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Date: 12/20/02 4:58PM
Subject: Reactor Oversight Process Third Year of Implementation

On behalf of Steve Floyd:

December 20, 2002

Mr. Michael T. Lesar
Chief, Rules and Directives Branch
Office of Administration
Mail Stop: T-6 D59
U.S. Nuclear Regulatory Commission
Washington DC 20555-0001

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

Dear Mr. Lesar:

On behalf of the nuclear energy industry, the Nuclear Energy Institute (NEI) is submitting the enclosed comments on the third year of implementation of the Reactor Oversight Process, as requested by the Nuclear Regulatory Commission in the Federal Register on November 22, 2002 (67 Fed. Reg. 70468).

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Stephen D. Floyd
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REGULATORY REFORM
NUCLEAR GENERATION

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Dear Mr. Lesar:

On behalf of the nuclear energy industry, the Nuclear Energy Institute (NEI) is submitting the enclosed comments on the third year of implementation of the Reactor Oversight Process, as requested by the Nuclear Regulatory Commission in the *Federal Register* on November 22, 2002 (67 Fed. Reg. 70468).

We believe that the new Reactor Oversight Process, initially implemented in April 2000, is a striking improvement over the previous program, and that it has continued to improve over the past several years. As we have stated in previous comment letters on the new Reactor Oversight Process, we appreciate NRC's openness and willingness to consider stakeholders' comments and recommendations. The continuing degree of public interaction has allowed the process to effectively address most emerging questions and unforeseen concerns in a timely and fair manner. The disciplined approach of subjecting the process to continuous improvement through routine public meetings, internal NRC assessments, and periodic solicitation of public feedback are to be commended.

The enclosure provides specific comments on questions posed by the NRC; however, there are several issues that we believe should receive priority treatment:

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1. Improvement is needed in several of the program's performance indicators. We believe the top priorities should be the Mitigating System Performance Index (MSPI) (the replacement for the safety system unavailability indicator) and the Scram with Loss of Normal Heat Removal indicator. The pilot program for the MSPI appears to be proceeding quite well, but considerable effort by the industry and NRC will be required in 2003 to work out the details of the indicator and to be prepared to implement it in January of 2004. The Scram with Loss of Normal Heat Removal indicator has caused immense confusion since the implementation of the ROP. We recommend that this performance indicator be suspended until the problems with the indicator, including the definition, its potential impact on operator actions, and the thresholds, can be resolved. Industry is prepared to place a high priority on correcting the deficiencies in this indicator. While several other indicators could be improved, we believe these two require priority attention
2. The Reactor Significance Determination Process (SDP) for At-Power Situations has, for the most part, been successful in assessing the risk significance for performance deficiencies. However, there are several weaknesses that need to be corrected. First, the use of phase 2 notebooks creates a considerable work load on the NRC and licensees and is often untimely. We believe that the phase 2 process can be greatly improved by replacing the phase 2 notebooks with SPAR model results. If there is to be any other simplification of the phase 2 notebooks short of using the SPAR models, we request that industry PRA experts be allowed to participate in public in that development. Second, in several cases over the past year, the NRC regional staff unnecessarily delayed the process by refusing to share their issues and concerns with the licensee so that the appropriate information could be provided to the staff prior to a regulatory conference. Not sharing their safety concerns and not expeditiously determining the correct safety significance of the issues serves to defeat key elements of the new ROP: timely resolution of problems and appropriate allocation of NRC resources. We recommend greater communication of technical information early in the phase 2 process. Third, the practice of stating the preliminary color (white, yellow, or red) of a finding in an inspection report before all the information has been analyzed is inappropriate and creates confusion in the public's mind. The preliminary colors can create an unwarranted level of concern about the operation of the nuclear plant. Any subsequent change in color provides critics with an opportunity to challenge the integrity of the oversight process and create doubt in the public's mind. We recommend that findings believed to be more risk significant than green be described simply as "potentially greater than green." This will avoid unnecessary burden on licensees and

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unwarranted public concern and later confusion when the more appropriate result is announced following a Phase 3 evaluation. Finally, NRC needs to have better coordination of the improvement and validation efforts for the SDP phase 2 worksheet validation, SDP task force review, and SPAR model validation efforts. NRC should develop an integrated improvement plan before too many resources are expended on these overlapping initiatives.

3. While the results in the Initiating Events, Mitigating Systems, and Barrier Integrity cornerstones are generally consistent and risk-informed, the SDP logic for Emergency Preparedness, Occupational Radiation Safety, Public Radiation Safety, and Physical Protection cornerstones do not result in equivalent results for issues of similar risk significance. In general, they represent a deterministic escalation for various types of regulatory noncompliance. There have been instances in all four of these cornerstones in which the resultant significance determination has been completely inappropriate for a program which is striving to be risk-informed and to inform the public of the true risk significance of the regulatory violation. We note that NRC is working to improve the SDP processes and has made good progress in the Occupational and Public Radiation Safety cornerstones. While some improvement was also made in the Emergency Preparedness SDP to correct inappropriate finding significance, we believe more effort needs to be invested. The Emergency Preparedness SDP results stand out as an area where inconsistencies exist between regions in interpreting the SDP. We believe that the SDP and Enforcement Review Panel (SERP) is an appropriate mechanism for NRR to ensure consistency across regions in interpretations of the SDPs, but we believe it has not been fully effective in the EP area, and that regional inspectors have improperly interpreted the EP SDP, causing significant wasted effort by NRC and licensees. Work on improving the Physical Security SDP has been on hold, and we welcome the opportunity to recommence work in this area, once important underlying issues have been resolved. We also note the significant work effort underway to improve the Fire Protection SDP. We look forward to hearing the NRC's progress on its SDP Improvement Program and the results of the recent task force looking into SDPs. We appreciate NRC's communications with industry and the public in the development of SDPs, and look forward to ongoing discussions during the fourth year of the ROP. We believe that SDP revisions should be more thoroughly benchmarked and table-topped before implementation. We would also suggest that some form of FAQ in the Significance Determination Process would be useful to licensees. Of course, these FAQs would not be addressed during the NRC decision process on a specific inspection finding, but after a decision is made. Understanding NRC logic and interpretation of

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SDPs would be extremely valuable to licensees. A possible alternative would be semiannual workshops at which NRC could explain SDP determinations to the industry. Finally, we believe that NRC should carefully consider the need for any additional SDPs before proceeding with detailed development.

4. We recommend several improvements in the action matrix. Industry suggests that NRC change the action level criteria from two to three white inputs in a cornerstone for a Degraded Cornerstone. This threshold for increased NRC involvement would be consistent with the reactor SDP procedure of aggregating three adjacent scenarios to the next higher color. Changing this threshold will minimize the undesirable effects of licensee resistance to the identification of a single white finding, which places the licensee on the brink of a degraded cornerstone for an entire year. We also suggest that the period of time that findings are "active" in the action matrix be reduced in a graduated fashion, as opposed to the current practice of retaining them all for four quarters. Thus a white finding would be active for two quarters, a yellow three quarters and a red for four quarters. (Note, of course, that findings would continue to be retained until the NRC is satisfied that the issue has been satisfactorily resolved.) We believe NRC has appropriately created an exception for "old design issues," but additional effort is necessary to clarify what qualifies as an old design issue, and how NRC makes this determination in an effective and efficient manner.
5. A key premise of the new ROP is that weaknesses in cross-cutting issues, such as the corrective action program and safety conscious work environment, will manifest themselves in the PIs and inspection findings by crossing thresholds to be greater than green (the licensee response band). Having been revealed through the PIs or inspection findings, the weaknesses can be addressed through licensee actions and NRC supplemental inspection to ensure performance is improved before safety is compromised. We believe the program is working as intended, and therefore, no additional PIs or SDPs are necessary in the cross-cutting areas. We believe that the ROP system of performance indicators and inspection findings is a true measure of the licensee's safety culture, as it measures safety outcomes. We do, however, recommend that NRC re-examine its inspection program to verify that the inspection modules focus appropriate attention on areas of risk significance (a key element of the ROP from its beginning). We believe that unnecessary time is being spent on PI verification and that issues of minimal safety significance (for example, a few hours of unavailability over an entire fuel cycle) are being raised and wasting licensee and NRC time which could be better spent on more important safety issues. For example, temporary

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inspections to assess emerging technical issues (such as reactor vessel head integrity) and more emphasis on corrective action programs (emphasis on the ability of the program to identify and resolve issues, not subjective opinions on the licensee's programmatic elements).

6. Additional opportunities exist to make the inspection and oversight process more efficient with fewer burdens on licensees. For example:
- With the merging of many licensed operators into larger multi-site companies that share common programs and procedures, efficiency would be gained by combining programmatic inspections. A single inspection can review a common program used by multiple sites. This common inspection would reduce the inspection resources and the fees billed to a licensee while still providing adequate assurance of the program's wellness.
 - Industry efforts in the area of self-assessment could also provide an opportunity for more efficient use of NRC resources and unnecessary burden reduction. We recommend a pilot effort to take advantage of licensee self-assessment in lieu of current inspector resources for certain inspection procedures. Such a program was initiated under the old inspection program and holds promise for leveraging NRC resources by placing NRC in an oversight role and enhancing the licensee's ability to self-assess. Initial discussions have begun between industry and the NRC to determine how such a program could be established. Among the initial areas in which self-assessment could be used in place of full NRC inspections are. Engineering Design, Radiation Protection and Fire Protection.

We recognize that further refinements to the ROP will occur in the future. The ROP should be a continuously improving process which corrects weaknesses, while maintaining stability through well thought out change management processes. We believe the program is now operating in an effective manner, and is a vast improvement over the previous inspection, assessment and enforcement process of industry oversight.

The industry looks forward to a continuing dialogue with the NRC and other stakeholders as we enter the next year of program implementation.

Sincerely,



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Stephen D. Floyd

Enclosure

Enclosure

RESPONSES TO FEDERAL REGISTER NOTICE QUESTIONS

1. *Does the Performance Indicator Program minimize the potential for licensees to take actions that adversely impact plant safety?*

Yes. The Reactor Oversight Program monitors safety performance and includes both performance indicators and inspection findings. Both are used as indicators of safety performance and are objective outcomes. Licensees have programs and take actions that minimize the potential for outcomes that adversely impact safety. If performance begins to degrade, the licensee is required to determine the cause(s) for declining performance and provide effective corrective action. The NRC also increases its inspection activity in a graduated manner as performance starts to decline, as indicated by the safety outcomes. Thus the performance indicator program, together with the inspection program, provides incentives to minimize the potential for licensees to take actions that adversely impact plant safety, and provide early warning should performance begin to decline. The Performance Indicator (PI) Program motivates licensees to improve performance in the cornerstone areas. In fact, it has led to improved performance in all strategic areas. Specifically, improving trends for the industry are evident for the following performance indicators:

- Unplanned Power Changes (Initiating Events Cornerstone)
- HPCI Safety System Unavailability (Mitigating Systems Cornerstone)
- RCIC Safety System Unavailability (Mitigating Systems Cornerstone)
- Safety System Functional Failures (Mitigating Systems Cornerstone)
- ERO Drill Participation (Emergency Preparedness Cornerstone)
- ANS Reliability (Emergency Preparedness Cornerstone)
- Occupational Exposure Control Effectiveness (Occupation Radiation Safety Cornerstone)
- Protected Area Security Equipment Index (Physical Protection Cornerstone)

2. *Does appropriate overlap exist between the Performance Indicator Program and the Inspection Program?*

In general, yes. If anything, there is excessive overlap. For example, the NRC inspects some areas of Radiation Protection and Emergency Preparedness which are already covered by performance indicators. It would be better use of resources if the NRC would reduce baseline inspection in areas in which performance indicators indicate good performance, and determine what, if any, areas require more inspection, as evidenced by operating experience or newly emerging generic safety areas of concern (for example, reactor vessel head inspections). Other areas of excessive overlap include inspecting each occurrence of single equipment

failure and each uncomplicated scram, even though these areas are appropriately monitored using performance indicators. In addition, industry believes that NRC wastes resources by spending too much time verifying performance indicators, and questioning items that could only have trivial impact, for example, raising questions regarding less than an hour of unavailability over a fuel cycle. The inspection program is supposed to be risk-informed. Spending time on trivial questions is not an appropriate use of resources.

3. Do reporting conflicts exist, or is there unnecessary overlap between reporting requirements of the ROP and those associated with the Institute of Nuclear Power Operations (INPO), the World Association of Nuclear Operations (WANO), or the Maintenance Rule?

There are differences in reporting and definitions amongst the ROP, WANO/INPO and maintenance rule which have been worked on by NRC and industry over the past year. Many of the differences will be addressed if the pilot program to test the new Mitigating System Performance Index (MSPI) is successful. Industry is also working to reduce unnecessary duplicative reporting with the introduction of the Consolidated Data Entry system being developed by INPO.

4. Does NEI 99-02, "Regulatory Assessment Performance Indicator Guideline" provide clear guidance regarding Performance Indicators?

In general, NEI 99-02 provides clear guidance; however, significant confusion still exists in the Scrams with Loss of Normal Heat Removal indicator which must be addressed. We recommend that this indicator be suspended until the weaknesses in this indicator (including basic purpose, definition, impact on operations, and thresholds) can be resolved. The safety system unavailability indicator also has significant weaknesses which have resulted in the largest number of guidance interpretation questions. NRC and industry resources need to be dedicated to the replacement MSPI in 2003. The Frequently Asked Questions (FAQ) process is useful in getting clarification when necessary, and also in ensuring that a consistent interpretation is achieved rather than having individual inspectors applying their own personal interpretations. The efficiency of the FAQ process could be improved by having both NRC and industry provide better screening to eliminate FAQs with minimal safety impact (for example, questions which would have virtually no impact on the performance indicator, such as a few hours in the mitigating system unavailability indicators). Recently, the backlog of FAQs has been significantly reduced. NRC headquarters staff has been instrumental in this regard. Both NRC and industry can further improve the process by ensuring that meeting participants (licensees and NRC resident staff) are better prepared to discuss the FAQ. It may be useful for NRC to

establish a timeliness goal for FAQ resolution to monitor performance.

5. Is the information in the inspection reports useful to you?

Yes. Effective application of finding threshold criteria ensures that the reports focus on significant issues and informs the public of issues that have more than minor safety significance. The use of the objective writing style has eliminated the search for the "hidden message" that was an element of the earlier oversight process. We believe that it would also be appropriate to eliminate the practice of stating that an inspection finding has a specific preliminary color, and instead state that the inspection finding is potentially greater than green. The reason is that if a color is changed as a result of additional analysis or information, the NRC's entirely appropriate changing of the color can confuse the public, or be incorrectly perceived. We also believe that the use of the quarterly report format is more efficient and should be fully implemented.

6. Does the Significance Determination Process (SDP) yield equivalent results for issues of similar significance in all ROP cornerstones?

No. While the results in the Initiating Events, Mitigating Systems, and Barrier Integrity cornerstones are generally consistent and risk-informed, the SDP logic for Emergency Preparedness, Occupational Radiation Safety, Public Radiation Safety, and Physical Protection cornerstones do not result in equivalent results for issues of similar risk significance. In general, they represent a deterministic escalation for various types of regulatory noncompliance. There have been instances in all four of these cornerstones in which the resultant significance determination has been completely inappropriate for a program which is striving to be risk-informed and to inform the public of the true risk significance of the regulatory violation. We note that NRC is working to improve the SDP processes and has made good progress in the Occupational and Public Radiation Safety cornerstones. While some improvement was also made in the Emergency Preparedness SDP to correct inappropriate finding significance, we believe more effort needs to be invested. The Emergency Preparedness SDP results stand out as an area where inconsistencies exist between regions in interpreting the SDP. We believe that the SDP and Enforcement Review Panel (SERP) is an appropriate mechanism for NRR to ensure consistency across regions in interpretations of the SDPs, but we believe it has not been fully effective in the EP area, and that regional inspectors have improperly interpreted the EP SDP, causing significant wasted effort by NRC and licensees. Work on improving the Physical Security SDP has been on hold, and we welcome the opportunity to recommence work in this area, once important underlying issues have been resolved. We also note the significant work effort underway to improve the Fire Protection SDP. We look forward to hearing the NRC's progress on its SDP.

Improvement Program and the results of the recent task force looking into SDPs. We believe that the reactor SDP phase 2 process can be greatly improved by replacing the phase 2 notebooks with SPAR model results. If there is to be any other simplification of the phase 2 notebooks short of using the SPAR models, we request that industry PRA experts be allowed to participate in public in that development. We appreciate NRC's communications with industry and the public in the development of SDPs, and look forward to ongoing discussions during the fourth year of the ROP. We believe that SDP revisions should be more thoroughly benchmarked and table-topped before implementation. We would also suggest that some form of FAQ in the Significance Determination Process would be useful to licensees. Of course, these FAQs would not be addressed during the NRC decision process on a specific inspection finding, but after a decision is made. Understanding NRC logic and interpretation of SDPs would be extremely valuable to licensees. A possible alternative would be semiannual workshops at which NRC could explain SDP determinations to the industry.. Finally, we believe that NRC should carefully consider the need for any additional SDPs before proceeding with detailed development.

7. Does the NRC take appropriate actions to address performance issues for those licensees outside of the Licensee Response Column of the Action Matrix?

Yes, for the most part we have found that NRC takes appropriate actions to address performance issues for those licensees outside of the Licensee Response Column of the Action Matrix. We believe NRC has appropriately created an exception for "old design issues," but additional effort is necessary to clarify what qualifies as an old design issue, and how NRC makes this determination in an effective and efficient manner. Industry suggests that NRC change the action level criteria from two to three white inputs in a cornerstone for a Degraded Cornerstone. This threshold for increased NRC involvement would be consistent with the reactor SDP procedure of aggregating three adjacent scenarios to the next higher color. Changing this threshold will minimize the undesirable effects of licensee resistance to the identification of a single white finding, which places the licensee on the brink of a degraded cornerstone for an entire year. We also suggest that the period of time that findings are "active" in the action matrix be reduced in a graduated fashion, as opposed to the current practice of retaining them all for four quarters. Thus a white finding would be active for two quarters, a yellow three quarters and a red for four quarters. (Note, of course, that findings would continue to be retained until the NRC is satisfied that the issue has been satisfactorily resolved.)

8. Is the information contained in assessment reports relevant, useful, and written in plain English?

The new format is brief and focused on objective performance measures. Industry has found the reports to be relevant, useful, and written in plain English. As a separate thought, NRC should consider using the public meetings associated with the annual assessment reports as an opportunity to do more outreach/education work with the public on the reactor oversight process and its value in maintaining safety, reducing unnecessary regulatory burden, improving effectiveness and efficiency, and informing the public.

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

For the most part, yes. Industry has found that inspection planning and schedule performance has continued to improve. Good performance in this area allows for better utility planning and resource utilization. Effective application of finding threshold criteria ensures that the reports focus on significant issues, minimizes conflicts, and promotes better resource utilization. The use of the objective writing style has eliminated the search for the "hidden message" that was an element of the earlier oversight process. Industry believes that NRC needs to improve the timeliness of SDP phase 2 determinations and the communication of its questions and issues to the licensee so that the process can be more efficient. An underlying premise of the ROP was that it was to be used to determine how NRC would apply its inspection resources. Decisions that take more than three months are not timely. In a number of situations, the licensee has completed its root cause analysis and corrective action while the NRC is still working on the SDP results. One area continues to be poorly understood: How NRC determines when an "event" has occurred, as opposed to a performance deficiency. Industry believes that NRC often overreacts to performance deficiencies which are merely performance deficiencies which are addressed by performance indicators or the SDPs.

10. Is the ROP risk-informed, in that the NRC's actions are graduated on the basis of increased significance?

See response to question 6. Deterministic SDPs often misportray the safety significance of inspection findings and cause wasted resources on the part of the licensee and the NRC. The structure of the Action Matrix is appropriate in guiding the graduated response of NRC to safety issues. As discussed under question 7, we believe that a degraded cornerstone should result from three, rather than two, white outcomes (inspection findings and PIs), and the period of time findings remain in the action matrix should be graduated based on safety significance.

11. Is the ROP understandable and are the processes, procedures and products clear and written in plain English?

Yes The ROP is understandable and the processes, procedures and products are clear and written in plain English. Some of the SDP information does require a technical background to understand. In addition, there are SDPs which require technical and implementation improvement as noted above. The Fire Protection SDP has been particularly difficult to follow; however, good progress is being made in revising it.

12. Does the ROP provide adequate assurance that plants are being operated and maintained safely?

Industry believes that the ROP provides adequate assurance that nuclear plants are being operated and maintained safely. In particular, the ROP system provides incentives to improve performance, as evidenced by the improving trends for the PIs noted in response to question 1 above. These trends, which are an improvement over what the NRC has already determined to be acceptable safety performance, will result in an increasing number of green PIs and Inspection Findings and a decrease in the number of non-green outcomes. This trend is an accurate reflection of improving licensee performance and is a positive result of the program. This phenomenon needs to be explained to some regional staff who do not understand or support the program, and view the decrease in white outcomes as a negative, rather than a positive result. The ROP provides for escalated NRC involvement as outlined in the Action Matrix. The data on the NRC web site indicates that escalated involvement has occurred for several plants when warranted to ensure that appropriate actions are being taken to correct performance deficiencies. The ROP also provides the appropriate flexibility to allow NRC to take the necessary actions to address unusual situations such as the problems found at Davis-Besse. An improvement to the ROP would be for NRC to devote additional resources to PI&R inspection (follow up of licensee corrective action) and to temporary inspections to assess emerging safety issues (as provided for in the basic ROP concepts), and less on insignificant minor errors in PI verification which have no safety significance.

13. Does the ROP improve the efficiency, effectiveness, and realism of the regulatory process?

The ROP is effective in improving performance in all strategic areas, as measured by the PIs. The implementation of the PIs has provided motivation to industry to improve performance by improving the underlying processes and corrective action programs needed to achieve high performance outcomes. The ROP is also

effective at providing constructive escalation of NRC engagement in response to defined performance deficiencies. The ROP has made the oversight process more efficient by using the SDP to ensure that inspection findings focus, for the most part, on significant issues. In most cases, effective communication during the process of determining the risk significance of inspection findings has minimized conflicts and allowed better utilization of NRC and utility resources. However, there have been instances in which the NRC region has not adequately shared its concerns with the licensee so that issues could be resolved efficiently, wasting NRC and licensee resources unnecessarily. This ineffective communication becomes readily apparent at regulatory conferences. We urge the NRC to be more forthcoming about its concerns earlier in the decision process. The new format reports are objective and present a realistic measure of performance. Industry has found the reports to be relevant, useful, and written in plain English. The process could be improved as discussed above, particularly in the area of the SDP procedures and the timeliness of reaching appropriate conclusions. In addition, we believe that effectiveness and efficiency could be improved significantly by allowing the use of Licensee Self Assessment with NRC oversight to substitute for some inspection modules, such as the design engineering, radiation protection, fire protection, among others. We encourage NRC to continue work on exploring this possibility through a pilot program with industry which would begin with the engineering design inspection, and if successful, expand to other inspection modules. In the fire protection area, for example, industry is revising its fire protection self-assessment guidance document (NEI 99-05), and is planning a licensee only pilot evaluation in March to gauge the effectiveness of these self-assessments in addressing the same issues that an NRC inspection would. NRC could then use the results of this pilot evaluation to move towards accepting this self assessment in lieu of inspection.

14. Does the ROP enhance public confidence?

The use of objective PIs and consistent application of finding threshold criteria serves to provide a consistent message to the public about nuclear plant performance. The objective writing style has eliminated the inconsistent messages that were evident in the earlier oversight process. NRC should consider using the public meetings associated with the annual assessment reports as an opportunity to do more outreach/education work on the reactor oversight process. The SDP information presents a special challenge when communicating with the public, since it does require a technical background to achieve a full understanding of the issues and the risk involved. NRC has compounded the problem with the practice of assigning overly conservative preliminary finding colors to non-green findings. This practice varies across regions. The practice, while timely, only creates confusion in the public's mind. The preliminary colors can create an unwarranted level of concern about the operation of the nuclear

plant. Any subsequent change in color provides critics with an opportunity to challenge the integrity of the oversight process and create doubt in the public's mind. As discussed above, the NRC should reconsider the practice of issuing preliminary colors to findings, when the risk analyses are not complete. It is important that NRC technical and public relations staff understand the philosophy and be able to support the process before the public in order to enhance the public's confidence in the ROP and the NRC's ability to protect the public health and safety. For example, it is not clear that NRC staff have informed the public of the ability of the ROP to identify degrading performance before safety has been significantly affected.

15. Has the public been afforded adequate opportunity to participate in the ROP and to provide inputs and comments?

Industry has found that NRC is open to stakeholder input to improve the ROP process and agency performance. Information is made available through the NRC website and public meetings are noticed well in advance. NRC staff specifically invite and encourage public participation during meetings. Meeting summaries are posted following meetings.

16. Has the NRC been responsive to public inputs and comments on the ROP?

Industry has found that NRC is open to stakeholder input and takes reasonable actions to consider comments and to improve the ROP process and agency performance. Nuclear industry groups, public interveners, state representatives and individual members of the public have had their comments received and reviewed in a professional manner.

17. Has the NRC implemented the ROP as defined by program documents?

For the most part, yes. However, the practice of issuing preliminary non-green colors without completion of the phase 3 risk evaluation is not consistent with our understanding of the relevant program documents. This practice has unintended consequences, as described in response to question 19. It also has a negative impact on public confidence, as described in response to question 14. NRC should reconsider the practice of issuing preliminary colors to findings, when the risk analyses are not complete.

18. Does the ROP reduce unnecessary regulatory burden on licensees?

The ROP has significantly reduced unnecessary regulatory burden. The ROP eliminated the requirement to respond in writing to minor violations (green findings). This practice permits licensees to focus on fixing problems, not

generating time-consuming, non-value added correspondence. Industry has found that improvements in inspection planning and schedule performance allow for better utility planning and resource utilization. Effective application of finding threshold criteria ensures that the reports focus on significant issues, which minimizes conflicts and promotes better resource utilization. Improvement in some SDPs and interpretation of SDPs, as discussed above, would further reduce unnecessary regulatory burden. Less inspection time spent on minor reporting issues in the PIs would also reduce burden without affecting safety. In the fire protection area, the inspections are getting longer and longer (4 onsite weeks in some cases), resulting in an increased burden on both the staff and licensees. Contributing factors are: Complexity of the safe shutdown issues that are the focus of the inspection; inadequate inspector training for addressing fire protection and safe shutdown issues; length of time it takes for the inspectors to familiarize themselves with the plant licensing basis; and the complexity of the fire protection SDP process. In a number of cases the inspectors have not shared their fire protection SDP assumptions with the licensee. This can lead to protracted discussions between the licensee and regional staff that could be avoided through establishing a common ground on assumptions. Implementation of Licensee Self Assessment, discussed in the response to question 13, could also assist in reducing unnecessary regulatory burden.

19. Does the ROP result in unintended consequences?

The NRC practice of assigning overly conservative preliminary finding colors to non-green findings has unintended consequences. The practice creates confusion in the public's mind, including an unwarranted level of concern about the operation of the nuclear plant. Any subsequent change in color provides critics with an opportunity to challenge the integrity of the oversight process and create doubt in the public's mind. The preliminary non-green findings can also create unwarranted concerns in the financial markets, which can result in inappropriate financial costs to the utility. NRC should reconsider the practice of issuing preliminary colors to findings, when the risk analyses are not complete. The current action matrix criteria (two white inputs) for a Degraded Cornerstone can have unintended consequences that result in resistance to identification and/or over-analysis of a single white input, as well as uncertainty in the financial markets. Industry suggests that NRC change the action level criteria from two to three white inputs in a cornerstone for a Degraded Cornerstone.

20. Please provide any additional information or comments on other program areas related to the Reactor Oversight Process.

Industry suggests that NRC continue its efforts to refine inspection scope, inspection frequency, and inspector-hour commitments based on experience. In

particular, industry supports efforts to integrate radiological controls inspections and coordinate with outage activities. Industry would also suggest that NRC look for additional ways to conduct single inspections for utility programs that are common to multiple sites (e.g., access authorization, fitness for duty, and environmental monitoring). NRC needs to have better coordination of the improvement and validation efforts for the SDP phase 2 worksheet validation, SDP task force review, and SPAR model validation efforts. NRC should develop an integrated improvement plan before too many resources are expended on these overlapping initiatives