

APPENDIX

U. S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-285/85-17

License: CPR-40

Docket: 50-285

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

Facility Name: Fort Calhoun Station (FCS)

Inspection At: FCS Site, Blair, Nebraska

Inspection Conducted: August 12-16, 1985

Inspectors:

J. R. Boardman
J. R. Boardman, Reactor Inspector
Operations Section

Sept 27, 1985
Date

D. M. Hunnicutt
D. M. Hunnicutt, Chief, Operations Section
Reactor Safety Branch

9/27/85
Date

Approved:

L. E. Martin
L. E. Martin, Chief, Projects Section
Reactor Projects Branch

10/3/85
Date

Inspection Summary

Inspection Conducted August 12-16, 1985 (Report 50-285/85-17)

Areas Inspected: Routine, unannounced inspection of the licensee's programs for licensed and unlicensed operator training, and maintenance training; and licensee response to NRC Generic Letter 83-28.

The inspection involved 39 inspector-hours onsite by one NRC inspector.

Results: Within the areas inspected, no violations or deviations were identified.

DETAILS

1. Persons Contacted

OPPD

- *R. L. Andrews, Division Manager, Nuclear Production
- *W. G. Gates, Manager, Fort Calhoun Station
- *A. W. Richard, Supervisor, Corporate Quality Assurance
- *M. Core, Supervisor, Maintenance
- *J. J. Fisicaro, Supervisor, Nuclear Regulatory and Industry Affairs
- J. Fluehr, Supervisor, Station Training
- *J. K. Gasper, Manager, Administrative Services
- *M. A. Tesar, Supervisor, Training Services
- *R. L. Jaworski, Manager, Technical Services L. T. Kusek, Supervisor, Operations
- *K. J. Morris, Manager, QA

Others

L. A. Yandell, NRC Senior Resident Inspector

The NRC inspector also interviewed other licensee and contractor personnel.

*Denotes those present at the exit interview August 16, 1985.

2. Licensed and Non-Licensed Staff Training

This inspection was performed to meet the NRC commitment of the Systematic Assessment of Licensee Performance (SALP) Board Report for Fort Calhoun Station (NRC Inspection Report 50-285/85-07), dated May 14, 1985, which stated in Sections III.K.3 for licensee training recommendations that: "The NRC inspection effort in this functional area should be increased. An evaluation of the licensee's corrective actions and their impact on the training program should be performed by August 31, 1985."

The NRC issued a revision to Module 41701, "Licensed Operator Training," and a new inspection module (41400) "Training of Non-Licensed Staff," on May 29, 1985, for this management area. These modules recognized the INPO-managed accreditation of utility training programs, and licensee initiatives to become accredited, in the following areas:

- Nonlicensed operator
- Control room operator
- Senior control room operator/shift supervisor
- Shift technical advisor
- Instrument and control technician
- Electrical maintenance personnel

- Mechanical maintenance personnel
- Radiological protection technician
- Chemistry technicians
- Onsite technical staff and managers

The licensee has made reasonable progress towards INPO accreditation. This area will be reviewed in a subsequent inspection.

a. Vendor Technical Information (VTI) Used for Training

Licensee control of vendor manuals and other VTI is covered by NRC Generic Letter 83-28, dated July 8, 1983, "Subject: Required Action Based on Generic Implications of Salem ATWS Events," Section 2.2.2. The latest licensee response to the NRC dated May 24, 1985 (LIC-85-214), does not discuss that portion of Section 2.2.2 of Generic Letter 83-28 which states that licensees shall establish, implement, and maintain a continuing program to insure that vendor information for safety-related components is appropriately referenced or incorporated in plant instructions and procedures after this information has been determined to be complete, current and controlled. The OPPD response did not commit to accomplish this action. This OPPD response committed to provide NRC with a completion schedule for accomplishment of other actions relating to Section 2.2.2 of Generic Letter 83-28 prior to the next refueling outage, which is presently scheduled for September 27, 1985.

The NRC inspector reviewed one of the Student Handbooks (9-6-56) developed for the OPPD INPO-Accredited Non-Licensed Operator Training Program. This handbook contained seven (7) items of VTI as references.

The licensee initiatives for the INPO-accreditation program were not interfaced with the program to accomplish licensee corrective actions required by NRC Generic Letter 83-28, to assure that vendor technical information used for training has been verified and controlled prior to its incorporation in the OPPD training program. As a result, training program documents produced, and training performed, may have been accomplished utilizing superseded VTI or VTI that is not applicable to the specific equipment installed at Fort Calhoun Station.

b. Fort Calhoun Station (FCS) Training Manual

Specific, apparently long-standing anomalies that the NRC inspector found in his review of the FCS Training Manual (Manual) are as follows:

- The Manual does not include the American Institute of Steel Construction (AISC) Manual of Steel Construction, which provides criteria for installation and reinstallation of structural supports with bolted joints not covered by ASME.

- Manual Section 2 (General Employee Training) addresses required training for yellow, blue, and red badge levels of access, but not for the green badge level.
- In Section 8 of the Manual (Initial Special Training), there is a list of requirements purported to be satisfied by the manual. One requirement, in Section 8.1.1.g., is listed as "Volume V, 5.1.3.2." In order to verify compliance with this requirement, the NRC inspector requested licensee personnel to provide a copy of "Volume V, 5.1.3.2." Licensee personnel were unable to identify this requirement or its source.

c. FCS Standing Order NO. G-26 Related to Training

The NRC inspector reviewed FCS Standing Order No. G-26, Revision 14, dated February 14, 1985, "Maintenance Quality Control Program" with the following findings:

- Reference 2.5 is the December 29, 1978, submittal of the OPPD/FCS QAPD.
- Reference 2.8 is SNT-TC-1A "Supplements, Nondestructive Testing, Personnel Qualification and Certification ASNT Recommended Practice." The applicable revision of this reference is not identified.
- Appendix C delineates qualification (on-the-job-training) categories for noninspector maintenance personnel. The NRC inspector reviewed this appendix in detail with the electrical/I&C, and mechanical (machinist and pressure equipment) maintenance supervisors with the following findings:

(1) General Findings

Qualification/on-the-job training (OJT) is performed by craft journeyman who have no documented training themselves in instruction. There are no documented minimum required scope and proficiency levels for each category. Complex categories such as "all electrical or maintenance I&C related to Engineered Safety Features (ESF)," which may take up to 3 years to complete, have no documented progress sheets or sign offs. All required qualification/OJT steps have not been documented.

(2) Examples of Specific Electrical/I&C Maintenance Activities not Covered by Qualification/OJT or by Craft Journeyman Training

- (a) Repair and maintenance of circuit/trip breakers and accessories, such as undervoltage trip units.

- (b) Maintenance of Equipment Qualification (EQ) - this was accomplished as one-time training for existing electric/I&C maintenance personnel.
 - (c) Control of CQE (safety-related material)
 - (d) Limitorque Operator Maintenance
 - (e) Making terminations for medium voltage, high voltage, coaxial, and special I&C cables.
 - (f) Meg-Ohm ("Megger") Testing of medium and high voltage cables.
- (3) Examples of Specific Mechanical Maintenance Activities Not Covered by Qualifications/OJT, or by Craft Journeyman Training
- (a) Emergency feed water pump maintenance and repair (raw water pumps and component cooling water pumps are covered).
 - (b) Control of CQE (safety-related material)
 - (c) Maintenance Equipment Qualification (EQ). Some of the existing mechanical maintenance personnel have been trained in EQ, based on communications with FCS training management personnel. Subsequently, the NRC inspector read in NRC Inspection Report 50-285/85-09, page 7, Section 4.A.2., that licensee personnel had informed an NRC inspector that all mechanical maintenance personnel ("general, pipe fitters, and machinists") had received documented EQ training.
- (4) Review of Abnormal Events to Evaluate Licensee Training

Both NRC inspection module 41400 and 41700 specified review of abnormal events to analyze any implications for training. The NRC inspector reviewed Operation Incidents (OI) back through No. 1889 dated May 14, 1984. This review covered over 200 OIs. There were no readily discernable events attributed to deficiencies in training. Licensee and general employee retraining (GET 1) does mention failure to properly administer QC hold points during performance of work. This was the event with the highest occurrences (eleven total) during the period reviewed by the inspector.

The next highest occurrence was air sampler fuse failure (7). This could have been bad bearings (specifically identified twice) or incorrect fuses. The NRC inspector suggested that licensee personnel audit fuse control.

3. Review of VTI in Response to NRC Generic Letter 83-28, Section 2.2.2

The NRC inspector reviewed FCS Standing Order G-62, Revision 0, dated May 31, 1985, "Control of Vendor Manuals."

Licensee vendor manual review was accomplished by a minimum of a cognizant engineer and one knowledgeable person from maintenance or operations. No criteria was available for assignment of maintenance or operation person (or both) or for documenting training or experience for personnel performing these reviews.

Each VTI review is documented on form FC-1022, attachment D to G-62. The form requires a determination and documentation of VTI pages applicable to "existing procedures and equipment at the Fort Calhoun Station."

Form FC-1022 does not contain a requirement (or a space to fill in) for the following:

- a. If a 50.59 review is required and its accomplishment
- b. Applicable equipment affected
- c. Applicable procedures affected
- d. New procedures required
- e. The names and titles of all reviewers

4. Exit Interview

The NRC inspector met with licensee representatives identified in paragraph 1 at the conclusion of the inspection on August 16, 1985. The NRC inspector summarized the scope and findings of the inspection presented in this report.