

SEP 29 1986

In Reply Refer To:
Dockets: 50-313/86-04
50-368/86-04

Arkansas Power & Light Company
ATTN: Mr. Gene Campbell
Vice President, Nuclear
Operations
P. O. Box 551
Little Rock, Arkansas 72203

Gentlemen:

Thank you for your letter of May 19, 1986, in response to our letter and attached Notice of Violation dated April 18, 1986. As a result of our review of your response and discussions with personnel of your staff, we have determined that your response to the Notice of Violation is unacceptable.

Our specific comments regarding your response to the violations are as follows:

A. Inadequate Training of Personnel (313/368/8604-01)

In your response to this violation you claimed that the NRC inspector did not interview the persons that would be involved in determining habitability conditions in the control room. In reviewing the notes taken by the inspector and the material provided by AP&L, we noted that all persons interviewed were selected from a listing of Health Physics Technicians provided by your site emergency planning coordinators and that the selection was performed using statistical sampling techniques from this list.

Health Physics Technicians interviewed were Senior Radiation Protection Technicians, qualified in accordance with ANSI 18.1. Your training program nowhere describes different training modules for shift maintenance HP technicians. As a consequence, all Senior HP Technicians were expected to be qualified in the tasks covered by their training program. The questions posed during the training interviews pertained to the concept of facility habitability, which is a basic and necessary concept needed for radiation protection of personnel, not only in the control room but in any onsite location.

The NRC inspectors held interviews with chemists assigned to perform dose calculations. One chemist stated that she routinely worked in non-radiological chemistry and was not familiar with units used for radioactive measurements. She, therefore, was unable to specify any of the units used to describe the effects of the plume in the environment,

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such as gaseous radioactive concentrations (e.g., microcuries per cubic cm). Furthermore, she ignored units of dose and dose rate (e.g., rems and millirems per hour). Clearly, these are matters that should be known to those making dose projection calculations.

It should be noted that at no time did the NRC inspector prevent the use of procedures.

B. Inadequate Procedures and Equipment (313/368/8604-02)

During training interviews, the NRC inspectors determined that radiation protection technicians failed to demonstrate the ability to determine whether they were immersed in a radioactive cloud. Moreover, the technicians ignored any method to ascertain whether they were taking the air sample within the plume. The procedure available to them (Procedure 1905.031) failed to give guidance on this subject. As a consequence, during an accident, AP&L technicians would have reported a zero iodine reading (i.e. background) when in fact they could have been under an elevated plume, falsely concluding that the plume had no iodine. We were not considering whether the field team members were or were not responsible for determining the location of the plume, but for determining whether their air samples were taken while immersed in the plume. Field radiation monitoring technicians must be able to determine when the sample is taken within the radioactive plume. These determinations are field determinations, based on actual readings. Other guidance on locations and instructions from the ERFs to the field team are based on mathematical models and projections. There is a limit on how much guidance could be given to a remote area from an emergency response facility, insofar as where and when the plume is touching the ground. There are many factors, such as terrain conditions, which preclude even the most sophisticated model from accurately determining, without direct measurements by properly trained and qualified radiation technicians, if the plume is touching the ground in a specific location. Based on the above considerations, the NRC inspectors determined that personnel in field teams should be properly trained and qualified to make these determinations.

During the interviews the NRC inspectors determined that instrumentation assigned to offsite monitoring teams was inadequate to ascertain whether or not the samples were being taken while immersed in the radioactive plume, and thus whether the results were valid when no radioiodine was detected.

Please provide a revised response to these violations within 20 days of the date of this letter.

Sincerely,

ORIGINAL SIGNED BY:

J. E. Gagliardo, Chief
Reactor Projects Branch

cc: (see next page)

cc:

J. M. Levine, Director
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Arkansas Radiation Control Program Director

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