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August 30, 1984
BECo Ltr. #84-141

Mr. Thomas T. Martin
Division of Engineering and Technical Programs
U.S. Nuclear Regulatory Commission
Region I - 631 Park Avenue
King of Prussia, PA 19406

License No. DPR-35
Docket No. 50-293

Subject: Response to Items of Non-Compliance as Contained in NRC Inspection No. 84-14

References: NRC Letter to Boston Edison, dated August 2, 1984

Dear Mr. Martin:

This letter is in response to the Items of Non-Compliance identified during an inspection conducted by Mr. J. R. White, J. Kottan, and M. Shanbaky of your office on May 9-11, 14-16, 1984 and communicated to Boston Edison Company in Appendix A of the reference.

Notice of Violation (84-14-02)

10CFR19.12, "Instructions to Workers," requires that "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 the health protection problems associated with exposure to such radioactive materials or radiation, in precautions or procedures to minimize exposure, and in the purposes and functions of protective devices employed."

Contrary to the above, on May 7, 1984, the licensee failed to adequately inform a worker of the presence and extent of radioactive contamination and radiation in the 'A' Residual Heat Removal (RHR) quadrant. The worker was not advised to use respiratory protective equipment and plastic protective clothing; consequently, the worker was subjected to internal and external personal contamination

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Contrary to the above:

(1) On May 7, 1984, the licensee failed to make an evaluation of the 'A' RHR quadrant to support the entry of a worker performing operations in the area. The radiological conditions of the area were not evaluated sufficiently to identify the need for respiratory protective measures in accordance with 10CFR20.103 and provisions for controlling personnel occupational exposure in accordance with 10CFR20.101.

(2) On April 19, 1984, personnel removed the spool piece from the 'B' recirculation loop in the drywell without a radiological evaluation being performed in support of the activity. Such radiological surveillance was required in order to assure that adequate radiological controls were established consistent with the requirements of 10CFR20.101 and 10CFR20.103.

Corrective Steps Taken to Correct the Violation and Results Achieved

(1) Memo HP #84-309 (mentioned earlier in this response) provided adequate re-emphasis for the need to adequately evaluate radiological conditions and subsequently require the appropriate radiological protection measures of workers entering the area.

(2) Subsequent to the 4/19/84 ('B' recirc. loop spool piece) incident, Memo HP #84-268 was issued entitled "Briefings Consistent With Actual RWP Work." In addition to outlining the scenario on 4/19/84 and re-emphasizing the need for proper communications between the HP drywell staff and workers, the memo also implemented additional drywell access controls as follows:

"Log the person into the area each time as if it was his first entry of the day. Cross out the remaining three (3) lines on the RWP Sign-In Sheet. Each time the worker accesses the area, confirm his actual job function, review the RWP requirements, brief to current radiological conditions, and allow him to go to his work area by signing him in."

The result achieved of the above corrective steps is that specific guidance has now been provided to HP personnel in the areas of adequate briefings, when and when not to perform updated surveys and establishing more positive controls over where a worker is going on each specific entry into an RWP controlled area. PNPS workers have also been provided additional re-emphasis (by memo HP84-549) of the need to fully communicate their job tasks to the attendant Health Physics technician prior to entering their respective work areas. Full compliance was achieved on August 23, 1984, the date of issue of Memo HP #84-549.

Corrective Steps Taken to Correct the Violation and Results Achieved

Subsequent to the incident of May 7, 1984, disciplinary action was taken against the Health Physics technician involved for (1) failure to adequately determine scope of work, (2) not exhibiting acceptable health physics judgement by failing to re-survey the area prior to allowing entrance into that area and (3) not recommending adequate protective equipment in view of the radiological conditions of the area. Disciplinary action was also taken against the worker in question for failing to communicate to the Health Physics technician the entire scope of the work he intended to accomplish in the "A" RHR quadrant and failing to frisk properly.

Corrective Steps Taken to Preclude Recurrence

First, Memo HP #84-309 was issued to all HP technicians which described the May 7 incident and re-emphasized the need to:

(1) gain an adequate understanding of the work location and the nature of the work, prior to giving an HP briefing to workers;

(2) ensure that current surveys are available and used in the briefing or ensure that HP accompany the entry;

(3) administer adequate briefings.

Secondly, the above memo was incorporated into an appropriate training module so that all contractor technicians hired in the future will benefit from the lessons learned.

Finally, Memo HP84-549 was issued by the Station Manager to all PNPS personnel which emphasized the need for workers to fully communicate to the H.P. technician who is briefing them, what their job task will be prior to entering their respective work areas. The memo also re-emphasized the need to perform a proper whole body frisk. Full compliance was achieved on 8/23/84, the date Memo HP #84-549 was issued.

Notice of Violations (84-14-03, 84-14-05)

10CFR20.201, "Surveys," requires that "Each licensee shall make or cause to be made such surveys (evaluations of the radiation hazards incident to the production, use, release, disposal, or presence of radioactive materials) as (1) may be necessary for the licensee to comply with the regulations in this part, and (2) are reasonable under the circumstances to evaluate the extent of radiation hazards that may be present."

Corrective Steps Taken to Preclude Recurrence

Both instructional memos 84-268 and 84-309 have been incorporated into the training module and will ensure that contractor technicians hired by Boston Edison in the future will have read these memos and understood the scenarios, the subsequent lessons learned, and the improved health physics practices now being implemented. Ultimately, the essence of the memo will be incorporated into the basic training module.

Notice of Violation (84-14-04)

Technical Specification 6.11, "Radiation Protection Program," requires that "Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10CFR Part 20 and shall be...adhered to for all operations involving personnel radiation exposure."

Contrary to the above, on May 7, 1984, Health Physics Procedure No. 6.4-067, "Operation of the Eberline RM-14 Radiation Monitor," which provides instructions for use of the instrument as a monitoring device to determine personnel contamination, was not followed. An individual who was significantly contaminated from work performed in the 'A' RHR quadrant, failed to frisk in accordance with the directions stated in the procedure sufficient to detect and properly respond to the presence of significant levels (in excess of 200,000 dpm/100 cm^2) of radioactive contamination on skin and clothing.

Corrective Steps Taken to Correct the Violation and Results Achieved

The worker in question, after being properly decontaminated, was given disciplinary action as a result of his actions on May 7, 1984. Result achieved is that we are now confident that he understands his responsibilities in complying with Station procedures and 10CFR requirements as they apply to his actions as a radiation worker employed at Pilgrim Nuclear Power Station.

Corrective Steps Taken to Preclude Recurrence

Memo HP #84-549 was issued to all Station personnel re-emphasizing the need to perform adequate whole-body frisking in accordance with the existing Station procedure.

A policy change has been recently implemented giving the Chief Radiological Engineer expanded administrative control. In all future situations reportable as radiological occurrences, the CRE now has discretionary power to restrict individuals from the process buildings until he is given assurances by the cognizant group leader that re-training or other restorative actions have been taken to ensure that not only the individual in question, but all workers in that particular group have been properly instructed in order to preclude recurrence of the situation.

We are confident that the above-stated corrective measures, in addition to addressing the specific violations, will correct communications problems that may have existed at Pilgrim Nuclear Power Station.

If you have any questions or require further information on this subject, please do not hesitate to contact me.

Respectfully submitted,

W D Harrington

W. D. Harrington