

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

REGION III

Report No. 50-315/79-25; 50-316/79-23

Docket No. 50-315; 50-316

License No. DPR-58; DPR-74

Licensee: American Electirc Power Service
Corporation
Indiana and Michigan Power Company
2 Broadway
New York, NY 10004

Facility Name: D. C. Cook Nuclear Power Plant, Units 1 and 2

Dates of Investigation: November 14-16, 1979

Investigation At: D. C. Cook Site, Bridgman, MI

Investigators:

G. A. Phillip

12/18/79
(Date)

T. J. Madeda

12/19/79
(Date)

Reviewed By:

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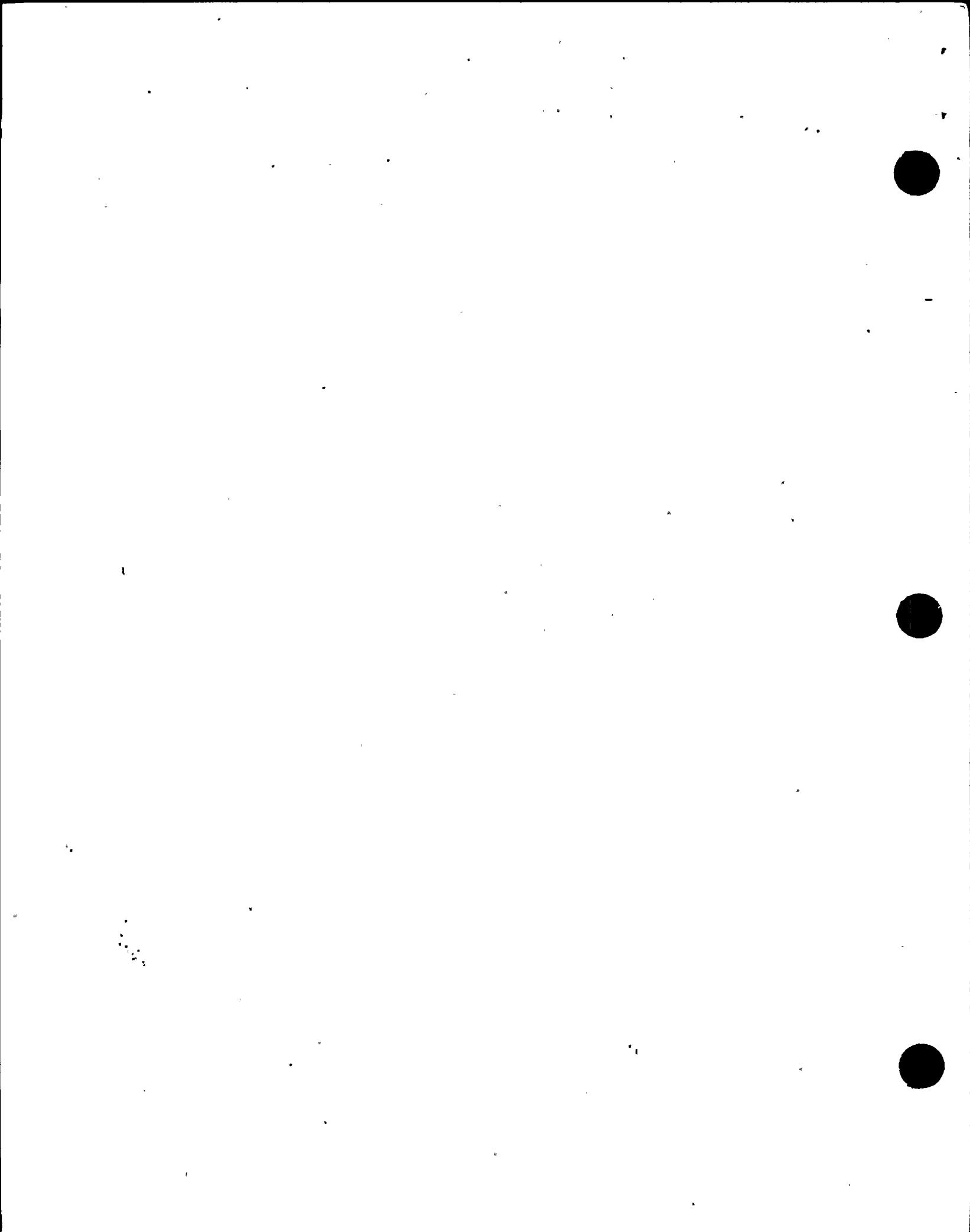
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Investigation Summary

Investigation on November 14-16, 1979 (Report No. 50-315/79-25; 50-316/79-23)

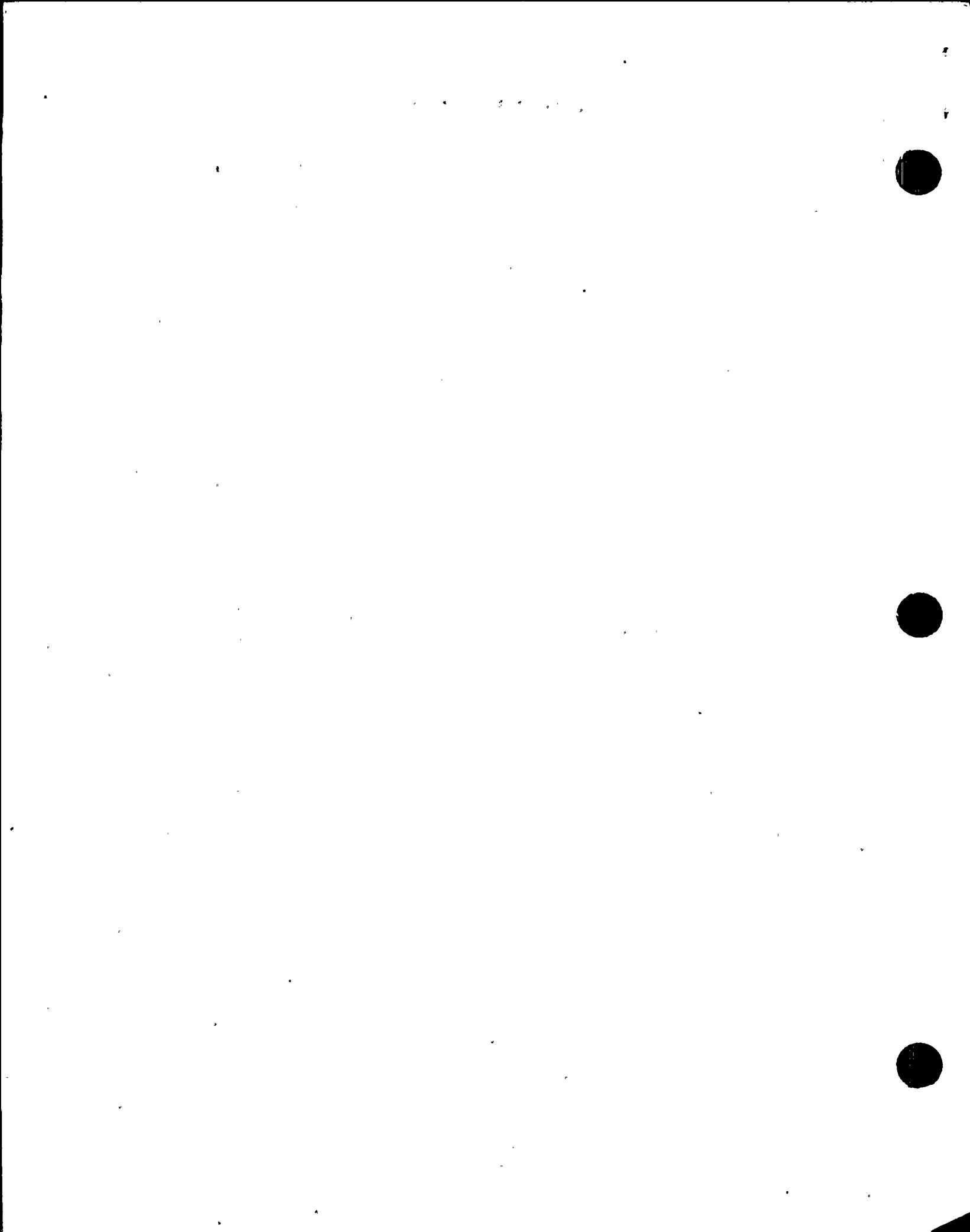
Areas Investigated: Six allegations were made that: instructors fired into guards' targets to assist them in obtaining qualifying scores; metal detectors malfunctioned and no alternative procedures were utilized; a waste shipment left the site leaking contamination; personnel who failed the test performed

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as reactor operators; gaseous radioactive releases were made without NRC being aware; and, a control rod insertion problem may not have been reported to the NRC. The investigation consisted of an examination of records and procedures and interviews with personnel and consisted of 36 investigation hours by two investigators.

Results: None of the allegations were substantiated. No items of noncompliance were identified.



REASON FOR INVESTIGATION

During a telephone conversation on September 21, 1979 and an interview on October 11, 1979, an individual made allegations regarding various aspects of the licensee's operation. An investigation was therefore initiated.

SUMMARY OF FACTS

An individual made six allegations during a September 21, telephone conversation and a subsequent interview on October 11, 1979. Two allegations related to the security program, two related to the radiological program and two to plant operations. None of the allegations were substantiated and no items of noncompliance were identified during this investigation.

DETAILS

1. Persons Contacted

Indiana and Michigan Power Company (I&M)

*D. V. Shaller, Plant Manager
*E. Townley, Assistant Plant Manager
 E. A. Smarrella, Technical Superintendent
*J. F. Stietzel, QA Supervisor
*T. E. Beilman, Senior QA Auditor
 W. Nichols, Training Instructor
 L. Mathias, Administrative Supervisor
*F. A. Arsenault, Chief Security Supervisor
*M. L. Horvath, Shift Security Supervisor
*T. Exum, Shift Security Supervisor

R.R.S.

*G. Seifert, Site Manager
R. Watson, Senior Administrator
L. Smead, Training Coordinator
V. Sikes, Training Coordinator
C. Heygood, Guard
L. Scott, Guard

2. Introduction

On September 21, 1979, the Office of Inspection and Enforcement, NRC Headquarters advised Region III of a telephone call received from an individual who made allegations concerning the licensee's activities and requested that the individual be contacted. Later the same day during a telephone conversation with Region III and during an interview on October 11, 1979, the individual made several allegations.

3. Allegations

Based on the information obtained during contacts with the alleger, six allegations were developed. These allegations and information regarding them obtained during the investigation are set forth below.

Allegation 1 - Instructors fired into guards' targets to assist them in obtaining qualifying scores.

The alleger stated that in the Fall of 1978, RRS replaced Wachenhut as the contractor that provides guard services to the D. C. Cook plant. At that time it was necessary to hire and train several people for guard positions. After receiving the required classroom training, personnel were taken to a firing range, first for weapon familiarization firing and then to fire for a qualifying score.

While one individual was firing for score into a small bullseye target, an instructor stood next to him and fired some shots into the individual's target. As a result, the individual's target showed a qualifying score. According to the alleger, the instructor later informed the individual of the assistance he had given him. A few weeks later the individual who had been assisted brought the matter to the attention of the Administrative Supervisor, I&M, who looked into the matter. The instructor denied the charge and in an effort to resolve the matter, the individual and the instructor were given polygraphic examinations administered at the Berrien County Sheriff's office. The alleger stated that he did not see the results of the examination.

- The alleger stated that another instructor had given similar assistance to other personnel. The alleger provided the first name of one such individual and the names of two other guards whom he said had knowledge of the irregularities, all of which related to the small bullseye target, which was one of three types used in the qualification firing course.

Finding - On November 14, 1979, the Administrative Supervisor, I&M, was interviewed. He stated that in mid-November, 1978, he learned that a guard had alleged RRS instructors had fired into guards' targets to assist them in obtaining qualifying scores. He said he interviewed the guard to obtain detailed information concerning the matter.

On the basis of the guard's information, he conducted an investigation which included interviewing the two instructors and six other guards whom the alleging guard had named. The Administrative Supervisor said that he first interviewed each individual and then went over the substance of the interview with them in the presence of his secretary who took notes and prepared a memorandum containing the information discussed. He indicated he had written a similar memorandum report containing the results of his initial interview with the alleging guard as well as a second interview with him.

The above memorandum reports were reviewed and it was noted that with one exception, those individuals referred to by the alleger had been interviewed. The information contained in these reports indicate that there was confusion on the range and in some cases guards did not know who was firing for score and who was practice firing. The contents of the reports, however, do not support the contention that the instructors engaged in any irregularities during anyone's qualification firing.

The Administrative Supervisor said both instructors denied the charge but said they had on occasion fired into some individual's practice targets. Some of the individuals had no previous experience with weapons and this was done with the intention of encouraging them by making them think they were hitting the target better than they actually were. They also allowed some female personnel to practice

fire at targets at close range to build their confidence. The distance from the target was gradually increased to the point where they were able to hit the target from the prescribed distance. They would then fire for score. The Administrative Supervisor said he learned that there was much confusion during the first few days on the firing range. Through an apparent miscommunication, one female guard thought a practice target, which had been fired into by an instructor, was a qualifying target. During the confusion the target was included with other qualifying targets and she was considered qualified. After the allegations were made, this target was reexamined. Because it was torn and it was known that it was the practice target the instructor had fired into, it was not considered valid and she was required to return to the firing range to fire for score using another small bullseye target. The score she obtained on this target when combined with the other two types of targets from the earlier firing, gave her a qualifying score.

Later, the matter was reconsidered and it was concluded that it was not proper to combine targets from different days to obtain a qualifying score. The guard was then required to fire at all three targets in January, 1979, and she obtained a qualifying score. Along with other guard personnel, she was also required to requalify on the firing range in the Fall of 1979.

On November 15, 1979, the guard in question was interviewed. She corroborated the above information regarding her weapons qualification and stated that during those periods when her weapons qualification was in question, she was not assigned to duties which entailed the carrying of a weapon.

RRS payroll records were reviewed and they showed that during the week ending November 9, 1978, she had worked 45½ hours as an armed guard. During all other periods she had worked as a watchman (unarmed). This information is consistent with the statements that she was initially considered to be weapons qualified until the allegations were made on or about November 15, 1978. Then she was not given armed assignments until she fired for score at a small bullseye target. At that point she was again considered qualified until the question arose about combining targets from different days.

The Administrative Supervisor advised that the guard's allegation that his own target had been fired into by an instructor and that the instructor had admitted it, became a matter of one individual's word against another's. To resolve the matter, and at the guard's suggestion, both individuals were given polygraph examinations by examiners at the Berrien County Sheriff's office. The Administrative Supervisor said that the results of those examinations indicated the instructor had not fired into anyone's qualification target.

The individual referred to by the alleger who had not been interviewed by the Administrative Supervisor was interviewed on November 15, 1979. This individual stated that during the time he was present at the firing range, he saw no irregularities concerning the qualification firing by guards. He advised that, in his opinion, the instructors would not provide improper assistance to an individual to get a qualifying score.

Allegation 2 - Metal detectors malfunctioned and no alternative procedures were utilized.

The alleger stated that during the last few months of 1978, the metal detectors at the entrances to the plant area sometimes malfunctioned. He said a guard supervisor carrying a weapon went through the metal detector and it did not alarm. He said there were no procedures or instructions for the guards to follow when a metal detector was not working properly.

Finding - Discussion with I&M Security personnel and RRS supervisory and guard personnel confirmed that on some occasions a metal detector did malfunction. Specifically, a metal detector installed at an entrance known as the phase 2 gate, was out of order for an extended period of time, and was therefore not used. It was indicated, however, that there was at least one other unit in use at that gate and that the gate is no longer in operation. It was further stated that the phase 2 gate was used primarily by craft workers and most of them set off the metal detector alarm because they wore steel tipped safety shoes and frequently carried tools. For this reason, essentially everyone entering through that gate was given a "hands on" or "pat down" search.

It was ascertained that procedure number 12AHP2060 Sec. 035, Search for Firearms (metal detector) was originally issued on June 14, 1977 with subsequent revisions being issued on September 12, 1978, March 30, 1979 and November 6, 1979. Although a copy of the procedure in effect during the latter part of 1978, revision 1, was not available, a copy of the current procedure was reviewed. The Chief Security Supervisor, I&M advised that the current procedure contains a separate section setting forth explicit compensatory measures which are to be taken when a breakdown of any metal detector occurs. He indicated that prior to this issuance, pat down searches and/or the use of hand held wands were used when a detector malfunctioned.

The Chief Security Supervisor said weekly tests are conducted of the metal detectors. A review of these test records confirmed weekly tests were performed during the periods September, 1978 through January, 1979. He further advised that guards assigned to the gate do not make sensitivity adjustments to the metal detectors. When such adjustments appear to be needed, supervisory personnel are notified and the adjustments are then made.

Allegation 3 - A waste shipment left the site leaking contamination.

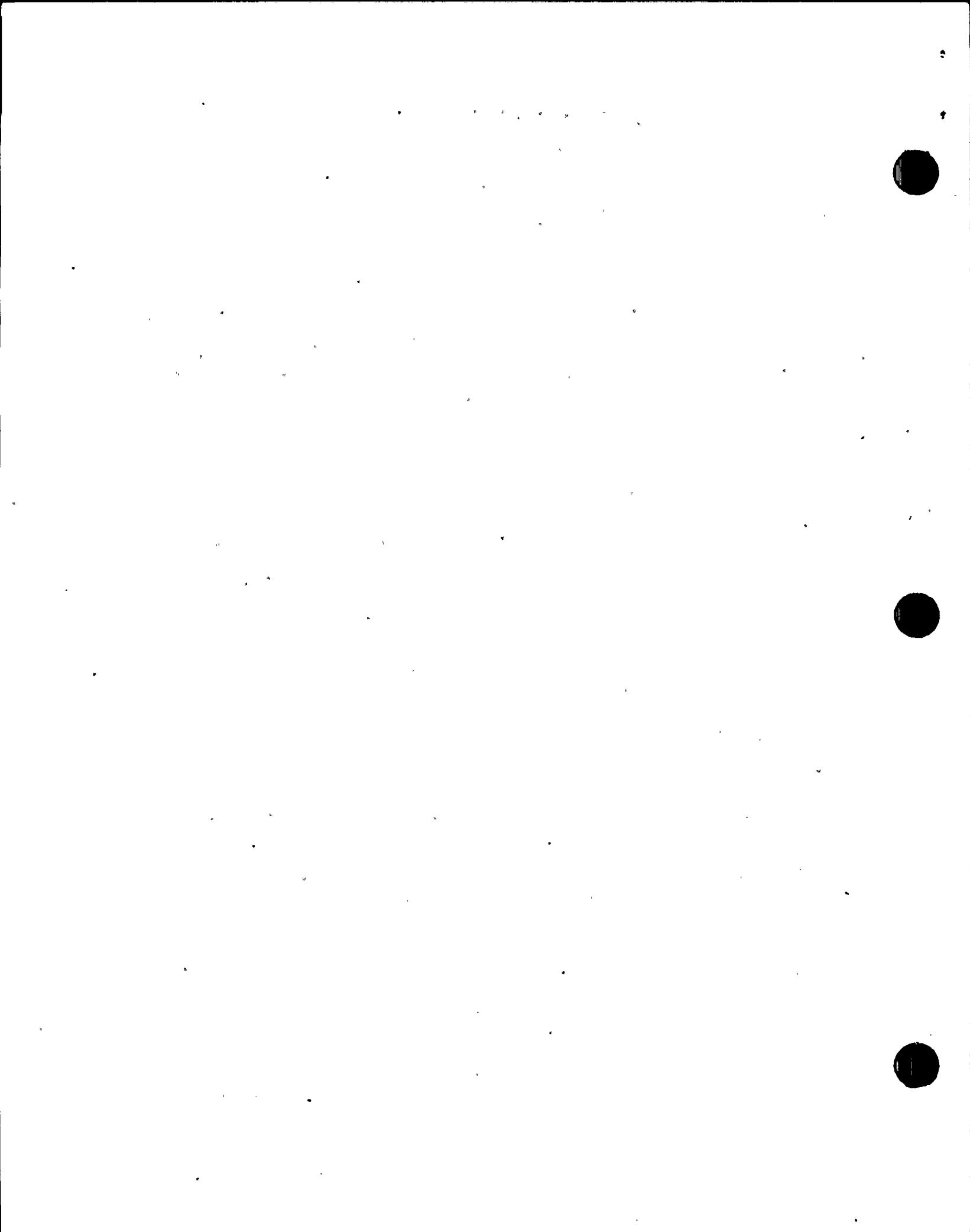
The alleger stated during a guard training class, the RRS site manager had described an occurrence which took place in about August, 1978. A truck carrying radioactive waste destined for South Carolina had left the D. C. Cook site and upon arrival at an intermediate stop, the Zion Nuclear Power Station, Zion, Illinois, was found to be leaking contamination. The alleger said he did not know the name of the common carrier whose truck it was, the type of containers involved, what the radioactive material was, whether it was a solid or liquid, or the extent of the contamination. He said the RRS site manager would know the details and he also identified a guard who could provide information.

Finding - On November 14, 1979, the RRS site manager was interviewed concerning this matter. He stated he recalled describing an occurrence in a guard training class to emphasize the need to have radiation protection personnel check trucks before they are admitted to the site. He said the occurrence he described took place while he was a member of the guard force at Zion about 4 years ago. A truck arrived at Zion to make a pick up of low level radioactive waste for delivery to Sheffield, Illinois. The truck had been allowed to enter an outer gate and was then checked by radiation protection personnel before it entered the plant area. Some spots of contamination were found on the truck itself and the Zion plant was therefore required to decontaminate the truck before it was loaded and allowed to leave the site. He stated that the occurrence had no relationship to the D. C. Cook plant and he was not aware of any instances in which a truck departed from the D. C. Cook plant leaking contamination.

On November 15, 1979, the guard identified by the alleger was also interviewed. He confirmed the information provided by the RRS site manager and stated that he had no knowledge of any shipment leaving the D. C. Cook facility leaking contamination.

Allegation 4 - Personnel who failed the reactor operator test have performed as reactor operators.

The alleger stated that he had read an article in a March, 1979 issue of Newsweek Magazine that personnel who had failed the reactor operator tests were allowed to operate the reactor at D. C. Cook. He said that about 7 of the 10 individuals tested had failed the test. He indicated it was his impression that the reactor operators test was one given by plant management. He said that when he read the article, he recalled overhearing a conversation at the plant to the effect that there were not enough operators to keep the plant running. He could not identify the individuals who had the conversation or specific details of the conversation.



Finding - The April 30, 1979 issue of Newsweek Magazine contains an article on Page 32 entitled "Fallout cover-up" and it contains the following sentence:

"Last October, for example, seven of ten operator applicants at the Donald C. Cook plant in Bridgman, Michigan failed the radiation-safety component of their licensing examinations - but were licensed anyway."

The licensee confirmed that in October, 1978, 10 personnel had taken the reactor operator's examination, two had taken the senior operator's examination and one had taken both of these examinations. The examinations, which are administered by the NRC, are comprised of an oral and a written examination. The oral portion of the reactor operator examination, which was administered during the period of October 14-16, 1978, results in either a pass or a fail. The written examination for reactor operators is composed of the following 7 categories with their percent value of the total score:

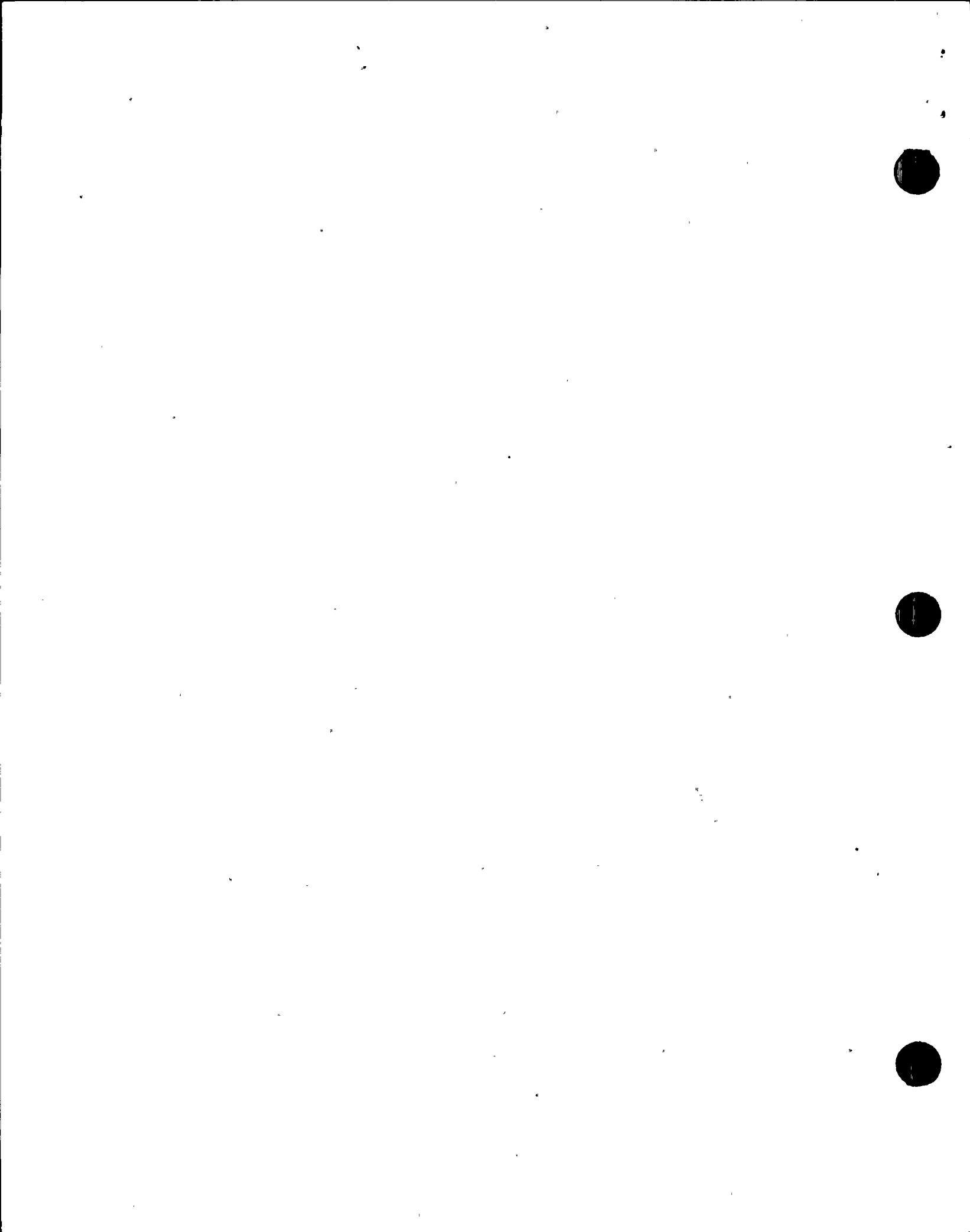
Principals of reactor operation-13.9%; Features of facility design-15.1%; General operating characteristics-12.0%; Instruments and controls-16.3%; Safety and emergency systems-15.1%; Standard and emergency operating procedures-16.3%; and radiation control and safety-10.5%.

An overall score of 70% or greater is passing. Of the 11 individuals who took the reactor operators exam, one individual failed both the oral and written examination; the other 10 passed. Of those 10 individuals, 7 received less than 70% on the radiation control and safety category, but their overall score exceeded 70%.

The licensee stated there are currently 45 licensed reactor operators employed at the plant. During operation, there is a Shift Operating Engineer who is a senior reactor operator, present at all times. There is also an Operating Engineer for each unit and they are senior reactor operators. In addition, there is a unit supervisor for each unit and they are licensed reactor operators and in some cases are senior reactor operators. These personnel are required to be present during operations. Finally, although not required, there is an equipment operator for each unit and they are licensed reactor operators.

The licensee advised that at times there are also auxiliary equipment operators present in the control room assisting the reactor operator. These individuals are usually personnel who are in training to become reactor operators. Although they are not licensed reactor operators, they are permitted to perform some reactor operator activities under the supervision of the reactor operator.

The licensee denied that anyone other than a licensed operator had ever acted as an operator in charge of either unit at the facility.



Allegation 5 - Gaseous radioactive releases were made without NRC being aware of them.

The alleger stated it was his understanding that in order to avoid a turbine trip because of a pressure buildup, it was necessary to let off radioactive steam on occasion. He said the facility made these releases at night after NRC personnel left the site. On one such occasion, however, they had been caught and had been fined by the NRC. He said this took place in about October, 1978. The alleger did not provide any further details or identify any source where this additional information could be obtained.

Finding - A review of Region III files showed that a Civil Penalty (fine) had never been imposed on the licensee for anything related to plant operations. It was noted, however, that by letter dated September 21, 1978, Region III had transmitted a notice of violation to the licensee on the basis of an inspection conducted during July and August, 1978. During this inspection, one item of noncompliance was identified which was related to an unplanned release of the partial contents of two gas decay tanks without prior sampling as required on August 12, 1978. The details concerning this noncompliance are contained in inspection report No. 50-315/78-25; 50-316/78-23. The matter was also reported to Region III by the licensee by letters dated August 14 and 22, 1978.

During an inspection conducted on September 12-15, 1978, radioactive effluent releases were reviewed and no items of noncompliance were identified. Information concerning this inspection are contained in inspection report No. 50-315/78-28; 50-316/78-26 which was transmitted to the licensee by letter dated October 11, 1978. In view of the inaccuracies in the information provided and in the absence of more specific information from the alleger, no further investigation of this matter was undertaken.

Allegation 6 - There was a problem relating to control rod insertion that may not have been reported to the NRC.

The alleger stated that in late 1978 there was a problem involving the insertion of control rods. It was his understanding based upon conversations he overheard that control rods were sticking under simulated scram conditions. This was due to warping at the entry points. The alleger provided no additional details and did not identify any other sources of information. He indicated that he was not sure whether or not the NRC was aware of this problem.

Finding - On November 14 and 15, 1979, this matter was raised during contacts with the Plant Manager, the Technical Superintendent and the QA Supervisor. These individuals stated that the only problems relating to control rod movements of which they were aware that existed during the last quarter of 1978 was one regarding one control rod, H-8, in

unit 2. It was indicated that sometimes after reactor trips, control rod H-8 sticks 25-30 steps out but does drift in after 10-15 minutes. This problem was reported to the NRC in Licensee Event Reports (LER) 78-40 and 78-48, dated June 30 and August 2, 1978, respectively. This matter is currently still under investigation to determine the cause.

Other problems related to control rod insertion have been experienced with both unit 1 and unit 2. These problems have been determined to be faulty control rod position indicators, rather than the actual problem with control rod movements. A review of LER's submitted by the licensee confirm this information.

Without more specific information to support the allegation, further investigation efforts were not undertaken.

4. Management Discussion

On November 16, 1979, the investigation findings were discussed with those personnel identified by an * in the "persons contacted" section of this report.

