

NRCREP - RUG IV Public Comments on the Implementaion of the Reactor Oversight Process

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Subject: RUG IV Public Comments on the Implementaion of the Reactor Oversight Process

Subject: Solicitation of Public Comments on the 2007 Implementation of the Reactor Oversight Process

Please find attached comments developed by the RUG IV group.

Regards,

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December 10, 2007

Mr. Michael T. Lesar
Chief, Rulemaking, Directives and Editing Branch
Office of Administration (Mail Stop: T-6D59)
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

SUBJECT: Solicitation of Public Comments on the Implementation of the Reactor Oversight Process

REFERENCE: *Federal Register* Vol. 72, No. 196, Pages 57975 – 57977,
Dated October 11, 2007

Dear Mr. Lesar:

The Region IV Utility Group (RUG IV) is pleased to submit our comments regarding the implementation of the Reactor Oversight Process (ROP). This is the fifth year for the RUG IV Licensing Managers to respond to this federal register request. The comments included in this letter are the collective comments of the RUG IV members and are not necessarily reflective of any single utility.

In general, we believe the ROP is meeting the established performance goals. Furthermore, we appreciate the opportunity to meet on a monthly basis with the NRC and the public to provide direct input to revisions and enhancements of the ROP and look forward to ongoing discussions in the coming year. Our detailed comments that may help to further improve the process are contained in the attachment to this letter.

If there are any questions regarding these comments, please contact me at (402) 533-6913 or gcavanaugh@oppd.com.

Sincerely

Gary Cavanaugh

2008 Chairman
Region IV Utility Group

2007 RUG IV Response

Questions related to specific Reactor Oversight Process (ROP) program areas

(As appropriate, please provide specific examples and suggestions for improvement.)

- (1) Does the Performance Indicator Program provide useful insights to help ensure plant safety?

Comments:

The Performance Indicators (PIs) have developed into performance standards that the industry strives to meet. Since the PIs are based on NRC defined acceptable limits, they reinforce industry and licensee safety performance. Implementation of MSPI is considered an enhancement by adding a more risk informed performance indicator to the PI program.

The new Unplanned SCRAMS with Complications (USwC) PI appears to be better focused with more clear guidance. This new PI takes into account the risk informed safety significance of specific SCRAMS. However, more run time will be necessary to draw meaningful conclusions.

- (2) Does appropriate overlap exist between the Performance Indicator Program and the Inspection Program to provide for a comprehensive indication of licensee performance?

Comments:

Performance indicators look at the areas where clear performance thresholds have been developed. This allows the inspection program to spend more time looking at those areas that require evaluation and investigation. The process is well integrated and, while overlap exists, the overlap seems appropriate.

(3) Does NEI 99-02, "Regulatory Assessment Performance Indicator Guideline" provide clear guidance regarding Performance Indicators?

Comments:

While questions on the guidance do arise, the FAQ process is responsive to those questions. The guidance is then updated periodically based on the FAQs to enhance the guidance in an ongoing process. The Reactor Oversight Process Task Force (ROPTF) monthly meeting, in concert with its NRC counterpart meeting, is an effective means to drive these issues to resolution. The current FAQ appeal process is an effective tool and should be maintained.

The introduction of the Mitigating Systems Performance Index (MSPI) as a replacement performance indicator for the Safety System Unavailability performance indicator introduced the concept of using component reliability along with train unavailability as a means of estimating the total probability that a system would be unable to perform its risk significant function when called upon.

An issue has emerged with regard to determination of MSPI unavailability (UA). Current guidance is subject to interpretation regarding treatment of a newly discovered condition when a subsequent investigation determines the condition may have existed for some period of time prior to its discovery. This has led to discussions over what is the correct "time of discovery" to be used as the starting point for counting UA. Clarification of this "failed discovery" or "time of discovery" question is necessary to ensure the appropriate UA is applied to each MSPI input.

RUG IV believes the UA that is already accounted for through the reliability part of the MSPI must be also be considered. The inclusion of a failure of a component in the index calculation is equivalent to a given amount of unavailability. Counting both the unavailability and the failure would result in "double counting" the risk impact of the condition. Recent FAQs addressing this concern have not resulted in resolution of this difference in interpretation. RUG IV is encouraged that discussions have also recognized that MSPI does account for, but may not precisely capture the effects of latent defects such as errors that are identified through design analysis. In these cases, the ROP significance determination process may be the more appropriate tool for addressing performance issues associated with failed discovery. The event response aspects of the ROP may also require specific inspection activities to evaluate issues that are also within the scope of MSPI. The ROP does include provisions for addressing double counting of assessment inputs, should there be both an inspection and PI input to consider for assessment.

RUG IV encourages continued efforts to ensure consistent implementation of the NEI 99-02 guidance, with appropriate clarifications as issues are resolved.

- (4) Can the Performance Indicator Program effectively identify declining performance based on risk-informed, objective, and predictable indicators?

Comments:

The MSPI is a good risk-informed indicator and does identify conditions based on risk implications for the systems monitored. Other indicators may falsely indicate conditions as risk significant when they are not, because of the limited risk insights in the design of the PI. The industry and NRC staff should continue to develop more risk informed elements for other existing indicators. Risk informed PIs also tend to permit early identification of declines in performance, which RUG IV believes is our mutual goal.

- (5) Does the Inspection Program adequately cover areas important to safety, and is it effective in identifying and ensuring the prompt correction of any performance deficiencies?

Comments:

Yes.

The NRC should consider enhancing the use of generic communications when inspection trends become evident.

RUG IV believes development of a process that parallels the ROP PI & Security FAQ processes would be beneficial for resolution of inspection or enforcement issues that have potential generic aspects. Issues could be considered to have potential generic aspects if they are potentially applicable to more than one licensee or NRC guidance documents are affected. The process would be consistent with the principles of good regulation, enforcement policy goals and continued improvement of ROP programs and processes.

Examples of prior inspection issues that could have been evaluated by such a process include; manual actions for response to fires, assessment of post-fire safe shut down equipment, and technical questions identified during inspections that involve development of new regulatory positions. Enhanced use of generic communications would also promote consistency between the NRC regions.

RUG IV believes such a process could be implemented that maintains NRC timeliness goals. RUG IV intends to prepare draft documents to facilitate further discussion and establish the feasibility of such a process.

(6) Is the information contained in inspection reports relevant, useful, and written in plain English?

Comments:

Yes.

Generally, the reports are relevant, useful and written in plain English.

The recent revision to ROP guidance with the addition of the numbering scheme in MC 0305 for crosscutting aspects is an improvement. However, improvements can be made in the arrangement of the inspection report. Often it is necessary to review multiple sections of the report to identify all of the analysis elements associated with an Inspection Finding. For example, to understand the performance deficiency, why the issue is greater than minor, why the issue is non-cited or not, and the associated cross-cutting aspect, it may be necessary to review the Summary of Findings, the Report Details, and the Supplemental Information sections of the inspection report. Enhanced guidance may be necessary to provide consistency in documenting cross-cutting aspects.

The recent revision to MC 2515 regarding Inspection Exit Meetings will help to promote a mutual understanding of the issues identified during the inspection and should promote enhanced clarity of the inspection report.

(7) Does the Significance Determination Process result in an objective and understandable regulatory response to performance issues?

Comment 1:

There are too many SDPs that are not based on risk or actual effect thresholds. The Radiation Protection, Security, and Emergency Preparedness, and other deterministically based SDPs, are very subjective (and commonly aggregate multiple non-significant findings into a single significant finding). The industry and NRC staff should continue to improve these SDPs by including more risk-based elements thus helping to limit the process subjectivity.

Comment 2:

The SPAR models used by the NRC in determining risk are outdated. As an alternative, RUG IV encourages the use of the licensee Regulatory Guide 1.200 compliant PRA models to support the SDP process as they become available.

Use of this approach would be analogous to the current structure for reporting of Performance Indicators. The data is collected and submitted utilizing industry developed guidance which has been endorsed for use by the NRC via a Regulatory Issue Summary (RIS). The reliability of the Performance Indicator data submitted by licensees is confirmed through PI Verification inspections as part of the baseline inspection program.

Comment 3:

Also of concern is the subjectivity in the application of human reliability analysis as an input to a given significance determination evaluation. The success criteria for personnel actions to mitigate an event are not clear. This area needs additional consideration as the industry and NRC continue to improve their risk modeling tools, as well as continuing their expanded use.

Comment 4:

An additional concern is the aggregation of individual findings to increase the significance of the finding. As an example, the Security Physical Protection SDP was applied by scoring the individual violations and then totaling the points to total the score for the finding. This conflicts with the Enforcement Manual guidance which requires the overall significance of the aggregated finding is established by the most significant finding when evaluated separately.

(8) Does the NRC take appropriate actions to address performance issues for those plants with identified performance deficiencies?

Comments:

Yes.

The NRC action in accordance with the Action Matrix is clear and consistent for single White findings, but appears less consistent for more complex issues. There is evidence that process is not always followed (or may be deviated from) when circumstances should result in moving a licensee to a lower action state. Once a deviation from the process has occurred, it becomes unclear how to exit from the overall process.

For licensees with identified Substantive Cross-Cutting Issues, the rate of findings identified with cross-cutting aspects is essentially 100 percent for NRC Region IV licensees, as compared to approximately 75 percent for licensees in the remaining three regions. The data suggests a need for clarified guidance to provide consistency and predictability.

(9) Is the information contained in assessment reports relevant, useful, and written in plain English?

Comments:

Yes.

The recent work by the NRC staff to clarify the exit process for a Substantive Cross-Cutting Issue was very effective. The documented analysis of cross-cutting aspect inputs to the assessment process has improved, primarily as a result of the NRC's revised guidance to their inspectors. Given the regulatory principles that guided the development of the ROP (that overall assessments of licensee performance remain transparent, understandable, objective, predictable, risk-informed, and performance-based), any change in the assigned cross-cutting aspect should be re-exited and the inspection report updated.

Questions related to the efficacy of the overall ROP. (As appropriate, please provide specific examples and suggestions for improvement.)

(10) Are the ROP oversight activities predictable (i.e., controlled by the process) and reasonably objective (i.e., based on supported facts, rather than relying on subjective judgment)?

Comment 1:

In terms of predictability, RUG IV has concerns with whether the applicable guidance is being followed. A number of performance deficiencies default to "affects the cornerstone objective" or "could become more significant if left uncorrected" as the reason for the issue being greater than minor. Current guidance to inspectors for whether a potential inspection finding is greater than minor is contained in MC 0612 Appendix B, Issue Screening and Appendix E, Examples of Minor Issues. Much of the current criteria are subjective in nature.

MC 0612 Appendices B & E should be considered living documents. Insufficient examples are currently available to establish a consistent philosophy. Use of a process similar to the PI FAQ process could be used to develop additional examples and provide enhanced guidance for answering screening questions.

Comment 2:

In the NRC consolidated response to the 2006 Reactor Oversight Process (ROP) external survey (ADAMS Accession Number ML072070140), the NRC staff response on page 8 stated:

“Additionally, with the development and implementation of the relatively new MSPI, given that this is the first set of PIs that are risk-informed, there will be instances where MSPI inputs and inspection findings on the same system will both be counted in the Action Matrix, because the two processes are fundamentally different in concept, thus have different meanings and each should stand on their own merit.”

NEI addressed this response in a letter to the NRC dated September 24, 2007, and noted the following;

“We view this last sentence to be inconsistent with the stated basic tenet of the ROP to not “double-count” events/findings in the Action Matrix. Contrary to the NRC staff statement made above, MSPI results are risk-informed and share more in common with risk-informed Significant Determination Process (SDP) results than any other performance indicator.

The above statement on “double-counting” of MSPI/SDP results is particularly troubling. We are aware that NRC is currently performing a review of events at a plant where a failure was common to both the white performance indicator result and a white SDP finding. Review is underway to determine whether or not the circumstances associated with this issue constitute “double-counting” of a performance indicator and an inspection finding.

Current ROP guidance states that issues with the same underlying causes should not be “double-counted” in the assessment program. The failure cited above caused the MSPI indicator to go from green to white. This same failure was evaluated under the SDP to be white. We see no basis for a conclusion that supports “double-counting” in this circumstance. As such, we would view a decision to count the white MSPI result and the white SDP result in the Action Matrix as a deviation, subject to the requirements contained in IMC 0305, Section 06.06.f.

Regarding the statement cited above that indicates that MSPI results and SDP results “have different meanings and each should stand on their own merit,” we request a response that clearly identifies the basis for the statement or, preferably, a retraction.”

RUG IV agrees that MSPI results are risk-informed and are subject to the ROP guidance for double-counting in the assessment process. Therefore, RUG IV fully supports the position set forth in the NEI letter.

(11) Is the ROP risk-informed, in that the NRC's actions are appropriately graduated on the basis of increased significance?

Comments:

Yes.

See also responses to Questions 7 and 10 as applicable to this item.

(12) Is the ROP understandable and are the processes, procedures and products clear and written in plain English?

Comment 1:

Yes.

The ROP products are generally clear and understandable. A process for addressing potential generic inspection issues would be helpful instead of identifying the issues plant by plant. Please see our discussion in response to Item 5.

Comment 2:

Regulatory Issue Summary, RIS 2007-21 "Adherence to Licensed Power Limits", was issued August 23, 2007 to reinforce adherence to the maximum power level specified in individual plant licenses. The RIS also retracted long-standing enforcement guidance that has been used by both inspectors and licensees to determine whether normal and expected fluctuations in power meet plant license requirements. It should be noted this guidance has been retained in the ROP inspection program.

RUG IV fully supports the primary message of the RIS. NRC licensees should not intentionally operate above 100% steady state rated thermal power (RTP), and they should take corrective action to reduce thermal power whenever they find it above the operational limit specified in the plant-specific operating license. However, some degree of fluctuation in thermal power is a normal part of plant operation, and is neither a license violation nor outside the design basis. By retraction of the long standing guidance regarding normal and expected fluctuations in power, an unintended consequence was created by not replacing the best available guidance, leaving no practical definition of steady-state operation at RTP.

RUG IV fully endorses the NEI letter to the NRC dated September 24, 2007 which addresses this concern. RUG IV agrees unintended consequences such

as this could be substantially reduced if the generic communication were made available for a public comment period prior to being issued.

(13) Does the ROP provide adequate assurance, when combined with other NRC regulatory processes, that plants are being operated and maintained safely?

Comments:

Yes.

(14) Is the ROP effective, efficient, realistic, and timely?

Comment 1:

Overall we are in general agreement. However, the current cycle of CDBI inspections have committed substantial NRC and licensee resources. CDBI inspections are identifying a disproportionately low number of findings for this effort. Additionally, only one "greater than Green" finding has been identified. A significant opportunity exists to improve the efficiency of this process by applying more discipline to schedule adherence of the inspection. Additionally, NRC inspector exit meetings are occasionally significantly delayed in time from the close of inspection activities onsite, resulting in additional process inefficiencies.

We are encouraged by current discussions to extend the frequency of these inspections to three years, from the current two year frequency. However, we remain concerned the scope of these inspections is not commensurate with licensee performance and is overly burdensome. Licensees are not typically making significant design changes to plants that would warrant inspection activities this extensive. Additional efficiencies could also be realized by forming permanent inspection teams to conduct the inspections.

Comment 2:

The current occupational radiation safety inspections are also an area where the level of inspection activity reduction may be appropriate. Industry performance in the area of personnel radiation collective dose continues to improve. The current inspections are scheduled 2 or 3 times per year, and could be more effective if scheduled to align with the licensees operating cycle which is typically 18 to 24 months. MC 0308, App. C, notes, "Reactor licensees currently have mature ALARA programs..". Consideration should be given to extending the frequency and reducing the inspection hours allocated for the Occupational Radiation Safety cornerstone consistent with current licensee performance.

Comment 3:

We are also encouraged by proposed changes under consideration for the SDP process. The proposed changes would permit in progress licensee efforts, to be considered in the final significance determination decision. This would make the best available information available when dealing with complex issues that can occur when potential "greater than green" findings are identified and ensure the most appropriate significance is established for the finding.

Comment 4:

The current ROP assessment process requires an evaluation of licensee performance every six months. In some cases, the mid-cycle assessments consume resources unnecessarily both for the NRC and Licensees. For plants with good performance; i.e. Licensee or Regulatory response Column of the NRC Action Matrix, it may be appropriate to formally assess licensee performance annually. Licensees with performance in the Degraded Cornerstone column of the Action Matrix or an identified Substantive Cross-Cutting Issue should continue to receive an assessment every six months.

(15) Does the ROP ensure openness in the regulatory process?

Comments:

Yes.

Comment 1:

However, as discussed in the response to Question 12, unintended consequences may occur when stakeholder input is not considered whenever appropriate. As the agent for the industry, NEI routinely requests the opportunity to review draft documents and provide feedback in a public venue. However, the NRC is reluctant to share draft information, particularly in the areas of inspection procedures and changes to Manual Chapter guidance. RUG IV is interested in working with the NRC to identify methods that may be available to exchange information as documents are developed to avoid unintended consequences, while maintaining the NRC's required independence.

Comment 2:

Another area that is not open but sometimes used for ROP issue resolution is the Task Interface Agreement (TIA) process (NRR Office Instruction COM 106). This process is designed for internal use by the NRC. When the TIA process is used to resolve questions that an inspector may have as a result of an inspection issue, the process is not open for Licensee input and as such only the inspector's input may be considered. In many cases, Licensees are unaware the TIA process is being used and are not able to ensure that the question being asked

by the inspector is accompanied by all relevant facts and information. In the interest of promoting consistency and reducing unintended consequences, the TIA process should be more open to stakeholder input and feedback.

RUG IV believes the key elements of the TIA process could be incorporated into a process similar to the ROP PI FAQ process which could provide a venue for appropriate stakeholder inputs prior to NRC reaching a decision. Additionally, this process could provide a mechanism for documenting the resolution and updating applicable guidance documents, thereby promoting consistency. See also response to Question 18.

(16) Has the public been afforded adequate opportunity to participate in the ROP and to provide inputs and comments?

Comments:

Yes.

(17) Has the NRC has been responsive to public inputs and comments on the

Comments:

Yes.

RUG IV supports continued published responses to public feedback.

RUG IV also supports the proposed changes to the SDP for the Public Radiation Safety Cornerstone that eliminates the aggregation of findings when the individual inputs are below the detectable threshold.

(18) Has the NRC implemented the ROP as defined by program documents?

Comments:

Yes.

See our comments on Questions 5 and 12 above.

RUG IV has a concern that regional inspectors may receive guidance from NRR staff regarding what they believe to be the intent of the guidance through informal communication channels. The primary concern is this approach may not be consistent with an in an agency position, is typically not well documented and may promote continued inconsistency.

(19) Does the ROP result in unintended consequences?

Comments:

Current licensee experience finds that on occasion, significant time is expended on minor issues. Continued discipline in this area is needed to reduce the unnecessary regulatory burden that can occur when efforts are not well focused.

RUG IV understands that the staff is open to further discussion on this issue at future ROP working group meetings. RUG IV supports continued discussion in this area and will support the efforts of the ROP Working Group. Please see Question 10 for additional comments.

Questions related to the safety culture aspects of the ROP.

(20a) Do the ROP inspection and assessment safety culture enhancements help to focus licensee and NRC attention on performance issues associated with aspects of safety culture?

Comments:

Yes.

The safety culture enhancements were implemented in 2006. Additional run time is needed to draw any conclusions with regard to whether the desired focus on performance issues associated with safety culture has been realized. It is notable implementation has not been consistent across all regions. RUG IV believes the overall goal to be able to identify declining performance prior to the identification of a significant safety concern is appropriate, but continued monitoring for improvements will be necessary to determine the desired outcomes have been achieved.

(20b) Do the baseline Identification and Resolution of Problems inspection procedure (71152) and the special inspection procedures (93800 and 93812 respectively) provide an appropriate level of guidance on safety culture aspects and on the consideration of causal factors related to safety culture?

Comments:

Yes.

(20c) Do the supplemental inspection procedures (Inspection for One or Two White Inputs in a Strategic Performance Area (95001), Inspection for One Degraded Cornerstone or any Three White Inputs in a Strategic Performance Area (95002)) respectively provide an appropriate level of guidance to evaluate

whether safety culture components have been adequately considered as part of the licensees' root cause, extent of condition, and extent of cause evaluations and to independently determine if safety culture components caused or significantly contributed to the risk significant performance issues?

Comments:

Yes.

However, RUG IV is concerned that recent 95001 and particularly 95002 supplemental inspections are not being successfully completed by licensees. RUG IV believes further interaction with the industry would be appropriate to discuss the challenges and proposed remedies for successful completion of the supplemental inspection activities. These insights could result in overall improved industry performance. The desired interactions could be provided with some combination of industry meetings/workshops and generic communications (update to RIS 2006-013). RUG IV would welcome the opportunity to assist in facilitation of a workshop for Region IV licensees.

(20d) Does the procedure for a Supplemental Inspection for Repetitive Degraded Cornerstones, Multiple Degraded Cornerstones, Multiple Yellow Inputs, or One Red Input (95003) provide an appropriate level of guidance to independently assess the licensee's safety culture and evaluate the licensee's assessment of their safety culture?

Comments:

Please see the response to Question 20c. Currently only one 95003 supplemental inspection has been performed utilizing this revised guidance and is still in progress. Therefore, it is too soon to draw any conclusions.

It will be important to evaluate the results of the inspection to ensure the focus did achieve the desired results with regard to 1) establishing the remaining safety margin and 2) determining the extent the licensee's safety culture contributed to the decline in performance. Because the inspection is appropriately more diagnostic in nature, significant resources are required by both the licensee and NRC to complete the inspection. Care must be taken this level of effort does not have unintended consequences and do more harm than good.

(20e) Do the ROP inspection reports clearly describe inspection finding cross-cutting aspects?

Comments:

Yes

Please refer to the response to Question 6.

(20f) Do the Operating Reactor Assessment Program (0305) cross-cutting components and cross-cutting aspects provide an adequate coverage of the cross-cutting areas?

Comments:

The design of the cross-cutting aspects does provide broad coverage of the cross-cutting areas. However, in actual practice only a few of the available cross-cutting aspects are assigned to findings. While the process is relatively new, there may be a need to clarify or redefine the individual cross-cutting aspect definitions.

(21) Please provide any additional information or comments related to the Reactor Oversight Process.

Comments: The MC 0305 assessment process requires greater than three findings with a common theme be evaluated to determine whether a substantive cross-cutting issue may exist. This threshold was established prior to the implementation of the safety culture initiative in 2006 as described in RIS 2006-013. When this threshold was established a limited number of inspection findings were assigned cross-cutting aspects. However, with this recent initiative, the majority of inspection findings have assigned cross-cutting aspects. RUG IV recommends the threshold be adjusted to reflect the current practice of assigning cross-cutting aspects to all findings.