

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-295/82-18(DETP); 50-304/82-16(DETP)

Docket Nos. 50-295; 50-304

Licenses No. DPR-39; DPR-48

Licensee: Commonwealth Edison Company
Post Office Box 767
Chicago, IL 60690

Facility Name: Zion Nuclear Power Station, Units 1 and 2

Inspection At: Zion Site, Zion, IL

Inspection Conducted: August 30 - September 3 and September 20-22, 1982

Inspectors: *D. E. Miller*
D. E. Miller

11/10/82

R. A. Paul
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11/10/82

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Protection Section

11/10/82

Inspection Summary

Inspection on August 30 - September 3 and September 20-22, 1982 (Reports No. 50-295/82-18(DETP); 50-304/82-16(DETP))

Areas Inspected: Routine, unannounced inspection of radiation protection program, including: qualifications; audits; training; radiation protection procedures; instruments and equipment; exposure control; posting, labeling, and control; surveys; and notifications and reports. Also inspected was compliance with NUREG-0737 item II.F.1.3 requirements, and a special inspection of allegations which were forwarded to Region III by the Illinois Department of Nuclear Safety. The inspection involved 85 inspector-hours on site by two NRC inspectors.

Results: No items of noncompliance or deviations were identified.

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DETAILS

1. Persons Contacted

- K. Graesser, Station Superintendent
- E. Fuerst, Assistant Superintendent, Operations
- *G. Pliml, Assistant Superintendent, Administrative and Support Services
- *T. Rieck, Rad/Chem Supervisor
- *F. Ost, Lead Health Physicist
- G. Trzyna, Stationman Supervisor
- J. Ramage, ALARA Coordinator
- Z. Gajic, Technical Staff Engineer
- T. Boyce, Shift Engineer
- N. Loucas, Shift Engineer
- F. Tschakert, Instrument Foreman
- *T. Broccolo, Quality Control Supervisor
- *B. Harl, Quality Assurance Supervisor

- *J. Waters, NRC Senior Resident Inspector

The inspectors also contacted several other licensee employees, including: rad/chem foremen, engineering assistants, and technicians, and members of the technical and engineering staffs.

*Denotes those present at the exit meeting.

2. General

This inspection, which began at 8:30 a.m. on August 30, 1982, was conducted to examine the licensee's radiation protection program and related activities for compliance with regulatory requirements. Compliance with NUREG-0737 item II.F.1.3 was also examined.

The inspectors reviewed radiological controls and postings during tours of the licensee's controlled plant areas. Housekeeping and cleanliness were good and radiological conditions appeared satisfactory.

3. Rad/Chem Department Staffing

Since previously reported in Inspection Reports No. 50-295/82-07; 50-304/82-07, several organizational changes have been made, including:

- a. T. Rieck, former Assistant Technical Staff Supervisor, has been named Rad/Chem Supervisor replacing D. Howard who was assigned to the CECO corporate office.
- b. E. Juergensen, J. Coats, R. Johnson, and R. Leigh, former Rad/Chem Technicians (RCT), have been promoted to Rad/Chem Foreman positions. L. Lanes, Rad/Chem Foreman, is assigned to scheduler/planner duties.

There are seven Rad/Chem Foremen. Four are assigned to day shift with one performing scheduler/planner duties, one assigned to the chemistry laboratories, and two assigned to health physics. The remaining three rotate between evening and night shifts with at least one on each shift.

- c. V. Williams, recent university graduate with a B.S. in Health Physics, has been hired. There now are four Health Physicists including the Lead Health Physicist.
- e. RCT staff is reduced to 24 because of promotions. The licensee is interviewing prospective RCT candidates, and plans to increase RCT staffing above previous levels.
- f. An evaluation of alternative organizational structures has been completed by a contracted consultant. Several alternative structures were described without recommendation. One organizational change that has been made as a result of the evaluation is that Rad/Chem Foremen now report to the Lead Health Physicist instead of the Rad/Chem Supervisor. (Closed 295/81-21-01; 304/81-17-01)

4. Training

Selected portions of the licensee's radiation protection orientation training program, presented to all employees and contractors who may enter controlled areas, were reviewed. The review included training concerning external and internal exposures and biological effects of radiation. The inspector interviewed members of the training staff, and reviewed video tapes and the basic lesson plan. The training is conducted by members of the Training Department with input from the Health Physics Department. A written exam is given to all participants. A passing grade is mandatory. The training provided complies with 10 CFR 19.12 requirements.

Prior to the most recent refueling outage (February 1982), the licensee's training program for steam generator "jumpers" consisted of NGET training and limited practice on a downscaled wooden mockup of a steam generator. For the February 1982 refueling outage, the licensee improved the "jumper" training program by providing 1-2 days training on a full scale steam generator mockup using tools similar to those used in actual steam generator work.

No items of noncompliance or deviations were noted.

5. Internal Exposure Controls

The licensee controls internal exposures through engineering controls, air sampling and contamination surveillance programs, and use of approved respiratory protection equipment. A bioassay program is utilized to evaluate program effectiveness.

The respiratory program appears to meet the requirements of 10 CFR 20.103. Protection factors are applied when respiratory equipment is worn. A selective review of respirator training/qualification records was made. No problems were noted.

The licensee uses a vendor furnished and calibrated whole body counter (WBC) and an Alderson REMCAL phantom for daily source checks. The WBC is calibrated every three years and was last calibrated on March 19-20, 1981. The data from each whole body count is sent to the vendor for evaluation, the results of which are sent to the licensee. The results are expressed in percent of permissible whole body and/or organ burdens. A record of the results is maintained for each person who received a whole body count. A review of the last WBC calibration results was made. No problems were noted with either the calibration results or methodology.

During the Health Physics Appraisal (HPA), it was noted that the WBC vendor was responsible for the QA of the system; that the licensee does no periodic unannounced strike phantom source tests of the WBC; and that the daily source check data is not supplied to the licensee for review. The licensee has not altered the WBC program in response to the HPA comments.

It was noted that procedures for whole body counting do not present a method for relating whole body counting data to MPC-hours, nor do they show how to calculate lung burdens for isotopes such as cobalt-60 in nontransportable or insoluble forms. Also, the procedures do not explain the meaning of the whole body counter computer printout results. When asked, certain licensee health physicists did not display a common understanding of the method of computing MPC-hours from actual whole body/organ count results. These matters were discussed with the licensee.

6. External Exposure Control

A review of the licensee's whole body exposure records for 1982 indicates the highest personal exposure, other than one described in Inspection Report No. 295/82-09, was 2.660 rems. The exposure occurred during the second quarter 1982, the period in which the major part of the Unit 1 refueling took place. The total body dose for persons involved in steam generator repair was 995 person-rems. Several NRC-4's for contractor personnel were reviewed; all were properly completed.

No items of noncompliance were identified.

7. Surveys

The inspectors selectively reviewed records of direct radiation, surface contamination, and airborne radioactivity surveys performed during 1982. No significant problems were noted with the completeness of the surveys reviewed. However, the inspectors noted that the radiation protection shift routine checklist was not always initialed showing completion of a routine survey. The inspectors selectively checked to see if surveys

had been performed and found, for those checked, that the surveys had been performed. This matter was discussed at the exit meeting.

Leak test records for the licensee's sealed sources were reviewed for CY 1981 and 1982 to date. Each source required to be tested had been tested at least once per six months, and no leaking sources were found.

No items of noncompliance were identified.

8. Posting, Labeling, and Control

During tours of radiologically controlled areas of the licensee's facility, the inspectors noted that controlled area postings and control of high radiation areas complied with regulatory requirements. The inspectors also reviewed the licensee's compliance with posting requirements specified in 10 CFR 19.11. No significant problems were noted.

9. Audits

The inspectors reviewed the results of nine audits conducted by the licensee's Quality Control and Quality Assurance Departments during 1982. These nine audits included review of portions of the radiation protection and radwaste shipping programs. Possible procedural infractions concerning whole body counting frequencies, incomplete forms NRC-5 equivalents, and incomplete forms NRC-4 equivalents were identified and corrected by the licensee.

A licensee quality assurance audit conducted on August 18, 1982, identified the following two possible infractions.

- a. Calibration records indicate that some portable survey instruments have not been calibrated at the specified frequency, and
- b. Exempt quantities of radioactive materials were shipped to a receiver who possesses a byproduct materials license, but the license does not specifically permit possession of one of the isotopes shipped.

The licensee's Rad/Chem Department is preparing a response concerning the above two possible infractions. The inspector will review the responses and corrective actions during a future inspection.

10. ALARA

Since previously reported in Inspection Reports No. 50-295/82-07 and 50-304/82-07, the following ALARA related activities have occurred.

- a. G. Trzyna, former ALARA Coordinator, has been promoted to Stationman Supervisor.
- b. J. Ramage, former ALARA Engineering Assistant, has been promoted to ALARA Coordinator.

- c. The licensee is developing a program and procedures for performance of ALARA reviews of proposed plant design changes and modifications.
- d. The licensee is compiling sets of photographs of equipment and valves located in radiologically significant areas within the auxiliary and containment buildings. Each set of photographs (associated with a given room or system) has corresponding file cards on which valve numbers are identified and referenced to indexing numbers on the photographs. The licensee plans to provide photograph sets to the ALARA, rad/chem, training, and operating departments for use in job and ALARA planning.
- e. The recently revised Radiation Work Permit (RWP) system includes:
 - (1) For jobs with estimated dose of less than five person-rem, an ALARA review of the jobsite is made by the RCT making initial surveys before RWP issuance. Shielding suggestions are forwarded to the ALARA Coordinator.
 - (2) For jobs with estimated dose of greater than five person-rem, a formal ALARA review by the ALARA Coordinator or his representative.
- f. The Stationman Supervisor and ALARA Coordinator are planning to conduct ALARA concepts and procedures training for plant supervisors.

11. Radiation Work Permits

The licensee has recently initiated implementation of a Radiation Work Permit (RWP) system which replaces a Special Work Permit (SWP) system. The RWP system requires a permit to be issued whenever personnel are expected to exceed a daily whole body dose equivalent of 50 mrem. The SWP system did not require a permit under these circumstances if a Radiation Protectionman was in continual attendance at the job site while the job was in progress.

Use of the new permit should increase job preplanning and documentation of work performed in radiologically controlled areas. A significant increase in administration workload is required to implement the new system.

The inspectors noted that the licensee was having difficulties implementing the new RWP system because of increased administrative workload and unforeseen problems with the system. During review of the new RWP system as currently implemented, the inspectors concluded that additional difficulties in program implementation during major outages may exist. This matter was discussed at the exit meeting.

12. TMI Action Plan Item II.F.1.3

The inspector reviewed compliance with TMI Action Plan Item II.F.1.3, Containment High-Range Radiation Monitor. The licensee has installed and made operational two high range direct radiation gamma monitors in each containment, with scaler and recorder readouts in the control room. Range and calibration requirements of the action plan item have been met. A selective review of the monitor design packages indicates that other action plan item requirements have been considered. No deviations from the criteria specified in NUREG-0737 for this item were noted.

13. Allegations

A list of concerns regarding possible problems at Zion Station was forwarded to Region III by the Illinois Department of Nuclear Safety (IDNS). The concerns were originally sent to IDNS, letter dated May 28, 1982, by a nonpermanent worker at the Zion Station. The inspector and other Region III personnel met with the allegor on September 9, 1982, to discuss his concerns.

During the review of the allegations, the inspectors contacted licensee managers in the training, rad/chem, operations, ALARA, and stationman departments. The inspectors also contacted training instructors, rad/chem technicians, and rad/chem engineering assistants. The inspectors reviewed administrative and radiation protection procedures, training records, dosimetry records, special work permits, survey records, results of personal bioassay, and respirator fit test records. The inspectors noted that portions of the licensee's radiation protection and training programs could be improved; however, no items of noncompliance related to the allegations reviewed were identified. Program improvements were discussed with licensee personnel.

The allegations listed below are presented in the allegor's words where possible. Certain references to dates, organizations, and individuals have been removed to maintain the allegor's requested anonymity.

a. Respiratory Protection Requirements and Records

Allegation: I was sent to Zion during outage and was told I had to be clean shaven before working there. I had a year-long beard for six years before that, and when I worked there before, I wore a half-mask with a beard for drilling and such. When I questioned (my) management about why I had to shave, they told me I would either shave the beard off or be demoted in spite of the fact that they never showed me a law or ruling on being clean shaven before working there. All subsequent attempts to find a regulation on this have met with no success.

Allegation: I must take a mask fitting test, but after the test, Rad Protection maintains no record of who can or cannot wear a mask.

Allegation: Zion Technical Specification 6.2.B.2.d.6, which is for personnel bioassay, states that if you are not a station personnel, you will have a whole-body count upon receiving your film badge and upon leaving Zion. I have been working at Zion since ...and to date, have had three whole-body counts and out of those three, I had to fight to get two of them by calling an NRC inspector and a Health Physicist at Zion. When going through the proper chain-of-command, I got (unresponsive) replies.

Allegation: Our crew was assigned to finish splicing the coax cable we had been working on. Our crew leader told us to get full-face masks and do the job. We are wondering why we needed only full-face to splice cable when in containment there was contractors welding and grinding about 2 to 3 feet below us wearing supplied-air masks! When we tell the crew leader we cannot do it, he turns us in and we get into trouble for harassing him.

Discussion: Concerning wearing of a beard, 10 CFR 20.103 states that protection factors for respiratory protection equipment can be used only when an acceptable respiratory protection program is implemented. Footnote b, to 10 CFR 20, Appendix A, states that protection factors for respirators having tight fitting face pieces can only be used when no facial hair interferes with the seal of the facepiece to the skin.

Concerning records of fit testing, the inspector verified that the following records are maintained: (1) the recorder chart showing each individual's testing results, (2) a computer record showing each individual's testing date and required retesting date (re-testing required every three years if masks are to be worn), and (3) indication on each persons training card, carried by each worker, what masks were successfully fit tested.

Concerning bioassay requirements, the requirement is stated in CECO Radiation Protection Standards. The standards state that nonpermanently assigned company and contractor personnel shall receive a bioassay upon termination of work assignment at the station. According to the licensee, establishing when the work assignment is terminated for some employees is sometimes not made until after the employee has left the station and is not scheduled to return. Arrangements must then be made to return the persons to Zion Station for bioassay. Because of the lengthy half-life of radionuclides commonly found at reactors, a bioassay done several weeks after termination will satisfactorily detect significant radioactive material intake. Also, if a significant intake is suspected during the time at the station, a bioassay is conducted at once to determine if a significant intake has occurred. NRC regulations do not require bioassay of all individuals that wear respiratory protective devices. The regulations require bioassay to assess the adequacy of the radiological protection program and the protective measures provided. During review of the results of bioassay of CECO offsite personnel, the inspector saw no reason to suspect that the protective measures provided were not adequate.

Concerning use of full-face mask when air supplied masks were being used nearby. This specific case could not be reconstructed by records review or discussions with licensee personnel. However, according to the licensee, the decision to require the use of supplied air rather than full-face respirators is frequently made for the comfort of the worker rather than elevated radiological hazard. Also, not all respirators are designed to be used as welding masks.

b. Containment Evacuation Alarm

Allegation: Revolving red light in both containments have been malfunctioning for five years. A station foreman turned in three safety reports with no response. We asked about it at our safety meeting and were told that the welders set the lights off, and if we want to, we should go to crosstown and dial Ext. 206 to find out whether or not it is an emergency. Also, our crew was told that instead of evacuating anymore, we should just stay there and listen for the two-minute siren to go off, or otherwise, they would announce the emergency over the PA system (which cannot be heard in containment). Later, some of us were told the light was fixed in Unit 2 by putting a manual switch in the circuit, which they leave on manual when men are in containment.

Discussion: This alarm is actuated when the source range monitor in the reactor core detects an apparent increase in neutron flux greater than a conservative setpoint. Because of the configuration of the detector and associated electronics, the system is prone to false alarm because of induced currents caused by electromagnetic fields from welding machines and similar equipment. Since personnel have become accustomed to the false alarms, the tendency is to ignore them and await further instructions. Other radiation detection systems in containment during refueling also provide detection and alarm for unexpected radiation levels, including accidental criticality. The alarm in question is not required to comply with the 10 CFR 70.24 requirement for accidental criticality monitoring.

The inspector discussed with plant managers the need to specifically designate existing direct radiation monitors as the official accidental criticality monitors and disable the local alarm function of the source range monitor during outages.

c. Use of High Radiation Area Access Key (R-Key)

Allegation: Our crew was instructed to go get an R-key and open the big door that lets you into Unit 2 containment. The big door was still in place to keep the integrity of the unit. The Shift Engineer said all he wants to know is who signed out for the key and to make sure that a minimum of three men and only a maximum of twelve men go into containment when the big door is in place.

A foreman told our crew leader to call the center desk and report who is going in. After working like this for two days, on the third day, a stationman said that you are supposed to have a watchman posted outside of the big door to make sure everyone in the crew gets out and no one is locked in. When our supervisor was asked what was the proper procedure for going into the big door, he said Don't listen to the stationman because they don't know their (rules). When we called the Shift Engineer and center desk about what to do, they both said they don't (care) who goes in or not. At the next Monday safety meeting, we asked what the proper procedure is and we were told by a foreman not to worry if anyone is inside, but just make good and sure that we lock the lock onto the chain when leaving and don't worry about anyone locked inside.

Allegation: Our crew leader told an A-Mechanic to get an R-key which is used to get into restricted areas. You have to sign for the key at the Shift Engineer's office. He got the key and after checking around, we found out that it is a federal offense to lose the key. Practice has been with our entry that one man signs the key out and everyone uses it. If someone misplaces or loses the key, the man who signed is liable.

Discussion: Federal regulations require that licensees provide positive control over access to high radiation areas. One of the methods permitted is to lock the area and control use of the key. Loss of the key, in and of itself, is not noncompliance with regulations, however, failure to control access is.

Licensee procedures require that when checking out an R-key, the individual must list on the key log who is to make entry. Licensee practice allows any of those listed to actually use the key if other requirements to contact the control room when entering and leaving the area are met. The individual who checked out the key is responsible for its use and control. During the inspector's review, no specific abuses of this system were noted.

According to a Station procedure, the control point (access doors) must be manned when open or unlocked. According to licensee management, it is the responsibility of the supervisor of the workers making the entry, to provide someone to man the control point unless other arrangements are made with the Shift Engineer on duty. The inspector discussed with licensee management the need to ensure that this procedural requirement is met and positive control over entry is maintained. During the inspector's review, no identifiable abuses of this system were noted. The inspectors were unable to verify whether, on occasion, the access doors were unlocked and the area unmanned. This matter was discussed with licensee personnel.

According to the licensee, unannounced and unauthorized entry to containment, when the door is unlocked, would be detected by an

alarm received in the control room, and such entry would be investigated by Station personnel.

d. Administrative Limits

Allegation: Two workgroups have an agreement with management that everyone tries to stay equal at 400 MR. When one man reaches 400 MR, another man takes his place and so on and so forth. When I reached 450 MR, I reported it to a foreman, and he said that was the year's total dose and not the quarter. I then asked another foreman if I could be switched with another man from the area, and he said there was no such agreement. I then asked the head man from another work group about the agreement and my dose, and he said that they do have an agreement, but since we are from a different area, we are different and can get 1250 MR per quarter.

Allegation: Any time you are expected to go over 50 MR in a day, you are required to sign an SWP or have a Rad man monitor your time.

One day, my crew leader told me I was okay to go up to 300 MR. I asked if I had to sign anything and he said that the foreman took care of it. I never signed anything, and there was no Rad man around to check our spot or to monitor us. At the end of the day, a Rad man came to check out the same spot where we had been working for some contractors, and I found out the pipe was 250 MR and should have been leaded before anyone worked there.

Discussion: Concerning departmental agreement on dose equalization, the NRC has no regulation concerning this matter. This is a company policy question.

Concerning the 50 and 300 mR numbers, administrative dose limits are established at the Station to initiate a review of an individual's previous exposure before permitting doses to be received above designated action levels. These administrative limits are not required by regulations. By Station procedure, it is a supervisory responsibility to initiate a request for dose extension above the designated action levels. Individual workers need not sign the request.

Under the Special Work Permit (SWP) system in effect at the time, no SWP was required. Because of a recent revision to the system, a permit now would be required for jobs similar to the one in question. A review of radiation dose received during performance of the task did not indicate that there were significant unidentified radiological problems. The SWP program now in effect should ensure proper pre-job surveys.

e. Training

Allegation: I went to Rad school, which consisted of a 20-minute film on the atom. There were no films or demonstrations on wearing

masks, supplied air, or getting in and out of protective clothing. Also, there was no question and answer period.

During a later interview, the alleged stated that there was a question and answer period but it was short in duration.

Allegation: Crew leaders are not briefed properly about safety procedures and proper ways of doing things. Our crew leader has many years experience with Edison, but was only at Zion once and knew hardly anything about this, and he was supposed to be in charge of the safety of his men.

Discussion: During the inspector's review of the "Rad school" training provided, it was noted that the training attended was retraining, which is a somewhat shortened version of the original orientation training which the alleged previously attended. The radiation protection portion of the retraining, which is not a regulatory requirement, is intended to be a refresher. Training in protective clothing use and mask fitting and wearing is included in initial orientation training. The inspector discussed with Station management the desirability of assuring that adequate time is available for questions during and after orientation training and retraining sessions.

Concerning the briefing of crew leaders, the duties of the Rad-Chem Department at the Station include the review of work to be performed and the establishment of radiological safety protective measures and requirements to be followed while performing work in radiologically significant areas. Crew leaders are to receive instructions from the Rad/Chem Department. Should additional questions or problems develop, the crew leaders may consult with rad/chem representatives. If this system works as designed, crew leaders need not be experts in radiological safety.

During verbal discussion, the inspector informed the alleged that, according to licensee management, health physicists at the station are available to discuss any job related radiological safety concerns or questions he has in the future.

f. Personal Dosimetry

Allegation: In late 1981, I was sent to Zion for outage and was given a self-reader dosimeter for the first time with no explanation on how to set it or read it even though I have never had one before.

Allegation: We were supposed to log in daily dosage, but Rad Protection had no log book for us yet.

Discussion: This situation could not be reconstructed during this inspection because of elapsed time. However, during the time period in question, Zion Station was changing to self-reading dosimeter

from non self-reading dosimeters. According to the licensee, a temporary log was maintained at the Rad/Chem Office. During this review, no evidence was found that a problem currently exists, or that required documentation and dose results were not maintained during the brief period in question.

g. Protective Clothing

Allegation: A crew leader after checking with Rad Protection, told us to wear the yellow canvas protective boots when suiting up, but a different Rad man told us to wear yellow plastic ones for better protection.

Discussion: Concerning the use of plastic rather than canvas boots, apparently either would have provided adequate protection. The use of plastic may have been the personal preference of the rad/chem technician. There is no regulatory requirement for the use of specific protective clothing.

h. Radiation Protection

Allegation: After working there for a full week, a Rad man came by and yelled at us for not wearing a full-face mask while working under the grating of the 592' level. Originally, the head of Rad Protection told our crew leader that we only had to wear our masks when climbing through the pipes and troughs. The Rad man also said we would have to have a whole-body count, which we never had! Later, the Rad Foreman admitted making a mistake and said we should have worn masks.

Allegation: Conduit run we are on goes through missile barrier wall at 560' level. Rad men checked pipe for us and found it to be between 100 and 300 MR. We are on scaffolding and both Rad men told us no mask is needed. Three days later a Rad man said we cannot go up scaffold without having a mask on and a Rad man with us at all times to monitor our dosage. The same day we were told by our foreman to drill holes above some contractors' heads. He said it would be all right. When the Rad man saw us, he threatened to write us up for a safety infraction.

Discussion: These specific circumstances could not be reconstructed because they happened over a year ago (September 1981). The inspector noted that whole body dose received by the alleged during this period was minor. The station has recently strengthened their Radiation Work Permit (RWP) system which should establish firm requirements for individual jobs performed in radiologically significant areas. Before initiation of the new RWP system, problems such as those alleged above were most probable when the radiological circumstances were minor and an RWP was not required.

i. Allegation: A security computer would not okay us for entrance into Unit 2 Containment even though we were there all week. We could not get in all day because of it.

Comment: There was no breach of security requirements caused by this occurrence. This matter is not considered a regulatory or safety concern.

j. Industrial Safety

Allegation: Personnel are instructed to climb on pipes, conduits, brackets and anything else it takes to get the job done. When we asked about the safety of climbing around on such things, the answer by the Safety Board was to wear a safety belt when applicable and make sure when you go to step on something, that it will hold you first. How do you do that?

Allegation: CECO personnel, who are out of the Zion area, have to leave containment full of sweat and put their clothes on to go out into the cold without cooling off first.

Discussion: These allegations were forwarded to the U.S. Occupational Safety and Health Agency.

k. Non-Radiological Concerns

Allegation: We were told by foremen that both Diesel Generating Rooms are protected by a Cardox System, which sets off an alarm first and 90 seconds later, the system begins pumping carbon dioxide into the room. After checking the Zion "ZAP" sheet, we learned that instead of 90 seconds, you only have 15 seconds to evacuate. We were never told that a key is available from the Shift Engineer, which shuts the system off.

Allegation: After the trouble with drilling hole and hitting and cutting rebars at LaSalle Station, James O'Connor, Chairman of the Board of Edison, sent a letter to all department heads stating that whenever a contractor at a nuke station is drilling and hits, nicks, or goes through a rebar, a special report is to be filled out and the blueprints marked accordingly to check for weakness in the building. We have never seen one of these reports and now, when we are mounting unistrut brackets on the wall, the men drill an extra set of holes so in case you hit a rebar, you can just use the hole next to it.

Allegation: There are specs for mounting brackets on the wall as to what length bolt you should use. In the case of using 5" Kwik bolts, if you hit a rebar, it is Sub-Station practice to just cut the bolt off so it fits the hole. This means that the majority of the time, you are using 3" bolts where 5" are supposed to be used and 1 1/2" where 3" are called for, which is giving you a lot less strength.

Allegation: Non-certified welders doing welding on safety related work mods.

Discussion: The results of NRC investigation of these allegations will be documented in other inspection report(s).

14. Exit Meeting

The inspector met with licensee representatives (denoted in Section 1) at the conclusion of the inspection on September 22, 1982. The inspector summarized the scope and findings of the inspection. In response to certain matters discussed by the inspector, the licensee:

- a. Stated that the routine radiological survey program would be audited to determine if surveys are being performed as scheduled. (Section 7)
- b. Stated that an existing direct radiation monitor would be officially designated to provide accidental criticality monitoring during refueling. (Section 13.b)
- c. Stated that a method to assure positive control over containment access during non-power operation periods would be pursued. (Section 13.c)