

U. S. ATOMIC ENERGY COMMISSION  
REGION III  
DIVISION OF COMPLIANCE

Report of Inspection

CO Report No. J46/70-3

Licensee: Toledo Edison Company  
Davis-Besse Nuclear Plant  
Construction Permit (pending)  
Category A

Dates of Inspection: July 13 and 14, 1970

Dates of Previous Inspection: June 10 and 11, 1970

Inspected By: *G. C. Gower*  
G. C. Gower Responsible Reactor Inspector July 17, 1970

Reviewed By: *W. E. Vetter*  
W. E. Vetter Senior Reactor Inspector July 20, 1970

Proprietary Information: None

SUMMARY

Type of Facility - Pressurized water reactor.

Power Level - 872 Mwe.

Location - Southwest shore of Lake Erie, Ottawa County, Ohio

Type of Inspection - Management Meeting and Initial Site Inspection

Accompanying Personnel - W. E. Vetter

The corporate offices of the Toledo Edison Company (TECO), located in Toledo, Ohio, and the Davis-Besse (D-B) construction site were visited on July 13 and 14, 1970. Results of the Initial Quality Assurance inspection of June 10 and 11 were discussed with Mr. G. J. Sampson, Vice President, Power Group, Mr. L. Roe, Chief Mechanical Engineer, and Mr. J. Lenardson, D-B Quality Assurance Engineer.

Comments on discrepant inspection findings were well received and indications are that discrepancies will be resolved in a timely manner. Compliance observations relative to the QA program responsibility interfacing (Bechtel to TECO) and line responsibilities within the Bechtel organization were

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discussed in detail. In this regard, TECO was urged to consider our observations in light of various potential adverse conditions that may develop during the course of construction. TECO responded with their intentions to give consideration to our comments.

Activity at the construction site centered around the blasting and removal of bedrock from the site where the containment structure and auxiliary buildings are to be located. This work is taking place at an elevation level of 540 feet. Other site clearing, grading, and compaction operations being performed by the Great Lakes Construction Company were in evidence in locations surrounding the reactor buildings. Dewatering operations were in effect. Activities associated with the plant foundation exploration and integrity verification program, being conducted by the Woodward-Clyde and Associates were reviewed. Nicholson Concrete and Supply Company was in the process of setting the foundations for the concrete batch plant.

#### DETAILS

##### I. Scope of Inspection

The purpose of the visit was to meet with TECO corporate management to discuss the findings noted during the Initial Quality Assurance Inspection of June 10 and 11, 1970. Additionally, a visit was made to the construction site for the purpose of familiarization and to make initial contacts with site personnel. Information pertaining to the special plant foundation verification program was obtained, and preliminary discussions were held relative to TECO's pending construction exemption.

##### II. Results of Inspection

###### A. Persons Contacted

###### Toledo Edison Company (TECO)

G. J. Sampson - Vice President, Power Group  
L. E. Roe - Chief Mechanical Engineer and D-B Project Engineer  
J. D. Lenardson - Quality Assurance Engineer for D-B  
E. Doerr - Construction Coordinator (site)

###### Others

M. Stephens - Assistant Construction Manager (Bechtel)  
D. Millet - Site Geologist, Woodward-Clyde & Associates  
D. Merkel - Director of Engineering and Development  
Nicholson Concrete & Supply Company

Results of Inspection (continued)

B. Management Discussions

The overall results from the June 10 and 11 QA inspection were presented to Messrs. Sampson, Roe, and Lenardson. The salient points of these discussions are as follows:

1. Regarding the availability of staff members to assist Mr. Lenardson in carrying out his QA responsibilities, TECO plans to hire men for four QA positions. The time-table for bringing these men on board is still not firm. It was stated that it may be necessary to fill some of these positions on a temporary basis from other departments within TECO. It was made clear, however, that in any event the QA work requirements will be adequately covered.
2. In response to our observations relative to the incompleteness of the D-B QA manual at the time of the inspection, Mr. Lenardson stated that he has since prepared drafts of those sections pertaining to procurement and construction. These sections, he stated, will include among others, procedures pertaining to corrective action, identification of QA records, and audit frequencies.
3. TECO restated intentions to augment their audit checklist forms (ED-6097A, B, C, and D) with supplemental procedures and/or guides. Mr. Lenardson said that, in addition to the procedures and guides, the other members of his staff are to receive training in the use of these forms.
4. Mr. Lenardson also stated that he will review the audit checklists and other QA documents for vendors and contractors to assure that any confusion between AEC Criterion V and VI is eliminated.
5. In response to our comments regarding the organization relationships between TECO and Bechtel and line-functional relationships within Bechtel, as shown by the organization charts in the PSAR, TECO representatives said that they would review each point of discussion in a timely manner and transmit the results of review to the inspector via telephone.

The discussions were carried out with a spirit of cooperation and TECO expressed a desire to respond favorably to each of the items discussed.

Results of Inspection (continued)

C. Request for Exemption

The inspectors were briefed by Messrs. Roe and Lenardson on matters pertaining to a June 4, 1970, request by TECO to proceed with certain below-grade construction work on a Part 50 exemption basis. Certain bid packages for the exemption work were in the process of being reviewed at the time of the visit. Consequently, a possibility exists that the firms selected to perform the exemption work may not be identified sooner than one week before the requested effective exemption date of August 15, 1970.

TECO was informed of Compliance's intent to make an evaluation of the utility's readiness to do the work outlined in the exemption request. Certain areas relating to the D-B quality assurance program and the availability of manpower to implement the program requirements were discussed as specific areas of interest to Compliance during the above mentioned preexemption evaluation.

D. Initial Site Inspection

At the time of the site visit, the Great Lakes Construction Company was engaged in excavating for the containment structure and auxiliary buildings. This work included extensive drilling and blasting to remove a portion of the layered bedrock foundation that exists beneath the plant location. Work has progressed to a depth of about the 540-foot elevation. (Finish grade for the containment structure is to be at the 530 level). Other site clearing, grading, and compaction work was in progress at peripheral locations to the plant excavation.

1. Plant Foundation Verification Program (PI-4405.01 and .02)

Mr. D. Millet, Resident Project Engineer for Woodward-Clyde & Associates briefed the inspectors on the "Verification and Remedial Treatment Procedures,"<sup>1/</sup> now being followed at the plant site. Basically, this program's objectives are to determine the extent of solution activity in the bedrock beneath the plant structures and to effect any corrective actions that may be required.

This program is to include, at one time or another during its implementation, mapping, borings, rock probes, seismic velocity measurements, resistivity surveys, and gravity surveys. Mr. Millet described the status of this project as "still

1/ Refer to Page 2.C - 90A of Amendment 7 to the Davis-Besse PSAR.

Results of Inspection (continued)

being in the green zone" which implies that no significant solution activity has been encountered to date and, therefore, no remedial or corrective measures have been required.

2. Concrete Batch Plant (PI 4605.03)

Nicholson Concrete and Supply Company, Toledo, Ohio, was in the process of placing the footings and the foundations for a 12 cubic yard batch plant to be erected near the construction site. Mr. D. Merkel, Director of Engineering and Development for Nicholson, briefed the inspectors, with the aid of drawings and brochures, on the general plant layout and capabilities. It was noted that the primary aggregate storage area is to be concrete surfaced to avoid contamination problems. Mr. Merkel discussed the plans for testing and certifying the plants prior to producing specification concrete.

Mr. Lenardson stated that, in accordance with their QA procurement requirements, Nicholson was now in the process of developing a QA program covering the batch plant operations. Mr. Lenardson was informed that Compliance will be interested in reviewing this program when completed.

DIVISION OF COMPLIANCE MONTHLY REPORT, JULY 1970

<sup>50-346</sup>  
Toledo Edison Company (Davis-Besse) - A management meeting was held at the licensee's corporate offices on July 13 to review the findings of the June 10 and 11 initial QA inspection (June Monthly Report).

A site inspection was conducted on July 13 and 14. Excavation for the plant structures was in progress. Extensive drilling and blasting was in progress to remove portions of a layered bedrock formation which exists in the reactor building area. Core drilling, rock probes, seismic velocity measurements, and resistivity and gravity survey techniques have been used (or are planned for use) as part of a special site "Verification and Remedial Treatment Program." These operations and procedures are directed towards locating and correcting any significant solution cavities that may be present beneath the plant structures. Site preparation work was estimated to be 40% complete.

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