



65 FR 78215  
12/14/00 (12)

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Michael A. Krupa  
Director  
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April 12, 2001

Mr. David Meyer  
Chief, Rules and Directives Branch, Office of Administration  
Mail Stop T6D59  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

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2001 APR 18 PM 2:58  
Rules and Directives  
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Subject: Request for Public Comment on the First Year of Initial Implementation of the  
Reactor Oversight Process

Reference: *Federal Register* Vol. 65, No. 241, Pages 78215 – 78217,  
dated December 14, 2000

CNRO-2001-00018

Dear Mr. Meyer:

Entergy Operations, Inc. (Entergy) is pleased to submit our comments in the above captioned matter. In general, we believe the Reactor Oversight Process (ROP) is meeting your established performance goals and have provided detailed comments that may help to further improve the Process. The comments are grouped by the questions provided in the *Federal Register* Notice and are attached.

Thank you for the opportunity to provide these comments. If you have any questions concerning this submittal, please contact Rick Thomas (601-368-5747) or me (601-368-5758).

Sincerely,

M. A. Krupa  
MAK/RLT/baa  
attachment

cc:

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Template = ADM-013

F-RIDS = ADM-03  
Add = A-Spectator (AKS)

Request for Public Comment on the First Year of Initial Implementation of the Reactor  
Oversight Process

April 12, 2001

CNRO-2001-00018

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cc: Mr. C. G. Anderson (ANO)  
Mr. W. A. Eaton (GGNS)  
Mr. R. K. Edington (RBS)  
Mr. J. T. Herron (W-3)  
Mr. G. J. Taylor (ECH)

Mr. T. W. Alexion, NRR Project Manager, ANO-2  
Mr. N. Kalyanam, NRR Project Manager, Waterford-3  
Mr. R. E. Moody, NRR Project Manager, RBS  
Mr. W. D. Reckley, NRR Project Manager, ANO-1  
Mr. S. P. Sekerak, NRR Project Manager, GGNS

Entergy response to questions from *Federal Register* Volume 65, Number 241.

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

*1. Does the ROP provide adequate assurance that plants are being operated safely?*

The focus of the Program is more risk oriented than in the past. As such, Entergy focus on risk significance has increased, allowing us to more appropriately work safety significant items. For example, the power reduction indicator has increased focus upon equipment performance; system outages and unavailability have received increased planning; siren failures have received increased attention; and security equipment is being fixed more promptly.

However, the thresholds for PIs and inspection findings may provide a false sense of risk due to the way the thresholds were set. Many thresholds were set using INPO historical data at a 95% confidence level. Other thresholds were set using risk insights and subjective evaluation. As such, crossing one threshold could be more risk significant than crossing another (or that one “green” is more “green” than another). Consistently set threshold would increase and improve the safety focus (and could also improve public perception).

In addition, there are some aspects of the process that result in more focus on performance indicator results rather than on safety. An example of this is in the area of maintenance on safety related equipment. The unavailability performance indicator is causing plants to “stack” planned maintenance on monitored systems and their support systems in order to limit the unavailability of the monitored systems. Having many systems out of service at the same time could actually result in a lower margin of safety, not to mention increased challenges with work scope control. The performance indicator thresholds should allow adequate time for preventive maintenance on monitored systems. Preventive maintenance on support systems should also be allowed without unavailability impact on the monitored systems.

*2. Does the ROP provide sufficient regulatory attention to utilities with performance problems?*

The concept behind the action matrix is sound and should provide sufficient oversight to utilities with performance problems. Problems arise, however, with the comparison of thresholds between the various cornerstones (see above). The risk levels embodied in the cornerstones are different and may inappropriately focus attention on areas undeserving from a risk perspective. For example

- A plant could cross the green/white threshold for Security equipment performance simply because plant management has made a business decision to post a zone rather than bring resources in during backshift hours to repair the equipment. There should be no increase in risk during the posting (some would argue that having someone posted at the zone is more reliable than having it monitored by equipment).
- The Security equipment PI is not an indication of level of risk like the other PIs, e.g., the Mitigating Systems unavailability. In the MS unavailability, the system is not available; in the Security PI, equipment may be unavailable, but is being compensated for. The staff should consider eliminating this PI. (The staff should also consider combining the personnel screening and personnel reliability PIs under the Physical Protection cornerstone. There is no logical reason to have two separate indicators for these programs.)
- Regarding ALARA, utility 3-year average dose has decreased through the years due in part to licensee ALARA programs. It is now possible to cross thresholds and be in a degraded cornerstone for receiving a dose amount that is still well below performance from years past – not to mention well below any 10CFR20 limits.

3. *Does the ROP reduce unnecessary regulatory burden on licensees?*

This does not appear to be the case with respect to the number of inspection hours, as compared to the former oversight process.

- The number of baseline inspection hours assigned to single unit plants seems to be higher than warranted. The NRC staff should re-evaluate the current philosophy for assignment of baseline inspection hours with regard to the number of units at each site. (The staff should also re-evaluate the assignment of “n+1” residents to plants.)
- Prior to the implementation of the ROP, licensees were generally limited to two team inspections per calendar year; this is not the case under the ROP. Team inspections have increased so that an individual licensee has the potential to receive four or more team inspections in one year, which is a manpower burden on both a licensee and the NRC.
- Each inspection module provides an estimated manpower/hours requirement for performing inspections. The estimated hours are generally being ignored by the NRC, i.e., the Triennial Fire Protection Module recommends three inspectors for 200 hours, however, one Entergy licensee is scheduled for five inspectors and 400 inspection hours for this same inspection. (Additionally, increased inspection hours are not necessarily resulting in more violations. Three of the four Entergy plants have received the median or fewer violations from a Regional average perspective while receiving higher than median inspection hours). Based on the low risk significance of the violations being identified, the NRC is justified in reducing the number of inspection hours specified by the ROP.

- The Problem Identification and Resolution (PI&R) inspection is currently scheduled as an annual inspection of the corrective action program. Each of the ROP inspections contains review of corrective action program implementation in the particular area being inspected. This is especially true of the Safety System Design and Performance inspection, which includes heavy emphasis on corrective actions. The combination of a P&IR inspection with the corrective action aspects of the other inspection leads to redundant and duplicate inspections of the same material. Performing a programmatic inspection of this type on an annual basis is not warranted, as corrective action programs do not change programmatically on this frequency.
  - Regulatory burden was reduced through changes in the enforcement policy that allows low risk findings to be identified as minor or non-cited violations that do not require a docketed response. However, this manpower saving is offset by the increased number of inspection hours dictated by the ROP.
  - In some areas, the level of inspection does not correspond with past industry performance. For example, the low number of significant issues identified throughout the industry in the Radiation Protection Cornerstone area should result in a decrease in the number of inspection hours – not an increase.
4. *Does the ROP improve the efficiency, effectiveness, and realism of the regulatory process, focusing NRC resources on those issues with the most safety significance?*

See also I.2. The thresholds in the degraded cornerstone column of action matrix unequally weight the strategic areas. This may result in resources applied in areas where they may not be warranted.

For example, while the inputs required to get the “NRC response” (3 whites in a strategic area or 2 whites and 1 yellow within a cornerstone) are the same, the number of “chances” varies in strategic area and cornerstone. In the reactor safety strategic area, there are 13 PI “chances” plus opportunities from inspections as compared to 2 PI “chances” (plus opportunities from inspection) in the radiation safety area. This infers that the reactor safety threshold is higher than the radiation protection threshold.

5. *Has the public information associated with the ROP been appropriate to keep the public informed, in a timely and understandable fashion, of NRC activities related to plant safety? (Examples: NRC plant performance web page, Plant Performance Indicators, NRC Inspection Reports, Assessment Letters, ROP guidance documents and implementation procedures, the NRC ROP website, press releases)*

From a utility perspective, the website information available to the public is very informative and much improved. The web is easy to navigate and the “drill downs” to

research significant events is helpful. The addition of the inspection summary page has helped to balance the public perception of "two many greens" on the PI summary page.

6. *Does the ROP increase the predictability, consistency, clarity and objectivity of the NRC's oversight activities?*

The ROP is designed to implement consistent regulatory oversight for each licensee. With minor exceptions the ROP has increased the predictability, consistency, clarity and objectivity of the ROP. However, there is still room for improvement in the area of consistency and clarity. Some of the screening questions are still subjective, and the process for resolving some items is too lengthy (mainly due to inadequate guidance with some SDPs.) See II.3 below.

7. *Has the public been afforded adequate opportunity to provide input/comments and involvement in the ROP development process?*

It would appear that ample opportunity has been provided for public comment either through the Federal Register, the NRC web page or public meetings. It appears that the public is focused upon the PIs and is unaware of (or does not appreciate) the changes in the inspection process, the new SDP, new action matrix and the changes in the enforcement policy.

8. *Has NRC been responsive to input/comments provided by the public regarding the ROP development process?*

From a utility perspective, it appears that the NRC staff has been willing to listen to comments from all stakeholders and has made great strides in making public forums available for this input.

9. *Please provide any additional (brief) information or issues related to the reactor oversight process.*

No comments

II. *Questions related to specific ROP program areas (As appropriate, please provide specific examples and suggestions for improvement.)*

1. *Do the performance indicators or other aspects of the ROP create unintended consequences? (Please comment on the potential of unintended consequences associated with the counting of manual scrams in the Initiating Event Cornerstone Performance Indicators.)*

See also I.2 above and II.2 and II.3 below. Regarding the initiating events cornerstone, Entergy echoes the industry concern for this item in 2 ways. (1) A utility could delay a downpower for 72 hours in order not to count it; (2) A utility may be penalized for efficiently planning and executing a down power in less than 72 hours. In either case the time frame – 72 hours – is not needed.

2. *Do any aspects of the ROP inappropriately increase regulatory burden? (Please comment on any unnecessary overlap between ROP reporting requirements with those associated with INPO, WANO, or the Maintenance Rule.)*

See also I.3. Regarding WANO and the NRC indicators, the WANO unavailability indicator does not require one to consider cascading systems when determining unavailability while the NRC PI does. As a result, if one is managing to the NRC indicator, the NRC PI for safety system unavailability may encourage more stacking of system maintenance during online maintenance (in order to manage the indicator) than might be appropriate from a risk perspective (unintended consequence). For example, scheduling a service water outage with a diesel outage will minimize out of service hours (in the PI) but may be more risk adverse. There is a task force consolidating WANO/Maintenance Rule/ROP safety system unavailability indicators. This should be developed and piloted expeditiously. A solution could be to discontinue cascading systems in the PI, include additional systems in the PI (such as service water), and use the maintenance rule (a)(1) hours as the basis for the indicator bands.

In the Emergency Planning area, the alert and notification system reliability has, in the past, been overseen by the Federal Emergency Management Agency (FEMA) and not the NRC. The ROP includes a PI for alert and notification system reliability, which causes this aspect to be regulated by two government agencies. This PI should be deleted from the ROP and FEMA be allowed to continue to regulate this area.

3. *Is the Significance Determination Process (SDP) usable and does it produce consistent and accurate results?*

The SDP is a good step in the Program. However, many of the details of how the NRC and utility interface in the SDP process remain undefined (and should be defined as soon as possible). The SDP process is entered without notifying the licensee and licensee input is not solicited until the preliminary results are made public on the docket. The NRC and licensees should have open and honest communication during the SDP process. This would ensure that the NRC has sufficient and accurate information to make an informed enforcement decision

The PI process uses a Frequently Asked Question process to establish and clarify issues regarding PIs. The same should be considered for the SDP process.

The SDPs for the different areas are not consistent or are incomplete. This should be rectified as soon as possible.

- The Shutdown Operations and Fire Protection SDPs may be entered without a finding; the other SDPs require a finding (that is, an issue characterization process like MC 610\* in the Inspection Manual).
- The Shutdown Operations SDP is incomplete. It lacks a Phase 2, which should be added.
- The Rad Protection SDP does not address 'failure to survey' violations. This would imply that survey violations are minor (not a finding) and not worth entering the SDP.
- The Rad Protection SDP also uses ALARA findings that are >50% of the dose projection. This will have the (unintended) consequence of very conservative dose estimations.
- The Public Rad Protection SDP requires that a "white" violation be issued to a licensee who has five or more findings in the material control program within one inspection period (2years). The only requirement imposed by 10CFR20.1301 is that individual members of the public be exposed to less than the total dose equivalent of 0.1 rem in a year. The regulation does not define the number of occurrences only total dose.
- The Security SDP requirements are vague and lack concrete examples of deficiencies. This could foster an incorrect interpretation of risk significance for a finding by an individual inspector.
- The Fire Protection SDP is not applied consistently throughout the industry. A finding at one licensee has been classified as green and the same type finding at another licensee has been classified as a color greater than green. The SDP arbitrarily assigns degradation values to conditions that may or may not represent a risk to the facility. For example, the SDP assigns a moderate degradation to a door assembly if it has excessive perimeter gaps regardless if this condition represents a fire risk. There is no room for negotiating predetermined degradation values to a lesser value in the process once it has been classified. The Fire Protection SDP has incorporated additional requirements that are beyond current regulatory requirements.

4. *Are there areas of unnecessary overlap between the inspection program and the performance indicators?*

The weight of an assessment finding is not the same as the weight of a PI. That is, an assessment finding will be used in the action matrix for a year while PIs are recalculated quarterly. The inspection findings should be discontinued or lowered in color on some period after the finding is issued.



5. *Does the ROP assessment program provide timely, consistent, and relevant assessment information?*

Some inadequate SDPs (e.g., Fire Protection and Security) along with inadequate inspection guidance has resulted in an increase in unresolved items. These items are taking too long to disposition. This can lead to a decrease in the public confidence that the process works.

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

The NRC, as well as the industry is still learning the ROP process and Entergy is hopeful that the program will be constantly reviewed and enhancements made that will benefit public safety, licensees and the NRC.

7. *Please provide any additional (brief) information or comments on other program areas related to the reactor oversight process. Other areas of interest may be: the treatment of cross-cutting issues in the ROP, the risk-based evaluation process associated with determining event response, and the reduced subjectivity and elevated threshold for documenting issues in inspection reports.*

#### Cross-cutting Issues

Inspection reports have reported “no color” findings in cross-cutting areas (human performance and corrective action) where there does not appear to be an appropriate linkage between the individual issues, each of which is characterized as being low safety significance. This appears to be inconsistent with the intent of the Program.

#### Enforcement

While the process is becoming better defined through use, there are still changes occurring in the process and consideration of enforcement discretion should continue.