

June 1, 1984

MEMORANDUM FOR: Richard P. Denise, Director
 Division of Reactor Safety and Projects, Region IV

FROM: J. Nelson Grace, Director
 Division of Quality Assurance, Safeguards,
 and Inspection Programs
 Office of Inspection and Enforcement

SUBJECT: ASSESSMENT OF IMPLEMENTATION OF REGIONAL INSPECTION
 PROGRAM FOR REACTOR CONSTRUCTION

The enclosed assessment report is based upon a CAT inspection conducted by IE at the Waterford facility. I would appreciate your comments, if any, by June 6, if possible.

Original signed by:
 James G. Partlow *JGP*

J. Nelson Grace, Director
 Division of Quality Assurance, Safeguards,
 and Inspection Programs
 Office of Inspection and Enforcement

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 Assessment Report

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REGIONAL CONSTRUCTION INSPECTION PROGRAM ASSESSMENT - WSES-3 (REGION IV)

An NRC Construction Appraisal Team (CAT) inspection was performed in February and March 1984, for the Waterford Steam Electric Station (WSES) Unit 3 at Taft, Louisiana. As part of this inspection, records of the NRC Region IV inspection program were reviewed to identify those portions of the construction program that have been completed and those portions currently being performed. The results of this review indicated that the construction inspection program was approximately 90 percent complete at the start of the inspection. The total man-hours of direct inspection effort performed by Region IV in 1983 was 1239.

A number of deficiencies identified during the CAT inspection had been previously identified by the regional inspection program. These included additional loads on seismic supports, pipe to structure clearance problems and inconsistent insulation resistance testing of electric motors. The CAT inspection found that the applicant had not met his commitments for corrective action for these and other areas.

The Regional inspections had also identified several deficiencies regarding the applicant's control of drawings and documents. While the CAT found design change control generally in conformance with requirements, examples were found of affected drawings and specifications not identified by the design change documents and approval of design changes without an approved design change document.

Two significant problems were identified by the NRC CAT in the electrical and instrumentation construction area; numerous raceway separation violations, and undocumented loads on raceway seismic supports. The separation violations had not been previously identified by the regional inspections. It is noted, however, that the electrical inspections had not been completed. The undocumented loads on seismic supports was originally identified by a Region IV inspection; however, the applicant failed to implement their stated corrective action.

No significant problems were identified by the CAT in the civil and structural area, and material traceability.

In the mechanical area, the CAT inspection found a continuing problem with an issue originally identified by a Region IV inspection; the clearance criteria between pipes, supports, structures, tubing, and raceway. The applicant had not met his commitment to assure that interferences were identified and evaluated. Additionally, pipe supports and restraints deficiencies being found after repeated inspections reflect an ineffective inspection program.

When problems with a contractor's (American Bridge) welded and bolted connections were identified, the applicant committed to Region IV to evaluate all aspects of the American Bridge structures. While the CAT findings in welding and NDE support the adequacy of corrective action for American Bridge welding, deficiencies were found in shop welds made by an American Bridge vendor. Only one unacceptable radiograph was found by the NRC CAT inspection.

The Regional construction inspection program has resulted in the identification of a number of significant findings. Two areas were identified by the CAT inspection where more regional efforts could have been effective, inspection of electrical raceway separation and followup on the applicant's corrective actions.

The Region's concern for the effectiveness of the inspection program in general and the CAT inspection in particular was evident in their support of the CAI efforts.