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 AUTH. NAME AUTHOR AFFILIATION
 KEISER, H.W. Pennsylvania Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION
 Region 1 (Post 820201)

SUBJECT: Provides response to violations noted in Insp Repts
 50-387/92-12 & 50-388/92-12. Corrective actions: informational
 postings added at barricade to high rad areas inside
 drywell.

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 TITLE: General (50 Dkt)-Insp Rept/Notice of Violation Response

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REPLY TO A NOTICE OF VIOLATION

A. Violation (387/92-12-01)

Title 10 Code of Federal Regulations (CFR) 19.12 states, in part, "All individuals working in or frequenting any portion of a restricted area shall be kept informed of the storage, transfer, or use of radioactive materials or of radiation in such portions of the restricted area; shall be instructed in ... precautions or procedures to minimize exposure ...".

Contrary to the above, on March 25, 1992, the inspector questioned approximately 20 workers inside the Susquehanna Unit 1 drywell (a radiation area) if they were aware of the radiation levels in their work area. None of the twenty were. Further, through inspector observations in the drywell between March 23 - 25, 1992, workers in the drywell were not making use of the lower drywell radiation levels toward the outside of the drywell shell or of lower radiation level areas within the drywell as waiting areas when not actively required at particular work locations. The workers were not demonstrating knowledge of the radiological conditions. Failure to properly keep workers informed of radiation in their work areas constitutes a Severity IV violation.

Response

1. Reason for the Violation

The availability of radiological information in the Unit 1 drywell to the worker was inadequate. Specifically, Health Physics (HP) briefing did not consistently utilize HP survey maps; sources of radiation and low dose rate areas were not emphasized to workers via survey maps and/or postings; and radiological information/postings within the work area did not provide adequate information to the workers for the purpose of ALARA.

2. Corrective Steps Which Have Been Taken and the Results Achieved:

1. Pre-job HP briefings to work groups have been expanded and require that the work groups identify the exact work location, the nature of job, the work area dose rates, and the estimate of time necessary to perform the job. The Health Physics technician utilizes the most current survey when briefing the work groups, emphasizing general area dose rates,

nearby sources of radiation and low dose rate areas. Oral acknowledgement concerning the above information is then required of the work group prior to entry to the drywell. For jobs of a routine nature or jobs requiring numerous entries to the same location the worker must demonstrate his knowledge of work area dose rates prior to each entry.

2. HP "mobiles" (hanging postings) have been placed on all elevations of the drywell. These "mobiles" provide a worker with a general range of dose rates in his work area. Placement of the "mobiles" is intended to enable the worker to always see at least one "mobile" while in the drywell, and therefore reinforce the workers awareness of the presence of radiological hazards.
3. Informational postings were added at the barricade to high rad areas inside the drywell. This was accomplished by using posting inserts that read, for example: "20 to 30 mr/hr at barricade"
4. Enlarged colored maps of the drywell showing sources of radiation (pink), low dose rate waiting areas (green) and general area dose rates for each elevation were placed at the 749' dress out area, the 719' control point and on each elevation inside the drywell.
5. The Manager-Plant Services conducted a tailboard meeting with E&S Construction and Plant Services supervisors to communicate plant management's expectations of the supervisor's role in radiological safety, ALARA, and individual accountability.
6. The Manager-Plant Services conducted a tailboard meeting of HP personnel to reinforce plant management's expectations of Health Physics personnel's responsibility to effectively communicate radiological information to individual workers to enable the work to be accomplished ALARA.
7. On April 13, 1992, a "Radiological Safety Note" was issued to Nuclear Department and E&S Construction Nuclear supervision detailing the station's radiological initiatives taken for the Unit 1 drywell. Topics covered in the Safety Note included the use and location of color coded maps, radiological "mobiles" inside the drywell, and the importance of a pre-job Health Physics briefing. Supervisors were requested to hold tailboard meetings with their personnel on these initiatives.

8. On April 10, 1992, the issue of radiation worker awareness was presented to the station's Health and Safety Steering Committee chaired by the Superintendent of Plant. This action was taken to increase management awareness of this issue and review actions taken.
9. On April 22, 1992, surveillance activities were conducted by NQA personnel at various Health Physics control points in the Unit I Reactor and Turbine Buildings. These activities assessed the radiological awareness of a random sample of approximately 40 personnel from various work groups. Basic surveillance activities consisted of NQA personnel surveying work groups at the work location as to the information relayed to them in the briefing they received from Health Physics. Specific areas addressed included; (but were not limited to):
 1. RWP number
 2. Was the individual briefed?
 3. Available low dose areas?
 4. Work area dose rates?
 5. Expected total dose?
 6. Status of current surveys?
 7. Radiological postings?

Results of this surveillance indicated that 38 of 40 personnel were aware of work area dose rates. The remaining two were not in a radiation area.

10. Individuals are routinely being asked by HP personnel to acknowledge that they understand the radiological information provided at all control point briefings. In addition, Health Physics personnel have randomly selected individuals working within radiological areas and questioned them to determine radiological awareness and knowledge. Workers interviewed have been able to demonstrate knowledge of the radiological conditions, sources of radiation, work area dose rates, and lower dose rate areas.

3. Corrective Steps Which Will Be Taken to Avoid Further Violations:

1. OJT Training is being developed to reinforce ALARA work practices at the first line supervisor and worker level. Training is scheduled to be conducted prior to the Unit 2 5th refueling and inspection outage scheduled to begin on September 12, 1992.
2. A Maintenance Self Assessment Observation Guide on Radiological Safety has been developed. This self-assessment tool is intended to increase oversight of radiological work practices.
3. Applicable corrective actions identified in this response, to enhance worker awareness of radiological conditions in the drywell, will be incorporated into appropriate procedures prior to the Unit 2 5th refueling and inspection outage scheduled to begin on September 12, 1992.
4. Additional training on "performing radiological briefings" has been incorporated into the current HP technician routine training cycle. This cycle is scheduled to be completed by August 1, 1992.

4. Date of Full Compliance:

Based on (2) above PP&L is in full compliance.