

APPENDIX C

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-285/85-19 License: DPR-40

Docket: 50-285

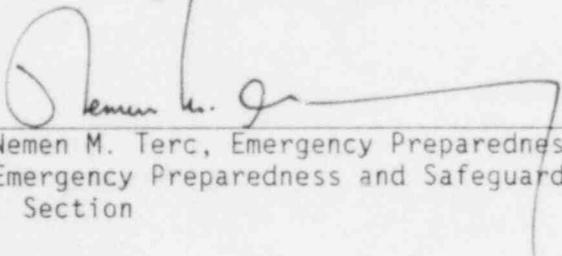
Licensee: Omaha Public Power District
1623 Harney Street
Omaha, Nebraska 68102

Facility Name: Fort Calhoun Station

Inspection At: Fort Calhoun Station, Blair, Nebraska

Inspection Conducted: August 26-30, 1985

Inspector:


Nemen M. Terc, Emergency Preparedness Analyst
Emergency Preparedness and Safeguards Programs
Section

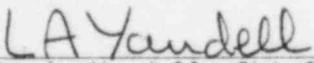
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Date

Accompanying
Personnel:

Gordon R. Bryan Jr.
PNL (Comex)

Approved:


L. A. Yandell, Chief, Emergency Preparedness
and Safeguards Programs Section

1-3-86

Date

Inspection Summary

Inspection Conducted August 26-30, 1985 (Report 50-285/85-19)

Areas Inspected: Routine, unannounced inspection of the licensee's emergency preparedness program including personnel proficiency and training, changes to the emergency program and audits. The inspection involved 110 inspector-hours onsite by 2 NRC inspectors.

Results: Within the three areas inspected, no violations were identified in one area. Three violations were identified in the two remaining areas

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(Inadequate training of personnel-paragraph 3; and inadequate program review-paragraph 4). In addition, one deviation was found in one area (failure to implement annual requalification training-paragraph 3). Nine open items from previous NRC inspections were closed.

DETAILS

1. OPPD Personnel Contacted

- *R. Andrews, Division Manager, Nuclear Production
- *J. Fluher, Supervisor, FCS Training
- *D. Feigher, Emergency Planning Coordinator
- *F. Franco, Manager, Radiation Health and Emergency Preparedness
- *J. Gasper, Manager, OPPD Administration
- *R. Jaworski, Section Manager, Technical Services
- *L. Kusek, Supervisor, Operations
- D. Munderloh, Licensing Engineer
- *G. Roach, Supervisor, Chemistry and Radiation Protection
- *F. Thurtell, Division Manager, Quality Assurance and Regulatory Affairs
- *C. Vanecek, Shift Supervisor
- *M. Christensen, Instructor

The NRC inspectors also contacted other licensee employees during the course of the inspection. They included shift chemistry and health physics technicians, shift supervisors, shift technical advisors, senior operators, and reactor operators.

*Denotes those present at the exit interviews.

2. Action on Previous Inspection Findings

(Closed) Open Item (285/8135-27; 285/8227-27): The NRC inspectors noted that the licensee had installed and implemented a new primary means for performing post accident sampling and analysis.

(Closed) Open Item (285/8135-37; 285/8227-37): The NRC inspectors noted that in June 1985 the licensee provided State Emergency Control Centers with computer terminals which allow remote interrogation of meteorological parameters.

(Closed) Open Item (285/8135-52; 285/8227-52): The NRC inspectors noted that the licensee had installed additional shielding in the counting facility. In addition, see item 285/8135-27; 285/8227-27 above.

(Closed) Open Item (285/8135-33): The NRC inspectors noted that the Emergency Operations Facility was made operational on February 1, 1983.

(Closed) Open Item (285/8135-50): The NRC inspectors noted that the licensee revised chemistry procedures and operational instructions to incorporate sample labeling, storage and disposition.

(Closed) Open Item (285/8135-47): The NRC inspectors noted that a new procedure, OSC-13, "Onsite Radiological Monitoring" was developed to allow for documentation of radiological survey results.

(Closed) Open Item (285/8406-01): The NRC inspectors determined that Procedure OCS-1, "Emergency Classification," was revised in October 1984, to include decision making criteria for classifying emergencies which appeared to fall between two emergency classes.

(Closed) Open Item (285/8406-07): The NRC inspectors noted that the licensee had verified the accuracy of names and telephone lists pertaining to state patrolmen.

(Closed) Open Item (285/8423-01): The NRC inspectors noted that a training session was conducted for offsite teams.

3. Personnel Proficiency and Training

The NRC inspectors reviewed sections of the Radiological Emergency Response Plan (RERP) for Fort Calhoun Station, the RERP Implementing Procedures, Technical Specifications, the Station Training Manual (STM), the Emergency Plan Training Manual (EPTM), and previous NRC inspection reports. In addition, the NRC inspectors reviewed training records, and conducted interviews and walkthroughs with on-shift emergency response personnel including: shift supervisors, reactor operators, shift technical advisors, and health physics and chemistry technicians.

Three walkthroughs involving three different shift operating crews were conducted in the control room. Two of these took place at 0530 and one at 1700 and each lasted an average of 2 hours. Interviews of chemistry and health physics technicians were conducted during the day shift, but included personnel that could work on back shifts.

10 CFR 40.47(b)(15) requires that radiological emergency response training be provided to those who may be called on to assist in an emergency.

10 CFR 50, Appendix E, Section IV.D.3 states that a licensee shall have the capability to notify responsible state and local government agencies within 15 minutes after declaring an emergency.

Section E(1.1) of the RERP for the Fort Calhoun Station states that the initial notification of the States of Nebraska and Iowa and local emergency organization will be made within 15 minutes after plant personnel recognize that events have occurred which make declaration of an emergency class necessary.

Contrary to the above, the NRC inspectors found that:

The staff of three operating shifts, which would become the initial emergency response organization during an emergency were unable to perform the notification of offsite authorities within the 15 minute time requirement. Out of the five notification instances required by each walkthrough scenario, none was completed within the time constraints. In some cases the operators acknowledged that they did not know how to complete the notification form. In all cases, the operating staff gave up after their attempts were unsuccessful and the NRC inspectors proceeded with the remainder of the walkthroughs. Faced with the same scenario, two shifts used one notification form while the other used four different forms.

The above constitutes an apparent violation of 10 CFR 50.47(b)(15) (285/8519-01).

The NRC inspectors reviewed past inspection records and noted that during the December 1983 exercise, notification of the State of Iowa took place 23 minutes after the declaration of the Notification of Unusual Event (NOUE). A previous NRC inspection (NRC Report No. 285/83-10, Section 4) noted that shift supervisors performed poorly in emergency classification and notification tasks. A violation against 10 CFR 50.54(q) and Appendix E, Section IV.F was issued at that time.

During the July 1985 exercise, notifications were completed 49 minutes after the declaration of the initial emergency classification.

10 CFR 50.47(b)(15) requires radiological emergency response training is provided to those who may be called on to assist in an emergency.

Contrary to the above, the NRC inspectors found a series of discrepancies in training as follows:

- The NRC inspectors interviewed four health physics and chemistry technicians that would have on-shift assignments and found that they were unable to perform the two main tasks that they would be responsible for during accident conditions, in particular if the accident occurred on a back shift they were not trained to ascertain habitability and whether a criterion of habitability existed for the control room. The same technicians could not perform dose assessment calculations adequately.

The NRC inspectors noted a similar problem occurred during the July 1985 exercise (NRC Report No. 285/8516, Section 4a) when the health physics technician failed to recognize large discrepancies between the range of release values physically feasible and calculated release values.

- The NRC inspectors noted that out of 33 walkthrough scenario requirements to classify emergency events, the licensee improperly

classified six events. Two of the three shifts in question made an incorrect initial protective action recommendation at General Emergency. One of the shifts was unable to determine the population sectors impacted. Faced with identical conditions (i.e., containment high range monitors reading 20,000 R/hr due to noble gases and no other contribution from other sources), two of the shifts were requested to determine the containment activity release rate. Both shifts provided different incorrect answers that were incorrect by several orders of magnitude.

The shifts were inconsistent in their assessment of what conditions would allow downgrading of the emergency. Only one out of the three shifts recognized that containment isolation was not identical to zero leakage to the environment.

- The NRC inspectors observed that except for shift supervisors, training documentation did not require control room shift personnel such as the senior reactor operators, and shift technical advisors (STAs) to be trained nor qualified to perform their emergency duties. During an interview with the supervisor in charge of training for operators licensing he confirmed that there were no other specific emergency preparedness training requirements for licensed personnel. The NRC inspectors determined that neither the RERP nor the EPTM established emergency preparedness training requirements for on shift control room personnel other than the shift supervisor. This omission is particularly significant in the case of the senior reactor operators, because according to the RERP, during accident conditions they would relieve the shift supervisor if necessary.

The NRC inspectors noted that the EPTM did not specify to which subgroups of emergency organizational elements the training course would be applicable, and as a consequence a correlational matrix between emergency titles and required training was not available.

- The NRC inspectors determined that the EPTM tasks the plant manager to designate the members of the initial emergency response organization prior to training and qualification of the same. As a consequence, emergency assignments included persons which had not been qualified. For example, three of five STAs listed on the current emergency assignment letter had not been trained nor had been scheduled for training.
- The NRC inspectors reviewed testing and grading of emergency organizational elements and found that there was only one test per course. In one instance for example, 18 persons took the same test over a 5 month period. The test given for TSC recorder/phone talker consisted of only six questions for a 5 hour course. Grading of

tests was found to be irregular. In one case five students gave two answers, differing by an order of magnitude, and all were graded as correct.

The above examples constitute an apparent violation of 10 CFR 50.47(b)(15) (285/8519-02).

During an interview with the training staff, a statement was made that re-scheduling of Site Directors' training was done over 10 times because of what the staff believed to be lack of interest or reluctance on their part.

These findings and discussions with the FCS training staff pertaining to their lack of participation in the development and updating of the EPTM suggest that a thorough review of the training program and its implementation would be desirable.

The NRC inspectors noted that Section O, Paragraph 5.3 of the RERP commits to annual requalification of emergency personnel. In addition, the NRC inspectors noted that both the FCS Training Manual and the EPTM made reference to annual requalification. A review of training records indicated that the length of time between initial training and retraining of some personnel was greater than one year. For other individuals, no records of training were found. The OPPD staff interprets this to mean once every calendar year, and that a period of almost 2 years may elapse before requalification is required. The above constitutes an apparent deviation from a commitment in OPPD's RERP (285/8519-04).

No other violations or deviations were identified.

4. Audits

The NRC inspectors reviewed Administrative Procedure DAS-EP-1, "Emergency Preparedness Test Program," the Safety Audit and Review Committee (SARC) Charter, internal audit schedules, audit plans, and SARC independent reviews of emergency preparedness for the years 1983-85. In addition, interviews were held with the SARC chairman.

10 CFR 50.54(t) requires, as a condition of the license, that all nuclear power reactor licensees perform an independent review of their emergency preparedness program at least every 12 months by person having no direct responsibilities for its implementation. Furthermore, the review shall include an evaluation of the adequacy of interfaces with State and local governments.

Contrary to the above, the NRC inspectors determined that although the OPPD audits for the years 1983-84 included as an objective to evaluate interfaces with State and local governments, these reviews were limited to

ascertaining whether letters of agreement were current. At no time did the licensee hold a meeting with offsite authorities to make an evaluation of the adequacy of such interfaces. Moreover, the SARC 1983 audit did not include the review of interfaces as part of its objectives.

The above constitutes an apparent violation of 10 CFR 50.54(t) (285/8519-03).

The various objectives listed on the audit reports of the last 3 years were statements of a general nature. When requested to give more detailed information on the specific techniques used by the auditors, the SARC chairman stated that no supporting information was kept. The NRC inspectors noted that the audit plans included as references NRC IE procedures that are used by NRC inspectors as guidelines to perform inspections. The NRC inspectors concluded, due to the extensive nature of findings in the training area as described in Section 3 of this report, and to the failure to adequately perform an evaluation of licensee interfaces with state and local governments, that the audits appeared to lack the depth and detail needed to find and resolve deficiencies and weaknesses that could degrade their emergency response.

No other violations or deviations were identified.

5. Changes to the Emergency Preparedness Program

The NRC inspectors reviewed Part P of the RERP, "Responsibility for the Planning Effort: Development, Periodic Review and Distribution," Emergency Preparedness Tests, relevant sections of the FCS Technical Specifications pertaining to the Plant Review Committee, Licensing Action and Nuclear Production Logs, and held discussions with selected Quality Assurance personnel concerning the mechanisms in place to ensure that changes to the emergency preparedness program would comply to the requirements of 10 CFR 50.54(q). In addition, the NRC inspectors reviewed a sample of previous NRC inspection findings, to ascertain whether responsibilities for the resolution of the same had been assigned, the items had been followed up and corrective actions had been taken and approved.

The NRC inspectors determined that mechanisms were in place to adequately control changes to the emergency preparedness program and to followup and resolve NRC findings in this area.

No violations or deviations were identified.

6. Exit Interview

The exit interview was held on August 30, 1985. The exit interview was conducted by Mr. Nemen M. Terc, Emergency Preparedness Analyst, with Mr. Larry A. Yandell, Senior NRC Resident Inspector at Fort Calhoun Station in attendance. The licensee was represented by

Mr. Robert L. Andrews, Division Manager-Nuclear Production, and his staff. The licensee was given an oral summary of the NRC inspectors findings, observations and comments. The NRC inspectors identified three violations and one deviation described above (see paragraphs 3.0 and 4.0 of this report). The NRC inspectors stated that NRC Region IV management would review and determine the final status of the findings.