External Stakeholder Survey Results

This document contains the consolidated results of the *Federal Register* notice (FRN) that solicited external stakeholder comment and feedback on the Reactor Oversight Process (ROP). The FRN, entitled "Solicitation of Public Comments on the Third Year of Implementation of the Reactor Oversight Process," was published on November 22, 2002 (67 FR 70468). This notice was part of an ongoing effort by the staff to obtain external stakeholder input regarding the efficacy of the ROP. The comment period expired on December 27, 2002.

With respect to the third year of implementation of the ROP, the FRN requested responses to 20 specific questions related to two general ROP areas: (1) the efficacy of the overall process, and (2) specific ROP program areas. The Nuclear Regulatory Commission (NRC) received comments from 19 external individuals and/or organizations. The staff has included in this document the comments received in their entirety following each question. For those respondents who made general comments that were not directed to a specific question, the comments were listed as a response to question 20 (additional information or comments on other program areas related to the ROP). In this manner, the respondents intention was not misinterpreted.

FRN comments were received from the following respondents (listed in chronological order as received). Accession numbers from the Agencywide Documents Access and Management System (ADAMS) are also included after each respondent for access to the official record copy of the specific FRN response.

- S. Kasturi, Private Citizen (ADAMS Accession Number ML023370531)
- Union of Concerned Scientists (ML023540345)
- Tennessee Valley Authority (ML023540343)
- Nuclear Information and Resource Service (ML023600020)
- Florida Power and Light Company (ML030020484)
- The State of New Jersey, Department of Environmental Protection (ML030020491)
- Winston & Strawn (ML030070012)
- Constellation Energy Group (ML030020498)
- Nuclear Energy Institute (ML030020503)
- The State of Illinois, Department of Nuclear Safety (ML030020508)
- Southern California Edison (ML030070014)
- The State of Pennsylvania, Department of Environmental Protection (ML030070024)
- New England Coalition on Nuclear Pollution (ML030070030)
- Strategic Teaming and Resource Sharing (ML030070032)
- The State of Arizona, Division of Energy Management (ML030070039)
- Entergy (ML030090389)
- Dominion Generation (ML030090398)
- Greenpeace (ML030090392)
- Exelon Nuclear (ML030150318)

The specific FRN questions and comments provided by the respondents are provided below. The responses for each question are listed in chronological order as received. The responses reflect views of the individuals and/or organizations and may be contrary to the views of the NRC staff or others. Staff analyses of the specific responses are included in the applicable portions of the ROP self-assessment Commission paper for calendar year 2002.

Questions Related to Specific ROP Program Areas

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

Union of Concerned Scientists
No. The lessons learned from Davis-Besse include longstanding, programmatic breakdowns in 50.59 safety evaluations and corrective action processes that contributed to a very serious reduction in plant safety margins. The PIs were blissfully ignorant of these problems. The PIs didn't minimize those many serious problems.

In addition, plant owners don't like greater-than-green PIs. So, they campaign with the agency to revise the thresholds or the definitions or the reset time or whatever it takes to put all performance into the GREEN box. By bending to this pressure, the NRC is NOT minimizing the potential for licensees to take actions that adversely impact plant safety. The NRC is, in fact, aiding and abetting actions that adversely impact plant safety.

Lastly, the PIs seem to be giving plant owners and the NRC with false senses of safety. For example, Davis-Besse had all GREEN PIs prior to discovery of the big hole in its reactor head. Mr. James Dyer, Regional Administrator for NRC Region III, said during a public meeting on August 15, 2002, that Davis-Besse did not get much regulatory attention in the years preceding this discovery because the agency thought it was a good performer. The PIs essentially gave the NRC GREEN-colored glasses that, according to Mr. Dyer, impeded the agency's efforts to "minimize the potential for licensees to take actions that adversely impact plant safety."

Tennessee Valley Authority
Yes. The 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)
- High Pressure Coolant Injection Safety System Unavailability (Mitigating Systems Cornerstone)
- Reactor Core Isolation Cooling Safety System Unavailability (Mitigating Systems Cornerstone)
- Safety System Functional Failures (Mitigating Systems Cornerstone)
- Emergency Response Organization Drill Participation (Emergency Preparedness Cornerstone)
- Alert Notification System Reliability (Emergency Preparedness Cornerstone)
- Occupational Exposure Control Effectiveness (Occupation Radiation Safety Cornerstone)
- Protected Area Security Equipment Index (Physical Protection Cornerstone)

One area to consider for improvement based on lessons learned from Davis-Besse is the Reactor Coolant System Leakage PI. It might be more useful to have the indicator based on unidentified leakage rather than identified leakage.

Nuclear Information and Resource Service
NO. The Performance Indicator Program characterized Davis-Besse as a good performer when in fact FirstEnergy had abandoned fundamental corrective action and maintenance programs. For example, FirstEnergy abandoned adherence to Generic Letter 88-05 and its boron corrosion action program. FirstEnergy similarly abandoned modifications to provide for corrosion inspection access of the Davis-Besse vessel head in an effort to achieve short term gains of increased capacity factors at the expense of ignoring the inspection and maintenance of the primary pressure boundary at Davis-Besse. While NRC was consistently crediting Davis-Besse PIs with GREEN findings, the reactor pressure vessel head was experiencing a boron corrosion rate of 2" to 6" per 12 months.

Nuclear Energy Institute
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)

State of Illinois, Department of Nuclear Safety
Generally, licensees work to ensure that all their PI's remain green. So concentrating on the limited scope of activities covered by the PI probably minimizes actions that adversely impact plant safety in that particular area. But this concentrated attention potentially reduces that given to other important areas not specifically covered the PI. It would be more accurate to say that the potential is reduced, but not minimized.

State of Pennsylvania, Department of Environmental Protection
The PIs are actual plant data and provide a mechanism for objective criteria for evaluating plant performance. However, the basis for setting the existing PI thresholds are inconsistent; some are based on PRAs and others are based on regulatory requirements or technical specification limits. Therefore, some PIs and their associated thresholds do not directly correlate with risk. We encourage the NRC to expedite the development of the risk-based PIs.

There is still a small potential for licensees to inadvertently take actions that might adversely impact plant safety, particularly as it relates to unplanned power reductions and unplanned scrams PIs.

New England Coalition on Nuclear Pollution
No. One hard look at the near Small Break Loss of Coolant Accident at Davis-Besse should answer this question. The PI program seems to us to be a “rear-view mirror” program as opposed to a “windshield” program with some sort of defect at the plant data/indicator interface. If plant conditions and event are dealt with an atomistic fashion rather than in a holistic way, then the inherent safety message is missed. Again, taking Davis-Besse as an example. Every indicator of a leaking RPV head was of itself of very low safety significance; clogged filters, elevated radiation levels, the appearance of boric acid crystals, and so on. None of this triggered enhanced NRC oversight until the situation became extreme and, apparently, no one knew just how extreme. The trend has been to extend intervals of surveillance and testing and this not in aggregate without impact on risk- directly as components fail and indirectly through its adverse influence on plant and NRC safety culture. A lesser example: Vermont Yankee issued two Notifications to NRC, October 6 and October 7, 2002. Notification One declared the RCIC inoperable because a check valve did not fully close resulting in “high pump suction pressure trip which would have prevented further system operation”. On October 11, 20002 VY retracted this notification stating, “ The RCIC pump does not have this device.” On October 7, 2002 VY filed notice that the plant had failed integrated primary containment leakrate testing. On December 11, 2002 VY filed a retraction stating that they had confused maximum pathway leak criteria for minimum pathway leak criteria. NRC has determined that there is not enough of a problem with personnel unfamiliar with plant design, technical specification, and regulations to merit any increased attention. Last year maintenance personnel unfamiliar with electrical circuitry at VY inadvertently caused a reactor trip while changing an indicator light bulb on a control room instrument panel. Each event, because it is deemed to be of low safety significance, is ignored and never entered into any equation about safety culture. An NRC Petition Review Panel refused to consider the indirect safety implications first retraction under a 10CFR2.206 petition.

Strategic Teaming and Resource Sharing
Yes, the Performance Indicator Program minimizes the potential for licensees to take actions that adversely impact plant safety. In most cases, the data elements that make the Performance Indicators (PI) are performance facts. Some of the facts are hard and some more obscure but all are subjected to oversight scrutiny, which verifies accuracy. The PIs reflect that appropriate actions are being taken in support of safe plant operation.

One area that has the potential for Licensees to take action that can adversely impact plant safety is in the current Mitigating Systems Cornerstone, specifically with the System Unavailability PIs. The System Unavailability PIs are not risk informed. The effects of the PIs could result in changes to planned maintenance schedules in order to maintain plant performance in the "GREEN band". A significant effort is being made by the industry and the NRC to aggressively address the problems associated with the System Unavailability PIs by better risk-informing them. The Mitigating Systems Performance Index (MSPI) is being piloted as a replacement for the System Unavailability PIs and we believe that if implemented, the MSPI may help resolve this problem. We recommend that the Industry and the NRC continue with their efforts to develop and implement the MSPI as a replacement for the Unavailability PIs.

State of Arizona, Division of Emergency Management
Undecided. There have always been programs in place to minimize the potential for licensees to take actions that adversely impact plant safety. The Performance Indicator program provides a simplified and more public method to review performance in certain cornerstone areas.

Entergy
Yes. The Reactor Oversight Process (ROP) has been successful in providing an impetus for additional focus on risk significant systems and components. Entergy has experienced an improving trend in most performance indicator (PI) monitored items. In other PI monitored areas - those not on an improving trend - performance has been essentially stable and acceptable. Allowance for overhaul credit to be applied to monitored systems is a good example of how the ROP recognizes that in order to improve overall performance, system maintenance must be performed. However, an appropriate level of control is exercised so that licensees do not abuse this allowance.

Greenpeace
No. Unfortunately, the new program when coupled with other "risk-informed" initiatives has allowed licensees to delude themselves into ignoring safety problems. The agency and industry use of Probabilistic Risk Assessment or PRA, which is more dark art than science at this point, has cajoled reactor operators into a false sense of security and allowed licensees to ignore problems until they devolve into accidents.

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

Union of Concerned Scientists
No. Too much of an overlap exists between the PIs and the Inspection Program. The PIs are focused on risk-significant areas. Too much of the Inspection Program is exclusively focused on risk significant areas. As a result, real and potential problems are being overlooked. For example, the NRC inspection effort at Davis-Besse failed to identify numerous warning signs because they came from systems and components perceived to be non-risk-significant. The many Condition Reports written on the clogged filters for the radiation monitors inside containment did not get much NRC attention because that system and function has negligible importance in either core damage frequency or large early release frequency. But in this case, the licensee's repeated failure to properly diagnose the reason for the clogged filters delayed discovery of a very serious problem. The Inspection Program cannot complement the Performance Indicator Program if it treads in the exact same footsteps. When a brick wall is constructed, bricks in one row span halves of the two bricks in the lower row. This overlapping affords greater strength and robustness than if all the bricks in all the rows lined up. The PI Program and the Inspection Program would be better if they resembled a brick wall instead of a stack of bricks.

The baseline inspections are alleged to provide sufficient inspection effort to provide the NRC with a sufficiently clear picture, when viewed with the PI data, of licensee performance. Davis-Besse demonstrates the fallacy of that assumption. Instead of spending 6,000 to 12,000 inspection hours each year at troubled nuclear plants like Davis-Besse, it would be both smarter and safer to up the average number of inspection hours devoted to ALL, repeat ALL, nuclear

power plants. In this way, NRC inspectors might just see the barn door as it is opening instead of devoting all those resources to watching the plant owner close the barn door.

Tennessee Valley Authority
Yes. Appropriate overlap exists between the PI Program and the Inspection Program.

Nuclear Information and Resource Service
NO. In fact, there is apparently too much overlap between Performance Indicators and inspections. The Davis-Besse event illuminates how unrealistic any number of assumptions used to risk inform the PIP can prove inaccurate and unfounded. Davis-Besse inspections of the entire vessel head were neglected because the vessel head was falsely assumed to be a low risk significant area of the primary pressure boundary. FirstEnergy argued in its waiver request to GL 2001-01 inspection reports that the top of the Davis-Besse reactor pressure vessel was a low risk area (the fact that there were no industry reports of CRDM nozzle cracking in the upper most portion of the vessel head penetrations was used as justification not to look.). Other symptoms and indicators were ignored because of the same "It Can't Happen Here" short-sited analysis (i.e. continuous clogging of containment and radiation monitor air filters). The PIP was used to in effect eclipsed an effective Inspection Process. While the PIP may reduce the regulatory burden and cost to licensee, broad inappropriate use effectively undermines necessary and deterministic inspections.

Nuclear Energy Institute
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.

State of Illinois, Department of Nuclear Safety
This is a question area not easily measured, and is one that might warrant more attention in developing a means to measure it; perhaps using industry historical databases. In any case, the two elements of PI's and inspections do not exclusively reinforce one another. We believe that operator training and near- miss LOCA's have safety significance. However, no inspection or PI caught a recent lapse in licensed operator training requirements or the Davis Besse hole-in-the-head event.

The NRC should be on guard for an attitude that if an inspection finding is perceived not to rise above the level of green, then there is no point in mentioning it in an inspection report. The inspection reports should be of sufficient detail that these deficiencies can be categorized and trended. It is important that the ROP not become pre-occupied with filling inspection hour quotas to the point where inspectors don't have the latitude to follow their instincts to recognize

and pursue potential problems.

State of Pennsylvania, Department of Environmental Protection
Yes, but there are areas of improvement. The ROP Inspection Program, including the SDP, is more focused on risk significant issues than the PI Program. This inconsistency has reduced the overall effectiveness of the ROP.

The PI verification inspection is a positive aspect of the ROP and it should continue. Considering that currently there are no PIs for cross-cutting areas (human performance, safety-conscious work environment, and corrective action program), it is recommended that the NRC (Resident or Regional) inspections focus more on these areas.

New England Coalition on Nuclear Pollution
Please see response to Question (1).

Strategic Teaming and Resource Sharing
Yes, appropriate overlap exists between the Performance Indicator Program and the Inspection Program. The two programs work well together to form a scrutible oversight process. However, there have been a few instances of events or issues being subject to the ROP process twice - once as a colored finding and then later as a greater-than-green PI. Being diligent in applying the ROP as intended could eliminate this "double dipping." If the event or issue falls under the scope of a PI, then the PI should be allowed to determine the color (significance). While inspection activities associated with the event are certainly appropriate, the event or issue should not also be classified as a finding and subjected to the SDP.

State of Arizona, Division of Emergency Management
Yes. The Performance Indicator program and the Inspection Program work hand-in-hand on a continuing and periodic basis, respectively, to assess plant operation.

Entergy
In general, yes, but there are examples of excessive overlap. For example, the NRC inspects some areas of Radiation Protection (RP) and Emergency Preparedness (EP) which are already covered by performance indicators. If there is adequate performance as indicated by the PIs, then additional inspection should not be necessary. It would be a better use of resources if the NRC would reduce baseline inspection in these areas or reallocate the effort to other areas. Areas warranting investigation may include topics based on 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. For example, a PI monitors scrams with loss of normal heat removal and establishes an acceptable threshold. For this situation, the NRC may commission an inspection and try to force-fit a finding related to the cause of the scram into the Significance Determination Process (SDP) and evaluate significance for greater than green. This is redundant and not appropriate. Either the PI adequately reflects the risk associated with a scram with loss of normal heat removal or it does not.

In addition, the industry believes that the NRC wastes resources by spending too much time

verifying performance indicators and questioning items of minimal safety significance. An example is raising questions regarding unavailability durations of less than an hour over a fuel cycle. The inspection program is supposed to be risk informed. Spending time on questions with minimal safety significance is not an appropriate use of resources (this comment also applies to findings that do not relate to regulatory bases).

Greenpeace
No. The focus on risk significance in both PI's and the inspection program has created a blind spot in the NRC's regulation of the nuclear industry. This has allowed licensees to miss indications that all is not well with their nuclear power plant merely because the problems were not in a risk significant system.

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?

Union of Concerned Scientists
UCS cannot comment on any overlaps with respect to INPO and WANO since these organizations, by policy, don' t make their documents and reports publicly available. The few times we stumble across INPO/WANO documents and publicly comment about them are followed by threatening letters from King & Spaulding, their DC law firm. The NRC seems to be trying to set us up for another King & Spaulding letter with this question.

With respect to the Maintenance Rule, we don't believe there are either undue conflicts or unnecessary overlaps of reporting requirements.

Tennessee Valley Authority
There is duplication in the reporting to ROP and INPO/WANO that will be partially remedied with the introduction of the Consolidated Data Entry system being developed by INPO. There are differences in the reporting criteria between the different reporting systems. The differences in the Safety System Unavailability reporting criteria have created some interpretation problems. The use of the fault exposure time element in the NRC's PIs has led to some unnecessary supplemental inspections. The Mitigating System PIs that are currently being tested will remedy these regulatory problems. However, TVA remains concerned that the new indicators may result in additional burden associated with the risk analysis support for the new indicator methodology.

Nuclear Information and Resource Service
APPARENTLY NOT. The question remains where was the INPO and WANO inspection, oversight and guidance process during the years of vessel head degradation at the Davis Besse site? Apparently, the industry's own ultra-secret self-police force missed the chronic and severe deterioration of the Davis-Besse vessel head. Because the INPO and WANO reporting process is withheld from public disclosure, the entire ROP process, excluding safeguards materials, should be regarded as a publicly accountable process not a duplicitous process.

Nuclear Energy Institute
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.

State of Pennsylvania, Department of Environmental Protection
The reporting requirements of the ROP and the Maintenance Rule are established by the NRC as part of the regulation of nuclear power plants. Therefore, any other reporting requirements by INPO or WANO are industry imposed requirements and should not be considered a burden on the licensees. However, it would be appropriate for the NRC and the industry to cooperate further in this area to remove any unnecessary overlap, as long as it does not diminish the effectiveness of the current regulatory reporting requirements.

New England Coalition on Nuclear Pollution
We do not perceive any conflicts or overlaps with the Maintenance rule. We do believe this question to be entirely inappropriate with respect to INPO or WANO activities. Until all INPO and WANO documents are made public, they can have no place in NRC consideration of reactor oversight or regulation. Any consideration of INPO or WANO activity or opinion, a very limited amount of commercial proprietary information excepted, that is not made public stands in violation of one or more of the following: AEA, as amended, the APA, NEPA, and NRC's stated goal of increasing public confidence. The nuclear industry is to be lauded for efforts at self-improvement and self-regulation, but unless those efforts are carried out and/or reported to NRC in the full light of public scrutiny, they cannot be allowed to affect either oversight or regulation. It follows that it should not make any difference to NRC what licensees think with respect to burdens or overlaps in their privately subscribed programs.

Strategic Teaming and Resource Sharing
Yes, reporting conflicts continue to exist between the ROP, INPO, WANO, and the Maintenance Rule. Maintenance Rule monitors train performance while ROP monitors system performance. In some cases, the guidance for the ROP, INPO, WANO, and the Maintenance Rule differ slightly. However, of equal concern is the amount of duplicated effort by the plant support staff to develop and maintain "customized" indicators. We recognize that INPO is working with the industry and the NRC to reduce the conflicts and duplication of effort that currently exists. We encourage continued industry and NRC support of INPO's work with the Consolidated Data Entry program.

State of Arizona, Division of Emergency Management
Not observed to any significant extent at Palo Verde.

Entergy
Yes. There are differences in reporting and definitions amongst the ROP, WANO/INPO and maintenance rule. Many of the differences are being addressed in the pilot programs to test the new Mitigating System Performance Index and should be adopted if the pilot is successful. Industry is also working to reduce unnecessary duplicative reporting with the introduction of the Consolidated Data Entry system being developed by INPO.

Greenpeace
Unnecessary overlap? Perhaps the NRC's memory has slipped, or that NEI's influence in the agency has become so pervasive that the agency has forgotten that it works for the American people not the nuclear industry! INPO and WANO are not government institutions, they do not make their information public, and when their reports are leaked to public interest groups INPO threatens these organizations with SLAP suits.

The NRC has already attempted to rely on INPO reporting requirements and been slapped down by members of Congress for abdicating its responsibility to an industry group. I don't care if WANO and INPO requirements are duplicative or not. Nor should the NRC. Regulation of the nuclear industry is supposed to be conducted by the NRC not some independent industry group.

The mere fact that the NRC is asking this question reveals just how out of touch the agency is with its mandate.

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

Union of Concerned Scientists
NEI says so, so it must be so.

Tennessee Valley Authority
In general, NEI 99-02 provides clear guidance. The Frequently Asked Questions (FAQ) process is useful to get clarification when necessary. The efficiency of the FAQ process could be improved by having both NRC and NEI use a minimum threshold for FAQs to be processed to ensure that inappropriate FAQs are screened out before significant effort is invested in discussions. It would also be useful for NRC to establish a timeliness goal for FAQ resolution to monitor performance.

Nuclear Energy Institute
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.

State of Pennsylvania, Department of Environmental Protection
Overall, the NEI Guidance Document is very helpful in defining the PIs. It would be more appropriate for the licensees to comment on the effectiveness of this document.

New England Coalition on Nuclear Pollution
Clear? Yes, but we cannot say that NEI 99-02 results in more appropriate or telling PIs.

Strategic Teaming and Resource Sharing
NEI 99-02 provides adequate guidance regarding PIs. The current revision of NEI 99-02 does contain some confusing verbiage. The Frequently Asked Question (FAQ) process is the primary means of introducing changes to NEI 99-02. Since revision 0, some changes have clarified NEI 99-02 but some have complicated it. For example, the clarifying notes in the Scrams with Loss of Normal Heat Removal PI include several special considerations, which have complicated the PI. We recommend that NEI and the NRC avoid complicating NEI 99-02 by resisting changes to the general guidance to accommodate special cases or exceptions.

State of Arizona, Division of Emergency Management
No. There appears to be room for interpretation with regard to a number of areas, including Alert and Notification, Drill Participation, etc. It is not clear if these are regional differences in interpretation or if the wording is less specific than needed.

Entergy
No. The number and types of FAQs submitted since inception indicate that the guidance is not always clear or consistently interpreted. Examples where the guidance is lacking are Scrams with a Loss of Normal Heat Removal, Down Powers and Safety System Unavailability (SSU).

The intent of the Scram and Down Power indicators is good; implementation is ineffective. To appropriately capture trips and down powers within the PI, Entergy believes that excessive resources are applied to the evaluation and understandings of these events.

SSU has been improved over the past three years but more clarity is needed regarding he counting of hours (fault exposure, planned/unplanned, overhaul). The pilot in this area is a step in the right direction, especially the improvement in reliability aspects. A general observation, though, is that any efforts to risk inform PIs should include appropriate consideration of the goals of the ROP, i.e., a level playing field with consistent and comparable indicators and supporting risk bases.

Greenpeace
NEI's definitions have continued the long held NRC/NEI practice of linguistic deregulation. Whenever the NRC or NEI could not get a performance indicator to trend downward they would merely redefine the indicator to get the results they wanted. I have repeatedly documented this practice in the Nuclear Lemons reports I wrote for Public Citizen over the last decade. NRC has allowed the industry to continue this practice in NEI-99-02.

Under the new assessment regime, NRC has manipulated the one of the only indicators that it and NEI couldn't get to trend downward under the previous program, safety system failures.

The NRC has allowed the industry to split hairs over the difference between functionality and operability by adding a caveat to the performance indicator. Rather than track safety system failures, the new program will track safety system functional failures. The NRC should not attempt to excuse these safety system failures away by applying some ex-post facto justification based upon risk insights that may or may not be accurate.

Even with the added caveat placed upon safety system failures, we are already seeing industry attempts to manipulate the new indicators. In discussions before the Pilot Plant Evaluation Panel, NRC staff stated that inspections had found 10 Safety System Functional Failures that were not reported and that most of them had to do with whether it was a "functional" failure or not. While NEI and the licensees have already attempted to explain these problems away as a misunderstanding the new indicators, it is important to note that the NRC regional personnel also stated that:

> "we also have some situations where determining that something constituted a functional failure would have effected a bonus being given to the site….At the implementation level we have found many ways in which performance indicators can be miscounted, misrepresented or influenced, some of which, based on my discussions with the plant over this period, I'm not sure that plant and utility management were even aware of interpretations that some of their staff were making"

(U.S. Nuclear Regulatory Commission, Pilot Program Evaluation Panel Meeting Proceedings, November 17, 1999, p. 28.)

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

Union of Concerned Scientists
Yes. The quality of inspection reports has steadily improved throughout the ROP.

Tennessee Valley Authority
Yes. TVA finds that the quarterly report format used by Region II is more efficient. Effective application of finding threshold criteria minimizes ensures that the reports focus on significant issues. The use of the objective writing style has eliminated the search for the "hidden message" that was an element of the earlier oversight process.

TVA suggests that NRC consider including a summary of the direct and indirect man-hours expended for each inspection module in the inspection reports. This information would help utilities budget for future inspection costs.

Nuclear Information and Resource Service
Yes. Detailed inspection reports lend to the transparency of the agency process, emerging safety issues, monitoring and resolution of previous identified issues.

Nuclear Energy Institute
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.

State of Illinois, Department of Nuclear Safety
Yes and no. Yes, the reports serve as a broad overview of a licensee's performance. But to be useful, as already mentioned, they are sometimes of insufficient detail to allow trending, or evaluation of the collective safety effects of several otherwise insignificant events.

State of Pennsylvania, Department of Environmental Protection
The information contained in the inspection reports is useful and overall, the quality of these reports has improved. However, for some external stakeholders there exists confusion in the use of the phrase "possible (color) finding". This is of particular concern when the "final" SDP finding is a different color –more often a lower classification. To some extent, this has eroded public confidence in the process.

New England Coalition on Nuclear Pollution
Yes, And they have been improving but in general we are still looking for more detail. Also, when items are excluded from an inspection because they have been entered in the Voluntary Industry Initiatives Program (VIIP), for example, we would appreciate some notice of when they might be expected to emerge. Certain electrical circuitry was exempted from the most recent round of triennial fire inspections and it would be helpful to know the VIIP results will surface before Puxatawney Pete. Ditto, for all set aside items mentioned as entered into corrective action programs.

Strategic Teaming and Resource Sharing
Yes, information in inspection reports is useful. The organization and tie to cornerstones help in providing better definition and focus in problem areas.

State of Arizona, Division of Emergency Management
Yes.

Entergy
Yes. The reports are for the most part objective and complete.

The inspection process experienced at Entergy sites involves Resident Inspector debriefs with appropriate site management to discuss issues/emerging issues on approximately a monthly basis. These timely meetings fill the gap between the verbal inspection exit and the issuance of the docketed inspection report.

Entergy believes that inspection reports should be limited to findings and violations of significance only - not subjective evaluations of perceived performance that may not be supported by any particular regulatory basis. Some "green" findings may be included within the summary of findings, on the NRC Web and in the Plant Issues Matrix. Since these findings

may not be associated with any regulatory requirement, it is inconsistent and not appropriate that they be included in the plant assessment process. In addition, these findings could be mis-characterized by the public or others monitoring the NRC Web as representing actual regulatory requirements (it is recognized that a performance deficiency must exist before the deficiency is characterized as a finding). The NRC assessment of performance must be tied to regulatory requirements - not a subjective standard of performance. The ROP is a measure of relative safety performance. INPO and others assess efficiencies and performance improvement opportunities.

Greenpeace
Yes.

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

Union of Concerned Scientists
Yes, in two ways. First, inspection findings determined to be greater-than-GREEN take way too long to reach the final colorization regardless of which cornerstone they apply to. The SDP is unacceptably slow, period.

Second, the SDP results currently reflect the significance of identified *performance* shortfalls. But the nuclear industry is pressuring the NRC to mess up the SDP by making all inspection findings related, somehow, to core damage frequency or large early release frequency. This molding would be appropriate if the ROP reflected nuclear power plant safety levels. But the ROP was intentionally and deliberately designed to reflect licensee performance level. In some cornerstones, reactor safety levels and performance levels are linked. In other cornerstones, they are not. But to water down findings, the industry seeks to inappropriately apply PRA hand-waving to all inspection findings. The NRC must not permit the ROP to be undermined in this way.

Tennessee Valley Authority
No. The non-green end points in the SDP logic for Emergency Preparedness, Occupation Radiation Safety, Public Radiation Safety, and Physical Protection Cornerstones are not consistent with the risk thresholds for the Initiating Events, Mitigating Systems, and Barrier Integrity Cornerstones. In general, they represent a deterministic escalation for various types of regulatory noncompliance. The yellow and red points are likely not comparable from a public risk (health and safety perceptive) than the risk-based thresholds. In general, TVA believes that the non-green thresholds overstate the significance of findings for Emergency Preparedness, Occupation Radiation Safety, Public Radiation Safety, and Physical Protection Cornerstones when compared to the thresholds for the Initiating Events, Mitigating Systems, and Barrier Integrity Cornerstones.

Nuclear Information and Resource Service
Not Necessarily. The SDP process is unduly slow in establishing preliminary color findings and final risk determinations. In several licensee cases, NRC took more than nine months to resolve findings during which the predominant color finding was a de facto “grey.” NIRS finds

no acceptable reason for these types of delays other than an indication of extensive and inappropriate negotiations between the regulator and the purported regulated.

Nuclear Energy Institute
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.

State of Illinois, Department of Nuclear Safety
The cornerstones are not directly comparable; therefore, they cannot yield equivalent results. The Davis Bessie reactor head event is an example where the answer would be no. Items screened away as low in significance added up to be very safety significant in the final analysis (reference memo Howell to Kane dated September 30, 2002, LESSONS LEARNED). Also, the way significance levels changed following the Indian Point steam generator tube rupture event (initially RED but eventually screened back to YELLOW) would indicate that significance is not

easily determined. These two examples, plus the fact that cross-cutting issues play a part in any event and are not measured, makes us conclude that equivalence across cornerstones doesn't always exist.

State of Pennsylvania, Department of Environmental Protection
The SDP is a resource-intensive process and the lack of standardized risk analysis tools has further complicated the process. Therefore, the SDP may not always yield equivalent results for issues of similar significance in all ROP cornerstones. Additionally, it may not yield consistent results within an NRC Region and especially across the various NRC Regions.

New England Coalition on Nuclear Pollution
We embraced the findings in the recent OIG Report on the SDP. The SDP appears vulnerable to industry pressure tactics both with individual determinations and with molding the program to suit in general. Representatives of at least two state oversight programs told me they were disturbed at the way in which utility executives increasingly involve themselves in lobbying for lesser findings. We too are disturbed when it is not licensee technical staff clarifying plant specific conditions that might affect SDP, but licensee senior executives, the business/political arm, who wade into the discussions.

Strategic Teaming and Resource Sharing
No, the Significance Determination Process (SDP) does not apply the same risk significance to issues across the seven cornerstones. Some of the SDPs are still deterministic in nature - especially in the areas of emergency preparedness and to a lesser degree, public radiation protection. Deterministic thresholds have the effect of aggregating lesser items of minor risk significance to create findings with a final significance out of proportion to the risk presented by any credible situation. We recognize that both the industry and the NRC have worked over the past year to better risk-inform the Emergency Preparedness and the Public Radiation Safety SDPs.

Recent revisions to the Public Radiation Protection SDP appear to have improved its ability to yield equivalent results for issues of similar significance. However, the Public Radiation Protection SDP still has not established a minimum threshold for releasing material. Current instrumentation can detect radioactivity at very low levels. There needs to be recognition that below some threshold level there is no health or safety impact to the public.

With respect to Emergency Preparedness, the SDP continues to inflate the significance of issues above the more risk-informed cornerstones. This can be seen by the disproportionate number of greater-than-green findings in the Emergency Preparedness Cornerstone compared to the more risk-informed cornerstones. We recommend that the NRC continue to work with stakeholders to risk-inform all SDPs to the greatest extent practical.

State of Arizona, Division of Emergency Management
Not observed. While Palo Verde is aware of the process to evaluate the significance of serious events, the plant has not experienced an incident that would warrant the implementation of this procedure.

Entergy
No. Entergy has experienced what we characterize as "unintended consequences" in the risk assessment and use of the SDP for the areas of Emergency Planning (EP), Radiation Protection (RP), and Fire Protection (FP).

The EP SDP discusses that any findings are to be evaluated using the plant specific licensing bases. The discussion recognizes that a plant may have approved deviations from the regulations and that a plant's approved E-plan establishes the regulatory requirements for that plant. Entergy's experience indicates that NRC inspectors and management may not always follow the prescribed process in this respect and take actions without comparison to the approved licensing bases. This appears inappropriate in that the bases for any finding would most certainly hinge around a regulatory bases.

NRC seems to push the boundaries of backfit without openly recognizing it. In Entergy's example, the staff was unwilling to discuss regulatory interpretations during the inspection process with the licensee and conducted a Significance and Enforcement Review Panel (SERP) to review one finding and then settled on a finding beyond that exited or discussed with the licensee. NRC should have conducted another SERP after a re-exit with the proposed finding.

The EP SDP is recognized by all to yield no risk significant findings unless an actual event is in play. It is believed that the confidence in the process would clearly be enhanced by depicting the risk as it is instead of inflating it. Findings do not need to be inflated to get action or to support the safety of the public. By more accurately presenting the risk to the public we would make the process more transparent. The changes in the color between the initial and final significance determinations are often reflective of this overly conservative approach.

Entergy's experience is that open sharing of information and perspectives and any regulatory bases for findings contributes to public confidence in the process. When information sharing is promoted prior to any entry into the regulatory process of significance determination, we believe that more accurate conclusions can be reached and in a more timely manner. Any need to change the significance of findings is lessened as well.

In the RP area, the NRC has managed to "aggregate" RP findings to increase significance in the RP SDP. This practice is not risk informed and does not support the spirit or intent of the ROP. Each finding should be evaluated in its own right and related to an appropriate risk color. The NRC appears to focus on increasing the significance of issues that represent no actual risk significance. This erodes confidence in the process and is not logical. Additionally, past exposure history (average exposure over time) is used to imply less risk significance for a specific finding if a licensee's exposure has historically been below the pre-selected threshold. This is not risk informed. It is a qualitative measurement with no concrete tie to impact.

On the positive side, Entergy's experience has been that the NRC has been open to feedback during the inspection process in the areas of Security and Fire Protection and has delayed any action until clearly understanding the facts and has recognized errors within the SDP. This is commendable and supports public confidence in the process. The NRC and industry are making changes to the EP, RP and Fire Protection SDPs and at this point those changes will be an improvement. Additional effort should be applied to ensure these SDPs more clearly

represent actual risk versus the “perception of risk." Public and industry confidence would be greatly enhanced by any effort in this direction.

Greenpeace
No. The SDP is little more than an excuse generator and a way to downplay the significance of industry screw-ups. It does not produce “equivalent results”. But the agency is already well aware of that. It has attempted to school its employees in the use of the SDP precisely because the SDP was not repeatable. If it’s not repeatable, its not science!

The SDP is also seemingly susceptible to lobbying by the industry. Since its implementation there are several instances where the original SDP determination has been altered.
This leads to the impression, articulated by my colleague Paul Leventhal of NCI, that “ the NRC is a wholly owned subsidiary of the nuclear industry.” The industry’s ability to manipulate the process and help NRC determine what color code NRC will impose undermines the legitimacy of the entire reactor oversight process.

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

Union of Concerned Scientists
Sometimes. The silly way in which the NRC erased the YELLOW finding earned by the Vermont Yankee licensee for its poor performance during an OSRE in August 2001 made a mockery of the whole process. Such shenanigans undermine the entire regulatory process and need to be eliminated as soon as possible. Likewise, the games over the D C Cook finding (RED to something else) is bogus.

The agency is not taking actions mandated by the Action Matrix. Instead, it is changing colors to make the Action Matrix response match what it wants to do. That’s disgraceful. That was the primary fault with the ol’ Senior Management Meeting process. Apparently, the bad process was renamed rather than replaced.

Tennessee Valley Authority
TVA has found that NRC takes appropriate actions to address performance issues for those licensees outside of the Licensee Response Column of the Action Matrix. TVA also believes that the Action Matrix has sufficient flexibility to address issues in the necessary manner (e.g., Davis-Besse problems and Point Beach red finding).

TVA suggests that NRC change the action level criteria from 2 to 3 white inputs in a cornerstone for a Degraded Cornerstone. This threshold for increased NRC involvement would be consistent with SDP rule to aggregate 3 adjacent scenarios to next higher color. Changing this threshold will eliminate unwanted effects of resistance to identification and/or over-analysis of a single white input.

Nuclear Information and Resource Service
NO. The NRC is inconsistent in its response to performance issues as an apparent result of a flexible negotiation process between NRC management and the licensee. NRC management is

too liberal in its application of discretionary enforcement for violations or the distribution of “Get Out Of Jail Free” cards to license.

Nuclear Energy Institute
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.)

State of Illinois, Department of Nuclear Safety
Yes, we believe so.

State of Pennsylvania, Department of Environmental Protection
Based on our experience with the ROP implementation at the PA power plants, the NRC Region 1 has taken appropriate actions to address performance issues for those licensees outside the Licensee Response Column of the Action Matrix. Also, the NRC Supplemental Inspection is a positive aspect of the ROP and should continue.

Strategic Teaming and Resource Sharing
Yes, the NRC follows the Action Matrix and takes appropriate actions to address performance issues. An improvement that should be considered is limiting the length of time a finding is reflected against licensee performance. A graduated approach should be considered correlating the length of time a finding remains visible (or effective in the action matrix) to the severity of the finding (e.g., a green finding stays for one quarter, a white finding stays for 2 quarters, etc.) Rather than retaining all findings for four quarters, this approach results in retaining the finding for a period of time with its significance.

State of Arizona, Division of Emergency Management
Not observed. Do not know.

Entergy
Yes.

Greenpeace
The NRC has repeatedly deviated from the action matrix. This inconsistency in application of the process undermines the legitimacy of the ROP and the NRC. When the public witnesses this manipulation of the severity level, i.e. shifting findings from Red to Yellow of Yellow to

White, it bolsters the viewed that the NRC is a captured agency beholding only to the nuclear industry and their toadies on capitol hill.

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

Union of Concerned Scientists
The inspection reports are pretty good, except for the boilerplate put into the transmittal letters. For example, the paragraph about security since 09/11 doesn't need to be included in each and every inspection report until the end of time.

The annual assessment letters and the PPRs (I forget what that acronym stands for) are useless. They contain many words, but don't say anything.

Tennessee Valley Authority
The new format is brief and focused on objective performance measures. TVA has found the reports to be relevant, useful, and written in plain English. On the other hand, TVA has found the annual meetings, as currently conducted and attended, to be of little value. TVA suggests that the annual meetings be eliminated for plants that are 'all green' if the current format is retained. 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 on the ROP. This approach would require a new format and better advertisement to increase public attendance.

Nuclear Information and Resource Service
It is helpful that NRC presents this information in English.

Nuclear Energy Institute
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.

State of Illinois, Department of Nuclear Safety
The reports are written in a manner that is easily understood. Refer to above responses in regard to usefulness and relevance.

State of Pennsylvania, Department of Environmental Protection
The initial assessment reports were very stilted and sometimes unclear. However, the reports continue to improve in readability and content and usefulness.

New England Coalition on Nuclear Pollution
Here we concur with comments made by the Union of Concerned Scientists; boilerplate should be minimized. The brief explanation of the ROP contained in every report is useful to a first time reader and should remain.

Strategic Teaming and Resource Sharing
Yes, the information contained in the assessment reports is relevant, useful, and written in plain English.

State of Arizona, Division of Emergency Management
Yes.

Entergy
Yes. Entergy believes that for the most part information contained in the reports is improved over the past and is useful. We do not believe that issues that lack a clear regulatory basis belong in reports on the docket. For example, findings that are not regulatory issues and are below the violation threshold have no place in a plant safety assessment and should not be included in the PIM (on the NRC Web). The information is welcomed but can be confusing to the public since they are likely to believe only what they see - that findings are the same as cited or non-cited violations.

Greenpeace
Yes.

Questions Related to the Efficacy of the Overall Reactor Oversight Program

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 judgement)?

Union of Concerned Scientists
No. The SDP is broken. The output from the SDP is beyond subjective and approaching pure whimsy. Given the importance of the SDP to the overall ROP, the NRC's tolerance of this broken process is corrupting the entire ROP. After two years of band-aid fixes to the SDP that haven't worked at all, the NRC should scrap the SDP and try again.

Tennessee Valley Authority
TVA 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, which 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.

Nuclear Information and Resource Service
NO. The ROP is a process of negotiation between the NRC and the licensee in collaboration with the combined resources of the Nuclear Energy Institute. The nature of negotiation and its goal of "getting to yes" is inherently unpredictable and subjective. The fact that NRC and the licensee have prioritized production over public safety through a series of contortions, convolutions that ignore regulatory requirements and guidance provides for a "creative" process biased in favor of a common agenda.

Nuclear Energy Institute
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.

State of Illinois, Department of Nuclear Safety
Yes, the oversight process is predictable and objective. However, some think the process is too prescriptively driven and restrictive. For example, inspectors must ensure inspection hours cover an ROP activity, even if there is not much of real safety value to inspect in that area.

How the facts that go into an objective decision-making process are obtained is also important. For example, if facts are obtained from a PRA analysis that is done by personnel that are not familiar with the PRA's strengths and weaknesses and the plant itself results could be skewed.

State of Pennsylvania, Department of Environmental Protection
The new ROP is more objective and predictable than the previous process. This is due to the combination of Performance Indicators and the more objective and structured Inspection and Assessment Program. However, as mentioned previously, the reassessment (and downgrading) of the preliminary SDP findings occurs frequently enough that could undermine the predictability of the ROP.

New England Coalition on Nuclear Pollution
Again, we invoke the OIG Report on SDP. We remain concerned that PRAs remain inconsistent and that both risk assessment and significance determination must have at their base a firm and comprehensive grasp of plant design and physical condition. WE do not believe that the CAL of 1996 regarding design basis documentation was fully met; even with the various initiatives taken since then. It is startling to us that in August 2001 Entergy could not begin a $500 million dollar program of improvements at Indian Point II without first investing an enormous effort in reconciling plant documentation with plant physical state. We insist that the missing element of in depth comprehensive physical inspection, as in the diagnostic evaluation team program, be restored in order to assure that the pyramid of assumptions that supports the SDP rests on a firm base. Standard baseline inspections and independent plant examination failed to document significant safety issues in the now famous Millstone and Maine Yankee cases as they did at Davis-Besse and apparently also did at Indian Point II.

Strategic Teaming and Resource Sharing
For the majority of the normal baseline inspections, the ROP oversight activities are predictable and objective as reported in the end product (i.e. the inspection report). During the course of the actual inspection activities this is not always the case. Most inspectors follow the guidance but a few still appear to use aggregation and "reverse SDP" techniques. (Reverse SDP means predetermining significance of an issue based on subjective judgement then developing the supporting arguments.) The subjective nature of some of the SDP screening questions reduces the predictability of the ROP oversight activities. This could be remedied by more open dialog with licensees during the screening process when issues become known and by removing some of the subjectivity from the screening questions

There has been some improvement this year relative to ROP oversight predictability by issuing IMC 0612- particularly appendix E, “Examples of Minor Issues." However, we would recommend that the minor issue examples be sorted by Cornerstone and the examples of a "minor violation" with respect to the Public Radiation Safety SDP as well as the different planning standards covered by the Emergency Preparedness SDP be developed further. The examples that are currently provided in IMC 0612 in this area are not sufficient to prevent over classification of a minor violation as a risk significant finding. For example, material released outside the Protected Area that contains radioactivity that can only be detected with a very sensitive instrument (e.g., whole body counter or small article monitor) is technically a violation. However, if the activity is low enough such that it could have been appropriately released by a survey with a frisker using applicable industry guidance, then this should be a minor violation because it represents no credible dose potential and, therefore, poses little to no potential to impact public safety.

Also, in the development of IMC 0612, Minor Question #4 "Is the finding associated with one of the below cornerstone attributes and does the finding affect the cornerstone objective?" was added. This question needs additional clarification/guidance to address the risk significance of an issue and to explain what "affect the associated cornerstone objective” means.

State of Arizona, Division of Emergency Management
Yes. They appear to reflect factual reviews the majority of the time, different inspectors do seem to interpret the evaluation criteria somewhat differently.

Entergy
No. Entergy has experienced unpredictable outcomes in the several areas, including EP and Fire Protection (at RBS and ANO respectively). We observed the plant's approved licensing bases were being "re-examined" and the stations were being evaluated by a new standard of regulatory performance. Issues were exited and later changed or modified. In the case of the RBS EP issue, the NRC seemed pre-disposed to cause a public meeting or proceed without offering any alternative to the licensee. Past practice had been to offer a choice and to discuss any proposed findings to the fullest extent prior to initiating a SERP or rushing to judgment. Too much emphasis seems to be placed on reaching an outcome - timeliness over thoroughness. The ANO Fire Protection issue is still not resolved and has consumed much of 2002. Multiple meetings have been held and still the NRC has not been able to reach a conclusion. If changes to licensing bases are needed, the NRC has a process to do that.

Greenpeace
No. Even if the NRC were to magically become less susceptible to industry manipulation and influence, the SDP does not produce the same outcomes with the same data. The transparency that it took years to achieve under the previous regime has been totally lost. Rather than Senior managers holding up in some back room to gin up a watch list, we have a bunch of pencil pushers using PRAs and an SDP that are inadequate to the task at hand. Even if the NRC and the industry can improve the quality of the PRAs, the NRC failure to hold licensees to the design basis in their FSAR thoroughly undermines the NRC's use of risk insights in the regulation of nuclear reactors.

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

Union of Concerned Scientists
Nope, not with the current SDP they aren't. In its current incarnation, NRC's inactions are graduated on the basis of increased significance. One can best judge the significance of any finding by how long it takes the NRC to figure out which color to assign it. Forty-five days or less corresponds to a GREEN or non-color. Forty-six to ninety days equals WHITE. Ninety-one to one hundred fifty days is YELLOW. And over one hundred fifty days is RED. Because the NRC takes little action until it figures out which crayon to use, its response is inversely proportional to safety significance. That's absurd.

Tennessee Valley Authority
The PI and SDP processes for the Initiating Events, Mitigating Systems, and Barrier Integrity Cornerstones are risk-informed. The PI and SDP processes for Emergency Preparedness, Occupation Radiation Safety, Public Radiation Safety, and Physical Protection Cornerstones are not based on similar risk thresholds. Instead, they are based on a deterministic escalation for various types of regulatory noncompliance. The yellow and red points are likely not comparable from a public risk (health and safety perceptive) than the risk-based thresholds. In general, TVA believes that the non-green thresholds overstate the significance of findings for Emergency Preparedness, Occupation Radiation Safety, Public Radiation Safety, and Physical Protection Cornerstones when compared to the thresholds for the Initiating Events, Mitigating Systems, and Barrier Integrity Cornerstones.

Nuclear Information and Resource Service
NO. As exemplified by the waiver of Davis-Besse's compliance to NRC Bulletin 2001-01 and the agency's flip flop on the issuance of an Order based on Regulatory Guide 1.174, the agency has demonstrated a willingness to accept a risk-misinformed process in spite of its own guidelines and Code of Federal Regulation.

Nuclear Energy Institute
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.

State of Illinois, Department of Nuclear Safety
Yes, if the facts used to base risk decisions are adequately obtained (see question 9 above). However, after an SDP is implemented, licensees often provide better, more focused, and sometimes even less conservative data to contribute to final risk decisions.

State of Pennsylvania, Department of Environmental Protection
Overall, the ROP is more risk-informed than the previous process and the NRC actions are generally graduated on the basis of increased risk significance. However, the lack of a standardized risk analysis tools has diminished the effectiveness of the process.

New England Coalition on Nuclear Pollution
Please see above.

Strategic Teaming and Resource Sharing
The majority of the ROP is risk-informed due to actions taken over the past three years of implementation to further risk-inform the process. Actions that result from findings that are classified using the Reactor Safety SDP, IMC 0609 App A, are the most risk-informed and are the ones most graduated on the basis of an actual increased significance. Actions resulting from findings that are classified based on SDPs that are still deterministic in nature are not as likely to be graduated consistent with actual significance. For example, the number of occurrences of radioactive material control issues do not equate readily to the "significance" of potential public exposure based on the "magnitude" of the material outside of the RCA. It would seem that the "significance" of each occurrence (based on the magnitude of potential exposure) would have to be the overriding consideration, rather than the aggregation of a few "minor" items or the sheer number of insignificant occurrences. Other examples of subjective thresholds can be found in Emergency Planning and Physical Protection cornerstones.

State of Arizona, Division of Emergency Management
Yes, based on what has been seen to date.

Entergy
Yes.

Greenpeace
See above.

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

Union of Concerned Scientists
No. The chair of the Pilot Program Evaluation Panel, Frank Gillespie, advocated that the ROP guidance be retained, and updated as needed, in a single place. Unfortunately, his recommendation when unheeded. It is a tremendously cumbersome process to root around the NRC' s poorly constructed website to find the various pieces of the ROP. When I have a question about some facet of the ROP, I am very, very, very, very, very, very seldom able to find it on the web. The answers may be understandable. They may be clear. They may be written in plain English. But I cannot find them. So, what's the point?

Tennessee Valley Authority
Yes. The ROP is understandable and the processes, procedures, and products are clear and written in plain English. It is recognized that some of the SDP information does require a technical background to understand.

Nuclear Information and Resource Service
NO. It is incomprehensible that the ROP produced all GREEN findings for the Davis-Besse nuclear power station leading up to the discovery of extensive damage to the CRDM vessel head penetrations and the reactor pressure vessel head. The process, the procedures and the products were entirely based on misleading and false assumptions.

Nuclear Energy Institute
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.

State of Illinois, Department of Nuclear Safety
Yes.

State of Pennsylvania, Department of Environmental Protection
Overall, the ROP is an understandable process. However, there are certain aspects of the new process that are not always as clear as they could be. For example, the SDP is a complex and complicated process. Also, the use of no-color issues and findings in the inspection reports are causing some confusion to the public. The quality of inspection reports has improved, but the NRC should explain the basis for SDP findings more clearly and effectively.

New England Coalition on Nuclear Pollution
No. It is cumbersome and in reporting it seems almost circumspect; good English, bad storytelling. The general public equates the color-coding to traffic signals.

Strategic Teaming and Resource Sharing
Yes, the ROP is understandable and the processes, procedures, and products are clear and written in plain English.

State of Arizona, Division of Emergency Management
Yes.

Entergy
Yes.

Greenpeace
No! I challenge anyone at NRC to clearly explain the SDP!

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

Union of Concerned Scientists
No, as evidenced by Davis-Besse getting all-GREEN ratings prior to discovery of the most serious safety problem since the Three Mile Island meltdown.

Tennessee Valley Authority
TVA 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. The ROP also 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 system provides the necessary flexibility to allow NRC to take the necessary actions to address unusual situations like the problems found at Davis-Besse.

Nuclear Information and Resource Service
NO. The Davis-Besse event not only shattered any public audience alert to the ROP but it significantly damaged the agency's self-confidence in its regulatory judgment.
As outlined in the remarks of Dr. George Apostolakis, MIT and chair of the NRC Advisory Committee on Reactor Safeguards, before the Nuclear Safety Research Conference on October 30, 2002, "Recent events have shaken our confidence in our assumption. The NRC and DBNPS failed to adequately review, assess and follow-up on relevant operating experiences. DBNPS failed to assure that plant safety issues would receive appropriate attention. The NRC failed to integrate known or available information into its assessments of DBNPS's safety performance."

Nuclear Energy Institute
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.

State of Illinois, Department of Nuclear Safety
While there is general acknowledgment that the ROP, being risk-informed, performance-based and more objective, is better than the old, more subjective system of Systematic Assessment of Licensee Performance, there is not unanimous acknowledgment that it is providing adequate assurance.

In the deregulation-driven power shift from strict government regulation to industry self-regulation, the program has not yet evolved to the point where the outcome of adequate assurance is certain. The resulting shift seems to have changed the regulator's role to one of auditor, rather than a pro-active seeker of precursors that could lead to larger events. Unless event driven, licensees seem to be the gatekeepers of what is deemed serious enough to warrant attention.

Neither the ROP, nor licensee quality programs, connected enough dots to avert a near-miss at Davis Besse, even after the possibility of a problem was communicated by the regulator well in advance. In an effort to color-code everything into cornerstones, and to categorize them into well-organized safety significant categories, the real problem was not recognized until it was almost too late. The essence of having professional and independent oversight was lost. The fact is that the NRC has yet to issue a sanction as a result of Davis Besse. This proves the ROP system is slow to react, and a strict performance-based approach is not adequate. Yet both NRC and INPO have documented widespread management failures as root causes.

Therefore, IDNS continues to assert that adequate protection will not be assured for the whole family of nuclear plants until the ROP considers human performance in the cross-cutting issues in the process, and all licensees genuinely embrace risk-based regulation to the point where regulatory reforms no longer need to be voluntary.

State of Pennsylvania, Department of Environmental Protection
The ROP does provide adequate assurance that the plants are being operated and maintained safely. There are no signs of declining plant safety at any of the nine operating reactors in Pennsylvania since the implementation of the ROP.

New England Coalition on Nuclear Pollution
No. See above. Also, Refer to the Detroit Free Press for Davis-Besse coverage.

Strategic Teaming and Resource Sharing
Yes, the ROP provides adequate assurance that plants are being operated and maintained safely as indicated by the continuously improving industry trends.

State of Arizona, Division of Emergency Management
Yes. It provides essentially the same assurance we have always had... nothing new.

Entergy
Yes. (See also the response to item number 1)

Greenpeace
No. Adequate assurance of safety has always been linked to the licensee's fidelity to the FSAR and compliance with NRC regulations. As in the past, a NRC effort to reconstitute the design basis of the existing reactors was short-circuited.

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

Union of Concerned Scientists
Maybe, it certainly appears to be a real process.

Tennessee Valley Authority
The ROP is effective in improving performance in all strategic areas, as measured by the PIs. It 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 on significant issues. Effective communication on inspection findings has minimized conflicts and allowed better utilization of NRC and utility resources. The new format reports are objective and present a realistic measure of performance. TVA has found the reports to be relevant, useful, and written in plain English. The use of the objective writing style has eliminated the search for the "hidden message" that was an element of confusion in the process.

Nuclear Information and Resource Service
The NRC should expose and fully disclose the extent of negotiating that transpires during the ROP by opening up the process to public participation rather than sequester the process behind closed doors.

Nuclear Energy Institute
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.

State of Illinois, Department of Nuclear Safety
Improved efficiency: Yes the ROP is more efficient. Baseline inspections, monitoring PI data, and action matrices make the ROP more efficient and predictable. The one exception is the significance determination process that still needs improvement.

Improved effectiveness: No, the ROP is not more effective for reasons mentioned above.

Improved realism: No, because the ROP is not adequate to address the real root cause of any serious safety issue; human performance failure.

State of Pennsylvania, Department of Environmental Protection
In general, the ROP has improved the effectiveness of the regulatory process. However, one of its major weaknesses is in the area of timeliness. There continues to be unnecessary challenges to the SDP not-green findings by the licensees. These challenges, along with the lack of adequate number of risk analysts in the regional offices have resulted in lengthy delays (several weeks to several months) in the determination of the final SDP findings. These delays are unacceptable. Also, additional time and data is needed to assess the ability of the ROP to detect, in a timely manner, adverse trends in cross-cutting issues.

New England Coalition on Nuclear Pollution
We do not believe that realism is improved. In the case of Vermont Yankee, cited above, NRC isolated the components affected for risk evaluation without a thorough examination of the reasons VY personnel didn't know their plant,; didn't know their documentation. The goofiness of the personnel is what can get dangerous in a hurry given yet another set of physical circumstances.

Strategic Teaming and Resource Sharing
Yes, the ROP improves the efficiency, effectiveness, and realism of the regulatory process. The NRC has provided routine opportunities for the industry and the public to participate in monthly task force meetings designed to improve the ROP. The NRC has been receptive to industry and public comments made during the meetings. One of the more useful tools in the ROP is the ability for licensees to submit FAQs. This tool has been effective in promoting consistency across the regions in implementing the regulatory process.

State of Arizona, Division of Emergency Management
Not observed. Nothing dramatic has been seen.

Entergy
Yes. (See also the response to item numbers 6 and 9) The process is now much more structured and rigorous than the previous process. However, if risk is to be used to determine significance, then it should not be subjectively dismissed as in the case of RP, and EP. Confidence is instilled when the process is scrutable and logical. To allow the SDP to be overly conservative does not support responsible oversight. In fact, communicating overly conservative outcomes that are later rescinded or reduced in significance tends to make the ROP appear inconsistent, illogical, and inscrutable.

Greenpeace
No. The ROP has become a source of scorn and ridicule for the NRC. Just as failure of the "watch list" process resulted in extended outages for the Millstone reactors, the failure of the current ROP has resulted in increased risk to the public and an extended outage for Davis Besse.

14. Does the ROP enhance public confidence?

Union of Concerned Scientists
No. The NRC had a golden opportunity to do so with the ROP, but it lost that opportunity by (a) caving in to industry pressure almost every single time that a greater-than-green inspection finding is produced (this caving doesn't' t mean that the NRC always waters down the final significance, but taking longer than 90 days to determine the final color is in itself a caving symptom), (b) implementing the ROP inconsistently, (c) finding some lame excuse to not taking action when inspection findings are unexpectedly real (for example, the WHITE finding given to Quad Cities for failing its OSRE) and (d) preventing public participation in the process.

Tennessee Valley Authority
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 do more outreach/education work on the reactor oversight process, as noted in response to Question 8.

The SDP information presents a special challenge when communicating with the public, since it does require a technical background for a full understanding. NRC has compounded the problem with the practice of assigning overly conservative preliminary finding colors to non-green findings. This practice seems to be particularly evident in Region III. 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. NRC should reconsider the practice of issuing preliminary colors to findings when the risk analyses are not complete.

Nuclear Information and Resource Service
NO. For the above stated reasons.

Nuclear Energy Institute
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.

State of Illinois, Department of Nuclear Safety
From public meeting attendance, it seems the general public remains ambivalent about the ROP process, and has confidence in government regulators to do effective oversight for them. Those with the most radiological safety risk living near a plant also have economic reasons factored into their radiological safety risk-acceptance attitudes. So if the ROP has enhanced general public confidence, it is difficult to measure. IDNS passed out 11,700 doses of potassium iodide pills in our emergency planning zones in 2002. This indicates that there are a fair number of people still skeptical about nuclear power and governmental oversight. From an informed public standpoint, access to ROP results through the Internet is a positive. IDNS continues to applaud the NRC for the openness of their regulatory activities and the access to information afforded by the staff and web pages.

New England Coalition on Nuclear Pollution
No, it is not for reasons stated above. In addition, we suggest that the ROP cannot be separated in the public's assessment from all of the actions and statements of NRC. NRC spokesmen have been quick to criticize activists (public) but I have yet to hear an NRC spokesman criticize a licensee or the industry. A review of the Commissioner's comments at last year's RIC (and those of 2001, as well) will show even the most obtuse reader that NRC and the industry are pals looking forward to lots of licensing and more liberal standards while the public interest sector are just pests. In departing Chairman Meserve's comments where is there anything but creme sauce for the industry? You and I together have paved the way for them to get anything they want, he says. NRC spokesmen told the public that they were never at increased risk just because Davis-Besse was some swollen cladding away from a LOCA. So what is the public then to think of endless swathes of green?

Strategic Teaming and Resource Sharing
Yes. The ROP provides an objective, repeatable process for assessing plant performance. PI's and inspection results are readily available for public review and scrutiny. The public has participated in the development and revisions to the process. To further strengthen public confidence, continued efforts are needed to educate the public on the ROP and, in particular, its ability to identify degrading performance before there is a significant impact.

State of Arizona, Division of Emergency Management
Not observed. There is no indication that the public is really aware of this or any other oversight program. Nuclear power is not a hot issue in Arizona.

Entergy
(See the response to item numbers 6, 9, and 13) While this question is not appropriate for Entergy to answer, some observations are provided. We would suggest that a preliminary finding that is later reduced to a lesser significant finding could potentially confuse the public. The same may also be true of findings that are published on the NRC Web and by being there, appear to be the equivalent of a violation.

Greenpeace
No. The NRC and NEI manipulation of the process has further undermined what little confidence the public had in the NRC. The ability of senior management to manipulate the regulatory process has not changed under the new program. Public confidence will only be restored when the NRC holds licensees accountable. As Dr. Jill Lipoti of the New Jersey Department of Environmental Protection pointed out during the implementation of new ROP, "This isn't regulation its negotiation!" Absent new senior management at the NRC public confidence in the agency will remain justifiably low.

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

Union of Concerned Scientists
Not sufficiently. Safeguards is one of only seven cornerstone areas of the ROP. Prior to 09/11, the NRC met with industry representatives and members of the public to discuss this important cornerstone. For example, the NRC held a series of public meetings to discuss the Physical Protection Significance Determination Process and proposed changes to it. But the NRC deliberately terminated public participation in the process, even to the extent that the agency refuses to meet with public interest group representatives and listen to our input. Instead, the agency is hiding behind the guise of national security to meet secretly with industry representatives and revise the ROP behind closed doors. The NRC Chairman, in a previous capacity, served on the DOE Human Radiation Task force. He knows better than most the horrendous problems that can result from undue government secrecy under the guise of national security. For him to lead the NRC down this unfair path is incomprehensible.

Tennessee Valley Authority
TVA has found that NRC is open to stakeholder input to improve the ROP process and agency performance. In particular, TVA has had the opportunity to present its views and suggestions for improvement at several NRC-sponsored or NRC-attended events:

- NEI Licensing Forum on November 6, 2002
- Utility/NRC Interface Workshop in Region II on April 23, 2002
- RII ROP Lesson Learned Meeting on November 16, 2000
- NRC Region II ROP Pilot Feedback Session on October 25, 1999
- American Society for Quality 1999 Energy Conference on October 6, 1999
- Region II Licensing Counterparts Meeting on September 28, 1999

TVA has also participated in the NRC/NEI stakeholder meetings for the ROP since the initial pilot program. TVA was a participant on the Independent Performance Evaluation Panel convened to offer advice on the lessons learned from the ROP pilot program.

Nuclear Information and Resource Service
NO. The above statement is true only if it is applied to a definition of the "public" as the licensee. For example, NIRS and other public interest groups have been shut out of the ROP for Physical Protection Significant Determination Process. Prior to 9/11, NIRS participated as a public stakeholder in plant security meetings and witnessed the industry's aversion, to-the-man, in allocating sufficient and needed resources to the physical security of nuclear power stations as determined by NRC Operational Safeguard Response Evaluations. Since 9-11, all public stakeholders have been barred from the ROP on security matters. There is no doubt in our minds that industry is continuing its agenda to minimize and reduce security costs in spite of the clear and present danger without the public advocacy participation.

Nuclear Energy Institute
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.

State of Illinois, Department of Nuclear Safety
Yes, theoretically. Almost all NRC activities are available for public participation at some level, and almost all important regulatory changes go out for public comment. So opportunities abound, and it is to NRC'S credit that they seek such participation.

If there is a weakness in regard to public participation, few of the informed public outside the industry has the luxury of full time representation in Rockville, which is what it takes to participate in the dialogue at all the various forums in which policy reforms are developed. It is our perception that the industry develops and drives regulatory changes in dialogue with the staff, and most meetings and workshops are held in Rockville. So, although there is ample opportunity to participate, it is not at a practical level for IDNS. The downside of this is that moderating voices are not heard at the developmental stages of new policy. Incidentally, web casting and archiving meetings is a valuable tool for those who can't be present, and we encourage expansion of this capability.

State of Pennsylvania, Department of Environmental Protection
The NRC has been actively seeking stakeholders' input to further improve the ROP, but the level of participation by the general public has been very low and the public confidence in the process does not appear to be increasing. Some of the contributing factors are the complexity

of the SDP, the extreme delays in reaching a conclusion on inspection findings (SDP results), and increasing trends in downgrading of preliminary color findings.

We recommend that the NRC develop and implement an effective mechanism to receive public input continuously and on a plant specific basis. The NRC resident inspectors should play a more active role in the agency's public involvement activities within the local communities. The posting of plant specific information (i.e., PIs, inspection and assessment reports, etc.) on the NRC Website can help improve public confidence in the process and should continue. Unnecessary changes to the ROP may reduce public confidence in the process and should be avoided.

New England Coalition on Nuclear Pollution
NRC failed to uphold the safeguards cornerstone before and after 9/11and has stiff-armed the public in defense of itself and the industry. No public working meeting (save for the RIC which was adversarial) has been held. If only the agency were as energetic in defending our nuclear facilities. Annual plant site evaluation meetings should devote a formal segment to exchange with the public. Post-meeting one on one conversations are good, but most of the attending public loses the benefit of every question and answer.

Strategic Teaming and Resource Sharing
Yes, the public is afforded adequate opportunity to participate and provide inputs and comments.

State of Arizona, Division of Emergency Management
Yes. The public has been invited to all exit sessions. To date one person has attended.

Entergy
While this question is not appropriate for Entergy to answer, some observations are provided. We believe that the public must be provided the opportunity to participate in the program - to provide comments and to see results. Public perceptions and concerns should not be a factor in the significance determination, evaluation and resolution of regulatory issues at a plant. Interactions in these areas should be between the licensee and the NRC.

We believe that more effort to gauge the actual general public perception or opinion should be expended prior to responding to special interest or public action groups. We believe that quite often, these groups are not representative of the public in general.

Greenpeace
The only way this question could be answered in the affirmative is if NRC included the industry in its definition of "public."

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

Union of Concerned Scientists
No. The NRC established processes, such as the Frequently Asked Questions (FAQs), for responding to inputs and comments from licensees, but has failed to respond to public inputs and comments. UCS has repeatedly commented on certain aspects of the ROP, both in written

comments and orally during public meetings, and has never, ever received a response - other than patronizing thanks for providing comments - to many of those oft-repeated comments. It seems to UCS that the only difference between us mailing these written comments to the NRC and our mailing them to the McDonalds across the street from NRC headquarters is that (a) NRC would have a better excuse for not responding if we mailed our comments to McDonalds and (b) we' d have a better chance of getting a coupon for free french fries.

Tennessee Valley Authority
TVA has found that NRC is open to stakeholder input and takes reasonable actions to improve the ROP process and agency performance. As noted above, TVA has participated in numerous forums to provide comments on the ROP. TVA has found that NRC has acted on a number of suggestions made in these various forums.

Nuclear Information and Resource Service
NO. The public interest community has repeatedly submitted comments to NRC to no avail. NIRS expects no more from NRC with regard to these comments.

Nuclear Energy Institute
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.

State of Illinois, Department of Nuclear Safety
NRC has been responsive to IDNS comments on the ROP in the sense that our comments were acknowledged, if not adopted. In our February 22, 1999 comment letter we repeated previous comments that if participants were going to adopt PRA principles, and NRC was going to have a policy to that effect, licensees should be required to have a rigorous and current PRA. Furthermore, PI thresholds should be derived from the plant specific PRA. Use of PRA's is still voluntary.

Based on the performance history of Illinois plants under the old system, we noted that it is hard to inspect management effectiveness without being subjective, and agreed that PRA's provide focus but do not tell the whole story. We also recommended a "management effectiveness" cornerstone with PI's be established to monitor human performance and cross-cutting issues. If not adopted, then at least some inspections should be focused on areas of management effectiveness. So we can say that NRC has responded to IDNS comments, but not always in positive ways.

State of Pennsylvania, Department of Environmental Protection
The NRC has been slow to respond to public inputs and comments on the ROP. The past three years have yielded numerous comments on the inconsistent bases for the existing PI thresholds, the delay in issuing a final SDP finding, the lack of standardized risk analysis tools, the lack of adequate number of regional risk analysts, and the confusion over no-color issues. We recognize that the NRC has taken measures to address some of these issues or concerns, however the agency's response has been slow and these measures are not being implemented in a timely manner.

New England Coalition on Nuclear Pollution
Some of our recommendations appear to have surfaced, but without acknowledgment directly addressing our input, we can't tell if we have had impact or not. NRC has been excellent about answering ROP questions and providing requested documents.

Strategic Teaming and Resource Sharing
Yes, the NRC makes special efforts to recognize the public representatives at the monthly public ROP meetings and allows the public to have an opportunity to voice their opinion on the issues discussed. Public comments are received, evaluated, and dispositioned in a professional manner.

State of Arizona, Division of Emergency Management
Not observed.

Entergy
This question is not appropriate for Entergy to answer.

Greenpeace
No. This lack of responsiveness is what led me to withdraw from the implementation panel several years ago. Members of the public have specifically asked the NRC to develop the performance indicators so as not to further to the impression that the NEI has undue influence over the process. This was ignored. Not only has the NRC ignored the public but also the advice of their own staff and consultants.

The NRC has ignored its own experience with the reactors owned by Commonwealth Edison, now Exelon, which displayed the need for an economic indicator. The NRC then spent an exorbitant sum of money to hire Arthur Andersen to look at the assessment process and has since ignored their recommendations. Arthur Andersen recommended more objective performance indicators. The NRC has added more subjectivity by splitting hairs over functionality verses operability. Arthur Andersen recommended an economic indicator because, "the threat exists that nuclear utilities, in their desire to cut costs and increase competitiveness, will be forced to impair their operational safety and increase risk." (Arthur Anderson, Study of NRC Senior Management Process, December 30, 1996, p. 23.) Six years after that recommendation was made NRC still has no such indicator and in fact no longer makes operation and maintenance (O&M) costs available to the public.

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

Union of Concerned Scientists
Hard to tell. As noted in the answer to Question 11 above, the program documents are harder to piece together than confetti after a tickertape parade. The ROP program documents are so scattered that UCS has neither the time nor the interest in pulling them all together (even assuming we could find them) so as to then be able to evaluate NRC implementation against them.

Tennessee Valley Authority
TVA agrees with Commissioner McGaffigan's assessment of the SDP implementation in Region III as described in COMEXM-01-0001. The practice of issuing preliminary non-green colors without completion of the phase 3 risk evaluation is not consistent with TVA's 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.

Nuclear Energy Institute
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.

State of Illinois, Department of Nuclear Safety
Yes.

State of Pennsylvania, Department of Environmental Protection
Overall, it appears that the NRC has implemented the ROP as defined. There are no concerns in this area.

New England Coalition on Nuclear Pollution
This question will be easier to answer when the program documents are brought together and ordered so as to form a coherent reference. We haven't done that. At this point, we simply cannot answer the question.

Strategic Teaming and Resource Sharing
The NRC as a whole has implemented the ROP as defined by the program documents. There are a few individual inspectors that appear to have not fully endorsed the ROP. In most cases, their inspection results are reviewed in the region and aligned to the ROP as defined in the program documents.

State of Arizona, Division of Emergency Management
Not observed. This is basically a plant document. Little information has been provided to state and local government with regard to the program.

Entergy
No. (See the response to item numbers 6, 9, 13 and 14)

Greenpeace
No. See above.

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

Union of Concerned Scientists
Don't know, don't care.

Tennessee Valley Authority
TVA has found that improvements in inspection planning and schedule performance allows 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.

Nuclear Information and Resource Service
YES. This is a rhetorical question. NIRS would only qualify that the ROP sets out to not only reduce "unnecessary" regulatory burden but any burden of regulation at all.
NIRS contends that the reduction of regulatory burden and the elimination of regulatory enforcement is to be the sole purpose of the process under the guise of increased oversight.

Nuclear Energy Institute
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.

State of Illinois, Department of Nuclear Safety
Yes it does. Does it reduce regulatory burden too much in a deregulated business environment? Some think so. The Davis Besse incident might be seen as a wake-up call that the focus on the bottom line is overshadowing the focus on safety at some licensees. That the regulator was seduced into participating in this is significant.

The principle in performance-based regulation that something significant has to happen before a response is warranted is only valid if the regulations cover safety-significant root causes at a threshold low enough to be effective. It was the subjectivity in evaluating management

effectiveness in the old system that set the safety bar so high. We believe it is time to question whether it is now too low.

State of Pennsylvania, Department of Environmental Protection
It is our observation that the licensees are spending less time responding to issues of low safety significance (i.e., non-cited violations, etc.). However, the ROP's significance determination process is resource-intensive and the lack of standardized risk analysis tools has further complicated the process. We recommend periodic surveys of NRC regional staff and the licensees to determine whether the ROP is making progress toward achieving this goal.

New England Coalition on Nuclear Pollution
Apparently. The ROP was designed in cooperation with NEI and it is unlikely they would contribute to increasing or maintaining regulatory burden on their subscribers. From a public perspective, to the extent that the ROP appears to be part of an overall shift of responsibility to the licensee, it reduces regulatory burden.

Strategic Teaming and Resource Sharing
Yes, the ROP has reduced unnecessary regulatory burden on licensees. While we have not seen a marked reduction in baseline inspection hours, we have realized reduced burden in the area of resolving minor violations. We appreciate the opportunity to use our Corrective Action Program to resolve the problems that used to be characterized as level IV violations, which required formal written responses.

State of Arizona, Division of Emergency Management
Not observed.

Entergy
Yes. For the most part burden is reduced especially when dealing with Level IV violations. Additional burden reduction could be realized if there were less overlap between inspections and PIs (see the response to item 2).

However, additional licensee effort is required to support risk assessments. The NRC's Phase II SDP is ineffective at screening many items, making Phase Ill analysis more common. If Phase II screening cannot be improved, the industry and the NRC would be better off without the Phase II process.

Greenpeace
It is unfortunate that the Senate oversight committee has so cowed this agency into regulatory complacency, that the NRC feels it must ask this question. Reactor assessment has never been an unnecessary burden. It is the price nuclear utilities must pay for placing communities and states at risk of annihilation. The NRC should not even be asking this question.

19. Does the ROP result in unintended consequences?

Union of Concerned Scientists
Absolutely.

The NRC doesn't intend to take 90-plus days to determine the color for inspection findings, but it does.

The NRC doesn't intend to bar public participation from the process (if we are to believe the public pronouncements), but it does with respect to the safeguards cornerstone.

The NRC doesn't intend to allow plants to operate with big holes in their reactor heads, but it did.

The NRC doesn't intend to take longer than 90 days to produce an SDP color, but it does.

Tennessee Valley Authority
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 (2 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. TVA suggests that NRC change the action level criteria from 2 to 3 white inputs in a cornerstone for a Degraded Cornerstone.

Nuclear Information and Resource Service
YES. It has further undermined the public confidence in the NRC that it can or is even willing to effectively manage nuclear reactor safety and enforcement regulations intended to protect the public health and safety. It is now amply clear that the agency only intended to please the nuclear industry.

Nuclear Energy Institute
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.

State of Illinois, Department of Nuclear Safety
There may be some potential unintended consequences caused by PI guidance. Licensees naturally operate to the PI's, to the point of using green PI's as a management incentive. An unintended consequence, might be that non-conservative decisions might be made to avoid a PI hit. For example, the 72-hour requirement to call a pending forced outage a planned outage may cause the licensee to make non-conservative decisions to keep a degraded unit on-line. Confirmation of this is that White finding submittals are met with considerable resistance.

There is also some potential to use risk to justify poor decisions. For example, risk analysis was used to justify a twenty-four inch opening in a primary containment in Mode 1 at one plant.

The ROP and performance-based regulation are not good predictive programs. This is an unintended consequence. Davis Besse showed that a plant can be operating in the green band and have an event just waiting to occur. The ability to determine precursors from compliance-based findings has been removed from the inspector's toolbox, and licensee quality assurance programs may not be picking up the slack.

State of Pennsylvania, Department of Environmental Protection
Based on our experience in PA and as it relates to plant safety, the ROP has not yet resulted in any unintended consequences. The ROP, although designed to reduce regulatory burden, has inadvertently increased some challenges. This, to some extent, has resulted from the licensees disproportionate concern about non-green findings, particularly if there are more than one in a cornerstone area. These unnecessary challenges can reduce the effectiveness and efficiency of the ROP.

New England Coalition on Nuclear Pollution
Yes, we believe that the ROP does have unintended consequences. In synergy with increased intervals of testing, maintenance, and surveillance, the voluntary industry initiatives program, power uprates of up to 20%, on line maintenance, emerging human performance issues, the terrorist threat, suppressed aging issues, and a premature sign-off on design basis issues, the ROP will, at bottom line, fail to provide adequate protection in part because it fails to compensate for increased risk introduced by these synergistic factors. If the bundle of design and documentation issues that emerged at Indian Point and the RPV head degradation at Davis–Besse occurred with the ROP in place then they are consequences of the ROP –or of an as yet unanalyzed failure of the ROP.

Strategic Teaming and Resource Sharing
The ROP could cause some unintended consequences. One unintended consequence could result from the use of deterministic thresholds (especially in the Emergency Preparedness and Public Radiation Safety SDPs). These deterministic thresholds provide a disincentive to licensees that want to aggressively find and document low level problems in their corrective action programs, if they believe these entries will later be aggregated to form findings. These findings which are usually of very minor significance can send an unintended message to the public. Other unintended consequences are usually reported and effectively resolved using the FAQ process by the NRC and Industry ROP taskforce.

State of Arizona, Division of Emergency Management
Not observed.

Entergy
Yes. (See the response to item numbers 6, 9,13, and 14)

Greenpeace
Most certainly, I doubt the NRC intended the ROP to result in licensee's ignoring the corrosion of reactor pressure vessel and being between 1/8 and 1/16th of an inch away from a major loss of coolant accident. The ROP, as redesigned by NEI and the NRC with its reliance on risk insights that may or may not be valid, has resulted in the most severe accident since Three Mile Island. Was this what the NRC intended?

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

S. Kasturi, Private Citizen
From Cover Letter:
I have an overall comment as follows. It is unrealistic to expect that the PI based ROP will minimize the potential for actions adverse to safety by licensees. The Pls are global in nature and there is a long time delay between licensee actions and when it reflects in Pls. A couple of examples I can sight are the recent Davis Besse Reactor Head problems, and the recent discovery of management inattention to operator training problems (switching between cold shutdown and hot shut down procedures within a span of an hours during crew change. In both cases, the NRC itself is on record stating actions adverse to safety by management as the cause of the problems. There are also other examples of problems in the last three years that indicate ineffectiveness of the global Pls.
So I must conclude the ROP does not do anything to enhance public confidence in safety of the operating reactors.

Union of Concerned Scientists
Answer to Question 20:
The overhaul of the NRC website was a huge step backwards in terms of accessing the ROP. It was difficult to access ROP information before the web revamping – it is virtually impossible now. Prior to this disaster, I would refer reporters and elected officials to the ROP for information on how a specific site was performing. But the information is so difficult to find on the "new & improved" website that I very seldom bother to mention it anymore.

Tennessee Valley Authority
From Cover Letter:
TVA appreciates the opportunity to provide comments on the third year of implementation of the ROP. In general, TVA has found that the ROP has led to improved performance. The ROP also provides for more objective performance assessments, as documented in the inspection reports and annual assessment summary. Most importantly, TVA notes that NRC's implementation of the ROP exhibits the key elements of a continuous learning organization. TVA notes that there are some opportunities for additional ROP improvements that warrant action and has provided specific comments in the enclosure to this letter. The comments are formatted in response to the specific questions provided in the FR notice. TVA also recognizes that there will be additional issues to address from the lessons learned from the Davis-Besse problems. TVA will

continue to monitor developments in this area and provide any comments or suggestions through the Nuclear Energy Institute's ROP task force.

Answer to Question 20:
TVA suggests that NRC continue its efforts to refine inspection scope, inspection frequency, and inspector-hour commitments based on experience. In particular, TVA supports efforts to integrate radiological controls inspections, improve coordination with outage activities, and adjust inspection hours expended. Because team inspections during outages can create a significant support burden due to assignment of key personnel to outage assignments, TVA suggests that outage inspections minimize program review elements and focus only on outage-related activities. TVA 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 better coordination of the improvement and validation efforts for the SDP phase 2 worksheet (round 2 validation), the SDP task force review, and the SPAR model validation efforts. NRC should develop an integrated improvement plan before too many resources are expended on these overlapping initiatives.

NRC should use the large base of experience with the Fire Protection SDP to make major simplifications. TVA suggests that NRC consider a simple scheme for the SDP: It is a green finding unless the problem involves high combustible loading and no sprinkler capability.

Nuclear Information and Resource Service
From Cover Letter:
NIRS contends that the agency has significantly failed in its mission to effectively and safely regulate civilian nuclear power in the United States. In fact, the agency has willfully neglected its responsibility to protect the public's health and safety and the environment. The agency continues to spend an inordinate amount of its staff and management resources in the promotion and defense of industry energy production schedules that in reality shields the industry economic interest from regulatory requirements intended to protect and promote the public health and safety. In so doing, the agency has prioritized electricity production over public health and safety and the environment. Over the past three years, NRC has repeatedly failed to adequately inspect and enforce licensee activities to ensure compliance with these safety requirements and the law. The NRC has repeatedly failed to uphold its responsibility to monitor and regulate licensee's performance, the primary responsibility for safe operation.

The NRC has inappropriately rationalized that the maturation of the industry is reason to abandon prescriptive and deterministic licensing regulation in favor of a more probabilistic process that allows for greater industry self-assessment and defeats effective and timely enforcement by the agency. In fact, larger and growing areas of uncertainty with reduced margins of safety now exist within this regulatory approach as exemplified in the one specific area of age-related degradation of susceptible materials that fabricate key safety components vital to the protection of the public health and safety. As such, the NRC has misconstrued and mischaracterized such terms as "maturity" with "aging" and "deterioration" of nuclear power industry. Examples over the past three years under the new Reactor Oversight Process (ROP) stand as glaring examples to this steady regulatory retreat and the increased risk associated with this reluctant oversight process.

In April 2000, the same month that the NRC began to implement its so-called more “effective and efficient inspection, assessment, and enforcement approaches,” FirstEnergy, operators of the Davis-Besse nuclear power station near Toledo, Ohio, manufactured false and misleading Work Orders for the Pressure Vessel Head cleaning and bare metal inspections of Control Rod Drive Mechanism Vessel Head Penetrations and a long neglected boron corrosion management program. The NRC inspection, assessment and enforcement process as initially provided by its frontline onsite resident inspectors was nowhere to be found in verifying any of these vital tasks.

When the NRC was ultimately challenged in September 2001 by FirstEnergy responses to the associated safety risks regarding cracking of the Control Rod Drive Mechanism Vessel Head Penetration as outlined in NRC Bulletin 2001-01 and a requested utility waiver to provide for the continued operation of the Davis-Besse beyond a required inspection and reporting deadline, the NRC ultimately abandoned its own risk-informed procedures as incorporated into its oversight activities (Regulatory Guide 1.174) and overlooked the enforcement of the Davis-Besse reactor’s technical specifications in favor of an arbitrary electricity production-bias settlement that only benefitted the financial interest of a safety-deviant utility. An Order drafted and finalized by staff and duly routed to the Commission requiring the shutdown of Davis-Besse applying the risk-informed procedures and criteria of Regulatory Guide 1.174 was abandoned in an utterly arbitrary and capricious decision by senior management. Such a risk-misinformed, risk-negligent and risk-bargaining approach to the oversight process not only inappropriately squanders staff resources but blatantly disregards their studied risk-informed product. Such arbitrary and company-biased judgments on the part of NRC management as currently dominates the ROP unduly jeopardize public safety in the continued operation of nuclear power facilities.

Further illustrating the failures of the NRC reactor oversight process by illuminating Davis-Besse and other examples over the past three years, the NRC abandoned its principles supposedly inherent in the ROP and defeated its performance goals.

1) Obviously, NRC failed to maintain safety by establishing and implementing a regulatory oversight process that ensured that the Davis-Besse plant operated safely. Luck played a significant role in preventing an accident.
2) NRC further undermined public confidence by demonstrating a consistency and predictability in ruling in favor of the industry's financial interest over public safety. An earlier NRC waiver of Indian Point steam generator inspections as required by technical specifications in June of 1999 lead to the steam tube rupture in February 2000. The Office of the Inspector General report determined that efforts by NRC staff to issue Requests for Additional Information on the waiver to Consolidated Edison were chilled by the Director of Nuclear Reactor Regulation. Furthermore, in providing its December 3, 2002 "safety rational" nearly a year after the NRC flip flop on the issuance of the Davis-Besse Order, the agency did not provide "timely and understandable information" on its technical basis for reversing itself on the Order, enforcement of compliance of the Davis-Besse Updated Final Safety Analysis Report, Code of Federal Regulation and the appropriate regulatory guides. With regard to the NRC goal of providing opportunities for meaningful involvement by the public, the agency's Davis-Besse Lessons Learned Task Force (LLTF) on the Davis-Besse debacle failed to appropriately interview and incorporate the analysis of such key public stakeholders as The Union of Concerned Scientists (UCS) and NIRS. Both NIRS and UCS were publicly assessing what went

wrong with the agency's reactor oversight process that allowed FirstEnergy to recklessly operate Davis-Besse with severe and unacceptable degradation of safety margins, outside of Code of Federal Regulation, loss of defense-in-depth, increased core damage frequency and under false pretenses provided by the company. Both NIRS and UCS were active public stakeholders in revealing the NRC mishandling of FirstEnergy and Davis-Besse through the Public Petition Process for Emergency Enforcement (10 CFR 2.206), the Freedom of Information Act, through the public media and in direct correspondences with NRC. Yet the agency's ROP lessons learned task force inexplicably did not provide a meaningful opportunity for those stakeholders with involvement in the report. The only "meaningful" opportunities availed to the public dealt with the scope of the Davis-Besse LLTF not the content.

3) NIRS has noted no improvement in the effectiveness, efficiency and realism of the oversight process between the events February 2000 steam tube rupture at Indian Point and the March 2002 discovery of the boron corrosion event at Davis-Besse.
4) The agency has gone far beyond the reduction of "unnecessary" regulatory burden with a dangerous reduction of "meaningful" regulatory oversight. The Davis-Besse event of March 2002 and the Indian Point 2 steam tube rupture of February 2000 in the past three years indicate that NRC has wrongfully misconstrued "eliminating unnecessary regulatory burden" with amputating effective regulatory oversight and enforcement.

Answer to Question 20:
Has the NRC established any threshold for the identification of reckless operator performance what-so-ever within the ROP other than allowing an operator to melt down the core that provides for enforcement action including the suspension or revocation of a reactor operating license? No. How is it that such provisions exist for a common drivers license to protect the public safety from irresponsible drivers but not nuclear reactor managers and operators? Does the ROP require a catastrophic nuclear accident to occur before it will establish such a benchmark? Probably so.

The lack of NRC public accountability and its patronizing public responses along with its continued collaborative pursuit of a common agenda with an aging and increasingly deteriorated industry under greater financial pressure are converging paths on such a nuclear disaster. NRC should genuinely pursue its mandate to uphold the public health and safety as its primary mission rather than continue as the promoter, apologist and shield for the financial and expansionistic interests of the nuclear industry.

Florida Power and Light Company
From Cover Letter:
Florida Power & Light Company (FPL), the licensee for the St. Lucie Nuclear Plant, Units 1 and 2, and the Turkey Point Nuclear Plant, Units 3 and 4, and FPL Energy, Seabrook (FPLE Seabrook) the licensee for Seabrook Station hereby submit the following comments on the above referenced solicitation of public comments on the Reactor Oversight Process (ROP). The Nuclear Energy Institute (NEI) has generated industry comments on each of the questions posed in the federal register. FPL and FPLE Seabrook endorse these industry comments and highlight several of the comments below.

FPL and FPLE Seabrook believe that the ROP provides a uniform, consistent process by which the NRC deploys its inspection activities to determine whether plants are being operated safely.

Through the use of performance indicators and inspection finding safety determinations, the ROP provides for a consistent, measurable, and objective assessment of nuclear power plant safety.

Overall, there has been a reduction in regulatory burden on FPL/FPLE Seabrook. The burden has primarily been reduced due to the Significance Determination Process (SDP) and the new Enforcement Policy that is aligned with the SDP. In most cases, the SDP assessment of inspection findings has had the positive effect of placing minor issues and minor violations in a proper risk perspective. These issues can be placed in the corrective action program, and NRC and FPL/FPLE Seabrook's time and effort can be devoted to more risk important issues. The greatest improvement has been in the reactor safety area where the performance indicators and reactor SDP permits the allocation of resources based on safety significance. The non-reactor safety SDPs offer significantly more consistency to the process when compared to the prior inspection process. However, these SDP's did not benefit from the same review and use during the pilot process, as did the reactor SDP. As a result, problems have arisen in the physical security, ALARA, and Fire Protection areas that need to be resolved in a public and controlled manner. A process similar to that used to manage change in the performance indicators should be applied to changes in SDPs, to include setting clear criteria for change, table-top testing and piloting, and training for NRC and industry before implementation.

With the merging of many licensed operators into larger multi-site companies that can share common programs and procedures, efficiency can be gained by combining programmatic inspections. A single inspection can review a common program used by multiple sites. This common inspection will reduce the inspection resources and the fee billed while still providing adequate assurance of program wellness. Industry efforts in the area of self-assessment could also provide an opportunity for more efficient use of NRC resources and burden reduction. For example, NRC could participate as an evaluator on a site assessment team rather than send its own team. The evaluator could determine if the assessment approach, methodology and results meet NRC standards such that the assessment could replace an NRC inspection.

FPL and FPLE Seabrook appreciate NRC's openness and willingness to consider stakeholders' comments and recommendations on the ROP. 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. Without forsaking its responsibility to make the final decision, NRC has been willing to openly share its ideas and to allow public comment on a real-time basis. The result has been a far better product than could have been achieved in the past. This new standard of communication and understanding between the regulator, licensees and the non-industry public is to be commended.

State of New Jersey, Department of Environmental Protection
From Cover Letter:
This letter is in response to the NRC's November 15, 2002, Solicitation of Public Comments on the Third Year of Implementation of the Reactor Oversight Process (ROP).

My comment deals with the following questions:

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

14. Does the ROP enhance public confidence?

19. Does the ROP result in unintended consequences?

We have raised concerns with the lack of corrective action taken by AmerGen in the area of Emergency Preparedness at Oyster Creek. During drills conducted during 2001 and 2002, we noted recurring problems. We verbally expressed our concerns to AmerGen, and then documented these problems in a letter November 22, 2002, attached. [not attached here]

Over the three-year implementation of the Reactor Oversight Process, the NRC continuously rated Oyster Creek as Green in assessments of Emergency Preparedness. We feel the ROP is misleading the public in this area for the Oyster Creek plant. This is an example where ineffective corrective actions are not being appropriately assessed by the ROP, possibly due to the low acceptance criteria for reactor support areas, e.g. Emergency Preparedness. The Federal Emergency Management Agency, in their recent draft Exercise Report, judged the Joint Information Center at Oyster Creek as follows:

> "Facility that is inadequate to support the type of media response that could be expected from an emergency activity at OCNGS. Additionally, telephone support for media representatives does not exist in the present facility, and the availability of audiovisual equipment to support media briefings is inadequate." It was recommended to, "Identify an additional facility that could handle a response team of 100-200 media representatives that can provide adequate audiovisual support for media briefings."

The issues are documented in the Oyster Creek corrective action program but remain unresolved. The NRC's oversight of this area is not affecting a positive change in performance. There appears to be no mechanism for the NRC to cite a violation on poor performance during emergency exercises as long as critiques identify the problems. We request an assessment of NRC performance indicators of corrective action and emergency preparedness, hopefully the NRC will find a better way to represent weaknesses in these area and present them in a meaningful way.

Winston & Strawn
From Cover Letter:
Pursuant to the *Federal Register* notice dated November 22, 2002, Winston & Strawn submits the following comment for NRC Staff consideration regarding implementation of the Reactor Oversight Process ("ROP"). In general, and consistent with the many assessments of the ROP, we agree with the objectives and concepts of the program, including the majority of the program guidance documents. However, because implementation of the ROP is still in its early stages, there inherently will be areas for improvement. Indeed, the NRC has stressed that one of its performance goals is to "improve the effectiveness, efficiency and realism of the oversight process by implementing a process of continuous improvement." Our comments are based on our experience and observations made while assisting clients, primarily with respect to inspection findings.

Comment

There is insufficient guidance related to transitions from the escalated oversight columns to the

lesser oversight columns on the ROP Action Matrix (i.e., downward or “right-to-left" transitions).

The industry, NRC, and public all possess a vested interest in the safe operation of nuclear power plants. It is in the interests of everyone for all licensed plants to be placed in the licensee Response Column of the Action Matrix. However, for a variety of reasons, it is possible for a licensed plant to be placed in a column of higher regulatory response and oversight. As the plant performance of a licensee in one of the escalated response columns improves - and the bases for the escalated categorization are addressed - a licensee should in due course return to response columns of lesser oversight.

In the past, the right-to-left transitioning (from escalated response to the normal status) has been handled on a case-by-case basis and has, in our experience, been handled inconsistently within and among Regions. More specifically, when the inputs of a licensee in a higher response column have been addressed and the degraded cornerstone issue resolved so to allow the licensee to return to lower response columns on the Action Matrix, the Staff has at times chosen to exercise broad and arguably unwarranted discretion in retaining the licensee in the higher response column, despite the fact that the inputs no longer warrant retention in the higher column. While the Staff understandably should be able to exercise some discretion in making this determination, the great discretion it currently employs with respect to right-to-left transitioning does not coincide with the very specific programmatic guidance on left-to-right transitioning in the ROP.

This implementation inconsistency in Staff practice seems rooted in the fact that there is little in the way of guidance pertaining to right-to-left transitioning. We believe that the lack of guidance challenges the NRC's stated performance goals of enhancing “predictability, consistency, and objectivity of the oversight process" and reducing “unnecessary regulatory burden through the consistent application of the process.”

As such, we urge the NRC to formulate and implement specific guidance relating to right-to-left column transitions on the Action Matrix.

Basis

A review of the various ROP documents reveals that the existing guidance for column transitioning is centered on the escalation of NRC response and oversight levels on the Action Matrix (i.e., left-to-right transitioning). In contrast, the text is nearly void of any written guidance related to the details of transitioning to a lesser amount of oversight on the Action Matrix (i.e., right-to- left transitioning).

Manual Chapter 0305 appears to contain the greatest degree of guidance on right-to-left transitioning. What guidance exists, however, is terse and insufficient. Indeed, the most significant discussion of the issue is the following brief statement:

> Also, for inspection findings, the original performance issue will remain open and will not be removed from consideration in the assessment process until the weaknesses in the evaluation are addressed and corrected. The regional offices must convey the specific weaknesses that the licensee needs to address in order to remove this finding from consideration in the assessment process. The finding will be removed from

> consideration of future agency actions (per the Action Matrix) when the inadequacies in the licensee's efforts to address the issue have been corrected and four quarters of consideration of the original finding in the assessment program [have] been completed.

Although this brief passage specifies some guidance criteria on transitioning to columns of lesser oversight, it is confusing and lacking in important respects.

> First, the concept of removing the finding "when the inadequacies in the licensee's efforts to address the issue have been corrected" is ambiguous and subjective. This open-ended and broad statement in effect grants the Staff broad discretion and does not facilitate consistent treatment of right-to-left transitioning among the various Regions.
>
> Second, although this portion of Manual Chapter 0305 specifies a duration of at least four quarters before the Staff will remove a finding, it does not discuss in any further detail how a licensee would be transitioned to a lesser oversight column. For example, were a licensee to correct the performance issue, and had four quarters elapsed, it is unclear how many columns the licensee would be transitioned downward or at what rate.

In regard to other guidance documents, performance to-date indicates that few licensees are likely to enter the Manual Chapter 0350 category. Therefore, the increased, albeit limited, guidance provided in that document would rarely be applied to the majority of actual degraded performance situations.

With respect to the various pertinent Inspection Procedures (e.g., IP 95002 and IP 95003), these guidance documents also tend to focus on escalated response and the supplemental regulatory response procedures to be implemented when the left-to-right column transitions occur. There does not appear to be any specific guidance on the procedure for terminating or "closing out" the increased inspection procedures once the licensee's inputs indicate that the performance areas have returned to more acceptable performance levels.

Summary and Conclusion

The minimal guidance available for right-to-left transitions is subjective and open-ended, thereby allowing the NRC Staff to exercise broad discretion in determining when a licensee in an escalated response column may be transitioned to lesser response columns. As a result, the discretion has not been consistently applied throughout the NRC Regions. This can result in licensees being confined to inappropriately lengthened high levels of regulatory oversight and response once the performance issue has been corrected. While the Staff understandably should be able to exercise some discretion in making this determination, the large amount of discretion it can employ with respect to right-to-left transitioning does not square with the very specific programmatic guidance on left-to-right transitioning or the goals of objectivity and predictability in the ROP.

Therefore, pursuant to the NRC's goal of improving the ROP program, we urge the NRC to develop useful and clear guidance concerning the procedure by which right-to-left transitions are to take place on the Action Matrix. Similarly, we encourage the revision of the escalated

Inspection Procedures to outline the termination criteria and the procedure for doing so.

Constellation Energy Group
From Cover Letter:
Constellation Energy Group welcomes the opportunity to provide comments on the Third Year of Implementation of the Reactor Oversight Process solicited by Reference (a). Constellation Energy Group has reviewed the Nuclear Energy Institute's (NEI's) industry comment which has been submitted to the Nuclear Regulatory Commission (NRC) on December 20, 2002 (Reference b). Constellation Energy Group endorses the NEI comments and wishes to add the following observations which have been addressed by comments on Questions 6, 10, and 19 in Enclosure to Reference (b)

We are concerned about the subjective nature of the Significance Determination Processes (SDPs) for cornerstones that fall outside a plant's probabilistic risk analysis. For example, a significant percentage of findings in the industry have occurred under the Emergency Preparedness Cornerstone. Many of these findings were preliminarily classified as white or yellow, and subsequently downgraded by the NRC only after significant licensee resources were expended in appealing the proposed level of severity. As stated in the NEI comment to Question 19 of Reference (a), the practice of assigning a conservative preliminary finding and subsequently changing the color provides critics with an opportunity to challenge the integrity of the process and creates doubt in the public's mind. Another example is the SDP for Public Radiation Safety, which specifies findings based on radioactive waste shipment dose rates regardless of actual risk to the public (e.g., accessibility of high dose rate area, duration of accessibility by the public, etc.).

We strongly recommend that SDPs in these areas should be revised to ensure findings appropriately reflect the risk of the event as well as programmatic failures instead of single occurrences. We believe utilizing a risk-informed method will better reflect licensee performance to ensure plant safety.

Nuclear Energy Institute
From Cover Letter:
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:

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 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 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 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.

Answer to Question 20:
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.

State of Illinois, Department of Nuclear Safety
Answer to Question 20:
Industry operational and safety performance has dramatically improved in the last few years, especially at the Illinois plants. We attribute this to excellent management attention and focus. We certainly don't see a need to revert back to the old compliance-based regulatory program. We continue to believe in the efficacy of risk and performance based regulation.

However, recent events have afforded the opportunity to see where gaps exist. The ROP is worth fine-tuning, and that process is far from over. It is also becoming evident that some subjectivity is desirable in cross-cutting areas that are not monitored effectively by objective means. Trending ability is reduced in the ROP, especially in the cross-cutting issues where problems show up first. It is critical to a regulator that performance trending in key areas be accomplished. While difficult, we don't believe this is too hard to accomplish. The industry cannot be expected to be self-policing in holding member managements accountable for unsatisfactory performance.

The ROP is very structured by design and does not afford the NRC inspectors much time or latitude to follow their instincts into perceived problem areas. As stated, introducing some subjectivity back into the regulatory process might be beneficial. Also, since the vast majority of inspection findings are documented as "very low safety significance", there is always the threat that inspectors will become frustrated and not put maximum effort into their inspections.

We still believe a PI for steam generator tube leakage is desirable, and improvements need to be made in the oversight of corrective action programs. Finally, it is a confidence builder to see a continued effort to standardize the PRAs, as decisions are now being made relying on PRA's of inconsistent quality.

Southern California Edison
The subject Federal Register Notice requested public comments on the third year of the Reactor Oversight Process. Southern California Edison (SCE) believes that the U.S. Nuclear Regulatory Commission's (NRC's) new Reactor Oversight Process is significantly improved over the prior deterministic approaches and continues to support this important effort.

SCE has been actively involved in the development of many of the included processes and has served on the Initial Implementation Evaluation Panel. SCE is also currently participating in the Mitigating System Performance Index pilot program.

SCE endorses the comments, provided separately, by the Nuclear Energy Institute (NEI). The following SCE comments are provided to augment those of NEI and include some programmatic issues SCE had identified previously.

SCE concludes that the NRC Reactor Oversight Process has been successful in providing a more risk-informed framework. Nevertheless, there are several areas that we believe require continuing attention:

- As in all things, Performance Indicators (PIs) and other aspects of the Reactor Oversight Process (e.g., Significance Determination Process (SDP), etc.) can create unintended consequences. There is a continuing need for a robust and permanent

process to identity and address such situations as they arise.

- While some conservative "false positives" are acceptable from any such processes (i.e. Performance Indicators, SDPs), it is also necessary that the Reactor Oversight Process identifies and resolves potential opportunities for “false negatives." Any "false negative" has the potential to significantly undermine the credibility of the entire Reactor Oversight Process.

- There appears to be a need to continue efforts to improve the public understanding of the elements of the Reactor Oversight Process. It appears that much of the public continues perceive the new Reactor Oversight Process as solely the "Performance Indicators," and is less aware of the revised Inspection Process, SDPs, Action Matrix, and Enforcement Policy.

- SCE is currently participating in the Mitigating Systems Performance Index (MSPI) Pilot Program to develop a new, risk-informed unreliability and unavailability metric. This is important, as the GREEN/WHITE threshold for current Safety System Unavailability (SSU) Performance Indicators was somewhat arbitrarily set at the 95% performance level based on historical industry data. Other PI thresholds (including the GREEN/WHITE thresholds for assessing Inspection findings using the SDPs) were established based on risk. Having an inconsistent logic for the bases for setting the thresholds continues to create confusion and uncertainty. SCE believes that the MSPI can be an improvement over the SSU.

- SCE remains concerned with various efforts to revise upward some of the Performance Indicator thresholds. Changing the PI thresholds would impose a de facto "rising standard." SCE supports the original NRC position that the thresholds were set with the expectation that, while licensee performance would be expected to improve, performance at the current thresholds represented "acceptable licensee performance.”

- Difficulties continue to be experienced with the development and precision of the Significance Determination Processes. Several SDPs, including Security, Fire Protection, Emergency Planing, etc., do not appear to be as robust as they should be, and do not appear to produce consistent and/or accurate results.

- The Action Matrix uses inspection findings for a fixed one-year period from the inspection Therefore, a non-GREEN inspection finding is used in the Action Matrix for a year, while the PI is recalculated quarterly. Considering the risk significances of the various findings, it might be beneficial to establish a "graded reset" of the inspection finding window. For example, after one quarter a WHITE finding window could be reset, a YELLOW inspection finding window after 2 quarters, and a RED inspection finding after 4 quarters.

SCE appreciates the opportunity to provide these comments to the U.S. Nuclear Regulatory Commission. If we can be of any additional assistance in this matter, please advise.

State of Pennsylvania, Department of Environmental Protection
Answer to Question 20:
In the area of “Plant Security”, we request that NRC conduct a government representative-only workshop in the near future. The purpose of this workshop should be to share the latest information concerning the NRC post 911 review of the Design Basis Threat (DBT), the proposed changes to the DBT, and the future of the NRC performance-based evaluations of the security programs at the nuclear power plants.

New England Coalition on Nuclear Pollution
Answer to Question 20:
A few narrow areas occur.

- Risk determination should not be luck and circumstance dependent. The public will never buy the notion that an event, some component failure for example, is of low safety significance because the reactor was in cold shutdown at the time it was discovered. The public will never buy the notion that a goof by a reactor operator on a minor system is not risk significant. Lucky, maybe. But in the public view, operators must be trained not to goof.

- NRC personnel speaking to the public should focus on more facts; less spin.

Thank You for this opportunity to comment. I regret the breezy quality of our comments. It is an artifact of time constraints. For future comment solicitations please consider allowing 60 days and plenty of notice.

Strategic Teaming and Resource Sharing
From Cover Letter:
The STARS plants appreciate the opportunity to provide comments on the NRC's ROP and fully endorse the comments submitted by NEI on December 20, 2002.

Since implementation in April 2000, the ROP has exhibited marked improvement over the former inspection and enforcement process. Subjecting the ROP to continuous improvement by way of the routine ROP public meetings and the periodic solicitation of public feedback has assisted the ROP in effectively meeting the intended objectives, i.e., to maintain reactor safety; to enhance public confidence; to improve the effectiveness, efficiency, and realism of the oversight process; and to reduce unnecessary regulatory burden.

Answer to Question 20:
There appears to be a significant amount of emphasis placed on using the deterministic three times differential pressure criterion to issue a yellow finding in the proposed Steam Generator SDP. We believe that there is no regulatory basis for this criterion, and it is well beyond design basis. We propose that, rather than using a deterministic criterion for significance, the significance of the condition be assessed using PRA. In general, deterministic SDPs often create false positives.

State of Arizona, Division of Emergency Management
From Cover Letter:
We appreciate the Nuclear Regulatory Commission's continuance to improve its approach to inspecting and assessing commercial nuclear reactors and enforcing regulations.

The following attached response addresses each question included in the NRC survey. A number of questions address areas that Palo Verde Nuclear Generating Station (PVNGS) and the government offsite preparedness staff are aware of, but have not actually seen implemented. Serious problems are required to trigger their implementation and PVNGS has not experienced those problems.

The Arizona Division of Emergency Management sustains positive working relationships with the staff of Maricopa County Department of Emergency Management, Arizona Radiation Regulatory Agency and Palo Verde Nuclear Generating Station. We maintain excellent lines of communication and when events do occur, we hear about issues well in advance of any contact from the NRC.

Answer to Question 20:
While the performance measures reviewed in the Reactor Oversight Process are, no doubt, of value to the licensee, daily contact with plant staff and management has proven to be a much more valuable source of information. It is more timely, more detailed, and promotes regular communication and information sharing.

Entergy
Answer to Question 20:
Inspector Knowledge and Use of the Process:
Regional based, DRS inspectors have been highly knowledgeable of the process. Additionally, the inspectors have characterized issues by providing a discussion at debriefs and exits depicting how the issues were evaluated and their conclusions. This observation generally applies to the resident inspectors as well. However, the residents are not as familiar with the process as they should be prior to reporting to a site. The NRC should invest in more practical training (theory to practice).

SERP Process:
The NRC did not provide any insight into the SERP process until late into 2002. The workings and expectations for this important process were not scrutable by the public or licensee. Entergy believes that these results should be published in the public arena. Providing the results in a report format, including the qualifications and positions of those conducting the SERP, would help address public and licensee concerns regarding the purpose, objective and conduct of these important venues.

The SERP process as now described appears to be much improved over what happened prior to its "unveiling".

Dominion Generation
From Cover Letter:
Dominion fully supports the comments submitted by the Nuclear Energy Institute (NEI) on December 20, 2002.

Dominion would also like to point out that although the Reactor Oversight Process has done a reasonable job of focusing licensee and NRC resources on safety significant issues, there have been some noteworthy opportunities missed to further assure that plants are being operated and maintained safely. Specifically, many NRC resources continue to be used to inspect non-risk significant areas, such as excessive verification of performance indicators, and excessive inspections of areas where industry performance is at an acceptable level of safety, such as the ALARA (As Low As Reasonably Achievable) inspection module in the Occupational Radiation Safety cornerstone. These NRC resources would be better used to follow-up with generic safety issue inspections that are risk significant, such as inspection of licensee programs to ensure compliance with GL 88-05, "Boric Acid Corrosion of Carbon Steel Reactor Pressure Boundary Components in PWR Plants."

Greenpeace
From Cover Letter:
In April 2000, the U.S. Nuclear Regulatory Commission implemented the current reactor oversight process. The new process was not introduced due to any new regulatory insight or any substantive improvement in the performance of the nuclear industry. Rather, the new process was necessitated by the fact that the NRC senior management repeatedly failed to address declining performance at nuclear reactors until the problems devolved into accidents or scandal landed the agency on the cover of TIME magazine. As the U.S. General Accounting Office pointed out, "NRC has not taken aggressive enforcement action to force the licensees to fix their long-standing safety problems on a timely basis. As a result, the plant's condition has worsened, making safety margins smaller." (U.S. General Accounting Office, Nuclear Regulation: Preventing Problem Plants Requires More Effective NRC Action, GAO/RCED-97-145, May 1997, pp. 2 & 3.) Unfortunately the GAO's findings are as true today as the day they were written in 1997 in the wake of the Millstone fiasco.

The oversight "process" was not the problem. The NRC has always had the information necessary to make the correct assessments of problem nuclear plants. NRC senior managers either lacked the will or the integrity to act upon the data they had in hand. Unfortunately, little has changed in the nearly three years since the implementation of the new oversight process. NRC senior management has continued to place the economics of the nuclear industry ahead of the public health and safety. Since the implementation of the new oversight sight process, NRC senior management has continued to scuttle efforts of its own staff to regulate the industry and have allowed reactors to operate to point of breakdown. Seemingly a pattern has developed that has gone unnoticed by the Commission. NRC staff attempts to enforce the regulations and potentially shut down a reactor, NRC senior management intervenes to prevent the "unnecessary regulatory burden" of actually complying with the regulations and allows the reactor to continue to operate until it is forced to shut down by incident or accident.

The debacle at Davis Besse is not an anomaly; it is merely NRC business as usual. When the NRC first instituted the revised reactor oversight process, the staff was surveyed. The majority of those surveyed thought that the new reactor oversight process would not catch slipping plant performance before there had been significant reduction in safety margin. Guess what? They were right!

When the revised reactor oversight process was first proposed, the agency and industry

claimed that the revision was warranted due to the improved performance of the industry rather than necessitated by the failure of the NRC to adequately regulate reactors. Despite repeated claims of improved performance by the nuclear industry, it is evident to anyone familiar with the NRC and the nuclear industry that the industry is not operating any better, the NRC is merely regulating less. NEI and others in the nuclear industry have pointed to improved capacity factors as indicia of improved performance. In fact, the recent rise in capacity factors can be attributed to NRC's deregulation rather than improved industry performance.

In order to stem the tide of nuclear power plant shutdowns in the 1990s, the NRC and the nuclear industry need to improve the economics of reactors. The agency and industry accomplished this by re-writing the technical specifications for each design wiping out 40% of the reasons to shutdown the reactor. According to the Executive Director for Operations for the NRC, James Taylor, the "improved" technical specifications would save licensees as much as $1 million per reactor per year. (U.S. Nuclear Regulatory Commission, Remarks by James Taylor, Executive Director for Operations, U.S. Nuclear Regulatory Commission at the Nuclear Energy Institute, Strategic Issues Advisory Committee, Washington DC, November 9, 1995, pp. 7-9.) But of course the NRC purportedly regulates safety not economics….right.

While the "improved" technical specifications certainly improved the bottom line for the nuclear industry they have not improved the safety of nuclear power plants. In fact the new technical specifications have actually increased the risk! According to Chairman Meserve, the improved technical specifications "allow hot shutdown to be specified as the endpoint for some TS action statements that now require plants to go to cold shutdown." (U.S. Nuclear Regulatory Commission, Proposed Staff Plan For Low Power And Shutdown Risk Analysis Research To Support Risk-Informed Regulatory Decision Making, Commission Voting Record, SECY-00-0007, March 31, 2000, p. 3.) The Chairman further acknowledges that:

> the elevated temperatures and pressures during hot shutdown conditions may also lead to increased risk; I note that significant draindown events over the past few years, such as the ones at Wolf Creek (1994) and Waterford (1999) were exacerbated because the reactor coolant system pressure was elevated. In the specific case of Wolf Creek, this also led to the potential for common-cause failure of key safety systems that might have been needed to mitigate the event, had operators failed to diagnose the situation.

When coupled with other agency and industry initiatives such as power up-rates and allowing higher burn up for fuel rods the NRC has actually increased both the risk and consequences of a nuclear power plant accident under the guise of "improved" regulation. This has led Greenpeace to conclude that risk informed regulation, including the new reactor oversight process, means that the public is exposed to more risk while the nuclear industry is exposed to less regulation.

According the Federal Register Notice that solicited public input, the revised reactor oversight process inherently encompasses the NRC's performance goals to:

> (1) Maintain safety by establishing and implementing a regulatory oversight process that ensures that plants are operated safely.
> (2) Enhance public confidence by increasing the predictability, consistency, and objectivity of the oversight process; providing timely and understandable information;

and providing opportunities for meaningful involvement by the public.
(3) Improve the effectiveness, efficiency, and realism of the oversight process by implementing a process of continuous improvement.
(4) Reduce unnecessary regulatory burden through the consistent application of the process and incorporation of lessons learned.

Unfortunately it appears that the NRC's priorities have been misplaced. The agency has so blindly pursued risk informed regulation as a means of reducing regulatory burden that it has allowed the nuclear industry to run its reactors to the point of break down. The agency has reduced regulatory burden but it has failed to maintain safety and in the process it has thoroughly undermined public confidence in the NRC and its new oversight process.

Answer to Question 20:
The revised oversight process is a failure. The undue influence of NEI and the industry with NRC's senior management has continued to erode confidence in the agency's ability to meet its mandate of protecting the public health and safety. If there is any upside at all to the new process it is that it is like to speed the demise of the nuclear industry through benign neglect.

Exelon Nuclear
Exelon Generation Company, LLC and AmerGen Energy Company, LLC, appreciate the opportunity to provide comments on the Third Year of Implementation of the Reactor Oversight Process (ROP). We are actively involved with the Nuclear Energy Institute (NEI) on this subject and endorse the industry comments on this subject.

The ROP continues to be viewed as a significant improvement over the previous process in that it is objective, safety focused and predictable. This approach, for the most part, provides an objective measurement of performance, avoids unnecessary regulatory burden, and focuses NRC and licensee resources on risk/safety significant issues. Further, the ROP provides a timely and understandable assessment of licensee performance which leads to an increase in public confidence regarding the nuclear industry.

Over the past year, the ROP has continued to evolve with respect to improvements in the areas of performance indicators and the significance determination process (SDP). More work is required to further the success of the ROP as our comments will indicate later. To this end, industry and the NRC must continue to prioritize and pursue ROP changes that enhance the overall process within the objectives established.

In the area of ROP performance indicators, we believe they add value and we fully support further risk informing efforts to the greatest extent possible. We also believe that the process for overall management of the performance indicators, as well as the process for frequently asked questions, has enabled us to have an ongoing dialogue and a better understanding and identification of problem areas. We support the NRC change process where the staff identifies and reviews the potential for changing a performance indicator. One example is the current pilot program for the Mitigating Systems Performance Index (MSPI). It is important to note, however, our concern over excessive data collection in any of the performance indicators based on the impact on system engineers. Our goal has been to derive a performance indicator that is risk informed, optimizes data collection and sets the platform to fully align Maintenance Rule and

INPO/WANO data collection into one common indicator.

We recognize and fully support the NRCs self assessment of the ROP completed earlier this year, in particular the detailed improvement plan created for the SDP area. Implementation of this improvement plan is very important to resolving several significant issues in the SDP. While we have seen some progress made in resolving some of the issues, there is a significant amount of work yet to accomplish in the following areas:

- There are significant resource expenditures for low risk issues. Specifically, our concern is when significant resources are expended in non-risk based SDPs dealing with what we feel might be interpretation or application issues.

- Some outcomes are inconsistent - we need to push to ensure that outcomes are commensurate with risk/safety significance across the cornerstones. Specifically, we need to see that a white outcome for a safety system on availability is largely consistent with what you might see in Security or Emergency Planning. We are concerned that, without this consistency, the result could be unintended consequences with respect to the public's understanding to the true risk significance.

To expand on this thought, one of the initial goals of the Revised Oversight Process (ROP) was to improve regulatory consistency across NRC Regions. Using a specific example, the Emergency Preparedness (EP) SDP does not further this goal. Unlike the systems portions of the ROP SDP, the selection of significance for many of the planning standards is dependent upon a qualitative determination of the events/issues impact on the overall ability to complete the function assigned to the 50.47 Planning Standards. Such a basis requires interpretation by both the regulator and the licensee. The examples of past events are unlikely to exactly match future events and therefore interpretation is inevitable thereby promoting inconsistency across the regions.

The other concern revolves around the appearance that the EP SDP establishes de facto regulations. For some planning standards, significance variations were chosen arbitrarily by the regulator. These numerical interpretations have no basis in existing regulations but when chosen as significance discriminators become de facto limits. Examples in this area include: individual siren reliability measurement, outage times for facilities and/or equipment, and arbitrary assignment of corrective action timeliness.
Revising the EP SDP has been an ongoing issue for the majority of 2002. This issue has been highlighted in SECY-02-0062, "Calendar Year 2001 Reactor Oversight Process Self Assessment" as an area needing revision. Further, this SECY highlighted comments by external stakeholders, including Exelon, regarding difficulties in implementing the EP SDP, not producing consistent results, and SDP outcomes which were not commensurate with risk.

The NRC self assessment for calendar year 2001 was well written and clearly articulated the areas needing improvement. Moreover, a detailed SDP Improvement Plan (Attachment 3 to the SECY) was developed to address the numerous SDP issues highlighted in the self assessment. Specifically, this report clearly stated that "this improvement initiative is intrinsic to the long term success of the SDP, and consequently, the Reactor Oversight Process".

At the May 1, 2002 Agency Action Review meeting, I articulated full support and

encouragement in the NRCs execution of the SDP improvement plan. A major concern for Exelon, as we reviewed the most recent draft of the EP SDP, is the lack of implementation of this improvement plan applied to this particular SDP.

As we move forward, Exelon offers the following recommendations regarding improvement to the ROP. We encourage both the NRC and the industry, through NEI, to work on implementing the SDP improvement plan including table top scenarios and training for proposed SDPs prior to their implementation. In the area of performance indicators, the amount of data collection must be a serious issue for proposed changes to performance indicators. This is especially true with respect to the issue of aligning the ROP, Maintenance Rule and INPO/WANO indicators for safety systems - one of the potential benefits to be derived from the MSPI pilot program. With respect to licensee self assessment in lieu of inspection, Exelon supports moving forward with this initiative based on the industry as a whole having matured over the past several years.

Exelon will continue its full support of the ROP and will work to implement the needed improvements to the overall process. We hope that our comments will prove to be insightful to the NRC as we begin the fourth year of implementation of the ROP.