

U.S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report No. 50-330/80-09

Docket No. 50-330

License No. CPPR-82

Licensee: Consumers Power Company  
1945 West Parnall Road  
Jackson, MI 49201

Facility Name: Midland Nuclear Power Plant, Unit 2

Inspection At: Midland Site, Midland, MI

Inspection Conducted: March 25-27, 1980

Inspector: E. J. Gallagher

*DW Hayes*  
4/18/80

Approved By: D. W. Hayes, Chief  
Engineering Support Section 1

*DW Hayes*  
4/18/80

Inspection Summary

Inspection on March 25-27, 1980 (Report No. 50-330/80-09)

Areas Inspected: Containment prestressing system work procedures, work activities, and quality records; meeting held on March 17, 1980 on containment building tendon reinspection program (Unit 2). The inspection involved a total of 20 inspector hours by one NRC inspector.

Results: No items of noncompliance or deviations were identified in the areas inspected.

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## DETAILS

### Meeting Attendees on March 17, 1980 in Glen Ellyn, Illinois

#### NRC Region III Staff

G. Fiorelli, Chief, Reactor Construction Branch (attended part time)  
R. C. Knop, Section Chief, Projects Section 1  
E. J. Gallagher, Civil Engineer

#### Consumers Power Company

T. Black, Quality Assurance Engineer  
R. Wheeler, Field Civil Engineer

#### Bechtel Power Company

J. Rutgers, Project Manager  
T. Johnson, Chief Civil Engineer  
T. Broze, Project Engineering  
W. Creel, Field Quality Assurance

### Persons Contacted at Site March 25-28, 1980

#### Consumers Power Company

J. L. Corley, Section Head Quality Assurance  
T. Black, Quality Assurance Engineer

#### Bechtel Power Company

W. Creel, Quality Assurance  
T. Broze, Project Engineering, Ann Arbor

#### 1. Meeting Details

A meeting was held on March 17, 1980 in the NRC Region III office in Glen Ellyn, Illinois to discuss the licensee's program to perform a reinspection of selected Unit 2 containment prestressing system components. This reinspection was a result of a previous meeting held on October 25, 1979 regarding qualification of quality control inspectors for the prestressing work activity. Details of the October 25, 1979 meeting are documented in NRC Report No. 329/79-23; 330/79-23.

During the March 17, 1980 meeting the licensee and Bechtel Company proposed the reinspection program which consisted of selected tendons to be reinspected, elements of the reinspection, and the detailed

procedures to be used for the reinspection. The information presented during this meeting is included as Attachment No. 2 to this report.

2. Closure of Item of Noncompliance 329/79-19-01; 330/79-19-01 Qualification of QC Inspection Personnel

The following represents the resolution of each of the specific items understood to be required in order to close noncompliance No. 329/79-19-01; 330/79-19-01 regarding qualification of QC personnel performing inspections of the Unit 2 containment prestressing system work activities.

a. Retesting of Inspection Personnel

- (1) Bechtel administered an examination to all Level I and Level II Quality Control inspectors which consisted of a combination of written and practical aspects of post-tensioning work activities. This action was concluded on January 14, 1980.
- (2) The examination was submitted to the NRC for approval prior to it being administered. The examination contained the required acceptance criteria and aspects for quality control inspection.
- (3) The examination was administered by Bechtel and CPCo. The results indicated acceptable proficiencies to perform QC inspections by the Level I and Level II inspectors.

b. Obtaining Qualified Level II Inspectors

- (1) Bechtel provided a qualified Level II inspector with prior post-tensioning inspection experience. This Level II inspector was on site during October 18, 1979 through January 18, 1980 until such time that other QC inspectors demonstrated suitable proficiency in post-tensioning inspection.
- (2) The Level II inspector was assigned to the QC organization and had no other responsibilities other than to be actively involved in the inspection of the post-tensioning work.

c. Reinspection of Selected Tendons

- (1) The NRC selected a total of six tendons which had been previously inspected by Bechtel QC inspectors whose qualifications were originally in question. The tendons selected were the following:

H-21-234  
D-22  
H-13-216

D-217  
D-228  
H-21-246

- (2) The tendons were detensioned in order to reinspect the characteristics of the tendon system. These included wire rating, grease chemical properties, 100% buttonhead inspection (170 wires of each tendon), comparison of measured lift-off, predicted lift-off and minimum allowable lift-off value and number of discontinuous wires.

The results of the reinspection are contained in Attachment 1 of this report.

The results of the original inspection and reinspection findings compare acceptably. The measured lift-off in all cases exceed the minimum required value. Tendon H-21-234 has been put on "hold" due to 7 wires not seating properly upon restressing. Resolution of this is being determined by Engineering. This will be reviewed further during a subsequent inspection. (50-330/80-09-01)

- (3) The NRC inspector witnessed selected reinspection characteristics of the above noted tendon. Work was being performed in accordance with Specification C-39, Revision 1, Containment Building Tendon Reinspection and QCIP C-9.20, Revision 1, Tendon Reinspection.

The implementation of the above items has satisfactorily resolved previously identified item of noncompliance No. 329/79-19-01; 330/79-19-01. This item is considered closed.

#### Exit Interview

The inspector met with licensee representatives (denoted in the Persons Contacted paragraph) at various times during the inspection activities. The scope and purpose of the inspections were outlined along with the summarization of the results of the inspection. The licensee representatives acknowledged the indicated results.

#### Attachments:

1. Summary of Reinspection Results
2. Presentation of Unit 2 Tendon Reinspection, March 17, 1980