

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-546/82-12(DETP); 50-547/82-12(DETP)

Docket No. 50-546; 50-547

License No. CPPR-170; CPPR-171

Licensee: Public Service of Indiana  
Post Office Box 190  
New Washington, IN 47162

Facility Name: Marble Hill Nuclear Generating Station, Units 1 and 2

Inspection At: Marble Hill Site, Jefferson County, IN

Inspection Conducted: July 13-16, 1982

Inspector: F. C. Hawkins

*C.C. Williams for*

7/29/82

Approved By: C. C. Williams, Chief  
Plant Systems Section

*C.C. Williams*

7/29/82

Inspection Summary

Inspection on July 13-16, 1982 (Report No. 50-546/82-12(DETP); 50-547/82-12(DETP))

Areas Inspected: Observation of Unit 2 structural concrete work activities and review of related quality records; observation of concrete repair activities. The inspection involved a total of thirty-two inspector-hours on site by one NRC inspector.

Results: No items of noncompliance or deviations were identified.

## DETAILS

### Persons Contacted

#### Public Service of Indiana (PSI)

S. Shields, Senior Vice President - Nuclear Division  
\*W. Petro, Vice President - Nuclear Projects  
\*J. Thomas, Assistant Project Director  
\*N. Reichel, Construction Manager  
\*C. Beckham, Quality Engineering Manager  
G. Warner, Civil Construction Engineering Supervisor  
B. Morrison, Civil Quality Engineering Superintendent  
C. Togni, Chief Civil Engineer  
C. Anthony, Special Projects Coordinator  
K. Tyger, Civil Quality Engineering Supervisor  
D. Downs, Construction Surveillance Specialist - Civil  
M. Bright, Construction Surveillance Specialist - Civil

#### Newberg Construction Company (N-MH)

M. Swinford, Quality Control Supervisor - Concrete  
J. Coffman, Area Engineer - Unit 2 Reactor Building  
B. Patel, Quality Control Inspector  
H. Parsons, Quality Control Inspector  
L. LaCour, Quality Control Inspector  
F. Chambers, Quality Control Inspector - Batch Plant

#### United States Testing Company (UST)

A. Insignares, Batch Plant Inspector

#### Other Personnel

J. Harrison, Region III Resident Inspector

\*Denotes those attending the exit interview.

#### Functional or Program Areas Inspected

1. Observation of Unit 2 Reactor Building Concrete Work and Review of Associated Quality Records

Work activities relative to concrete placement ZCW-Ext.-7 were observed. The placement was made on July 14, 1982 and consisted of approximately 900 cubic yards of mix design No. 5560 concrete and 32 cubic yards of mix design No. 5582 grout.

##### a. Preplacement Inspection

- (1) Construction joints were properly prepared for concrete placement.

- (2) Reinforcing steel and embedments were free of excessive rust, mill scale, concrete, or other contaminants.
- (3) Reinforcing steel and embedments were properly secured to prevent displacement.
- (4) Reinforcing steel was placed in accordance with applicable design drawings and WPN-56.
- (5) Formwork was properly cleaned and repaired.
- (6) Completion of the N-MH preplacement inspection attributes was verified through review of the required documentation.

b. Placement Inspection

(1) Delivery and Placement

- (a) Concrete was pumped to the placement area and then deposited via concrete drop chutes. Lift height thicknesses were verified not to exceed 24 inches after consolidation.
- (b) Concrete was properly consolidated using internal vibrators. The vibrators were inserted at approximately 18 inch intervals and remained inserted until consolidation was complete.
- (c) Adequate N-MH QC personnel and production foremen were present at the placement to assure compliance with the applicable procedures and specifications.

(2) Civil Inspection and Testing Laboratory Activities

- (a) Inprocess Concrete Testing - The U.S. Testing technicians were observed performing slump, temperature, percent entrained air tests, and casting compressive strength cylinders. The tests were performed in accordance with the applicable ASTM standards and at the frequencies specified by S&L Specification Y-2850.
- (b) Batch Plant Inspection - The testing laboratory batch plant inspector was observed performing and documenting the required inspection activities in accordance with laboratory procedure QCP-1.
- (c) Truck Discharge Inspection - Laboratory inspectors were present at both truck discharge points to monitor the addition of water to the truck, verify the proper number of mixer revolutions, and provide information tests on concrete temperature, slump and entrained air. The inspections were being conducted in accordance with laboratory procedure QCP-3.

c. Postplacement Inspection

Proper curing of placement No. 2CW-Ext.-7 was verified for the first two days of the specified seven day cure period. Verification that N-MH QC inspectors were monitoring curing status on a daily basis, as required by QCP 10.04, was made through review of the N-MH "Concrete Curing Card".

2. Concrete Repair

Ongoing concrete repair activities in the reactor, auxiliary and fuel handling buildings were observed. The restoration of concrete patch and repair areas which were identified by Special Process Procedure No. SPP-5, is virtually complete. The repairs which were observed were of good quality.

Exit Interview

The NRC inspector met with the licensee representatives (denoted in Persons Contacted paragraph) during and at the conclusion of the inspection. The inspector summarized the scope and conclusions of the inspection.