailability caused by maintenance problems.

02.04 Operating Experience Feedback

Consider any indicators of the adequacy of the licensee's implementation of operational experience feedback discovered during performance of other sections of this procedure to determine if additional evaluation is needed. Consider the following additional inspection activities:

- a. Evaluate the adequacy of the licensee's implementation of corrective actions for operational experience feedback. Focus on the licensee's effectiveness to assess, to inform appropriate personnel of the results, and to initiate corrective actions for information obtained both within and outside the licensee's organization. Consider the following sources of information:[DO NOT EXPEND INSPECTION RESOURCES READING THESE DOCUMENTS IF CORRECTIVE ACTIONS ARE NOT INVOLVED]
 1. 10 CFR Part 21 notifications.
 2. NRC bulletins, generic letters, and information notices.
 3. Reports issued by NSSS vendors.
 4. Reports from other facilities under the licensee's control or from similar facilities (with respect to design and vintage).
 5. EPRI reports.
- b. Identify any strengths or contributing conditions which reflect a lack of responsiveness in licensee programs that implement operational experience feedback.
- c. In addition, identify any strengths or weaknesses in the licensee's use of industry-wide operating experience to establish goals for SSCs monitored under 10 CFR 50.65(a)(1). Verify that MR periodic evaluations take industry-wide operating experience into account, where practical, under 10 CFR 50.65(a)(3).

02.05 Self-Assessment Activities

Obtain, through discussion, the resident inspector's assessment of the effectiveness of the licensee's self-assessment activities. Consider this and any other indicators of the licensee's self-assessment effectiveness discovered during performance of other sections of this procedure to determine how much additional evaluation is needed. Perform the following additional inspection activities:

Evaluate the effectiveness of self-assessment capability by reviewing corrective actions associated with self-assessment reports, audits (including audits of both onsite and offsite safety committee activities), and evaluations. Evaluate the recent performance of equipment, or activities in which the licensee performed a self assessment in lieu of NRC inspection, and compare

with the self-assessment findings. The intent is to not duplicate evaluations that are performed in accordance with IP 40501.

- a. Evaluate the significance of a sample of self-assessment findings to determine the effectiveness of the self-assessment effort. If relatively few significant findings are identified, review the scope of the self-assessment and the qualification of the plant staff involved in the self assessment. Determine if the self-assessment findings are consistent with previous inspection findings, plant performance, and third-party audits.
- b. Determine if the licensee is aggressive in correcting self-assessment findings and determine whether the corrective actions are adequate, timely, and properly prioritized. Determine if individuals at all levels in the self-assessment and corrective action process are held sufficiently accountable to ensure that corrective actions are technically adequate and timely. Determine if a meaningful trending program with sufficient information available for identifying recurring problems has been implemented.
- c. Evaluate the overall self-assessment program to ensure that the major functional areas (e.g., corrective actions, Appendix B, security, fire protection, emergency planning, operations, engineering, radiation control, maintenance) are reviewed as required by the quality assurance audit program. The self assessment program should also ensure that the maintenance rule program is adequately monitoring the effectiveness of maintenance and taking corrective actions when maintenance problems are found.
- d. Interview selected individuals involved with the oversight function, as well as the audited organization, to gain their insight on the effectiveness of their effort and the responsiveness of utility management and staff to issues raised. Review licensee performance data and discuss anomalies and trends with management to obtain their insights on the effectiveness of these activities.
- e. If possible, witness the performance of and/or preparation for a self-assessment by the licensee's assessors or auditors.

02.06 Onsite and Offsite Safety Review Committee Activities (or equivalent)

Obtain, through discussion, the resident inspector's assessment of the effectiveness of the safety committees. Consider this and any other indicators of safety committee effectiveness discovered during performance of other sections of this procedure to determine if additional evaluation is needed. Consider the following additional inspection activities:

Interview, at random, selected members of the safety committees to get their insights into organizational buy-in and management commitment to the committee recommendations and decisions.

Evaluate the effectiveness of the safety committees by reviewing committee minutes, audits, or other actions initiated by the committees as they relate to risk significance, major corrective action successes, or failures. Review the following as necessary:

- a. Identify what issues are reviewed by the safety committees and review the actions initiated by the safety committees to identify, assess, and correct areas of weakness.
- b. Review safety committee activities and discuss specific activities with selected safety committee members or safety committee support staff to gain insights and to assess the committee's effectiveness, work load, and ability.
- c. Select audits conducted under the cognizance of the offsite safety committee and determine if the audit findings were consistent with such external assessments as NRC and consultants.
- d. Evaluate the licensee's follow-up to items identified by the safety committees, including committee-initiated audit findings and any recurring problems.

02.07 Corrective Actions for Non-Cited Violations and Items of Comparable Significance Within the Licensee's Corrective Action Program

- a. Documentation Review. Review approximately 20 percent or at least two NCVs at each plant site¹. Review the list of non-cited violations (NCVs) and select a sample for review, optimizing the following considerations:
 - Items that have not been previously reviewed for adequacy of corrective actions by the NRC, such as licensee event reports.
 - Items that affect risk significant systems and functions (though not necessarily excluding other systems and function important to safety).
 - Items that involve many functional disciplines.
 - Items that likely involve complex corrective actions.
 - Items should be less than two years old, but selection of sample should consider allowing time to the licensee for completion of the corrective actions.

In addition to the above, use these same criteria to the extent possible, to select approximately two items within the licensee's corrective action program for each selected licensee NCV (see footnote 1). Each of these issues should be similar in significance to the NCVs being reviewed.

¹The size and type of the sample will be such to provide an assessment of the licensee's corrective action program implementation on a running basis.

b. Inspection

1. Determine that corrective actions have been taken, such that:
 - (a) Compliance was restored on a timely basis.
 - (b) These actions reasonably and completely address the identified problem, including the cause and generic implications.
 - (c) The licensee has assigned responsibility for implementing corrective actions, including any necessary changes to procedures and practices.
 - (d) Corrective actions have been fully implemented, or are scheduled for completion with an explicit deadline commensurate with the safety and risk significance of the item.
2. The root cause analysis (or cause determination for lesser significant items) is reasonably commensurate with safety and risk significance.
3. The generic implications analysis is sufficiently broad in scope to identify identical and similar problems.

02.08 Use of Risk Insights

Consider risk significance as one input in the selection of a sample of inspection items.

40500-03 INSPECTION GUIDANCE

General Guidance

NRC's evaluation of the licensee's ability to detect problems early and resolve them before they result in significant performance concerns forms the basis for significant decisions, such as the future level of inspection resource allocation and whether to give credit to the licensee for a self-assessment in other areas in lieu of NRC inspection. This evaluation includes: corrective actions, root-cause analyses, self-assessments, safety review committee actions, and corrective actions relative to operating experience feedback. This evaluation applies to all assessment functional areas. The level of direct inspection effort should be based on NRC management assessment of licensee performance. Details of the inspection should be determined based on the licensee's apparent strengths and weaknesses identified by the inspector(s) during inspection preparation. Since IP 40500 provides the NRC's primary inspection in the area of licensee safety assessment and corrective action, it is intended to be conducted as a systematic and comprehensive inspection that considers, in part, the results of other inspections performed over the previous 12-24 months.

This procedure should not be performed as a routine, piecemeal inspection. (e.g. Resident inspector follow-up of licensee's corrective action in response to an equipment problem would be performed as reactive inspection and alone does not meet the objectives of IP 40500. However, the results of reactive inspections are considered during the IP 40500 inspection that assesses the overall effectiveness of licensee controls). The key is to ensure that the inspection effort includes a systematic and comprehensive element. This could be done as a dedicated team inspection, and is the recommend way to implement this procedure. Another possibility is the use of this procedure separately during team inspections. In the latter case, it is important that the individual IP 40500 team inspection efforts remain systematic and comprehensive, and not become limited to isolated issues.

To the extent possible, this inspection should follow a performance based approach. Emphasize risk significance, products, and results. Work backwards through the processes and activities, programs and policies and regulations and standards, if necessary, based on the needs of the particular inspection and findings. It is not necessary to complete all line items in this procedure, as long as the comprehensive and systematic nature of this inspection is maintained. Considerable discretion is given to the regions/inspectors in deciding on the overall scope of the inspection and where emphasis should be placed based on a particular licensee's performance and the significance of the activities to safety.

Inspection resources for this inspection procedure will vary significantly from site to site on the basis of NRC management's assessment of licensee performance. In some cases, the additional inspection effort to gain an overview will not be necessary when good performance is evident from other inspection insights. The inspection will normally be performed during the last six months of the assessment period to provide an independent overview of licensee controls.

The term "problem" in this procedure is synonymous with conditions adverse to quality, and any other condition or defect that may be detrimental to plant safety. The term "licensee controls" in this procedure includes all licensee activities associated with the resolution of problems. These activities include actions to identify, assess, and prevent problems related to regulatory issues, safety issues, and substandard performance of personnel and equipment. Typical problem resolution systems that should be reviewed include: non-conformance reports, deficiency reports, engineering work requests, corrective action requests, and safety committee action items.

To the extent practicable, the inspector should also evaluate whether the licensee has incorporated into its corrective action program the applicable requirements of the maintenance rule (10 CFR 50.65) and determine if poor equipment reliability and/or availability resulted from ineffective maintenance.

Additional guidance relative to the maintenance rule can be found in NUMARC 93-01, "Industry Guideline for Monitoring the

Effectiveness of Maintenance at Nuclear Power Plants," and Regulatory Guide 1.160 which endorses the industry guidance. If possible, the inspection of maintenance rule activities should emphasize reviewing those activities associated with SSCs identified as having poor performance by the MR monitoring program. (See IPs 62706 and 62707).

If significant corrective action problems are identified within the auspices of the maintenance rule, the inspector should consult with and identify any concerns to regional management who may consider a more detailed inspection in accordance with IP 62706.

The inspections will concentrate on the identification of problems and the effectiveness of corrective actions rather than on the corrective action program and associated procedures. If problems are noted or plant equipment is not reliable, the inspector will investigate such possible causes as management direction, personnel performance, training, procedures, or programs, and will assess licensee controls of the activities. If repeated weaknesses in one area are identified, perform additional inspection in this area to determine if the weakness is isolated or programmatic.

NRC personnel will not take possession of INPO evaluation documents, make copies for distribution, identify any INPO documents in inspection reports, or use these documents to form a basis for regulatory actions. Refer to Field Policy Manual No. 9, "NRC Review of INPO Documents," for additional guidance.

In conducting interviews or other activities with licensee personnel, be sensitive to areas where employees may be reluctant to raise concerns. Although the licensee may be implementing an employee concerns program regarding the identification of safety issues, the possibility of existing underlying factors that would produce a "chilling" effect or reluctance to report such issues could exist. The inspectors should conduct interviews where the workers feel comfortable (e.g. in their work environment). Select personnel for the interviews at random and do not allow the licensee to select the interview candidates.

Appendix A to this procedure provides guidance on preparing for the inspection and provides a list of questions that will help an inspector prepare for the interviews. If, as a result of the interviews, the inspector becomes aware of specific examples of employees being discouraged from raising safety or regulatory issues within the licensee's or contractor's organization or to the NRC, the inspector should conduct followup interviews with other witnesses or participants. The purpose of the additional interviews is to get as complete a set of facts as possible. If the inspector becomes aware of a reluctance of employees to raise safety or regulatory issues unrelated to a specific event or incident, continue pursuing the issue during the remaining interviews and try to determine the reason employees are reluctant to raise issues.

Licensee corrective action program records should not be "mined" solely for the purpose of identifying violations, other than for the intent of identifying corrective action issues. Therefore,

challenges to corrective action program resolutions are appropriate. Since licensee corrective action programs may arrive at incorrect or incomplete resolutions, inspectors should continue to review and question licensee conclusions including reviews of program records. If the inspector can show that the licensee corrective action program reached the wrong conclusion(s), enforcement action may be appropriate.

In cases where 10 CFR Part 50, Appendix B, applies, a violation of Criterion XVI, "Corrective Action," would be appropriate. In areas where Appendix B does not apply, the violation should reference a license condition or other legal requirement that stipulates the exercise of adequate corrective actions. In areas where corrective actions are not addressed by any legal requirement, the violation should reference the basic requirement which was not met.

If Severity Level IV violations are identified through the course of corrective action program reviews, the regional Division Director must agree with the enforcement action after consultation with the regional enforcement coordinator.

See Enforcement Guidance Memorandum (EGM. 99-002), "Guidance To Implement Interim Power Reactor NCV Policy," and Manual Chapter 0610 for additional enforcement guidance.

Specific Guidance

03.01 Inspection Preparation

Review strengths and weaknesses of licensee controls identified during inspections of the individual assessment areas. The review will include operating activities, management meetings, performance indicators, licensee self assessments, and an evaluation of the licensee's effectiveness when analyzing LERs.

To prepare for the inspection, review a sample of documents to gain an impression of overall licensee performance. Select documents of activities in those areas in which deficiencies are known or suspected to exist. The size of the sample is established when a sufficient amount of data has been reviewed to determine if there are any apparent current weak areas that would require a more in-depth review.

Based on this initial review and NRC management's assessment of licensee performance, determine the estimated inspection resources required and planned scope of the inspection. It is up to the skill of the inspector, with management endorsement, to determine the appropriate areas to concentrate the inspection, based on past observed performance and the potential safety/risk significance.

03.02 Corrective Actions and Corrective Action Process

Various licensee organizations may use individualized corrective action processes, or they may use a common, plant-wide process. Therefore, include items from the various processes in the inspection sample. When multiple corrective action processes exist on site, verify that the licensee's organizations adequately interact to ensure that all deficiencies required to be in the

corrective action programs are captured and that corrective actions are performed, tracked, and trended. Also, verify that corrective action is completed in a timely fashion commensurate with the safety significance of the item and that action is taken to prevent recurrence or occurrence of a similar or related problem.

Consider reviewing the general statistics of items/issues tracked in corrective action and maintenance rule monitoring processes: (e.g. How many items are identified? How long for resolutions? How many unresolved? How many repetitive problems? Are operability reviews promptly conducted? How many systems? Degree of management involvement? Who (i.e. Licensee, NRC, Other) first identified the problems?) This review should help determine the overall performance with regards to corrective actions, and help the inspector(s) determine the inspection areas on which to focus and level of detail needed to further evaluate the licensee's performance.

Review a wide range of licensee root-cause evaluations -- from significant LERs and plant operational events to equipment failures. Select problems for review which the licensee has characterized as significant. According to Criterion XVI of Appendix B to 10 CFR Part 50, licensees must take corrective action to prevent repetition for those significant conditions adverse to quality. Determine if the selected items were accurately characterized as significant or non-significant by the licensee. Some aspects that can be considered when determining the significance of issues include: the impact on plant system functionality, the consideration of whether regulatory requirements have not been fulfilled, and the scope of the adverse condition (isolated vs. generic). Determine if a root-cause analysis was conducted when it was required, and evaluate the effectiveness and validity of the evaluations.

Do not defer from pursuing problems in the balance of plant area when the analysis indicates the primary cause was in that area. Verify that the licensee's maintenance rule monitoring program captures balance of plant (BOP) problems for BOP SSCs within the scope of the maintenance rule.

Look for instances in which the licensee failed to identify the root causes of an event or a problem and for cases in which the corrective actions were insufficient or ineffective. Consider the scope of the corrective actions to ensure that similar components and activities have not been overlooked.

If problems with the licensee's assessment or implementation of corrective actions are identified, review the program and implementing procedures in detail to ensure that the programs and procedures are adequate. Under an effective program, the licensee will expand the scope of the corrective actions to include evaluations for applicability to related systems, equipment, procedures, and personnel actions. An effective corrective action program will ensure that corrective actions applicable at more than one of the licensee's facilities, be considered at all of the facilities.

If applicable, review the licensee's maintenance rule monitoring program to verify that the licensee is monitoring availability and/or reliability, or condition, as necessary, for SSCs within the scope of the maintenance rule. Determine if corrective actions, goals plus monitoring for 10 CFR 50.65(a)(1) SSCs are adequate. The licensee must monitor the performance of SSCs under 10 CFR 50.65(a)(1) with goals established for SSCs that are experiencing repetitive MPFFs or are not meeting established performance measures under 10 CFR 50.65(a)(2).

The following general standards of acceptable corrective actions apply to this section and Section 03.03:

- The problem is identified in a timely manner commensurate with its significance and ease of discovery.
- Identification of the problem is accurate and complete, and includes consideration of the generic implications and possible previous occurrences.
- The problem report is properly prioritized for resolution commensurate with its safety significance.
- The root causes of the problem are identified and corrective actions are appropriately focused to address the causes and to prevent recurrence of the problem.
- Corrective actions are completed in a timely manner.

Irrespective of the above listing, the ultimate standard for evaluating corrective actions is the reasonableness of those actions as they pertain to the nature and significance of the identified problem. As long as the corrective actions acceptably address the identified causes and no other significant, credible causes exist, the licensee's actions should be considered acceptable.

03.03 Licensee's Resolution of Problems

Perform a detailed analysis of selected events, issues, and other items relative to plant performance, to technically understand the problem, to evaluate why it occurred, and to determine the roles played by the quality verification organizations and line management in the identification and resolution of issues. For selected problems and events, this analysis will include:

- Determining the chain of events leading to the occurrence of the problem.
- Developing an understanding of the technical and work activities associated with the problem.
- Determining the information that is needed for understanding its generic implications.
- Determining the extent to which the licensee identified precursors and the root cause of the problem and investigated the facts surrounding its occurrence.

- Identifying the licensee's actions to correct the problem and the remedial actions taken to preclude its recurrence.
- Determining licensee trending efforts.

See the general standards of acceptable corrective actions discussed in Section 03.02 of this procedure.

03.04 Operating Experience Feedback

Review the implementation of tracking and trending programs utilized by the licensee for identifying and closing out action items associated with the operational experience program. Review the implementation of the more safety-significant action items associated with training programs, procedures, and corrective action programs to ensure the recommendations and concerns have been implemented and addressed.

Select and evaluate the most-safety-significant items in each of the major functional areas, or sample in depth operating experience in a specific area (e.g. motor-operated valve performance, stress corrosion cracking, etc.). The evaluation will provide an overall assessment of the licensee's programs for implementing industry lessons learned. Since the industry information is usually provided to the licensee as recommendations, focus on the applicability of the recommendations to the licensee and how the recommendations were handled.

In addition, verify that the licensee uses industry-wide operating experience, where practical, when developing goals and monitoring for SSCs in the 10 CFR 50.65(a)(1) status. Also, determine if industry-wide operating experience is used to complete periodic evaluations required under 10 CFR 50.65(a)(3).

03.05 Self-Assessment Activities

The exact organizational arrangement for safety review at each licensee will differ. Whatever the organizational arrangement, there must be serious management commitment to safety review, and safety review officials must have the requisite abilities, experience, and authority to produce high-quality technical work.

Assess the effectiveness of the licensee's quality organizations and line management to determine whether the licensee responds promptly and effectively to deficiencies in quality. The primary focus of this evaluation is on the quality of the assessment with a secondary evaluation of the number of self-assessments that were conducted. The evaluation will be of sufficient depth and detail to provide an overall assessment of the licensee's capability to assess itself, and to determine management's responsiveness to issues raised by the self-assessment organization.

Verify that the quality organization has access to upper line management, and the authority to effectively use that access. Determine the extent to which the quality organization is actually meeting with line management, as this is a key indicator of their effectiveness.

Verify that quality activity reports, assessments, and audits accurately reflect the findings and observations of the auditors, to ensure that management is receiving a complete and unbiased perspective of the plant's quality achievement and deficiencies. To assess organizational independence, determine whether reports have been revised by line management in a manner that has improperly changed the substantive content of the report prior to exit meetings or final documentation.

It is important that resident and region-based inspectors be aware of significant third-party audits, reviews, and investigations affecting plant operations, and the major findings resulting from such third-party reviews.

Interviews with various quality organization personnel are useful when evaluating the effectiveness of communications and in identifying additional responsibilities assigned to the quality organization.

03.06 Onsite and Offsite Review Committee Activity (or Equivalent)

Determine if the committees have been aggressive in seeking out areas needing improvement, rather than just responding to events and information from outside sources. The inspector's review must be of sufficient depth and detail to provide an overall assessment of the committee's ability to identify, assess, and resolve issues. Effective safety committees will emphasize technical achievement over programmatic conformance.

Review the safety committees' trending programs for tracking and analyzing adverse conditions, which include the identification of repetitive problems that are not readily apparent. Evaluate the licensee's trending programs based on a review of the adequacy of trends developed for repetitive problems, analysis of trended data, and timeliness of improvements, replacements, and modifications to systems or equipment. In developing these trends, the licensee should have considered the occurrence of problems that are related as well as those that are identical. Additionally, trending should not be reserved for systems and equipment; trends can also be invaluable to managers in identifying and correcting personnel performance issues. Consider the effectiveness of the safety committees to communicate the results of trending analyses to managers, and the managers' subsequent involvement in resolving related issues.

03.07 Corrective Actions for Non-Cited Violations and Items of Comparable Significance Within the Licensee's Corrective Action Program.

Inspection should include verification of corrective action implementation by physical verification of plant systems and components or activities in progress, whenever possible. Otherwise, a review of documentation is adequate.

This inspection will examine whether the licensee's evaluations included a review of findings from internal audits and inspections in arriving at determinations on the repetitive and generic nature of a finding and the effectiveness of licensee programs. A sample

of both NRC and licensee identified issues is required to assure licensee's are addressing issues commensurate with their risk significance and are not placing undue significance on an item simply because the NRC identified it. Where an item is identified as repetitive in nature, the licensee should have conducted an in-depth analysis to determine why the previous corrective actions failed to prevent recurrence. The generic implications of the failure should also be considered when applicable.

03.08 Use of Risk Insights

The inspector should refer to IC 2515 Appendix C for guidance on the use of P.A. insights to help in the selection and prioritization of items to inspect. If necessary, contact NRC P.A. specialists (e.g., Senior Reactor Analysts or the NCR Probabilistic Safety Assessment Branch) for assistance.

40500-04 RESOURCE ESTIMATE

For planning purposes, the average direct inspection effort to complete this inspection procedure is estimated to be 192 hours of direct inspection each assessment period, although the inspection time spent at each site will vary according to NRC management's assessment of licensee performance. For example, an inspection of a good performer might consist of a one week effort by three inspectors, while an inspection for a poor performer might consist of two or more weeks and a larger team. If possible, the resident inspector for the site selected should be assigned to the team, or at least be available to provide the team an assessment of the strengths and weaknesses of the licensee's corrective action efforts early in the inspection.

40500-05 REFERENCES

NUREG-0800, Standard Review Plan, Section 13.4, "Operational Review"

NUREG-1499, "Reassessment of the NRC's Program for Protecting Allegers Against Retaliation."

Standard Technical Specifications, Section 6.0

ANSI N18.7-1976, "Quality Assurance for the Operational Phase of Nuclear Power Plants"

ANSI/ANS 3.2-1982, "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants"

Regulatory Guide 1.33, Revision 2, "Quality Assurance Program Requirements (Operational)," February 1978.

Memorandum of February 14, 1986, from J. M. Taylor to regional administrators entitled "NRC Use of Evaluation Reports" (DCS 68289/200)

Memorandum dated October 4, 1996, from John F. Stolz, Director, Project Directorate I-2, Division of Reactor Projects I/II, to Richard W. Cooper, Director, Division of Reactor Projects, Region I, "Response to Task Interface Agreement Regarding Regulatory Requirements for Audits of Technical Specifications Activities Subject to the Provisions of Appendix B to 10 CFR 50, Beaver Valley Power Station, Units No. 1 and 2 (TAC Nos. M96187 & M96188) (DCS 73045/093-113)

Nuclear Management and Resource Council, NUMARC 93-01, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants" (DCS 88706/182-340)

U.S. Nuclear Regulatory Commission, Regulatory Guide 1.160, "Monitoring the Effectiveness of Maintenance at Nuclear Power Plants"

END

Appendix A: Guidance For Conducting Interviews

APPENDIX A - GUIDANCE FOR CONDUCTING INTERVIEWS

In preparing to conduct the interviews, the inspector should review allegations received in the last 12 months to determine if the NRC has received or confirmed any allegations of discrimination or chilling effects. The inspector should also determine if the allegations are coming from specific portions of the licensee's or contractor's organization. To the extent the information is available, the inspector should determine if there been an unexplainable change in the number or nature of concerns raised by employees to the licensee's corrective action program or employee concern program or the NRC.

Suggested Questions

1. How would the interviewee raise a safety or regulatory issue (e.g. inform supervisor, corrective action program, ECP, NRC)?
2. Why would they pick that approach (e.g. supervisor's preference, trying to keep numbers down, system difficult to use)?
3. Has the person being interviewed ever submitted an issue to the corrective action program or the ECP? Was the issue adequately addressed? If not, did he or she pursue the issue? If not, why not?
4. Does the interviewee know whether employee concerns are tracked to completion and whether employees are informed of the result?
5. Does the interviewee believe the licensee's corrective action programs are successful in addressing issues submitted?
6. Is the interviewee aware of any specific instances in which another employee submitted an issue to the corrective action program or ECP and considered the licensee's response incomplete or unacceptable or was retaliated against for pursuing the issue? (Try to get enough specific information to followup with the other employee.)
7. Does the interviewee believe there has been a change in the amount of time necessary to resolve corrective action issues or employee concerns?
8. Is the interviewee aware of or have there been interactions with NRC personnel that suggest that some employees may be hesitant to raise concerns or present information to the NRC?
9. Is the interviewee aware of any events that would discourage employees from raising concerns (e.g. chastisement for submitting issues to corrective action program, ECP, or NRC; supervisors holding up submittal of concerns).

10. Has there been an unexplainable change in the number or nature of concerns raised by employees to the licensee's corrective action program or employee concern program or the NRC?
11. Are there any unofficial corrective actions or tracking systems that exist because the existing formal systems are thought to be ineffective? (Unofficial corrective actions that bypass the recognized corrective action program have been previously in engineering and health physics areas.)