

January 8, 2001

MEMORANDUM TO: Samuel J. Collins, Director  
Office of Nuclear Reactor Regulation

FROM: Loren R. Plisco, Chairman **/RA/ John Monninger for**  
Initial Implementation Evaluation Panel

SUBJECT: SUMMARY OF THE INITIAL IMPLEMENTATION EVALUATION PANEL  
MEETING OF DECEMBER 11-12, 2000

The Reactor Oversight Process (ROP) Initial Implementation Evaluation Panel (IIEP) met for its second meeting on December 11-12, 2000 at the NRC's Region II Office in Atlanta, Georgia. The IIEP was formed in response to Commission direction in the Staff Requirements Memorandum from SECY-00-049, "Results of the Revised Reactor Oversight Process Pilot Program." The IIEP functions as a cross-disciplinary oversight group to independently monitor and evaluate the results of the first year of initial implementation of the ROP. The meeting was open to the public. A copy of the meeting agenda is provided as Attachment 1.

The list of attendees for each day of the meeting is provided as Attachments 2 and 3. Two new members were appointed to the panel following the resignation of Mr. David Lochbaum on November 6, 2000. The new panel members include Ms. Mary Ferdig and Mr. Raymond Shadis. All panel members attended the meeting with the following exceptions: Mr. Steven Reynolds and Mr. Raymond Shadis attended the first day of the meeting, but were unable to attend the second day of the meeting. A revised IIEP member roster (Attachment 4) with the names and affiliations of the panel members was made available to the public at the meeting. In addition to the panel members, approximately five other stakeholders attended the meeting.

For background information, the following documents were provided to the panel members and public in attendance:

- November 1-2, 2000 IIEP meeting summary (ADAMS ML003774507)
- November 1-2, 2000 IIEP meeting parking lot issues (ADAMS ML003774478)
- November 6, 2000 letter from the Union of Concerned Scientists (UCS) to the NRC announcing the resignation of Mr. David Lochbaum from the IIEP (ADAMS ML003768450)
- November 27, 2000 letter from the NRC to the UCS responding to Mr. David Lochbaum's resignation (ADAMS ML003771592)

The majority of the meeting was focused on identifying issues, both positive and negative, associated with the Reactor Oversight Process from multiple sources including IIEP members and representatives from the States of Vermont and Illinois. The meeting began with IIEP members, who attended the Regional Public Meetings in Regions II, III, and IV, summarizing the main issues and concerns expressed during those meetings. In support of the discussion regarding the Region II Public Meeting, copies of Enclosure 5, "Summary of Meeting Feedback Issues", from the associated meeting summary (ADAMS ML003775872) were provided to the

panel members and public in attendance. Following discussions by all members on the Regional Public Meetings, the individual panel members were given an opportunity to identify issues and concerns they had with the Reactor Oversight Process. Several panel members submitted their comments in advance of the meeting, while others provided them during, or after the conclusion of the meeting. During the meeting, the panel agreed to accept those comments submitted after the meeting, and to include them in this meeting summary. Attachments 5 through 15, and 19 contain the written comments received by the various members either prior to, during, or after the meeting. In addition, to the written comments received, significant dialogue occurred amongst the panel which identified additional issues or concerns.

On the second day of the meeting, Mr. Bill Sherman from the Vermont Department of Public Service briefed the panel on issues and concerns from the State of Vermont. His slides are provided as Attachment 16. In addition, he provided to the panel members and public in attendance a copy of comments (ADAMS ML003692217) the State of Vermont had submitted to the NRC on February 21, 2000 on the Reactor Oversight Process. Subsequently, Mr. Gary Wright of the Illinois Department of Nuclear Safety briefed the panel on issues and concerns from the State of Illinois. His slides are provided as Attachment 17. In addition, Dr. Jill Lipoti of the New Jersey Department of Environmental Protection submitted comments (Attachment 18) on the Reactor Oversight Process but was unable to attend the meeting to brief the panel. She is scheduled to discuss her comments and concerns with the Reactor Oversight Process during the January 2001 meeting.

Time was allotted at the end of the meeting for others members of the public to address the panel. Although no comments were verbally received, prior to the meeting, on November 30, 2000, Mr. David Lochbaum, UCS, forwarded to Loren Plisco, IIEP Chairman, a copy of a letter (ADAMS ML003774589) dated November 30, 2000 that he sent to Mr. William Borchardt, NRC Director of the Office of Enforcement. The subject of this letter was "Questions About Enforcement Under the Revised Reactor Oversight Program." Copies of this letter were provided to the panel members and public in attendance. The panel members agreed to review and consider the comments provided by Mr. Lochbaum in their development of issues associated with the Reactor Oversight Process.

Although the two day meeting in Atlanta, Georgia, was transcribed, the NRC contractor has not provided the NRC with a copy of the transcript to date. Once the transcript is obtained, it will be issued as an addendum to this meeting summary.

The panel scheduled their third meeting for January 22-23, 2001 in Rockville, Maryland. The preliminary agenda for this meeting includes presentations by: the NRC staff on the ROP self-assessment data and insights, current ROP initiatives and status, and status of recommendations and issues identified in the Pilot Program Evaluation Panel report and Commission Staff Requirements Memorandum approving initial implementation; the New Jersey Department of Environmental Protection on their issues and concerns associated with the ROP; and a group of Senior Reactor Analysts and NRC inspectors. In addition, the panel will work towards initial prioritization of all issues and concerns received to date.

Also, the panel preliminary scheduled a fourth meeting for February 26-27, 2001 in Rockville, Maryland. The preliminary agenda for this meeting included presentations on issues and concerns by: public interest groups (such as Union of Concerned Scientists and Public Citizen), the Nuclear Energy Institute, representatives of the press and/or media, representatives of the financial community, and Pilot Program Evaluation Panel members.

Attachments:

- 1 - Agenda for December 11-12, 2000
- 2 - Attendees on December 11, 2000
- 3 - Attendees on December 12, 2000
- 4 - IIEP Panel Member Roster
- 5 - Blough Issues December 14, 2000
- 6 - Borhardt Issues December 4, 2000
- 7 - Ferdig Issues December 12, 2000
- 8 - Floyd Issues December 11, 2000
- 9 - Garchow Issues December 28, 2000
- 10 - Hill Issues December 1, 2000
- 11 - Krich Issues December 4, 2000
- 12 - Laurie Issues December 19, 2000
- 13 - Moorman Issues December 5, 2000
- 14 - Plisco Issues December 5, 2000
- 15 - Scherer Issues December 29, 2000
- 16 - Vermont Department of Public Service Slides (ADAMS ML010080255)
- 17 - Illinois Department of Nuclear Safety Slides (ADAMS ML010080261)
- 18 - New Jersey Department of Environmental Protection Letter Dated December 11, 2000 (ADAMS ML010080231)
- 19 - Shadis Issues January 7, 2001

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DISTRIBUTION:

JShea, PUBLIC, IIEP Members via email, WDean, BBoger, JJohnson, WBates

**Package Accession #ML 010090359**

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<b>OFC:</b>	NRR/ADIP		Region II			
<b>NAME:</b>	JMonninger		LPlisco (JMonninger for)			
<b>DATE:</b>	01/08/01		01/08/01			

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## REACTOR OVERSIGHT PROCESS INITIAL IMPLEMENTATION EVALUATION PANEL MEETING

**Date & Time:**

Monday, December 11, 2000  
Tuesday, December 12, 2000

**Location:**

U.S. Nuclear Regulatory Commission  
Region II Office  
Sam Nunn Atlanta Federal Center, 24 T20  
Atlanta, Georgia 30303-8931

**Agenda:**

Monday, December 11, 2000	
8:00-8:15	Introduction / Meeting Objectives and Goals
8:15-8:30	Review of Meeting Minutes and Action Items from November 1-2, 2000 Meeting
8:30-10:00	Presentation of Results from Regional Workshops - Summary of Meetings from Staff - Summary of Meeting Issues from IIEP Members - Summary of Issues from Site Public Meetings
10:00-12:00	Presentation of Summary of ROP Issues Collected from IIEP Members
12:00-1:00	Lunch
1:00-3:00	Panel Discussion of Issues and Prioritization
3:00-5:00	Work Planning and Report Outline Development
5:00	Adjourn

Tuesday, December 12, 2000	
8:00-8:30	- Recap of Previous Day's Meeting - Meeting Objectives and Goals
8:30-12:00	Presentation of Stakeholder Issues/Views
12:00-1:00	Lunch
1:00-3:00	Panel Discussion of Stakeholder Issues/Views
3:00-4:00	Agenda Planning for January Meeting - Schedule March Meeting Dates
4:00-5:00	Public Comments/General Discussion
5:00	Adjourn

**REACTOR OVERSIGHT PROCESS INITIAL IMPLEMENTATION PANEL**  
**MEETING ATTENDEES**

**Monday, December 11, 2000**

**IIEP MEMBERS**

Randy Blough  
Bill Borchardt  
Ken Brockman  
Mary Ferdig  
Steve Floyd  
Dave Garchow  
Richard Hill  
Rod Krich  
Robert Laurie  
Jim Moorman  
Loren Plisco  
Steve Reynolds  
Ed Scherer  
Jim Setser  
Ray Shadis  
Jim Trapp

**AFFILIATION**

NRC/Region I  
NRC/OE  
NRC/Region IV  
Ferdig, Inc. & Benedictine University  
Nuclear Energy Institute  
Public Service Electric & Gas  
Southern Nuclear Operating Company  
Commonwealth Edison Company  
California Energy Commission  
NRC/Region IV  
NRC/Region II  
NRC/Region III  
Southern California Edison  
Georgia Department of Natural Resources  
New England Coalition on Nuclear Pollution  
NRC/Region I

**OTHER ATTENDEES**

Paul Bessette  
Jim Hardemann  
John Monninger  
Bill Sherman  
Gary Wright

**AFFILIATION**

MLB  
Georgia Department of Natural Resources  
NRC/NRR  
Vermont Department of Public Service  
Illinois Department of Nuclear Safety

**REACTOR OVERSIGHT PROCESS INITIAL IMPLEMENTATION PANEL**  
**MEETING ATTENDEES**

**Tuesday, December 12, 2000**

**IIEP MEMBERS**

Randy Blough  
Bill Borchardt  
Ken Brockman  
Mary Ferdig  
Steve Floyd  
Dave Garchow  
Richard Hill  
Rod Krich  
Robert Laurie  
Jim Moorman  
Loren Plisco  
Ed Scherer  
Jim Setser  
Jim Trapp

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NRC/Region IV  
Ferdig, Inc. & Benedictine University  
Nuclear Energy Institute  
Public Service Electric & Gas  
Southern Nuclear Operating Company  
Commonwealth Edison Company  
California Energy Commission  
NRC/Region IV  
NRC/Region II  
Southern California Edison  
Georgia Department of Natural Resources  
NRC/Region I

**OTHER ATTENDEES**

Paul Bessette  
Tom Houghton  
John Monninger  
Bill Sherman  
Gary Wright

**AFFILIATION**

MLB  
Nuclear Energy Institute  
NRC/NRR  
Vermont Department of Public Service  
Illinois Department of Nuclear Safety

**REACTOR OVERSIGHT PROCESS INITIAL IMPLEMENTATION EVALUATION PANEL  
MEMBER ROSTER**

Name	Title & Address
Randy Blough	Mr. A. Randolph Blough Director - Division of Reactor Projects, Region I U.S. Nuclear Regulatory Commission
Bill Borchardt	Mr. R. William Borchardt Director - Office of Enforcement U.S. Nuclear Regulatory Commission
Ken Brockman	Mr. Kenneth E. Brockman Director - Division of Reactor Projects, Region IV U.S. Nuclear Regulatory Commission
Mary Ferdig	Ms. Mary A. Ferdig Ph. D. Candidate, Organization Development Program, Benedictine University; Ferdig, Inc. Organizational Research and Development
Steve Floyd	Mr. Steve Floyd Director - Regulatory Reform and Strategy Nuclear Energy Institute
Dave Garchow	Mr. David F. Garchow Vice President -Technical Support PSEG Nuclear LLC
Richard Hill	Mr. Richard D. Hill General Manager - Support - Farley Project Southern Nuclear Operating Company
Rod Krich	Mr. Rod M. Krich Vice President - Nuclear Regulatory Services Commonwealth Edison Company
Robert Laurie	Mr. Robert A. Laurie Commissioner - California Energy Commission
Jim Moorman	Mr. James H. Moorman, III Senior Resident Inspector - Palo Verde Site U.S. Nuclear Regulatory Commission
Loren Plisco	Mr. Loren R. Plisco Director - Division of Reactor Projects, Region II U.S. Nuclear Regulatory Commission
Steve Reynolds	Mr. Steven A. Reynolds Deputy Director - Division of Reactor Projects, Region III U.S. Nuclear Regulatory Commission
Ed Scherer	Mr. A. Edward Scherer Manager, Nuclear Oversight and Regulatory Affairs Southern California Edison Company
James Setser	Mr. James L. Setser Chief - Program Coordination Branch Environmental Protection Division Georgia Department of Natural Resources
Ray Shadis	Mr. Raymond G. Shadis New England Coalition on Nuclear Pollution

Jim Trapp	Mr. James M. Trapp Senior Reactor Analyst U.S. Nuclear Regulatory Commission
Andy Bates (NRC Advisory Committee Management Officer)	Dr. Andrew L. Bates Office of the Secretary of the Commission U.S. Nuclear Regulatory Commission
Chip Cameron (Facilitator)	Mr. Francis X. Cameron Special Counsel Office of the General Counsel U.S. Nuclear Regulatory Commission
John Monninger (Designated Federal Official)	Mr. John D. Monninger Technical Assistant - Associate Director for Inspections and Programs Office of Nuclear Reactor Regulation U.S. Nuclear Regulatory Commission

**From:** A. Randolph Blough  
**To:** John Monninger  
**Date:** Thu, Dec 14, 2000 6:28 PM  
**Subject:** Re: Reminder - IIEP Issues

John,

Here's my input; thanks for waiting.

- + the program is a vast improvement in terms of being risk informed and having thresholds of significance.
- +the NRC's efficiency is enhanced and undue licensee burden reduced by lessening the need for written licensee responses to findings and for mandatory inspector follow-up of each finding.
- +when a licensee's performance crosses a threshold, adjustment of the regulatory response can begin very promptly, rather than awaiting subjective regulatory decisions, such as those formerly reached at SALP meetings and Senior Management Meetings.
- +the program places emphasis on making inspection findings, significance determinations, and assessment results clear, repeatable, and scrutable.

Issues:

1. It appears that excessive time is spent in resolving disagreements and appeals of low-level SDP results and inspection findings. This is neither risk-informed nor efficient.
2. There are limits to what may be learned from a one-year test. Does the NRR program evaluation properly recognize and account for those limits? Examples of these limits include:  
(A) the efficiency and effectiveness of inspections will be suboptimal for more than a year as the staff and industry progresses along a learning curve with ROP; and  
(B) the initial implementation phase is garnering very little experience with issues of high risk significance and with the regulatory actions for licensees whose performance falls below the regulatory response band, yet the effectiveness of ROP in those cases is crucial to the NRC objectives of being risk-informed and maintaining safety ---- what is being (or should be) done to compensate for the limited testing of the program in this area.
3. How accurate are assessments under the ROP? Some margin of error is inevitable, but could there be highly risk-significant errors in overall assessment, for example, a licensee assessed as being in the licensee response band when, actually their safety performance involves multiple degraded cornerstones? What measures are available to evaluate the accuracy of assessments under ROP?
4. Much remains to be done to make the ROP and its results fully understandable and accessible to external stakeholders.

We had our Regional ROP Forum with licensees and external stakeholders yesterday --- if the roll-up of those insights yields issues that I don't think the panel has seen, I will forward them as well.

thanks.

randy

>>> John Monninger 12/08 1:53 PM >>>

At our meeting on November 1-2, 2000, the panel agreed that each member would develop their list of issues associated with the Reactor Oversight Process. I have received input from Borchardt, Hill, Krich, Moorman and Plisco regarding their major issues. If you have been able to pull together your list of issues, please remember to bring them with you to our meeting next week. We will distribute copies to all members at that time.

Thanks,  
John Monninger  
301-415-3495

NOTE TO: John D. Monninger, Technical Assistant  
Inspection & Programs Directorate  
Office of Nuclear Reactor Regulation

FROM: R. W. Borchardt, Director  
Office of Enforcement

SUBJECT: SUMMARY OF MAJOR ISSUES AND QUESTIONS ASSOCIATED WITH  
THE INITIAL IMPLEMENTATION OF THE REVISED REACTOR  
OVERSIGHT PROCESS

The Office of Enforcement is participating in the initial implementation evaluation panel (IIEP) which has been chartered by the Office of Nuclear Reactor Regulation (NRR) to review the initial implementation of the revised reactor oversight process (ROP) and make recommendation as appropriate. During the November 1-2, 2000, meeting of the IIEP, panelists were asked to identify the major issues challenging the implementation of the ROP. The following list of questions and issues have been developed by the Office of Enforcement (OE) regarding initial implementation. In order to facilitate discussions, OE has cross referenced these issues based on performance criteria established by the IIEP and the performance areas established by NRR.

**Performance Criteria:**

- 1) Maintain Safety
- 2) Improve Effectiveness & Efficiency
- 3) Improve Public Confidence
- 4) Reduce Unnecessary Regulatory Burden
- 5) Objectivity
- 6) Risk-Informed
- 7) Understandable
- 8) Predictable

**Performance Areas:**

- 1) Performance Indicator
- 2) Inspection Program
- 3) Significance Determination Process (SDP)
- 4) Assessment Program
- 5) Overall

**ROP Issues & Questions:**

1. **Self-Assessment Independence:** The IIEP review will be heavily influenced by representatives that are actively involved in the implementation of the ROP or are directly impacted by the program. The IIEP should consider the value of having an independent review of the program conducted by organizations/individuals not involved with the development or implementation of the ROP. **(Improve Public Confidence / Overall)**
2. **Agency Event Response:** The agency's response to plant events, like the Indian Point-2 tube leak, occurs prior to the SDP characterization of the issue. What are the expectations that the action matrix will be used to guide agency involvement in plant issues that are time sensitive? **(Maintain Safety, Improve Public Confidence / Overall)**

3. **Grouping of Multiple Issues:** How should the agency group multiple, related inspection findings? Would it be appropriate to characterize an inspection that identifies five related issues (3 green, 1 white, 1 yellow) as one finding or five separate findings? If the findings are grouped together, would the total issue assume the significance of the most significant finding? **(Improve Public Confidence, Reduce Unnecessary Regulatory Burden / Overall)**

4. **Role of The Regulatory Conference:** The purpose of the regulatory conference is to gain a complete understanding of the significance of an inspection finding. In some cases, the understanding requires a technical discussion of the probabilistic inputs and assumptions used to characterize the risk significance of the issue. The role of NRC and Licensee management has changed during these discussions as compared to their role during enforcement conferences. In addition, the regulatory conference is not intended to be a vehicle to evaluate the effectiveness of licensee corrective actions. However, a significant amount of attention has been devoted to licensee corrective actions during recent regulatory conferences. An opportunity exists to rethink the appropriate agenda topics and attendance for regulatory conferences to ensure that these meetings are effective and efficient. **(Improving Effectiveness & Efficiency / Overall)**

5. **Validating SDP Thresholds:** The risk threshold used to characterize the safety significance of a finding is a critical factor in determining the degree of NRC oversight for an individual issue. It is important that the threshold is appropriately set for an individual cornerstone to ensure that the NRC oversight program is effective in assessing licensee performance. The IIEP should review the programmatic controls in place to ensure that licensee performance is accurately reflected by process outcomes. **(Maintaining Safety, Risk-Informed / SDP)**

6. **Crediting Licensee Programs:** Implicit in the design of the ROP is the assumption that licensee's establish and maintain effective programs. Weaknesses in licensee programs will manifest themselves as inspection findings. Significant or multiple occurrences of greater than green findings will result in a degraded cornerstone. The action matrix will trigger a targeted inspection to address circumstances surrounding the degraded cornerstone. This structure does not address two specific conditions. First, corrective action programs are not associated with a specific cornerstone. The ROP does not have a specific measure to indicate when this program is considered degraded or what actions would result from this classification. Corrective action programs are credited in the decision to disposition items using a non-cited violation (NCV). How would this practice be impacted if the corrective action program was determined to be deficient? Secondly, the ROP does not have provisions to respond to deficient programs without prior development of greater than green inspection findings. For example, D. C. Cook suspended the monitoring of equipment, as required by the maintenance rule, during an extended shutdown. The baseline inspection identified this issue through the development of green and non-color findings/NCVs. Was the agency's action appropriate for this situation? **(Maintaining Safety, Improve Public Confidence / Overall)**

7. **Utilizing Information from Green Issues:** The NRC has issued greater than green findings to three licensees since initial implementation. The NRC has issued numerous green findings to these and other licensees. Green findings are evaluated based on their individual issue significance. Evaluating green findings in an integrated manner could provide a useful feedback mechanism to assess the effectiveness of the baseline inspection program and support a more refined understanding of performance on a licensee and industry level. This is not to propose that multiple green findings be aggregated into one greater than green finding or

that green findings be incorporated into the action matrix. **(Maintaining Safety & Improving Public Confidence / Overall)**

**8. Violations Addressed Under The Traditional Enforcement Policy:** Violations involving actual safety consequences, willfulness, and impacting the regulatory process (10 CFR 50.59, 50.72, 50.73, etc.) are characterized using severity levels (SL) and are subject to civil penalties under the traditional enforcement approach. The use of traditional enforcement raises interesting questions. Would the NRC issue a white finding for a SL III violation of 10 CFR 50.59, which results from a condition of low to moderate risk significance? Would it be considered double jeopardy if the NRC issued a civil penalty and a white finding for the same underlying issue? Would the NRC perform follow-up inspection if a white finding is not issued and the action matrix is not entered? In cases of willfulness, the enforcement policy allows a violation to be considered more significant than the underlying technical issue noncompliance. How would this translate back into the ROP? **(Unnecessary Regulatory Burden / Inspection Program)**

**9. Violations/Findings That Do Not Satisfy The Group II Questions:** The ROP has proceduralized the concept of the non-color finding/violation. This category addresses issues that are more than minor but do not match any of the Group II questions for entry into the SDP. If one of the Group III questions are answered in the affirmative the issue would be documented in the inspection report. If this finding is also considered a violation, an NCV would be issued. The Group III questions do not correspond to the three areas specifically reserved for traditional enforcement. Therefore, the process appears to have created a third classification of finding through the use of the Group III questions. Does the existence of non-color findings impact the effectiveness of the ROP? **(Improve effectiveness & Efficiency, Improve Public Confidence / SDP)**

**10. Timeliness of Agency Actions:** The time and resource commitment to process individual ROP cases appears to have increased. The development of NRC performance measures for individual steps in the process may be warranted to ensure that process problems are understood and agency actions are timely. **(Improve Efficiency & Effectiveness, Improve Public Confidence / SDP)**

**11. Resolution of Disputed Green Findings:** Inspection Manual Chapter 0609, "Significance Determination Process," contains guidance for the resolution of greater than green findings for which the licensee disputes the NRC risk characterization. The program does not have a similar appeal process for licensees to dispute the risk characterization of green findings. Since licensees have demonstrated that the motivation to dispute such findings does exist, should the process be revised to accommodate such requests? **(Unnecessary Regulatory Burden / SDP)**

**12. Docketing Licensee Submittals:** Should information received by licensees to support the risk characterization of inspection findings be subject to controls and restrictions similar to those used during the licensing process. That is, should the NRC base decisions only on information received from the licensee that is docketed. Guidance in this area may be warranted. **(Improving Public Confidence / SDP)**

**13. PRA Quality & Consistency:** The ROP depends on the quality and consistency of the probabilistic tools utilized by the NRC as a basis for its decisions. Currently, the NRC relies heavily on the individual plant probabilistic risk assessments (PRAs) developed by licensees.

The content of these PRAs vary. These variations could lead to similar plants ending up with different significance outcomes for identical findings. Are actions needed to address this area?  
**(Maintaining Safety, Objectivity, Predictable / SDP)**

14. **Defining the Performance Deficiency:** The accurate characterization of the performance deficiency has been identified as a reoccurring issue with the execution of the SDP. How should the SDP be applied to issues involving equipment performance and/or personnel performance issues. **(Predictable / SDP)**

Ferdig Questions/Issues

1. What challenges (based on initial implementation experiences so far) most significantly impact the degree to which the ROP can **continue to create the space for constructive, creative conversations** among regulator, industry, and public representatives who share the commitment and responsibility for safe, efficient nuclear power generation?

2. What are the challenges impacting the development of **interaction guidelines which enable constructive creative conversations about cross-cutting issues** that serve the overall intent of the ROP (to avoid reverting back to arbitrary decision-making/actions)?

- Problem Identification Program
- Human Performance
- Safety Conscious Work Environment

3. To what extent are existing PIs **meaningful and leading indicators** of safe plant performance? Does the program allow for enhancing PIs as more data become available?

4. What are the practical implications regarding the underlying philosophy and assumptions of **95/5 model for communicating differentiated plant performance**? Is there an expectation that the definitions of performance thresholds change as all plants move into and sustain a level of performance in the green band? What does that say about the objectives of the program? Are there alternative ways to foster creative constructive interaction among regulator, licensee, and public to serve the common goals of the program?

**PERFORMANCE INDICATORS****Objective**

The PIs are objective and can be collected in a consistent manner to ensure objectivity is maintained.

**Risk-Informed**

Fault exposure time reporting is not risk informed; results in inappropriate reporting of unavailability with three inappropriate results: 1) followup SDP shows these to be false positives, 2) the large number of hours can mask additional poor performance, 3) licensee and NRC reaction to minor events

SSU currently lacks risk-informed criteria for crediting operator actions in determining system unavailability for non-test situations.

The Barrier Integrity, Emergency Preparedness and Security PIs are not strictly risk-informed but are performance-based.

**Understandable**

Support system cascading is confusing.

Scrams with Loss of Normal Heat Removal, as defined in NEI 99-02, Rev 0, is confusing.

**Predictable**

The PI results, in conjunction with the inspection findings contribute to predictable NRC actions using the Action Matrix.

**Maintain Safety**

The set of performance indicators help to focus attention to parameters that are either risk significant or promote desired performance results. Overall industry trending of performance indicators can provide a partial measure of whether overall safety performance across the industry is being maintained.

Thresholds in the unavailability PIs, where they are more restrictive than maintenance rule performance criteria, can create unintended pressure to perform less maintenance than what may be needed to balance availability and reliability.

### **Effective, Efficient, Realistic**

Monitored systems may be “operable” but may be counted as “unavailability” for the NRC PI based on ROP/NEI 99-02 treatment of operator/compensatory actions to restore support systems to available status prior to the support system being required for the monitored system to perform its intended safety function

### **Enhance Public Confidence**

Having a set of objective measures published quarterly as opposed to a subjective summary of findings published 18 to 24 months should improve public confidence that the regulator’s actions are focused on current issues.

### **Reduce unnecessary regulatory burden**

Too many definitions of unavailability (MR, WANO, PI, PRA) overly complicates data keeping requirements.

## **INSPECTION**

### **Objective**

Inspection procedures appear objective and minimize subjectivity, i.e., they focus on performance rather than subjective views of process or procedure.

### **Risk-Informed**

The development of the baseline inspection program used risk insights. In addition, the choice of which SSCs to focus on during inspections is intended to be risk-informed.

### **Understandable**

Some Inspection Reports have reported “No Color” Findings in Cross-Cutting Issues where there does not appear to be an appropriate linkage between the individual issues, each of which individually is characterized as being of low risk significance. This practice is inconsistent with the intent of the ROP.

### **Predictable**

Need new inspection approach for force on force

### **Maintain Safety**

Most licensees feel the new baseline inspection program assesses safety as well or better than the previous inspection program

### **Effective, Efficient, Realistic**

Need to review the frequency of inspections which require major asset allocation but do not result in any new insights or significant findings (candidates would be PI&R, design engineering....)

### **Enhance Public Confidence**

A well structured system of defined inspections, on a defined long term schedule, which can be monitored for results using the NRC website, enhances public confidence.

### **Reduce unnecessary regulatory burden**

It appears that inspection resources in occupational exposure area can be reduced.

## **SIGNIFICANCE DETERMINATION PROCESS**

### **Objective**

In general, the SDP procedures provide a far more objective view of safety than the previous approach. The reactor SDP is the most objective.

Need improved worksheets for the Fire Protection SDP, e.g., fire frequency

### **Risk-Informed**

Phase 2 SDPs are needed in the areas of Shutdown; Containment, and external events.

### **Understandable**

Definition of jobs not clear in ALARA part of RP SDP.

The Fire SDP needs to be simplified.

### **Predictable**

Changing frequency of initiating events not predictable

Guidance for evaluating Physical Protection degradation should be reevaluated based on Security/OSRE inspection lessons learned.

The Physical Protection SDP needs to be rewritten to accommodate both physical security requirements and the actual potential risk to the reactor, which is appropriately assessed in the Reactor SDP.

### **Maintain Safety**

The reactor SDP effectively assesses the impact on safety from SSC issues. The remaining SDPs, for the most part, rely more on maintaining programmatic compliance to maintain safety.

### **Effective, Efficient, Realistic**

The lack of the plant specific worksheets for the reactor SDP are limiting the effectiveness of the reactor SDP in providing timely and efficient phase 2 assessment

### **Enhance Public Confidence**

The SDP process provides the public with a scrutable means to understand the safety significance of violations and noncompliances.

### **Reduce unnecessary regulatory burden**

No color findings are too numerous. It appears that they are being used to attempt to build a case for "apparent trends" or "cross-cutting issues." Upon review, many of these issues do not appear to warrant inclusion in inspection reports.

## **ASSESSMENT PROCESS**

### **Objective**

The assessment process is based on objective PI and inspection finding data which are placed in a safety context, resulting in objective performance reviews.

### **Risk-Informed**

Assessments are based on meeting risk-informed thresholds of performance.

### **Understandable**

The ROP provides understandable criteria for performance in seven cornerstones. The action matrix is a clear road map for NRC in determining its assessments and what regulatory actions should be taken.

### **Predictable**

The process is predictable in that the action matrix is being followed by the NRC

### **Maintain Safety**

Safety performance is measured objectively against risk-informed thresholds. Degradations in performance can be determined and corrective action taken before safety is compromised.

### **Effective, Efficient, Realistic**

The new process eliminates arbitrary and subjective commentary. The new process is streamlined and is more efficient. Less effort should be necessary for the staff to prepare mid and end of cycle reports.

### **Enhance Public Confidence**

The new process is far more available and timely to the public. Results can be reviewed at whatever level of detail is desired on the NRC website.

### **Reduce unnecessary regulatory burden**

EGM for initial implementation expires in January 2001 yet process and PI changes continue. Consideration should be given to permitting Enforcement Discretion for ROP areas/PI which will be involved in Pilot Programs or where there are significant process/guidance changes planned for 2001.

**From:** "Garchow, David F." <David.Garchow@pseg.com>  
**To:** "John Monninger" <JDM@nrc.gov>  
**Date:** Thu, Dec 28, 2000 7:41 AM  
**Subject:** RE: Re: Reminder - IIEP Issues

John

I had no additional major issues that were not already captured by others.

See you in January

Dave Garchow  
VP Operations  
PSEG Nuclear LLC

-----Original Message-----

From: John Monninger [mailto:JDM@nrc.gov]  
Sent: Tuesday, December 19, 2000 2:05 PM  
To: ferdiginc@aol.com; MDAgosti@energy.state.ca.us; shadis@ime.net;  
jim\_setser@mail.dnr.state.ga.us; sdf@nei.org; A. Randolph Blough; James  
Moorman; James Trapp; Ken Brockman; Loren Plisco; Richard Borchardt;  
Steven Reynolds; david.garchow@pseg.com; schereae@songs.sce.com;  
ridhill@southernco.com; rod.krich@ucm.com  
Cc: John Monninger  
Subject: Fwd: Re: Reminder - IIEP Issues

Subsequent to our meeting last week, I received the attached issues from Randy Blough of Region I. As we discussed during the meeting, I will include these issues in the December meeting summary and any other issues that I receive prior to issuance of the meeting summary (estimated to be 12/28/00) will be included. The issues will also be included in the table of issues identified by IIEP members and invited stakeholders.

John Monninger  
301-415-3495

**From:** "Hill, Richard D." <RIDHILL@southernco.com>  
**To:** "John Monninger" <JDM@nrc.gov>  
**Date:** Fri, Dec 1, 2000 5:02 PM

Attached are issues to consider.

Thanks,  
Richard

-----Original Message-----

From: Warren, Wade H.  
Sent: Thursday, November 30, 2000 11:20 AM  
To: Hill, Richard D.  
Cc: Borden, Evelyn M.  
Subject: Issues For Consideration

Richard, here are the issues I see. let me know if you have others or you get feedback of others. thanks, wade

There are two issues associated with the Unplanned Power Change PI. It does not adequately consider the impact of reliability and economic considerations on the PI. Although I don't believe a utility will delay any action that is needed from a safety standpoint, the PI will certainly have an impact in the decision for scheduling some power reductions. Therefore, a utility may delay repairs for 72 hours to avoid counting a power reduction. The second issue is that plants that are proactive in conducting repairs in a well planned manner, yet in less than 72 hours from the discovery of the off-normal condition, would be categorized in the PI as a poor performer. In other words, 72 hours inappropriately represents a time frame that defines adequate planning.

The inclusion of fault exposure hours in the Safety System Unavailability PIs does not properly assess the risk condition of equipment failures and therefore ineffectively utilizes NRC and plant resources in response to the action matrix requirements. An example is the failure of automatic operation of a high head injection pump at Quad Cities during surveillance testing. Although the pump could have been operated manually from the control room in accordance with emergency operating procedures, the fault exposure hours placed the PI in the YELLOW band, indicating a degrading cornerstone.

In the Safety System Unavailability PIs, equipment unavailability is different than other programs that monitor or consider unavailability of safety equipment. These programs are also different among themselves in the determination of equipment unavailability. Particularly in the combination of considerations for allowed operator actions and cascading of support systems. The referenced programs are PRA

implementation, Maintenance Rule program, NRC PI program, and WANO. In addition, unavailability for "operability determination" is also different. For site implementation of these various programs, this creates confusion as well as requiring additional administrative burden to maintain the different programs.

Interpretation of WANO performance indicators allows for any reasonable operator actions to be taken to restore a system to available status. This may be from either inside or outside the control room. Currently NEI 99-02 allows for operator actions associated with testing, or for malfunctions or operating errors that can be restored from the control room. The NRC interpretation for allowed operator actions has been limited to "testing". The NRC has continued in public meetings to request a revision to NEI 99-02 for the removal of credit for control room operator actions for malfunctions or operating errors. The impact of the NRC's interpretation for limiting credit for operator actions is emphasized by a NRC position associated with maintenance on a diesel generator fuel oil storage tank at the Salem/Hope Creek site. During the maintenance activity the affected diesel generator could start, load and operate for up to three days on the remaining storage tank that was in service. Although the unavailable tank would not be required for three days and contingency planning would restore the storage tank within one day, the NRC position was the maintenance time should be considered as system unavailable time.

Limiting the exemption from reporting planned overhaul maintenance hours to only situations where a quantitative risk assessment has been performed creates a disadvantage in the safety system unavailability PI for those plants that by design must conduct on-line maintenance and can not demonstrate "low risk" (e. g. shared diesel generators). In this case, the plants still meet the NRC endorsed NUMARC 93-01 guidance for mitigating risk which is acceptable by the NRC for conducting on-line maintenance. But the qualitative assessment portion of the process is considered inadequate for PI consideration.

The Security SDP alignment to the reactor safety SDP is an inappropriate application for risk assessment. Currently, the NRC has suspended this portion of the SDP for revision.

The Fire Protection SDP is too subjective in addressing circuit analysis (i. e. hot short) issues for risk assessment. Currently, the NRC has suspended this portion of the SDP for evaluation.

## Major Revised Reactor Oversight Process Issues Requiring Resolution

## Process Element: Performance Indicators

Issue Description	Applicable NRC Criteria
Mitigating Systems Cornerstone SSU PIs – RROP/NEI 99-02 currently lacks criteria for crediting operator action in determining system unavailability for non-test situations	2, 4, 5, 6, 7
Mitigating Systems Cornerstone SSU PIs – The current requirements in RRP/NEI 99-02 concerning reporting of fault exposure hours result in a masking of system performance issues and potential NRC and licensee reaction to individual events	3,4,5,6
Mitigating System Cornerstone SSU PIs – Monitored systems may be “operable” but may be counted as “unavailability” for the NRC PI based on RROP/NEI 99-02 treatment of operator/compensatory actions to restore support systems to available status prior to the support system being required for the monitored system to perform its intended safety function	1, 4, 5, 6
Mitigating Systems Cornerstone SSFF PI – RROP/NEI 99-02 currently links SSFF PI reporting to event reporting requirements. This situation results in some Licensees currently not reporting RCIC SSFFs under this PI. NRC desires all BWR Licensees that have RCIC to voluntarily report SSFFs for this PI. This NRC request represents a significant change to an existing PI. A change to this PI should be evaluated using the rigorous PI change process.	1,4,5,6
Public Radiation Safety Cornerstone – Evaluate the need for a RETS/ODCM PI by considering value-added insights that this PI provides in light of the current PI definition and thresholds, industry performance, and NRC inspection experience.	2, 4, 5, 6, 7
Physical Protection Cornerstone – Evaluate effectiveness of the three existing PIs in providing value-added insights in light of the current PI definitions and thresholds, industry performance, and NRC inspection experience. (Particularly Personnel Screening Program and FFD PIs).	3,4,7
Initiating Events Cornerstone – Evaluate the effectiveness of the Unplanned Power Change PI in providing value-added insights in light of the current PI definitions and thresholds, industry performance, and NRC inspection experience. Current RROP/NEI 99-02 definition and guidance for Unplanned Power Change PI are perceived by Industry as having significant unintended consequences (impact on on-line maintenance).	1,3,4,6
Multiple Cornerstones – RROP /NEI 99-02 lacks guidance on the re-calculation of PI data to reflect those very limited situations where it has been conclusively determined that willful actions may have altered prior performance (performance as defined and counted in an RROP PI). Note: this situation is not related to willful mis-reporting of PI information.	2, 3, 7
Multiple Cornerstones – RROP/NEI 99-02 guidance should clarify expectations for revision of PI data elements versus calculated PIs. For example, if a FAQ response for a 3 year indicator says to revise data back to 2 <sup>nd</sup> quarter 2000, this implies that 3 years of PI data elements must be revised such that the 2 <sup>nd</sup> quarter PI has 3 years worth of revised data elements in it.	5,6

**Applicable NRC Criteria:**

- 1) Risk-informed
- 2) Understandable (scrutable)
- 3) Predictable
- 4) Maintains safety
- 5) Efficient, Effective and Realistic
- 6) Reduces Unnecessary Regulatory Burden
- 7) Enhances Public Confidence

## Initial Implementation Evaluation Panel Information Request

### Major Revised Reactor Oversight Process Issues Requiring Resolution

#### Process Element: Inspections

Issue Description	Applicable NRC Criteria
Physical Protection - IMC 71130.02 (Access Control) should be reevaluated and revised to provide a criterion which is based on need for access rather than a timeframe. (Access to vital areas – Section 2.02 (g)).	1,2,4,7
Physical Protection - IMC 71130.03 (Response to Contingency Events) should be reevaluated and revised to consider Industry self-assessment initiatives.	1,2,4,7
Change management issue – The efficiency and effectiveness improvements created by risk-informing the inspection process may be limited in cases where inspectors continue to inspect to pre-RROP methods and standards and struggle to reflect their efforts in an RROP Inspection Report.	1,2,3,5,6,7
Several inspections have allocated actual NRC inspection resources that are above the levels indicated by the Inspection Procedure. In addition, the inspection schedule has been extended. (Examples: Triennial Fire Protection, OSRE and PI&R Inspections)	1,3,5,6
No Color Findings in Cornerstones – Some Inspection Reports have reported “No Color” Findings in individual Cornerstones (i.e., Mitigating Systems). This practice is inconsistent with the intent of the RROP.	1,2,3,7
No Color Findings in Cross-Cutting Issues – Some Inspection Reports have reported “No Color” Findings in Cross-Cutting Issues where there does not appear to be an appropriate linkage between the individual issues, each of which individually is characterized as being of low risk significance. This practice is inconsistent with the intent of the RROP.	1,2,3,5,6,7

#### Applicable NRC Criteria:

- 1) Risk-informed
- 2) Understandable (scrutable)
- 3) Predictable
- 4) Maintains safety
- 5) Efficient, Effective and Realistic
- 6) Reduces Unnecessary Regulatory Burden
- 7) Enhances Public Confidence

## Initial Implementation Evaluation Panel Information Request

### Major Revised Reactor Oversight Process Issues Requiring Resolution

#### Process Element: Significance Determination Process

Issue Description	Applicable NRC Criteria
IMC 0609, App. F guidance for evaluating Fire Protection Findings, including but not limited to fire protection degradation risk significance, modeling of fires, and assignment of degradation factors to barrier and suppression degradation should be reevaluated and revised to reflect the results of Industry/NRC lessons learned.	1,2,3,5,6,7
IMC 0609, App. A, Attach. A, Step 2.5 – Criterion for risk significance of external events, particularly fire, should be reevaluated and revised to reflect the results of lessons learned (Regulatory Conference – Safe Shutdown Makeup Pump)	1,3,5,6,7
Change Management Issue – In some cases, inspectors have used the SDP to determine if a Finding exists vice evaluating the risk significance of an identified Finding.	2,3,6
ALARA Findings for the Occupational Radiation Safety SDP – One criterion for an ALARA Finding pertains to whether actual job dose exceeds the projected dose by > 50%, as indicated in NRC IMC 0609. IMC 71121.02 further narrows the ALARA finding determination to actual collective exposure exceeding the initial exposure estimate by >50%. This narrow determination for an ALARA finding, based on the initial exposure estimate, does not allow for unforeseen circumstances that might change the projected doses for a job once actual survey results are obtained. This situation creates the potential for unintended consequences (very conservative estimation of dose).”	1,2,4, 5
IMC 0609, App. A Reactor Safety Phase 2 worksheets have not been re-issued to reflect the results of site visits conducted in early 2000. This situation has resulted in additional licensee and NRC resources being required to effectively evaluate the significance of potential Findings.	2,3,5,6
IMC 0609, App E guidance for evaluating Physical Protection degradation should be reevaluated based on Security/OSRE inspection lessons learned. Example: interface between the Physical Protection SDP and Reactor SDP.	1,3,4,5, 7
IMC 0609, App. G guidance for evaluating shutdown risk significance has not been “peer reviewed” in a manner similar to the Pilot Program application of App. A. Therefore, inconsistent results may be obtained. Example: BWR SRV Mode 4 issue.	1, 3, 4, 6, 7

**Applicable NRC Criteria:**

- 1) Risk-informed
- 2) Understandable (scrutable)
- 3) Predictable
- 4) Maintains safety
- 5) Efficient, Effective and Realistic
- 6) Reduces Unnecessary Regulatory Burden
- 7) Enhances Public Confidence



## Initial Implementation Evaluation Panel Information Request

### Major Revised Reactor Oversight Process Issues Requiring Action

#### Process Element: Assessment and Enforcement

Issue Description	Applicable NRC Criteria
Enforcement Guidance - EGM for initial implementation expires in January 2001 yet process and PI changes continue. Consideration should be given to permitting Enforcement Discretion for RROP areas/PI which will be involved in Pilot Programs or where there are significant process/guidance changes planned for 2001.	3, 4, 5, 7
Change Management Challenge – There are numerous significant changes to regulatory requirements and programs being implemented simultaneously (E.G., 10 CFR 50.59, 10 CFR 50.72/73, RROP – PIs, SDP, Inspection Procedures) in 2001. Industry/NRC guidance should be reviewed and revised, as appropriate, to minimize the potential for unintentional instances of conflicting guidance.	3, 5, 7

#### Applicable NRC Criteria:

- 1) Risk-informed
- 2) Understandable (scrutable)
- 3) Predictable
- 4) Maintains safety
- 5) Efficient, Effective and Realistic
- 6) Reduces Unnecessary Regulatory Burden
- 7) Enhances Public Confidence

**From:** "Mary D'Agostini" <Mdagosti@energy.state.ca.us>  
**To:** <JDM@nrc.gov>  
**Date:** Tue, Dec 19, 2000 6:14 PM  
**Subject:** Comments on Issues

John:

The list of issues heretofore proffered adequately covers the technical areas I desire discussed. I do believe, however, that there must be substantial discussion on the issue of public confidence. That is, all the nuclear scientists in the country can agree that there is a proper, objective basis for the parameters of the ROP as devised; yet, if the public mistrusts the program, it will eventually fail to the detriment of all. The public will as a matter of course, exercise caution when placing trust in any governmental agency, especially federal. There will certainly not be given any greater deference given to utility representatives. Thus, special accommodation must be made for public input, plant by plant, on a regular basis over and above what scientists now deem optimal.

I am not satisfied that public knowledge and ability to communicate is sufficiently developed in the program to serve the program's long-term needs.

I am quite confident that investment in an open process will reap long-term gain. Please discuss.

Robert A. Laurie, Commissioner - (916) 654-4001  
California Energy Commission

Issues from Jim Moorman, 12/5/00

**Performance Indicators**

Safety: Some plants have said that they will not have a white Performance Indicator window under any circumstances. Even if avoiding a white PI results in the deferment of necessary maintenance of safety related equipment.

Effectiveness: Since the amount of iodine in the RCS will spike after a reactor trip, the RCS Activity PI is not a good indicator of potential offsite release.

**Significance Determination Process**

Effectiveness: The site specific SDP worksheets are not yet available in final form.

**Inspection**

Effectiveness: Many see the Fire Protection walkdowns by the resident staff as an inefficient use of resources.

The threshold for raising and documenting issues related to the assessment of corrective action programs by the resident staff is not commensurate with the overall program assumption that a healthy corrective action program exists at each facility.

Public Confidence: Changes to the NRC Inspection Program are not posted on the Web site in a timely manner. (ie. 0610\*)

**Enforcement and Assessment**

none

**Overall**

none

December 5, 2000

Note to: John Monninger, Designated Federal Official  
Initial Implementation Evaluation Panel

From: Loren R. Plisco, Chair  
Initial Implementation Evaluation Panel

Subject: SUMMARY OF REACTOR OVERSIGHT PROCESS ISSUES

The purpose of this note is to forward a summary of the issues that I have observed during the first 6 months of implementing the Reactor Oversight Process (ROP), as the panel members requested in the first meeting of the Initial Implementation Evaluation Panel (IIEP). I have organized my comments into the major components of the process and have annotated the primary agency objectives related to the issue after each item. I have also provided my personal views on the positive characteristics of the program achieved in each area to provide more context and balance to the issues.

### **Performance Indicators**

- + The performance indicators provide objective measures of plant performance that are relatively easily understood and in some instances provide new performance information
- + The performance indicator data can be reported accurately by the industry, in accordance with reporting guidelines, and in a timely manner.

Performance Indicator Credibility: With the many caveats and nuances in the performance indicator guidance document, it is getting increasingly difficult to have credible and objective performance indicators. The most notable example of this is the safety system unavailability indicators. As the number of exceptions increase, such as excluding equipment overhauls, the indicator is no longer a true unavailability indicator. In addition, the inspectors have noted some licensees taking the answers to frequently asked questions out of context when applying it to their specific situation. (Understandable, Predictable, Objective, Public Confidence)

Unintended consequences: The staff has noted a number of licensees that have altered operating practices solely to minimize their performance indicator hits. In extreme cases where the licensee is apparently trying to manipulate the performance data and taking less safe actions, should the NRC consider responding by using additional inspection resources to collect performance data? (Maintain Safety, Predictable)

Performance Indicator Definitions: It is imperative that we establish a common understanding of the definitions for the performance indicators. The long-term effort to get all of the stakeholders using a common set of words and definitions should address many of the other concerns identified in this area. (Predictable, Objective, Unnecessary Regulatory Burden)

## Inspection Program

- + The baseline inspections are focused on risk and they appear to adequately address the cornerstone areas
- + Inspection planning is more risk-informed and focused on safety issues
- + Resources spent on preparation and documentation have shifted towards preparation and less effort is expended on documentation
- + Inspection reports are more focused on issues of safety import and provide better context regarding safety significance
- + Most inspection procedures are clearly written so that inspectors can consistently conduct the inspections as intended

Inspection Procedures: During the pilot there were specific procedures that were not completely developed, and therefore not sufficiently tested. Now, all of the procedures have been used and feedback forms have been submitted to address specific areas. We should make sure the infrastructure remains in place to promptly process inspection procedure changes. Several inspectors have commented that the level of detail in some of the inspection procedures could be strengthened, and that best practices information included in previous procedures have not been included in the baseline procedures. Each region has developed internal processes to capture some of this information to pass on to inspectors. A nationwide process should be considered to ensure regional consistency. (Effective & Efficient)

Inspection Reports and Thresholds: The objective of the Plant Issues Matrix (PIM) has been significantly altered under the ROP. The revised thresholds for findings in the inspection reports have resulted in the content of the reports and PIM converging to the point that both documents may not be needed. The report is still needed to put issues in context and to discuss other observations, so the PIM could be discontinued with little impact. In addition, removing the PIM would solve the potential problems caused by the lack of full context in the PIM entries for the sake of brevity. (Public Confidence, Effective & Efficient)

Effectiveness of Problem Identification and Resolution Inspections: The results of the PI&R inspections have been mixed. It is not clear that the broad-based inspection approach (covering all cornerstone areas) is the most effective and efficient approach. Other approaches should be considered. (Effective & Efficient, Maintain Safety)

Licensee Self-assessments: In the previous program, there were cases where the NRC did not conduct certain inspections if the licensee had conducted a rigorous self-assessment of the same area. This flexibility has not been provided in the new program. The ROP baseline inspection program has decoupled plant performance from inspection resource expenditures. (Effective & Efficient, Unnecessary Regulatory Burden)

## Significance Determination Process

- + The significance determination process has provided inspectors with a systematic process that allows for consistent and repeatable characterization of inspection findings
- + The significance determination process allows better communication between the NRC and licensees about the risk significance of identified issues
- + The significance determination process gives inspectors improved tools to assist them in prioritizing emerging issues and planning inspections

Significance Determination Process Timeliness: The SDP is an excellent idea in theory, and provides much more objectivity to the NRC's decisions. In practice, it has had limited success because of the excessive resources required for potential non-green issues and the lack of NRC requirements and common industry standards for probabilistic risk assessments (PRAs). In some cases, it has more closely approximated a risk-based process rather than a risk-informed process. When a licensee decides to challenge the staff's answer, it can tie up a large portion of the NRC's limited PRA expertise, with questionable overall safety benefit. We will need a mechanism to control the amount of "pencil sharpening" in risk analysis. For example, during the pilot one licensee conducted three risk assessments as a result of the give and take about their analysis assumptions. Without common standards, methods, and requirements for the analysis, these iterations could go on for extended periods. There also needs to be much more rigor in developing a business process to conduct the SDP panels. We will need better communication between the NRC and the licensee early in the evaluation process to ensure a common understanding of the assumptions (between Phase 2 and Phase 3). (Maintain Safety, Public Confidence, Objective)

Risk Analysis Expertise: The NRC does not have sufficient risk analysis expertise to implement the new oversight process effectively, especially if a portion of the licensees challenge the characterization of findings. Based on experience to date, the resource demands are likely to exceed the resources available. The regions will need significantly more risk analysis expertise to successfully implement this program. Efforts are underway to increase the risk expertise in the staff, but the interim period may be difficult. A specific example is shutdown SDP issues, which are all currently reviewed in headquarters. (Effective & Efficient)

SDP Phase 2 Worksheets: The effectiveness of the SDP process has been hampered by the lack of adequate Phase 2 worksheets for each plant. This has resulted in the need to perform Phase 3 evaluations for most issues that appear to be non-green. (Effective & Efficient)

Event Response Threshold: Although there was some effort to revise the NRC's incident response procedure with risk insights, the previous narrative criteria were retained. This process needs to be revised to be consistent with the rest of the program. The current process has retained some of the subjectivity from the previous process. In addition, an updated Management Directive has not yet been issued. (Risk-Informed, Predictable)

Performance Issues: Early in the implementation of the ROP, the staff developed guidance that required the inspector to demonstrate a licensee performance deficiency before entry into the SDP. This has caused some concern among the inspectors because in some cases it appears we are not dispositioning significant safety issues because a clear performance deficiency was not established. In other cases, there has been difficulty with processing issues of significance that do not have a clear regulatory tie. (Predictable, Objective, Maintain Safety)

Non-SDP Issues: Those issues that are determined to be more than minor violations, but cannot be evaluated by the current SDPs are problematic in the new process. In most cases, these issues were documented as “No Color” in inspection reports, causing some confusion to stakeholders. (Predictable, Public Confidence)

### **Assessment and Enforcement**

- + The ROP assessment process is a continuous assessment and actions for risk-significant issues occur promptly
- + The assessment process provides consistent and predefined actions for degraded performance
- + The enforcement policy change to eliminate most licensee written responses and allowing most violations to be non-cited has significantly reduced licensee and NRC administrative workload

Assessment process information: For most plants, the assessment process will be anti-climatic and the effort will provide limited benefit to the process when there are only green findings. In addition, if the staff has performed the activities as required by the action matrix, the action will have already been taken for any non-green issue when the assessment occurs. Are there other process efficiencies that can be achieved? (Effective & Efficient)

Enforcement Threshold: The threshold for escalated action appears to have been raised. NRC management will have to ensure that the inspectors do not conclude that the escalated enforcement threshold change resulted in an overall change in enforcement thresholds. (Objective, Predictable, Public Confidence)

Allegations: The Commission decision to retain the current allegation process will complicate inspection planning and will increase the likelihood of fingerprinting allegers. The timeliness of response to allegations may also increase because of advanced inspection planning. (Public Confidence, Risk-Informed)

Linkage to Significance: On occasion, the performance issue considered for enforcement related to a non-green finding may only be a indirect contributing cause, rather than the direct root cause. Should these issues be considered separately or “colored” with the same significance of the primary issue? (Unnecessary Regulatory Burden)

Regulatory Conference: The purpose of the regulatory conference is not clear to the staff. Participation of enforcement staff and technical staff shift the focus of the conference to enforcement and corrective actions, rather than the risk significance. (Risk-Informed, Effective & Efficient)

Enforcement Guidance: All of the enforcement guidance, most in the form of Enforcement Guidance Memorandums, should be consolidated into the Enforcement Manual to eliminate confusion and to ensure that all of the relevant guidance is available in one place. (Effective & Efficient, Predictable, Understandable)

## Communications and Information Systems

- + The Web site provides greater availability of pertinent performance information and program information to the public

Public information: With the significantly reduced level of detail in the inspection reports, the public may actually have less performance information available than in the previous program. (Public Confidence)

## Overall

- + The basic framework established in the program - including strategic areas, cornerstones, performance indicators and inspectable areas - provides a clear, more objective foundation for oversight
- + The routine dialogue between the NRC and the licensees is now more appropriately focused on safety issues rather than enforcement
- + The process has demonstrated that risk information can be used systematically and practically
- + The process is more understandable, predictable, consistent and objective
- + The process has resulted in increased consistency between inspectors and the regions in the application of the process
- + The combination of performance indicators and baseline inspections have provided sufficient coverage of the safety cornerstone attributes

Handling of cross-cutting issues: The NRC has learned through many hard experiences that human performance issues and safety culture problems can eventually result in safety performance problems. We have also seen that the "leak before break" philosophy with regards with these issues is not always supported by historical events. It is usually many small problems -- which probably had low significance precursors -- that align at the same moment to cause a more significant event. Although much has been discussed about whether or not to allow the qualitative discussion of cross-cutting issues in inspection reports, many on the staff perceive that they are currently too limited by the program guidance. They are also confused because they have read and heard discussions by the Commission and senior managers that implied the assessment process would be the avenue to address cross-cutting issues. The guidance for documenting observations and the assessment process needs to be revised to make it clear whether these issues should be included in inspection reports and how significant trends should be discussed in assessment letters. In addition, to prevent slipping back to the previous subjectivity, clear thresholds should be established. We should not resort to adding up green issues, but we should recognize trends in cross-cutting issues and highlight them to the licensee, using consistent thresholds. (Maintain Safety, Unnecessary Regulatory Burden, Public Confidence)

Program Feedback: There will continue to be a need for multiple avenues for all stakeholders to provide feedback after the first year of implementation. Processes and tools need to be put

in place to allow for program feedback, comments, and questions. (Effective and Efficient, Public Confidence)

Risk-Informed Performance Indicators and Thresholds: The program would be significantly enhanced by the use of risk-informed performance indicators and thresholds. It is difficult to communicate to external stakeholders that a white performance indicator is not necessarily the same risk-significance as a white inspection finding. There is a significant perception difference between the NRC and the licensees regarding the impact and importance of white issues, and this has resulted in some of the debate about thresholds. (Risk-Informed, Maintain Safety)

## **NRC REACTOR OVERSIGHT PROCESS COMMENTS**

### **A. E. SCHERER**

The NRC Reactor Oversight Process has been, overall, successful in providing a more risk-informed framework. Notwithstanding the overall success, there are several areas that require our attention:

- As in all things, performance indicators and other aspects of the Reactor Oversight Process can create unintended consequences.

**Do we need a more robust and permanent process to identify and address such situations as they arise in the future?**

- While some conservative "false positives" are expected from any process (i.e., Performance Indicators, Significance Determination Process), it is also necessary that the Reactor Oversight Process identify and resolve potential opportunities for "false negatives". A "false negative" has the potential to significantly undermine the credibility of the entire Reactor Oversight Process.

**Do we need a more robust and permanent process to help eliminate the potential for false negatives, as well as to minimize the number of false positives?**

- There appears to be a need to improve the public understanding of the scope of the Reactor Oversight Process. It appears much of the public perceives the new Reactor Oversight Process as solely the "Performance Indicators" and there is less unaware of the revised Inspection Process, Significance Determination Process, Action Matrix, and Enforcement Policy. Questions have been raised to the effect that if most licensees are "all GREEN" then the process isn't working.

**Should consideration should be given to the format and content of the NRC Website in this regard?**

- The GREEN/WHITE threshold for Performance Indicators was set basically at the 95% performance level based on historical data. The other thresholds (including the GREEN/WHITE thresholds for assessing Inspection findings using the SDPs) were to be set based on risk. Having an inconsistent logic for the bases for setting the thresholds creates confusion and uncertainty.

**Should the NRC revisit the bases for the GREEN/WHITE threshold for the Performance Indicators?**

**Is the NRC ready to accept all GREEN Performance Indicators?**

- The ROP does not appear to have achieved the correct balance with regard to the unavailability indicator for the Mitigating Systems metrics.

**Do these Performance Indicators need to be revised?**

- Most of the current Significance Determination Processes (SDPs) do not appear to be very robust and do not appear to produce consistent and accurate results. (The Reactor Operating Event SDP appears to be the exception)

**Should the SDPs be revised?**

- The Frequently Asked Question (FAQ) process appears to have been a positive mechanism to resolve licensee and inspector issues relating to the Performance Indicators. The FAQ process provides for the open exchange of information and the establishment of uniform, consistent guidance. The other elements of the Reactor Oversight Process (such as the SDPs), might benefit from a similar FAQ process.

**Should the FAQ process be expanded to include all elements of the Revised Oversight Process?**

1. The Action Matrix uses inspection findings for a 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.

**Should a "graded reset" be established for inspection findings?**

*New England Coalition on Nuclear  
Pollution*

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January 7, 2001

*By e-mail and US mail*

Mr. John D. Monninger  
U.S. Nuclear Regulatory Commission  
Office of Nuclear reactor Regulation  
OWFN 5E7  
Washington, DC 20555

Dear Mr. Monninger,

The following are some comments for the Initial Implementation Evaluation Panel (IIEP) that I regret may be too late to include with your December Meeting Summary. They are intended as a "snapshot" view of the Reactor Oversight Process (ROP) in terms of meeting NRC's four overall regulatory reform objectives. These comments are offered from the perspective of a public interest advocate.

**Objective: To maintain safety by establishing a regulatory framework that provides assurance that plants continue to be operated safely by plant operators.**

Comment: This is the only statement of an objective in which the verb (to maintain) does not connote motion as in the remaining three objectives (enhance, improve, and reduce). The clear implication is that plants are "safe-enough" and therefore nothing need be done to make them safer. That self-serving assumption undermines the notion that the ROP is anything but a way to stroke the public and make life easier on the NRC and the industry. Both the NRC and the nuclear industry have repeatedly claimed that reactor safety has markedly improved over the last decade. However, the environmental and public interest community does not believe that safety has improved, if at all, to the point where safety cannot be improved. In fact, these public sectors generally do not give wholesale credence to claims of marked safety improvement. Rather, claims of increased safety and reliability are viewed as supported (at least in part) by a finesse of numbers rather than a reflection of reality.

- For example, fewer automatic reactor scrams may be in part attributed to broader intervals of maintenance and inspection (fewer accidental trips) rather than increased stability or reliability in reactor systems.
- Also, no one would fly if the FAA permitted the same long-term institutionalized "work-arounds" that NRC allows at power reactors. Would aircraft be permitted to operate, for example, with firewatches routinely substituted for effective fire prevention and mitigation systems? Or would they be permitted to operate with extension cords strung nose to tail to replace inadequate power supply to vital equipment? Nuclear plants today boast record brevity for refueling outages and record production runs with conditions requiring

workarounds in place. With workarounds human reliability substitutes alone for human reliability and properly engineered systems, barriers, and safeguards.

- In many applications, on-line maintenance eliminates redundancy and, therefore, is a depletion of engineering conservation or safety margin.

Those observers, who waited to see if TMI Action Requirements would ever be completed or if Final Safety Analysis Reports would ever encompass plant and license modifications, wait still. Together with those who have in recent years watched NRC jettison or neuter one regulation or requirement after another, they cannot now rationally accept that plant safety has been maintained, let alone, improved.

Therefore, in my opinion, "maintaining" safety, under NRC's present regime, does little to assure the public that the ROP reflects any real or meaningful contribution to safety. Before NRC can hope to make significant progress toward enhanced public confidence, this objective, itself, must be restated and with full public input to its restatement.

IIEP evaluation with respect to this objective could, notwithstanding the above, benefit from a "diagnostic" approach that looks both at the large picture and some sample cases.

Large Picture: On one hand, evaluation should be as broadly drawn as possible, looking at the most salient features of the ROP in the context of overall reactor safety. Evaluation of the program should include some reflection on synergies with other areas of reactor regulation. Some holistic perspective should be sought by the IIEP.

For example, how has the licensee's obligation to identify and correct Design Basis Issues (DBIs) been affected by the ROP? NUREG SR1275<sup>1</sup> makes it rather clear that the number of DBIs discovered in any given period best correlates with a single factor: the number of engineering inspection hours expended. How will the identification of DBIs be reflected in the ROP now that NRC has decided to deep-six its Diagnostic Evaluation Team program? Where, for example, is assurance that material condition or performance capability of mitigating systems is not being eroded? We just don't see it. I am not yet at all clear on how any of these baseline considerations will be evaluated or scored in the ROP.

In the past, when I found NRC inspectors advising a licensee to look into certain areas for DBIs before the NRC did, I was told that it didn't matter who received credit for "discovering" defects so long as they were discovered and corrected. Shall subjective judgements of "willfulness" or "lack of questioning attitude" still play into the ROP and, if so, how?

Significance determination will be informed, in part, by probabilistic risk assessments (PRAs), but are PRAs themselves reliable indicators? PRAs derived from individual plant examinations show an extraordinary divergence of results even for plants that are virtually identical. For

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<sup>1</sup> NUREG SR1275, Vol.14, Causes and Significance of Design Basis Issues at US Nuclear Power Plants, issued October, 2000

example, Callaway and Wolf Creek, twin plants, are an order of magnitude apart on the likelihood of certain events leading to core damage. PRAs presume all's well in Tinkertown, that is procedures are followed and there are no design failures.

Sample cases: Three or four sample cases drawn from specific sites should be compared, searched for synergies and potential unintended consequences. Similar cases such as the auxilliary feedwater pump failures at Millstone and Summer should be compared. Cases of material degradation or failure such as the primary piping weld failure at Summer and the penetration weld failures (thermocouple and control rod drive mechanism) at Oconee I might also be singled out and compared.

Is a plant's history in any way determinative? That is to say, does a plant's operating history inform risk-significance under the ROP? Vermont Yankee, for example, is an older plant with a number of aging and design issues. Implementation of the ROP at Vermont Yankee might provide an interesting individual sample case. As documented by the group Public Citizen,<sup>2</sup> between October 1996 and May 1999, 31 month period, more than 42 design problems were found at Vermont Yankee. Many of the problems had existed from start-up.

**Objective: To enhance public confidence in the regulatory program by increasing predictability, consistency, objectivity and transparency of the oversight process.**

Comment: NRC is correct in tying public confidence to consistency, predictability, objectivity, and transparency. I would add that timeliness of dissemination of information and timeliness of response is also essential to building public confidence. I will briefly address timeliness at the end of this section.

At the onset of the ROP initial implementation phase, NRC held public meetings at each reactor site to introduce and explain the ROP. I attended one of these meetings (Vermont Yankee), reviewed a video of a second meeting (Millstone) and received a meeting summary from activists who attended a third meeting (Pilgrim). The meetings were weighted toward explaining the performance indicators and the availability of the green-to-red "report card" on the NRC web page.

A news article from the Brattleboro Reformer (Vermont) is attached regarding the Vermont Yankee meeting. As the article points out, neither NRC nor NEI was prepared to clear away confusion over which entity was responsible for gathering, collating, and evaluating performance indicators. The Vermont Yankee NRC team was unable to articulate a safety hierarchy of selected site specific inspection areas. Consensus among activists and some attending area residents was that the new program was simply prettified flim-flam.

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<sup>2</sup> James P. Riccio, "Amnesty Irrational: How the Nuclear Regulatory Commission Fails to Hold Nuclear Reactors Accountable For Violations of Its Own Safety Regulations", Washington, D.C., Public Citizen, August 1999.

People who are not computer enabled (and many who are) do not appear to have the same degree of confidence in the authenticity or completeness of information posted on a web site as they do in hard copy "documents on file" at an official local repository. To supplement electronic reporting and thereby enhance public confidence, NRC should consider issuing hard copy ROP reports to all identified stakeholders.

In a separate article, the Brattleboro Reformer criticized the NRC for poor and inadequate notice of the meeting, blaming lack of notice, in part, for poor attendance.

At Millstone, the NRC team was unprepared to respond to whistleblowers who wanted to know if and how Millstone's history of violations and failures would be reckoned in the new process. Activists are not so confident nor are they so ready as NRC to conclude that Millstone management has seen the light and should not be accorded continuing heightened regulatory attention. NRC staff would have done well to familiarize themselves with local history and to have been prepared to explain how the ROP would address local concerns.

Pilgrim attendees reported that they felt they were being given a canned presentation that was not directly related to Pilgrim. Again, it is felt that a discussion of site specific issues in the context of the ROP would have helped

Based on only on this small sample, I do not believe the ROP public meetings enhanced public confidence in the regulatory program.

With respect to consistency and predictability, the IIEP might gain some insight from examination of the disparate way in which nearly similar incidents have been handled under the ROP and the way in which NRC spokesmen have characterized them. I pointed to two instances during the IIEP's December meeting:

- Recently, auxiliary feedwater pump failures at Millstone and VC Summer were graded, White and Yellow, then characterized as (White) of low safety significance and (Yellow) very safety significant. NRC staff explanation that the difference in assigning safety significance is tied to the duration each pump was defective presumably made sense to the staff. It did not make sense to a layman or this public interest advocate. We had a difficult time following the shifting determinations of when failure of a given component is, or is not "safety significant." On December 29, 2000 NRC OPA issued a news release announcing that the Summer plant's auxiliary feedwater pump failure, pump inoperable for 48 days, should now be characterized as White, meaning low to moderate safety importance.

It is hard to swallow the auxiliary feedwater pump failure white designations, and the ensuing NRC blandishments regarding their minor safety implications, when I recall the following transcript excerpt from an October 18, 1996 Commission Briefing:

**Independent Safety Assessment Team (Maine Yankee) Leader, Ellis Mershoff:**

" ...we took a real hard look...at the reliability of equipment...is it available or in maintenance? And if it is available and called on to start, will it start? If it starts, will it run its mission time? And we used plant performance data to establish those conditions and we found that the **auxiliary steam-driven feedwater pump** was quite poor, down around 76 percent (reliable), when 91 percent was the assumed number..."

**Commissioner Nils Diaz:** " Excuse me. **That is a very safety significant component, isn't it?**

**Mr. Merschhoff:** "Yes, sir."

**Commissioner Diaz:** " **Very, very?**"

**Mr. Merschhoff:** " **Yes.**"

Commissioner Diaz later explains that under accident conditions the auxiliary feedwater pump may be "**the last line of defense**".

- The steam tube failure at Indian Point II was early after the fact characterized by NRC spokespeople as of minor or no safety significance, risk, or consequence. The terms are interchangeable to laypersons. NRC then came in with a "red" designation, captured by many local activists as a signal that even NRC is close to thinking the plant is so dangerous that it should have its license revoked.

When the meaning of words used by NRC is apparently ever shifting and thus NRC cannot not be held to its word, how can the public derive confidence from any new program that relies heavily on yet another shuffling of definitions and terminology? At day's end, I believe the public interest advocates and the industry would both have enhanced confidence in an NRC more consistent, more intelligible, and more readily accountable in its choice of language and its pronouncements.

Timeliness is important. More than two months elapsed before NRC made a determination of significance of the Millstone auxiliary feedwater pump failure. The Summer determination was changed (downgraded) almost three months after the fact. If a "graded-reset" in the Action Matrix is established as has been suggested, with say, quarterly resets for White findings, then don't we run the risk of exceeding the reset period before a determination is made.

The general public depends largely on local news media for its information about plant events. An initial or changed determination, months down the road, doesn't rate the same news coverage as the initial incident and characterizations. The public doesn't necessarily perceive slowness on the part of NRC as an indication that the agency is methodical or professional. It may serve to undermine public confidence with the appearance (to some degree) of bureaucratic fumbling or in the case of "changed-on-appeal" determinations: collusion, political intimidation, or incompetence.

The issue which has the public's attention right now at Millstone is that two fuel pins cannot be accounted for; cannot be found. NRC would do well to say that this is serious business immediately grading this first as a failure to keep accurate and complete records *with the caveat*

*that if the fuel pins are not found properly stored in the SFP, it will have to be regarded as a failure to maintain control over licensed materials.*

NRC outreach could be improved with the addition, on its web site, of a weekly, annotated document accession list for each plant. Each item would have an active link directly to the document. That would enable interested members of the public to verify relevant activities and information without having to go through the painful gymnastics of ADAMS.

An additional improvement would be the addition of a status board posting the status and progress of individual licensee action items, enforcement actions, inspections, licensing proceedings, etc. I have a feeling that this would not only serve the interested public, but also licensees and various offices within NRC. Here too, timeliness is important to confidence.

**Objective: To improve the effectiveness, efficiency, and realism of the oversight process by focusing...on those issues with the most safety significance.**

Comment: Some of the above comments may weigh toward this objective. I recommend to the IIEP, Mr. David Lochbaum's excellent report "Nuclear plant Risk Studies-Failing the Grade."<sup>3</sup> One need not agree with Lochbaum's report to find it a useful outline for helping evaluate the realism of risk-informed aspects of the ROP. The ROP will not improve effectiveness or realism if portions of the ROP are based on faulty risk-studies.

Also, given that risk assessment is far from perfected, care certainly must be exercised that the ROP becomes accurately and comprehensively "risk-informed" and not "risk-determined."

This objective and all three other objectives hinge on this whether or not this statement is true: *NRC cannot offset all of the recent reductions in staff and inspection hours with efficiencies.* Responsibility and, to some degree, the burden of additional "self-regulation" may be shifted under the ROP, for better or for worse, to licensees.

Given there are some uncertainties in risk-assessment and that more than one year's experience is needed for a fully-informed evaluation of the ROP, the New England Coalition will be asking the Commission to re-establish some form of the Diagnostic Evaluation Team Program. We hope this will provide an empiric balance or check on the experimental and analysis-dependent ROP.

**Objective: To reduce regulatory burden.**

Comment: In some areas, industry pressure for relief of unnecessary burden has run and finished the course of reasonableness. We have come, for example, to the extraordinary spectacle of the NRC Chairman, Dr. Richard Merserve, before a meeting of the National Academy of Science pleading that they shill for a program to inject nuclear waste into the consumer mainstream via

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<sup>3</sup> David Lochbaum, "Nuclear Plant Risk Studies – Failing the Grade", Union of Concerned Scientists, Washington, D.C., August, 2000

recycling of contaminated materials. He argues that the viability of the industry depends on what is decided with the advice of NAS. We know the value of the scrap is nothing to the cost avoided of disposing of it by other means.

Even so, it is not clear that the ROP will, or how it would, relieve regulatory burden. I would like some discussion and/or clarification from members of the panel closer to this objective.

I would second all of the comments submitted by other panel members to date as items certainly worthy for discussion. I appreciate the fact that other panel members submitted their comments in easy-to-handle outline form, as opposed to the more tedious essay form above. I hope though that we can consider some of the points I've raised and would not take it amiss if they are handled apart from the completed comment matrix or if they are set aside for a future meeting.

Respectfully submitted,

Raymond Shadis

## **News Article- Brattleboro( Vermont) Reformer 6/20/00**

### **NRC's new regulatory plan draws fire over safety issues**

By MEGGAN CLARK - Reformer Staff

VERNON -- A new regulatory system recently instituted by the Nuclear Regulatory Commission (NRC) drew fire from a dozen area residents at a meeting Thursday night -- and only mixed support from the commission's own representatives.

Billed by the NRC as a more efficient regulation which "uses more effective, timely, and safety-significant criteria" to keep tabs on nuclear power plants, the new program also reduces the likelihood plants will be fined for operational violations and gives the plants more responsibility for reporting data and correcting problems.

Glenn Meyer, chief of the reactor program in the NRC's Northeast Division, said that the program reflects 20 years of increasingly good performance by nuclear power plants, decreased numbers of accidents, and improved knowledge within the industry. Quarterly reports by the plants to the commission are supplemented by an annual inspection by the NRC to ensure those reports are accurate and to look more in depth at areas of risk.

"It continues to use inspections but the inspections are more on areas of risk to the health and safety," Meyer said. "Some regulations (now eliminated or turned over to the individual reactors) had more value than others. We concentrate on the most significant safety areas. We focus on the results and not telling people how to do their business."

At least two NRC inspectors will continue to staff each plant on a day-to-day basis, Meyer said. Vermont Yankee's NRC inspectors, Brian McDermott and Ed Knutsen, were present at the meeting.

In addition, Meyer said, more information will be available to the public, in a clearer form on a more regular basis.

Reports can be accessed at "[HTTP://www.nrc.gov/NRR/OVERSIGHT/index.html](http://www.nrc.gov/NRR/OVERSIGHT/index.html)".

But several members of the audience, including local resident Michael Daley, weren't buying it. Daley took issue not only with the fact that the plants submit data for review by the NRC, but that they actually submit it to the Nuclear Energy Institute, which passes it on to the NRC.

"Are you aware of what the NEI is?" Daley said. "It's the industry lobby. I'm flabbergasted that they should be the conduit of this kind of vital information to the NRC."

Meyer acknowledged that the NEI does lobby, but said it is efficient to get the information from the NEI rather than independently compiling data from the roughly 100 reactors in the United States. He added that Congress has directed the NRC to work more closely with the industry.

"Congress has directed the regulatory board to interact with the industry we regulate," Meyer said. "We work with them. That doesn't mean we're beholden to them. We work for Congress."

"Was the NEI lobbying Congress to get you to use this program?" Daley asked.

"I guess I would have to say yes," Meyer replied. "That's what they do."

Raymond Shadis, of the New England Coalition on Nuclear Pollution, produced a poll of NRC staff which showed that 75 percent felt that industry groups had too much influence in implementing the new regulatory process, and 60 percent felt that it would reduce safety.

"What you've represented is true," Meyer said, sighing briefly and rolling up his shirt sleeves. "There is some skepticism, at the working level, at the management level, for this program. I personally believe it's an improvement."

"You understand where the public skepticism, then, is coming from," Shadis said.

Meyer said that one reason the NRC has to do things more "efficiently" is that Congress has cut both the staff and budget of the agency by about 20 percent in the last 10 years. He said that the NRC's staff had burgeoned -- along with its regulatory activities -- after the Three Mile Island meltdown in 1979 and that subsequent improved performance in the nuclear industry had decreased the need for such heavy-handed surveillance.

"Let me state that I share some of your nervousness," he added. "That's why we're here. We're not backing off on what the standards are. We're establishing that the people who operate the power plant are responsible day in and day out to meet the standards."

Another change in the way power plants are regulated is that there will be fewer fines for non-compliance.

"We had frequent use of enforcement," Meyer said. "It was the policeman-type mentality. The determination was, that's not as effective as it could be. There will most likely be fewer fines." This raised the ire of Robyn Flatley, who said she feared that Vermont Yankee -- particularly under the ownership of a large, out-of-town corporation -- would not comply in good faith with all safety rules. "They don't live in a five-mile radius," she said. "I would much rather you fine them. Fine their .....es off."

Vermont Yankee representatives were present but didn't speak at the meeting, which lasted well over its two-hour planned duration. Spokesman Rob Williams commented that Vermont Yankee will maintain high standards. "Regardless of how they choose to regulate, our principle remains the same at the plant," he said. "Safety is always our main focus."

NEI spokesman Steve Karekes called the Reformer shortly after 10 p.m. Thursday, expressing concern about the criticism of NEI at the meeting. He said that the new program was about efficiency and the nuclear industry's clean track record, not about lobbying, and brushed off the poll results.

"Polls are polls," he said. "We are doing a better job and the (new program) shows that. You can go to the NRC Web site and get objective and verifiable data."

Asked if the NEI had lobbied to have the program implemented, he replied, "Are we a supporter of the nuclear regulatory reform program? Yes."

**end story**