

U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
REGION IV

Report No. 50-313/50-368/80-04

Docket Nos. 50-313
50-368

Licensee: Arkansas Power & Light Company
Post Office Box 608
Russellville, Arkansas 72801

Facility Name: Arkansas Nuclear One (ANO), Units 1&2

Location: Russellville, Arkansas

Investigation Conducted: January 31 and February 1, 1980

Inspectors: Lorenzo Wilborn
Lorenzo Wilborn, Radiation Specialist

5/16/80
Date

W. D. Johnson for
William D. Johnson, Resident Inspector

3/13/80
Date

Reviewed by: T. F. Westerman
T. F. Westerman, Chief, Reactor Projects Section

3/13/80
Date

Approved by: Glen D. Brown
Glen D. Brown, Chief, Fuel Facility and Material
Safety Branch

3/12/80
Date

Investigation Summary:

Investigation on January 31 and February 1, 1980 (Report No. 50-313/80-04/
50-368/80-04)

Areas Inspected: Special, unannounced investigation of allegations regarding practices of the licensee's Health Physics personnel and maintenance contracted personnel, during the past year, that are considered to be radiological hazards. The investigation involved fifteen (15) inspector-hours by two NRC inspectors.

Results: Investigation of the allegations revealed four unresolved items. No items of noncompliance or deviations were identified. The allegations could not be fully substantiated.

REASON FOR INVESTIGATION

Region IV received a telephone call from a concerned citizen alleging that there are radiological hazards at ANO associated with certain practices of ANO's Health Physics and maintenance contracted personnel.

SCOPE OF INVESTIGATION

During the period January 31 and February 1, 1980, a Region IV Radiation Specialist and a NRC/ANO Resident Inspector interviewed the concerned citizen and certain members of ANO's Health Physics and maintenance contracted personnel staff, concerning allegations of radiological hazards associated with certain practices by ANO personnel. The allegations were evaluated to determine if they could be substantiated.

ALLEGATIONS

At times, maintenance contracted personnel would work in a high radiation area, his dosimeter would exceed 300 mR, he would turn that dosimeter in, be issued another dosimeter and allowed to continue to work in the area.

ANO's Health Physics personnel would not give the maintenance contracted personnel, their respective weekly dosimeter totals.

Maintenance contracted supervisory personnel would not honor restrictions for respiratory equipment.

Type B protective clothing has been worn by maintenance contracted personnel into areas where Type C protective clothing was required.

Maintenance contractor supervisory personnel occasionally defeated the purpose of step-off pads by crossing over or going under the rope of another section of the roped off area.

A certain maintenance contractor supervisory person had been observed on several occasions during his tour of duty to be heavily influenced by alcoholic beverages according to his personal appearance and the smell on his breath.

CONCLUSION

The allegations could not be fully substantiated and resulted in four unresolved items (paragraphs 3d, 3e, 3f and 3g).

DETAILS1. Persons ContactedPrincipal Licensee Employees

- *J. O'Hanlon, General Manager
- *H. Miller, Manager, Engineering and Technical Support
- *D. Swindle, Technical Analysis Superintendent
- I. Mosquito, Health Physicist

Concerned Citizen

Anonymous

Bechtel Employees

Anonymous (six individuals)

*Denotes those attending the exit interview on February 5, 1980.

2. Interview with Allegor

- a. On January 31, 1980, the allegor was interviewed by the NRC inspectors at a motel room in Russellville, Arkansas. The allegor expressed concern and requested that his name be anonymous.
- b. The allegor stated that about a year ago, it became apparent that maintenance contracted personnel (Bechtel Employees) would work in a high radiation area, his dosimeter would exceed 300 mR, he would turn that one in, be issued another and continue to work in the area.
- c. The allegor stated that on January 22, 1980, two Bechtel Employees were given orders to work on a hangar inside the reactor containment. One of the Bechtel Employees inquired about his weekly dosimeter totals and was denied an answer by ANO's Health Physics personnel. The other employee was purportedly restricted for a certain type of respiratory equipment (Forced Air-Hard Hat Type), but was forced to wear Forced Air-Soft Hat Type. When this fact was brought to the attention of a Bechtel supervisory employee, he remarked that this individuals name was on the qualified list and that meant that the employee would wear whatever respiratory equipment the supervisor wanted him

to wear. The two employees proceeded and came upon a roped off area with a sign that read, "40,000 dpm contamination, Type "C" protective clothing required." The two employees were wearing Type "B" protective clothing. The supervisor purportedly told them that this was not right but they were going into the area anyway. As these two were exiting this area at break time, they reached the step off pad and were told by the supervisor to ignore the step-off pad this time and when they return, go over to another section of the roped off area and enter the area by crossing over or under the rope. The supervisor again stated that this is not right but they're going to do it anyway. One of the employees observed a certain Bechtel supervisory person to be heavily influenced by alcoholic beverages according to his personal appearance and the smell on his breath.

- d. The allegor stated that about the first of November 1979, a crew of Bechtel employees were ordered to help pull a manway on the steam generator. The crew expected high concentrations of radioactivity and high radiation levels. The manway was located at approximately 300 feet to 350 feet level. The health physics group started an air sampler which was located at about the 400 feet level. When the manway was eventually removed, about 5,000 gallons of very "hot" water spilled out. No report was made.

3. Interview with Bechtel Employees

- a. On February , 1980, six Bechtel employees, whose names had been referenced by the allegor, were interviewed by the NRC inspectors at the ANO site. The employees requested that their names be anonymous or denial of association will result.
- b. The Bechtel employees acknowledged that they are always issued two dosimeters when working in high radiation areas. They stated that about a year ago there had been problems with dosimeter leakage, however, the health physics group maintained close personal surveillance on them and when it was observed that a dosimeter was leaking excessively, the health physics personnel would remove them from service until such time that they were repaired or disposed of.
- c. The Bechtel employees stated that ANO's health physics personnel had been posting their weekly dosimeter totals, but, there was a malfunction in the computer system a week or so ago and the health physics personnel could not post their current weekly dosimeter totals from manual tabulations because of manpower. A notice was purportedly posted indicating such and stating

instructions how the individuals concerned could acquire their respective weekly dosimeter totals. Of the six Bechtel employees interviewed, only one had a restriction for respiratory equipment, he wore a beard. The bearded employee stated that there had never been a time when his restriction was not honored and as a matter of fact, even questioned. One of the Bechtel employees that worked on the hangar on January 22, 1980, stated that he and his co-worker were wearing Type "C" protective clothing on that date, they did honor the step-off pad and he could not recall any statement made by supervisory personnel indicating that what was being done was not right. The Bechtel employees did acknowledge that in the past there was a Bechtel supervisory person that used to enter areas where protective clothing was required without the proper clothing. He purportedly did this a few times personally and neither made a practice of it nor attempted to influence it upon anyone else. This person was not employed by Bechtel at the time of this investigation, he had retired. All the Bechtel employees denied ever observing a supervisory person heavily influenced by alcoholic beverages during duty hours. The person that was purportedly observed as such was included in the six employees interviewed. There was no indication of such influence observed by either of the NRC inspectors.

- d. Two of the four member crew of Bechtel employees ordered to help pull a manway on the steam generator about the first of November 1979 were interviewed. Both indicated that the manway was located on the secondary loop side and that there was a loss of "hot water" when the manway was removed but that "hot water" was a reference to thermal rather than radioactive. A degree of uncertainty was evident in this discussion and the inspectors stated that this item would remain unresolved pending further review by the NRC staff. (8004-01)
- e. It became apparent during the interviews that marking and labeling of restricted areas was a problem from time to time. An example was that a Bechtel employee observed a restricted area sign that indicated the radiation level as 45,000 mR/hr. Inquiry revealed that the 45,000 mR/hr was erroneous and should have indicated that the removable surface contamination was 45,000 dpm. The inspectors stated that this item would remain unresolved pending a review by the NRC staff. (8004-02)
- f. The Bechtel employees expressed concern that there is no breathing air on the 335 feet level while cutting and welding new pipe, but there is breathing air while work is performed

on older pipe when certain identical conditions exist. An example was given as dusty conditions when it is claimed that removable surface contamination exists according to area signs. The inspectors stated that this item would remain unresolved pending further review by the NRC staff. (8004-03)

- g. The Bechtel employees expressed concern that they perform maintenance on jobs purportedly requiring tags per procedures but maintenance is initiated without the job being tagged and this at times has caused contamination difficulties. The inspectors stated that this item would remain unresolved pending a review by the NRC staff. (8004-04)
- h. The Bechtel employees expressed concern that the licensee's training program is inadequate due to the fact that the presentation is a three hour movie, which is boring and difficult to understand. They would like some hands on training as a supplement or to take place of a portion of the movie.

4. Interview with ANO Health Physics Personnel

- a. On February 1, 1980, an ANO health physicist was interviewed by the NRC inspectors at the ANO site.
- b. The health physicist further enhanced the statements of the Bechtel employees regarding personnel dosimeters and the posting of weekly dosimeter totals. The health physicist could not recall any restrictions for respiratory equipment except for the bearded employees. The health physicist could not recall any instances where employees were allowed entry into areas when Type "C" protective clothing was required and was not worn. The health physicist could not recall ever observing a Bechtel supervisor employee to be heavily influenced by alcoholic beverages during his tour of duty.
- c. The health physicist, interviewed, was purportedly not at the site during the removal of the manway to the steam generator. The health physicist that was on duty at that time was not on duty during the investigation.
- d. The health physicist stated that there have been problems with marking and labeling of restricted areas, however, through health physics personnel meetings and discussions the problems have been practically eliminated.
- e. The health physicist stated that before any Bechtel employee is allowed to cut and/or weld pipe on the 335 feet level, a survey

is purportedly made of the area on a case by case basis and it is determined from the survey whether breathing air is or is not required.

- f. The health physicist also expressed concern for jobs being properly tagged per procedures and agreed that special attention should be given by ANO personnel.
- g. The health physicist stated that hands on training had been recently incorporated into the training program and it would be done on a routine basis in future training.

5. Exit Interview

The NRC/ANO resident inspector met with licensee representatives (denoted in paragraph (1) on February 5, 1980. The inspector summarized the purpose and scope of the investigation and reviewed the allegations and the findings.