ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8912070072 DOC.DATE: 89/12/01 NOTARIZED: NO DOCKET #
FACIL:50-388 Susquehanna Steam Electric Station, Unit 2, Pennsylva 05000388
AUTH.NAME AUTHOR AFFILIATION
KEISER,H.W. Pennsylvania Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION
LIEBERMAN,J. Ofc of Enforcement (Post 870413)

SUBJECT: Forwards response to notice of violation re Enforcement Action 89-182.

DISTRIBUTION CODE: IE14D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 1
TITLE: Enforcement Action Non-2.790-Licensee Response

NOTES:LPDR 1 cy Transcripts. 05000388

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	PD1-2 LA	1	1	PD1-2 PD	1	1
	THADANI,M	1	1			
INTERNAL:	AEOD/DOA	1	1	AEOD/DSP/TPAB	1	1
	DEDRO	1	1	NRR/DOEA/OEAB11	1	1
	NRR/DREP/PEPB9D	1	1	NRR/PMAS/ILRB12	1	1
	NUDOCS-ABSTRACT	1	1	OE DIR	1	1
	OE FILE 01	1	1	REG FILE 02	1	1
	RGN1 FILE 03	1	1	RGN2/DRSS/EPRPB	1	1
EXTERNAL:	LPDR	1	1	NRC PDR	1	1
	NSIC	1	1			
NOTES:		2	2			

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK, ROOM P1-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 20 ENCL 20

IA-4

Pennsylvania Power & Light Company
Two North Ninth Street • Allentown, PA 18101 • 215 / 770-5151

Harold W. Keiser
Senior Vice President-Nuclear
215/770-4194

DEC 01 1989

Reply To A Notice
Of Violation

Mr. James Lieberman
Director, Office of Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555

SUSQUEHANNA STEAM ELECTRIC STATION
RESPONSE TO ENFORCEMENT ACTION 89-182
PLA-3304 FILE R41-2/R41-1C

Docket No. 50-388/NPF-22

Dear Mr. Lieberman:

Pursuant to 10CFR2.201, Pennsylvania Power & Light Company hereby provides the attached response to Enforcement Action 89-182 (attachment number one).

Your concerns expressed in the cover letter that the personnel involved (contractor technician removing sample from sample rig and the chemistry technician accompanying him) failed to perform frisking for contamination in a timely manner, and also that the Radiation Work Permit issued for the activity in question did not require surveys to be made prior to handling or working with radioactive samples, are addressed as attachment number two to this letter.

We trust the Commission will find our response acceptable.

Very truly yours,

H Keiser

H. W. Keiser

Attachment

cc: NRC Document Control Desk (original)
NRC Region I
Mr. W. T. Russell, NRC Regional Administrator-Region I
Mr. G. S. Barber, NRC Sr. Resident Inspector
Mr. M. C. Thadani, NRC Project Manager

IE14
1/1

ATTACHMENT 1

REPLY TO NOTICE OF VIOLATION

DISCUSSION

Unplanned Exposure Event (Reference LER 50-388/89-006-00)

On August 31, 1989, a contractor employed by Vance and Associates retrieved a sample filter from the Unit 2 Reactor Building Sample Station. This sample filter had been coated with a mixture of resins and had been set up to sample Reactor Water Cleanup influent in order to obtain Reactor Vessel coolant activity levels. The contractor did not recognize nor was he told that this sample would be highly radioactive. The contractor placed the filter into a planchet (petri dish), placed this is his shirt pocket, and proceeded to transport it to the Chemistry lab facilities in the Control Structure. This sample collection process violated a number of station procedures.

PP&L has concluded that the primary reason for the event and violations was insufficient field management controls on the contractor who was obtaining the reactor coolant sample. Our existing station programs and procedures currently contain sufficient provisions addressing the importance of radiological control and radiation safety. These procedures contain specific actions to be performed which are necessary to assure compliance to our radiological programs and therefore assure radiation safety at the plant. PP&L has also determined that our contractor control practices for large contractors are well established and implemented. However, our small, specific function contractors in some cases, did not have adequate station field management control. To that end, PP&L is developing a strong field management contractor control program/procedure which will enhance the requirement that the station's field organizations be directly responsible for all on-site contractors and their work activities.

PP&L established five causal factors that contributed to the unplanned contractor exposure August 31, 1989. In combination these factors were also responsible for each of the four violations, identified in the Notice of Violation. These causal factors presented within this section (A item #2) are being referenced as the "Reason" for the other violations.

The causal factors identified for the event are:

a. Communication - The radiation hazard resulting from the sample, although known by the lead contractor, was not communicated to the contractor technician or to PP&L. Additionally, the nature and scope of work being performed by the lead contractor was not adequately communicated to the Chemistry Technician assisting the contractor technician.

b. Radiological Controls - The standing RWP used by chemistry for obtaining chemistry samples, analyzing samples in the Hot Lab and performing sample preparation was not clear with respect to surveying the sample. Additionally, Chemistry failed to adequately control access to sampling rooms.

c. Contractor Controls - Ownership of the contractors was not clear and neither was the scope of work activities. The contract was initiated by Radwaste Operations, however the contractors were under the direction of Chemistry when the unplanned exposure occurred. Additionally, Chemistry personnel provided less than adequate control of the contractors activities. Chemistry understood their actions to be limited to providing space in the Chemistry laboratory and providing support as requested.

d. Work Controls - No specific procedure was developed to control the sampling evolution, neither was the potential radiological hazard reviewed. As a result no PP&L work controls existed for this work. The lead contractor's knowledge and experience were relied on totally. When he became diverted at a critical point in the process no additional barriers existed to prevent the incident. Planning of the sampling evolution should have highlighted the radiological hazard.

e. Adherence to Programs and Procedures - The contractor technician and chemistry technician failed to adhere to the requirement of the standing RWP.

VIOLATION A (388/89-25-02)

10CFR20.201(b) requires, in part, that each licensee make or cause to be made such surveys as may be necessary to comply with the regulations of 10CFR Part 20. 10CFR20.201(a) defines a survey, in part, as an evaluation of the radiation hazards incident to the production, use, release, disposal or presence of radioactive materials or other sources of radiation under a specific set of conditions. When appropriate, such evaluation includes a physical survey of the location of materials and equipment and measurements of levels of radiation present.

Contrary to the above, on August 31, 1989 surveys were not made to assure compliance with 10CFR20.101, which requires that no licensee possess, use or transfer licensed material in such a manner as to cause any individual in a restricted area to receive in a calendar quarter from radioactive material and other sources of radiation a total occupational dose in excess of the limits set forth therein. Specifically, a contractor technician and a chemistry technician retrieved a filter (sample medium) that had been collecting radioactive material from the reactor coolant via a sampling rig located at the chemistry sampling station; however, prior to the sampling rig being disassembled and the sample medium being handled, a radiation survey was not made to determine the levels of radiation emanating from the sample medium.

RESPONSE:

1. Admission of the Violation

   PP&L admits that on August 31, 1989, a contractor technician and a chemistry technician retrieved a filter (sample medium) that had been collecting radioactive material from the reactor coolant via a sampling rig located at the chemistry sampling station and that prior to the sampling rig being disassembled and the sample medium being handled, a radiation survey was not made to determine the levels of radiation emanating from the sample medium.

2. Reason for the Violation

   Causal factors b and c (see discussion section) resulted in this violation.

3. Corrective Steps Taken and the Results Achieved

   a. A review of the stations standing RWP's concluded that with the exception of the sampling RWP, the standing RWPs are effective.

   b. The sampling RWP was revised to clearly require surveying of all radioactive samples.

   c. An additional condition was added to the sampling RWP that required alarming dosimetry for entry into sampling rooms.

4. Corrective Steps to be Taken to Avoid Further Violations

No further action required.

5. Date of Full Compliance

Based on (3) above PP&L is in full compliance.

VIOLATION B (388/89-25-03)

10CFR19.12 requires, in part, that all individuals working in or frequenting any portion of a restricted area be kept informed of radiation in such portions of the restricted area and be instructed in precautions or procedures to minimize exposure to radioactive materials.

Contrary to the above, on August 31, 1989, two individuals working in a restricted area (a contractor technician and a chemistry technician who were collecting a sample from a sampling rig located at the chemistry sampling station) were not adequately instructed in precautions or procedures to minimize exposure to radioactive materials. Specifically, the individuals were not informed that the sample being collected was a different type of sample from that which was normally collected (and as such, would exhibit significant contact radiation dose rates), nor were the individuals provided any special instructions, precautions, procedures or guidance to minimize their radiation exposure during collection of the sample.

RESPONSE:

1. Admission of the Violation

   PP&L admits that on August 31, 1989, two individuals working in a restricted area (a contractor technician and a chemistry technician who were collecting a sample from a sampling rig located at the chemistry sampling station) were not adequately instructed in precautions or procedures to minimize exposure to radioactive materials.

2. Reason for the Violation

   Causal factors a and c (see discussion section) resulted in this violation.

3. Corrective Steps Taken and the Results Achieved

   a. PP&L identified all site contractors to determine which PP&L field organization had ownership. Where contractor ownership could not be established, their work activity was halted until it could be determined that their work activities were controlled by appropriate site programs and procedures.

   b. A procedure defining chemistry control of delegated keys to radiation areas was developed and issued.

4. Corrective Steps to be Taken to Avoid Further Violations

   a. A station administrative procedure is being developed to control contractor work activities to assure field management control. This procedure will require that all contractors activities be performed using existing station procedures.

b. Radiation control program training for chemistry technicians will be completed by December 31, 1989.

c. Training on the contractor control administrative procedure will be provided to station personnel. This training will be completed by March 31, 1990.

5. Date of Full Compliance

PP&L will achieve full compliance by March 31, 1990, following completion of training by station personnel on the contractor control program.

VIOLATION C (388/89-25-04)

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

Section 4.10 of Radiation Protection Procedure AD-00-705, Revision 12 (Access Control and Radiation Work Permit System), dated March 16, 1989, states that it is the responsibility of each radiation worker to understand and comply with all health physics access control and radiation work permit (RWP) requirements. Signature on the RWP sign-in sheet indicates knowledge of the radiological conditions in the work area and the requirements of the RWP.

RWP No. 89-452, (Obtain Chemistry Samples, Analyze Samples in the Hot Chemistry Lab and Perform Sample Preparation as Necessary), dated July 31, 1989, required individuals to (1) wear a lab coat, surgeon's gloves and cotton glove liners when sampling radioactive systems; (2) possess a survey meter to measure the radiation dose rate of samples prior to transport and to be used while transporting samples measuring 100mR/hr or greater; (3) possess a shielding pig to transport samples measuring 100 mR/hour or greater on the outside of the sample container; and (4) obtain or provide constant health physics coverage when transporting samples with 100 mR per hour or greater on the outside of the sample transport container.

Contrary to the above, on August 31, 1989, a contractor technician and chemistry technician, who had signed the sign-in sheet for RWP 89-452, collected a radioactive sample under the authority and requirements of RWP No. 89-452 without complying with the RWP requirements, as evidenced by the following examples:

1. the contractor technician who collected the sample did not wear a lab coat and cotton glove liners while collecting the sample;

2. although the sample was subsequently determined to have a contact radiation dose rate of more than 100 m/R/hr (600 mR/hr), a survey meter was not obtained and used to determine the dose rate on the sample either prior to, or during transport of the sample;

3. although the sample container had a radiation dose rate of more than 100m/rhr (600m/rhr) on the outside of the sample container, a shielding pig was not used to transport the sample; and

4. although the sample transport container had a radiation dose rate of more than 100mR/hr on the outside, constant health physics coverage was not provided during the transport of the sample.

RESPONSE:

1. Admission of the Violation

PP&L admits that on August 31, 1989, a contractor technician and chemistry technician, who had signed the sign-in sheet for RWP 89-452, collected a radioactive sample under the authority and requirements of RWP No. 89-452 without complying with some of the RWP requirements.

2. Reason for the Violation

Causal factors c and e (see discussion section) resulted in this violation.

3. Corrective Steps Taken and the Results Achieved

a. The event was reviewed with chemistry personnel with emphasis placed on reinforcing the importance of adhering to the radiological control program including RWP's.

b. A review of the stations standing RWP's concluded that with the exception of the sampling RWP, the standing RWPs are effective.

c. An assessment to assure proper radiological practices are being conducted by Chemistry was performed. This assessment concluded that with the exception of five chemistry technicians requiring initial radiological practices training and the need to accelerate, chemistry training programs, the program is adequate.

4. Corrective Steps to be Taken to Avoid Further Violations

Formal radiological practices training is being conducted for those five Chemistry technicians that had not received the initial training. This training will be completed December 31, 1989.

5. Date of Full Compliance

PP&L will be in full compliance by December 31, 1989, following the completion of training by five chemistry technicians.

VIOLATION D (388/89-25-05)

Technical Specification 6.8 (Procedures and Programs) requires, in part, that the procedures recommended in Appendix A of Regulatory Guide 1.33, 1978, be established and implemented.

Section 10 of Appendix A of Regulatory Guide 1.33, 1978, specifies that chemical and radiochemical procedures by written to prescribe the nature and frequency of sampling and analyses, and should include laboratory instructions and calibration of equipment.

Contrary to the above, as of August 31, 1989, procedures were not developed for prescribing the nature and frequency of the sampling of reactor coolant using the resin impregnated filter medium, nor for calibrating the equipment used.

RESPONSE

1. Admission of the Violation

   PP&L admits that as of August 31, 1989, procedures were not developed for prescribing the nature and frequency of the sampling of reactor coolant using the resin impregnated filter medium, nor for calibrating the equipment used.

2. Reason for the Violation

   Causal factors c and d (see discussion section) resulted in this violation.

3. Corrective Steps Taken and the Results Achieved

   a. PP&L determined accountable ownership for all on-site contractors. Where ownership could not be established work was stopped.

   b. PP&L confirmed the contractors scope and methods of work to assure compliance to the stations procedures and work standards.

4. Corrective Steps to be Taken to Avoid Further Violation

   The contractor control program/procedure being developed will require all work activities be consistent with proper station procedures. This will require any sampling programs be implemented with appropriate procedures. This procedure will be completed by December 31, 1989.

5. Date of Full Compliance

   PP&L will be in full compliance by March 31, 1990, following completion of the training of station personnel on the station procedure on contractor control.

ATTACHMENT 2

FRISKING NOT PERFORMED

Whole body frisking at frisking stations in the closest proximity to where the work took place is a station procedural requirement, when exiting contaminated areas when performing work under an RWP or whenever any article of protective clothing is worn during performance of work. The station policy on frisking and the frisking methods are presented in the Health Physics retraining program which every individual granted unescorted access into the controlled zone must take annually. Managements concern for frisking is also emphasized, in part, through the motto "DOSE SAFE" (F - Frisk slowly and carefully - Everytime) which is posted throughout the plant.

Lack of adherence to procedures and programs by both individuals involved in the unplanned exposure event was the primary cause for the failure to frisk. Both individuals completed the health physics training which discussed frisking, and both individuals had to frisk routinely in carrying out their routine work activities. However, in taking the reactor coolant sample from the sample station to the chemistry laboratory whole body frisking was not performed.

The station policy on frisking will continue to be emphasized as part of the HP retraining program for all individuals granted unescorted access into the controlled zone. Enhancements to more clearly identify the location of frisking stations throughout the controlled zone are being evaluated by the HP Section for implementation in 1990. The placement of additional portal contamination monitors within the controlled zone will further enhance contamination control at the station.

RADIATION WORK PERMIT DID NOT REQUIRE SURVEY PRIOR TO HANDLING/WORKING WITH SAMPLES

The sample collection RWP required surveys for the transportation of any samples from the sample station. This RWP also specified a dose rate at which the user must notify Health Physics for assistance. The intent was that in order for the user to comply with the RWP regarding Health Physics notification, the user must have performed an initial survey prior to handling the sample. Furthermore the survey requirement to transport the sample was to reinforce the need to survey to determine if Health Physics notification was necessary. This NRC concern as well as our own RWP review identified this as an area needing further clarification. PP&L has revised the standing sample collection RWP, to clearly require surveys for radioactive samples collected under this RWP. We consider this issue to be adequately addressed with the revision to the RWP, and no further actions are required.