



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

April 11, 2000

MEMORANDUM TO: Edwin F. Fox, Jr., Acting Chief
Emergency Preparedness and
Health Physics Section, IOLB
Division of Inspection Program Management
Office of Nuclear Reactor Regulation

FROM: Charles S. Hinson, Health Physicist *CSH*
Emergency Preparedness and
Health Physics Section, IOLB
Division of Inspection Program Management
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF FEBRUARY 28, 2000, PUBLIC MEETING WITH
NUCLEAR INDUSTRY REPRESENTATIVES REGARDING
PERFORMANCE INDICATORS AND THE SIGNIFICANT
DETERMINATION PROCESS IN THE AREA OF OCCUPATIONAL
RADIATION SAFETY

On February 28, 2000, a public meeting was conducted at the Nuclear Regulatory Commission's (NRC) offices in Rockville, Maryland to discuss Performance Indicators (PIs) and the Significance Determination Process (SDP) in the area of Occupational Radiation Safety. This meeting was a continuation of the process of meeting with stakeholders to review and revise the Occupational Radiation Safety PI and the SDP flowcharts based on the feedback received to date from the inspection pilot program. Attendees included Ralph Anderson from the Nuclear Energy Institute (NEI) and representatives of the NRC (see attachment 1 for a list of attendees).

The first item discussed was the status of recent changes to the SDP flowcharts. The NRC stated that NMSS had recently completed the Certificate of Compliance (COC) portion of the Public Radiation Safety SDP and it had been sent to the Regions for comment. The revised Public Radiation Safety SDP will be available to the stakeholders following the staff review of any Regional comments on the COC. With respect to the ALARA portion of the SDP, the staff is planning on combining the PWR and BWR job estimates into a single number. NEI is planning to study alternatives to using the three-year dose average for the ALARA SDP.

NEI voiced the concern that, with the current format of the Occupational Radiation Safety SDP, any procedural non-compliance identified by an NRC inspector could potentially result in a Green finding. To avoid this situation, NEI suggested that some screening factors be added to the Occupational Radiation Safety SDP (as was done for the ALARA portion of the SDP). The NRC responded that minor violations would be below the threshold necessary to enter the Occupational Radiation Safety SDP.

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A licensee attending one of the recent NRC/Industry workshops on the Reactor Oversight Program voiced the concern that the use of metrics (i.e., job dose values, three-year rolling average collective doses) in the ALARA portion of the SDP could potentially lead to litigation if personnel were to exceed these values. NEI responded that these metrics have nothing to do with dose limits and they will only be used by the NRC in evaluating the significance of inspection findings. Therefore, their use should not result in additional litigation.

The NRC discussed how the changing of the PI reporting period from 12 quarters to 4 quarters would affect the number of plants in the different color bands. Using a 12 quarter reporting period, only one plant would be in the White color band (greater than 5 PI hits). Using a 4 quarter reporting period, three plants (or roughly 5%) would fall into the White color band (greater than 2 PI hits). One benefit of using a 4 quarter reporting period instead of a 12 quarter reporting period is that the PI data would be much more recent and therefore, more relevant. The staff said that a decision on changing the PI reporting period would be made at a meeting with NRC management later in the day.

In response to a NEI question concerning the amount of involvement the EP/HP section will have with the findings from the Reactor Oversight Program during the first year of implementation, the staff stated that it has monthly counterpart calls with the Regions and will review all proposed draft White findings and above resulting from the new inspection effort in the occupational and public radiation safety cornerstones. NEI expressed a desire to attend the NRC's annual counterpart meeting to be held this summer, as they did last summer. NEI also invited the staff to attend their quarterly meetings during the first year of the Reactor Oversight Program implementation to share feedback from the first year inspection findings.

The following scenarios were discussed regarding when a PI hit would be counted while working in high radiation areas:

- If there is a noncompliance associated with a person entering a locked high radiation area (a PI hit) and that same person then gets an unintended dose of greater than 100 mrem (another PI hit), then only a single PI hit should be recorded for this event.
- If HP fails to do an adequate survey in a locked high radiation area and a worker in the area receives an unintended exposure which is less than 100 mrem, then this would be counted as a PI hit since it would be a nonconformance with the 10 CFR 20 requirement (20.1501 (a)) for performing surveys.

There was some discussion as to what constituted "comparable 10 CFR 20 requirements for high radiation areas" with regards to the PI definition of a "Technical Specification high radiation area occurrence." NEI agreed to draft a frequently asked question (FAQ) to address this area.

A proposal to implement a sliding scale for the unintended dose portion of the PI was discussed. The NRC doesn't feel that any change is warranted to the current 100 mrem value for unintended exposures. The only cases where the use of 100 mrem may come into question would be for high dose rate areas where a worker could potentially exceed the value of 100 mrem in a matter of seconds (for example, a steam generator jumper working in a 60 R/hr radiation field would accrue 100 mrem in only six seconds). However, for work in such high dose rate areas, a worker's stay time will be strictly limited to ensure that the worker does not exceed his/her allotted job dose limit. NEI agreed to draft a FAQ to address such cases where a worker might exceed the intended dose by greater than 100 mrem because of either the high

dose rates involved or slow worker reaction times, and not due to any loss of control over the work situation. It was agreed to discuss this area further at the March 30 meeting between NRC and its stakeholders.

Finally, the answers to three FAQs recently drafted by NEI (see attachment 2) were discussed. The first of these FAQs is: "would the failure of a flashing light control to a high radiation area after the control had been implemented be a PI hit?" This would not be considered a PI hit since the failure of the light was considered to be an isolated equipment failure (which was not due to lack of maintenance). The NRC requested that NEI expand on the answer to this FAQ to better clarify why this would not be considered a PI hit. The second FAQ is: "would the loss of control of a high or very high radiation area or unintended dose associated with radiography work being performed at a reactor site be counted as a PI hit?" This would not be considered to be a PI hit since radiography work is covered by 10 CFR Part 34 and PIs apply only to 10 CFR Part 50 activities. The NRC agreed to send information (IN 93-69) describing conditions whereby this example could result in a PI hit if the loss of control or unintended dose was the reactor licensee's fault. The answer to the final FAQ states that the PI in the occupational radiation safety area is a site-wide indicator and the identification of a PI at one unit should be counted once toward the site-wide PI threshold value (and not double or triple counted for multiple unit sites). It was agreed that a comprehensive listing of all FAQs be assembled and disseminated to the Regions in an expeditious manner for their information and comment.

The meeting was adjourned.

Attachments: As stated

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Occupational Radiation Safety PI/SDP Meeting
2/28/00

List of Attendees

<u>Name</u>	<u>Organization</u>
R. Anderson	NEI
C. Hinson	NRC/NRR
R. Pedersen	NRC/NRR
S. Klementowicz	NRC/NRR
J. Wigginton	NRC/NRR

10	ORS	For high radiation areas (> 1 rem) where a flashing light is used as a TS required control, is it considered an occurrence under the Occupational Exposure high radiation area reporting element as a failure of administrative control if it is discovered that the flashing light has failed some time after the control was implemented? Failure of the light could be due to loss of its power source (dead battery or external power loss), mechanical failure (light bulb), etc.	No. The PI is intended to capture radiation safety program failures, not isolated equipment failures. This answer presumes that the occurrence was isolated and was corrected in a timely manner.	
11	ORS	. If there is an occurrence associated with the radiography work involving loss of control of a high or very high radiation area or unintended dose, does this count under the occupational radiation safety PI? This question refers to radiography work performed at a plant under another licensee's 10 CFR Part 34 license.	No. Radiography work conducted at a plant under another licensee's 10 CFR Part 34 license is outside the scope of the PI. Responsibility for barriers, dose control, etc., resides with the Part 34 licensee. The reactor regulatory oversight PIs apply to Part 50 licensee activities.	
12	ORS	For multiple unit sites, if a PI-reportable condition occurs on one unit, e.g., a Technical Specification high radiation area occurrence inside the Unit 1 containment building, is it necessary to report the occurrence in the indicator for all units?	Yes. The PI is a site-wide indicator. The current reporting mechanism requires that occupational radiation safety occurrences be input redundantly for each unit. However, the occurrence is only counted once toward the site-wide threshold value (i.e., it is not double or triple counted for multiple unit sites).	

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