



ILLUMINATING
P.O. BOX 5000 • CLEVELAND, OHIO 44101 • TELEPHONE (216) 622-9800 • ILLUMINATING BLDG • 55 PUBLIC SQUARE

Serving The Best Location in the Nation

Dalwyn R. Davidson
VICE PRESIDENT
SYSTEM ENGINEERING AND CONSTRUCTION

January 15, 1981

Mr. Gaston Fiorelli
Reactor Construction and
Engineering Support Branch
U. S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

RE: Perry Nuclear Power Plant
Docket Nos. 50-440; 50-441
Response to I. E. Report

Dear Mr. Fiorelli:

This letter is to acknowledge receipt of your Inspection Report Number 50-440/80-20, 50-441/80-18, attached to your letter dated October 21, 1980, which I received on October 24, 1980. This report identifies areas examined by Mr. R. B. Landsman during the inspection conducted September 17 through 19, 1980.

On November 19, 1980, a response was provided to this Inspection Report. However, as a result of a meeting at Region III facilities on December 22, 1980 between representatives from each of our organizations, the attached response supersedes and replaces in its entirety our response of November 19, 1980.

Therefore, attached to this letter is our response to the three items of non-compliance described in Appendix A, Notice of Violation. This response is in accordance with the provisions of Section 2.201 of the NRC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulations.

If there are additional questions, please do not hesitate to call.

Very truly yours,

D. R. Davidson
Vice President
System Engineering and Construction

ksz
Attachment

cc: J. Hughes, NRC - Site

U. S. Nuclear Regulatory Commission
c/o Document Management Branch
Washington, D.C. 20555

JAN 19 1981

8102280545

RESPONSE TO ENFORCEMENT ITEMS

Listed below are our responses to Appendix A, Notice of Violation, of United States Nuclear Regulatory Commission I. E. Report 50-440/80-20; 50-441/80-18.

I. Noncompliance with Three Examples

A. Infraction

10CFR50, Appendix B, Criterion V (Procedures), states in part that, "Activities affecting quality shall be prescribed by documented instructions...and shall be accomplished in accordance with these... procedures..."

CEI Corporate QA Program Section 0500 requires activities affecting quality to be described and accomplished in accordance with instructions and procedures.

Contrary to the above, the following provisions were not accomplished according to documented procedures for concrete pour No. RB2-W02-630.

1. Item a., 40/80-20-01; 441/80-18-01:

U. S. Testing Procedure QCP-3, Section V, subparagraph 1.2.1 states, "When concrete is pumped, it will be sampled and tested at the end of the pump discharge line." The inspector determined that the concrete sampling point was not at the end of the pump discharge line, but some 110 feet back.

2. Item b., 440/80-20-02; 441/80-18-02:

Specification SP-14, Section 5:13, requires that concrete placing temperatures for massive concrete, for ambient air temperatures between 50°F and 70°F, shall be a maximum of 70°F.

The inspector determined that concrete sat for approximately two hours before being discharged into the forms without any verification of its temperature.

3. Item c., 440/80-20-03; 441/80-18-03:

Specification SP-14, Section 6:14 requires that transit mix trucks conform to ACI 301-72 which requires conforming to ASTM C94. ASTM C94, Section 10.7 requires that discharge of the concrete shall be accomplished within one and one half hours after introducing water into the mix.

The inspector determined that concrete was discharged into the forms even though it exceeded the one and one half hour maximum dump time limitation without any verification of its properties.

B. Response

Item a., 440/80-20-01; 441/80-18-01: -

1. Specification SP-14, Rev. VII, Item 5:16.2, which contains the requirements for the sampling of fresh concrete, states that in the case of pumped concrete, the concrete shall be sampled at the discharge from the pump. U. S. Testing Procedure QCP-3, Rev. 8, "Quality Control Procedures for Sampling and Testing of Concrete" Section V, subparagraph 1.2.1 states: "When concrete is pumped, it will be sampled and tested at the end of the discharge line."

The intent of the specification is that in the case of pumped concrete the concrete shall be sampled at the place concrete is being pumped into the form.

The following are the corrective actions taken and the results achieved:

- a. The concrete placing contractors (i.e., National Engineering and Contracting Company and Dick Corporation) have been notified that in the case of pumped concrete, the sample for in-process test is to be taken at the place concrete is being pumped into the forms. This notification also states that a Field Variance Authorization (FVA) will be required if there is to be any deviation from this requirement. Approval of an FVA which requires Design Engineer and Quality Engineer evaluation and signatures, is required prior to performance of the activity.
 - b. U. S. Testing has been notified to revise their Procedure QCP-3, Rev. 8, "Quality Control Procedures for Sampling and Testing of Concrete" Section V, subparagraph 1.2.1 to state: "When concrete is pumped, it will be sampled at the discharge from the pump." This notification advises U. S. Testing of the intent of SP-14 (as stated above) and that sampling of pumped concrete will be performed in accordance with the intent of SP-14 while the procedure is being revised.
2. The notification to the concrete placing contractors, the revision to U. S. Testing procedure, and the discussion of this infraction with Construction Quality Control (Civil), Contract Administration and the Responsible Engineer comprise the corrective action taken to avoid further noncompliance.

Response (Cont'd.)

3. Due to revising, reviewing and accepting U. S. Testing Procedure, February 15, 1981 is the date when full compliance will be achieved.

Item b., 440/80-20-02; 441/80-18-02:

1. The concrete placing contractors (i.e., National Engineering and Contracting Company and Dick Corporation) have been notified to perform in-process concrete temperature tests on any concrete which rests in a pumpline (or any segment thereof) for one hour or more prior to that concrete being placed into the forms. If the results of the temperature test reveal that the concrete is not within the specification requirements, it is to be discarded.

The Engineering Change Notices (ECN's) which have been issued to clarify SP-14 requirements are: (a) 5570-14-42; (b) 5793-1-45; and (c) 5794-29-75.

2. The notification to the concrete placing contractors, the issuance of ECN's and the discussion of this infraction with Construction Quality Control (Civil), Contract Administration and the Responsible Engineer comprise the corrective action taken to avoid further noncompliance.
3. Full compliance has been achieved.

Item c., 440/80-20-03; 441/80-18-03:

1. The concrete placing contractors (i.e., National Engineering and Contracting Company and Dick Corporation) have been notified that in-process concrete tests (i.e., slump, air content, and temperature) are to be performed on the concrete in the pumpline whenever the placing of concrete is delayed for one hour or more. (Note: This delay may be caused by a pump malfunction, etc., but performance of the aforementioned tests is required only when concrete placing activities have been delayed for one hour or more.) These tests, which are independent of the specified frequency, are to be taken on the concrete which has been in the pumpline the longest. If the results of any of these tests are not within the specification limits, the affected concrete is to be discarded.
2. The notification to the concrete placing contractors and the discussion of this infraction with Construction Quality Control (Civil), Contract Administration and the Responsible Engineer comprise the corrective action taken to avoid further noncompliance.
3. Full compliance has been achieved.

II. Noncompliance 440/80-20-04; 441/80-18-04

A. Infraction

10CFR50, Appendix B, Criterion X (Inspection), states in part that, "A program for inspection of activities affecting quality shall be established and executed...to verify conformance with the documented instructions..."

CEI Corporate QA program section 1000 requires an inspection program to verify the contractor's compliance to construction quality requirements. It also requires documentation to evidence construction and inspection operations.

Specification SP-14, Section 6:14 requires that transit mix trucks conform to ACI 301-72 which requires conforming to ASTM C-94. ASTM C-94, Section 10.7 requires that discharge of the concrete shall be accomplished before the drum has revolved 300 revolutions, or within one and one half hours after introducing water into the mix.

Contrary to the above, the licensee failed to verify or record concrete truck agitating revolutions or discharge times.

B. Response

1. and 2.

The requirements of 10CFR50, Appendix B, Criterion X, "Inspection", have been satisfied as follows:

- The CEI Corporate Nuclear Quality Assurance Program (CNQAP), Section 1000, satisfies the requirements of Criterion X. CNQAP Section 1000, Rev. 2, November 5, 1979, and Item 1.2.2 requires that the Construction Quality Section establish a surveillance/inspection program to verify the contractors' compliance with construction contract quality requirements.
- Construction Quality Section Procedure (CQSP) 2-1001, Rev. 2, effective August 1, 1980, which supplements CNQAP Section 1000, requires that the Construction Quality Section Quality Control Inspector prepare a Surveillance/Inspection Plan in accordance with CQSP 2-1002.
- There is a Surveillance/Inspection Plan for each contractor placing concrete. These plans satisfy the requirement of CQSP 2-1001 and were prepared in accordance with CQSP 2-1002.
- The contractor placing concrete when the cited condition occurred was National Engineering and Contracting Company (NECC). NECC Procedure QP 10.1, Rev. 15, Attachment 8.3, Item 5.5 addresses the requirements of ASTM C-94, Item 10.7. Review of documentation provides assurance of implementation of this requirement as evidenced by the records for the following four (4) NECC concrete placements:

Response (Cont'd)

RB1-W180-652, placed July 21, 1980 -- Two (2) cubic yards were rejected due to the one and one-half hour time limit requirement.

RB1-S01-662/IBO-W100-650, placed August 22, 1980 -- Two (2) cubic yards were rejected due to the one and one-half hour time limit requirement.

RB2-HWT-2-616, placed June 14, 1980 -- Five (5) cubic yards were rejected due to the 300 revolution requirement.

RB1-HWT-3-630, placed June 15, 1980 -- Four (4) cubic yards rejected due to the one and one-half hour time limit.

Therefore, exceeding the 300 revolutions and/or one and one-half hour time limit is being documented.

3. Based on the above, we are in full compliance with Project requirements and commitments.

III. Noncompliance 440/80-20-05; 441/80-18-05

A. Infraction

10CFR50, Appendix B, Criterion V (Procedures), states in part that, "Activities affecting quality shall be prescribed by documented instructions...and shall be accomplished in accordance with these ...procedures..."

CEI Corporate QA Program, Section 0200 requires that examination and test personnel...shall qualify to and be certified to the requirements of Regulatory Guide 1.58 and ANSI N45.2.6.

Contrary to the above, NECC failed to follow the above procedure by certifying two inspection personnel who lacked the required prior experience at the time of certification. Proficiency testing appeared to be the main basis for certifying two individuals.

B. Response

1. The CEI QA Program, Section 0200, Item 1.6.a states, "Inspection and Test Personnel shall be qualified to the requirements of ANSI N45.2.6 as endorsed by Regulatory Guide 1.58." A review of ANSI N45.2.6-1973 and NECC Procedure QP 1.1, Rev. 10, dated November 14, 1978, reveals that this NECC procedure is in accordance with ANSI N45.2.6-1973.

ANSI N45.2.6-1973, Item 3.1, states in part, "The education and experience requirements specified for the various levels should not be treated as absolute when other factors provide reasonable assurance that a person can competently perform a particular task." This statement is contained in NECC Procedure QP 1.1, Rev. 10, Item 6.2.5.

Examination of the personnel records of the two persons who were questioned reveals that prior to being certified, each had received a Civil Technical Degree, each was observed by NECC's QA Manager, and each satisfactorily passed an examination which was written and administered by NECC's QA Manager.

2. NECC has been notified that whenever: (a) level of certification is based primarily on examination in lieu of years of experience; and (b) limited areas of responsibility within a particular task (i.e., concrete inspection vs. reinforcing steel inspection vs. soil inspection, etc.) are assigned, Arabic Numerals (i.e., 1, 2, 3) in lieu of Roman Numerals (i.e. I, II, III) are to be used to designate level of certification.

NECC is to review all of the personnel qualifications/certifications to assure compliance with the above.

3. The date of full compliance is February 15, 1981.