

U. S. NUCLEAR REGULATORY COMMISSION
REGION I

Report Nos. 50-220/91-07
50-410/91-07

Docket Nos. 50-220
50-410

License Nos. DPR-63 and NPF-69 Priority Category C

Licensee: Niagara Mohawk Power Corporation

Facility Name: Nine Mile Point Unit 1 & 2

Inspection At: Scriba, New York

Inspection Conducted: March 4-8, 1991

Inspectors: Robert A. McBrearty March 26, 1991
R. A. McBrearty, Reactor Engineer, date
MPS, EB, DRS

Approved by: E. H. Gray 3/27/91
E. H. Gray, Chief, date
Materials Section,
EB, DRS

Inspection Summary: Inspection on March 4-8, 1991/Report Nos. 50-220/91-07 and 50-410/91-07

Areas Inspected: A routine, unannounced inspection was conducted of the licensee's inservice inspection activities to ascertain that those activities were conducted in accordance with applicable ASME Code and regulatory requirements.

Results: No violations were identified.

The licensee's ISI program is being implemented in compliance with applicable ASME Code and regulatory requirements. Examination personnel were properly certified to the appropriate SNT-TC-1A level of competence commensurate with the individuals assigned duties.

Nonconformance reports were clearly written, the related problems were identified and closeout was based on completion of actions and dispositions provided by the Engineering Department.



Details

1.0 Persons Contacted

Niagara Mohawk Power Corporation

- * K. A. Dahlberg, Nuclear Generation
- * L. Dick, Quality Assurance Supervisor
- * G. J. Doyle, Supervisor - Quality Inspection
- * R. Gosser, Inservice Inspection Program Manager
- * D. K. Greene, Quality Assurance
- * M. J. Mc Cormick, Plant Manager - Unit II
- * F. Oldfield, Quality Assurance
- * J. F. Pavel, Licensing Engineer
- * J. Perry, Vice President - Quality Assurance
- * J. Swenszkowski, Quality Assurance * K. B. Thomas, Site Licensing Supervisor

U.S. Nuclear Regulatory Commission

*W. Cook, Senior Resident Inspector

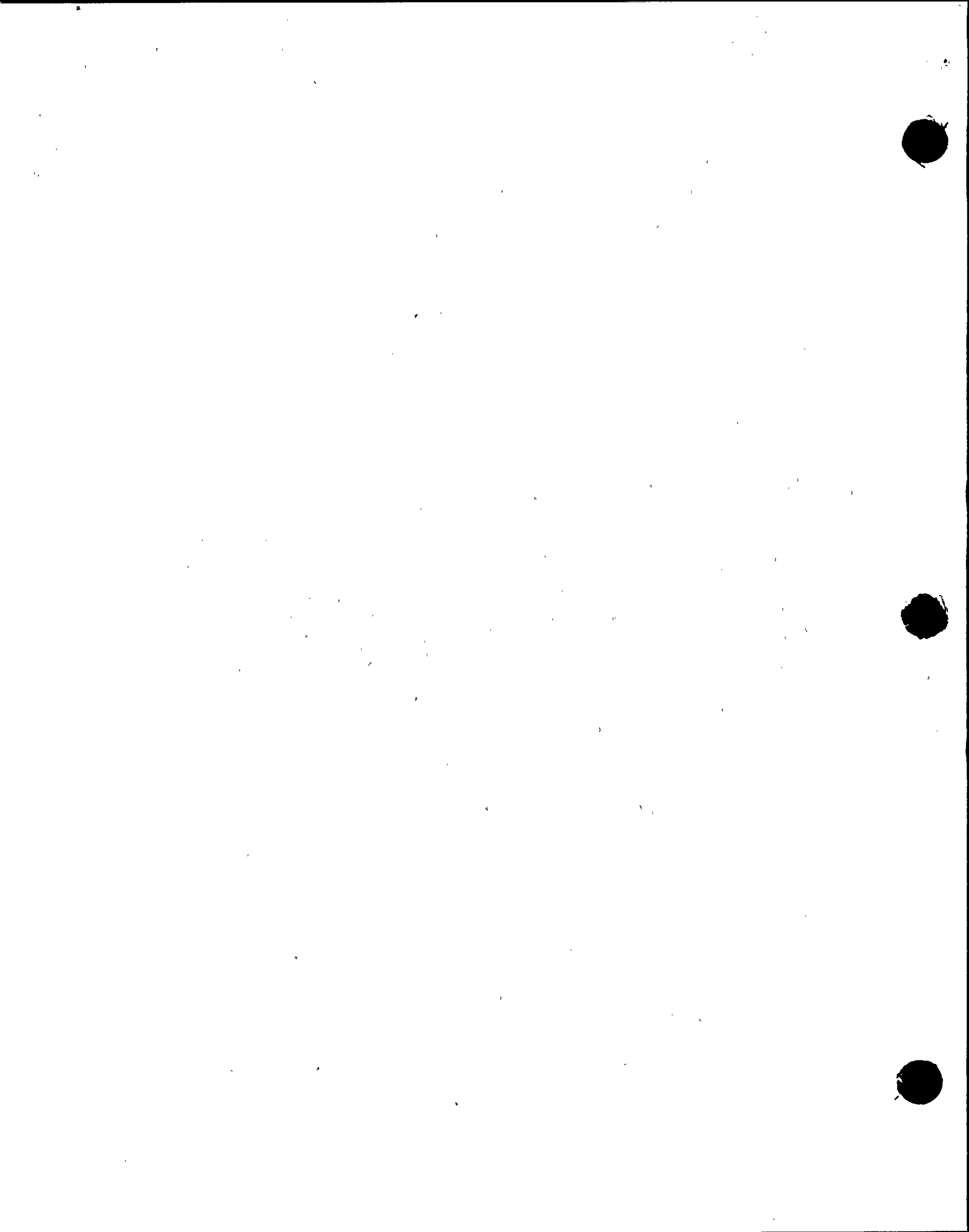
*Denotes those attending the exit meeting.

2.0 Inservice Inspection (ISI) Activities - (73753, 73755)

The Nine Mile Unit I facility is in the 2nd period of the 2nd 10-year inspection interval and Unit II is in the 2nd period of the 1st 10-year inspection interval. The applicable code at each unit is the 1983 Edition through Summer 1983 Addenda of the ASME Boiler and Pressure Vessel Code Section XI.

As a result of inservice inspection program problems identified at Unit I, a licensee review of selected portions of the Unit II ISI Program Plan was initiated in early 1989. Based on preliminary results the licensee performed a review of the entire program, and identified a number of errors and omissions which will be corrected in the next revision of the program text and inspection tables. The identified problems included the following:

- Not all Class I high-stress welds were selected for examination.
- Exempt component supports and piping welds were erroneously selected for examination.
- Improper UT calibration standards were referenced for piping ultrasonic examinations.
- Missed or inadequate preservice inspection (PSI) examinations.



- Improper Code Edition and Addenda were referenced for Class I, category B-J piping weld selections.

Because of early identification of the above items, it is likely that corrections can be made and the program properly implemented within the ASME Code requirements. However, until full implementation of the program changes is complete, this is an unresolved item (50-410/91-07-01).

To enhance the licensee's control over the ISI program, they have developed a computer data base for tracking and maintaining the 10-year program. Implementation is anticipated during the latter part of 1991, although no firm date has been established at this time.

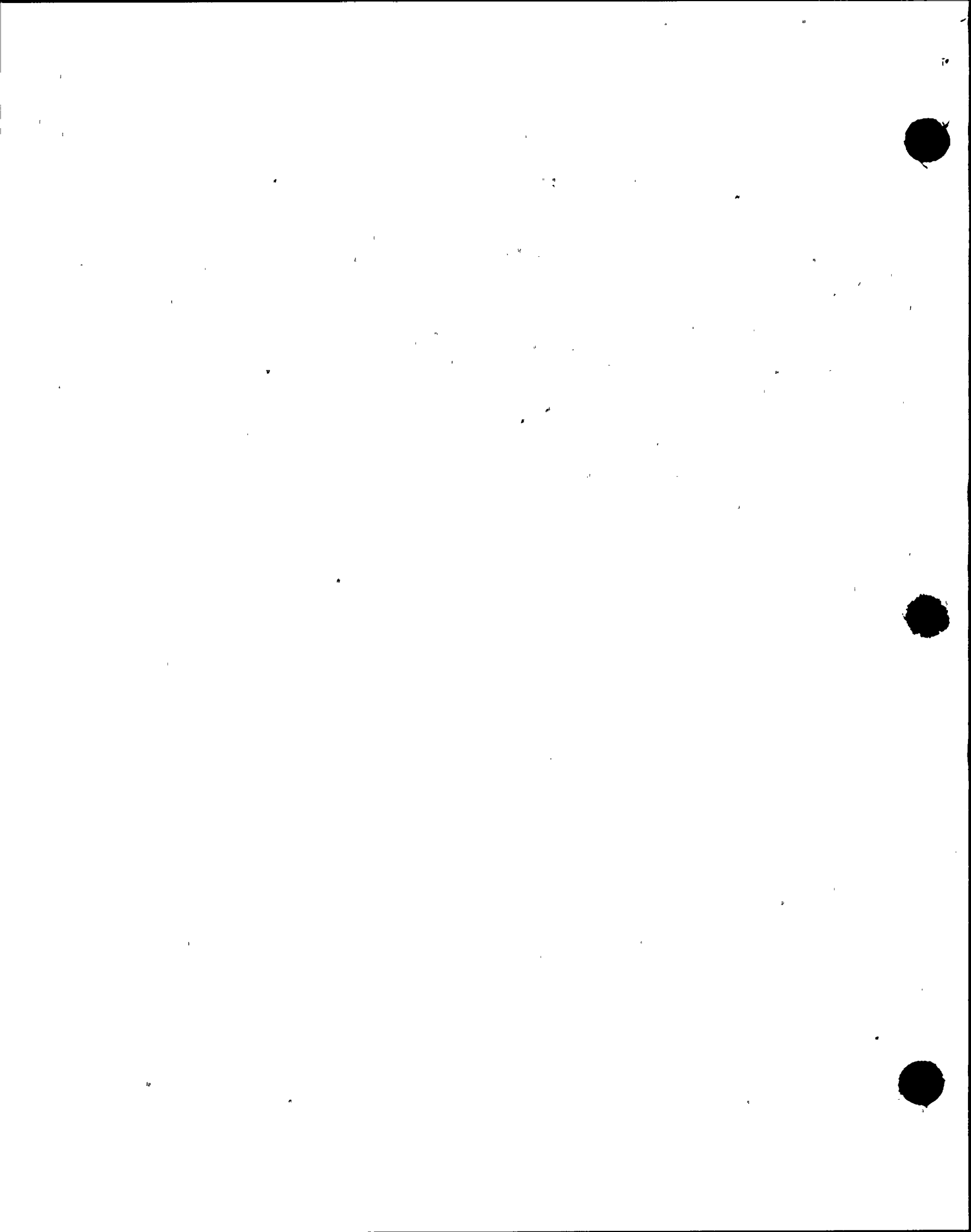
Inservice inspection results associated with ultrasonic and liquid penetrant examinations of the following welds were selected for inspection:

- Pipe to reducer weld No. 2 CSH-25-05-FW002
- Longitudinal seam weld No. 2 CSH-25-05-LW02-1
- Pipe to valve weld no. 2 RHS-66-13-FW021
- Pipe to tee weld No. 2 RHS-66-55-FW001
- Longitudinal seam weld No. 2 RCS-64-00-LW12A
- Elbow to pump weld No. 2 RCS-64-00-FWA05
- Pipe to elbow weld No. 2 RCS-64-00-SW04

The examination results were inspected to verify compliance with procedural and programmatic requirements. The examinations were performed manually by nondestructive examination personnel of NIC, Incorporated, the licensee's ISI vendor.

Findings

The inspector determined that ASME Code Section XI requirements regarding examination methods and recording results of the examinations were complied with. The licensee's data review process included its Level III and the Authorized Nuclear Inservice Inspector (ANII). Additionally, the data packages showed evidence that preservice or previous inservice inspection data were reviewed and compared with the current examination results.



Inservice inspection is under the purview of the Quality Assurance Department which controls ISI activities of contractors, or performs certain examinations. The inspector questioned the independence of the QA audit function when performing audits on ISI activities. In response to the inspector's question the licensee stated that, although the audit group and the inspection group are each a part of the QA Department, they report to different Managers and thus maintain the necessary degree of independence as required by 10CFR 50, Appendix B. The inspector had no further questions regarding this matter.

Conclusion

The licensee's ISI program is being implemented in compliance with applicable ASME Code and regulatory requirements.

3.0 Nondestructive Examination Personnel Qualification/Certification Records (73753)

Qualification/Certification records of the licensee's NDE vendor personnel responsible for performing examinations associated with data reviewed by the inspector were examined to ascertain compliance with requirements of SNT-TC-1A, the governing document. Records of NIC personnel responsible for performing Generic Letter 88-01 examinations were by a formal program approved by the NRC. Additionally, records of licensee Level III personnel were examined.

Findings

The inspector determined that each of the individuals responsible for performing the aforementioned examinations was properly certified to the appropriate SNT-TC-1A level of competence commensurate with his assigned duties. Further, the individuals responsible for performing Generic Letter 88-01 examinations were listed on the EPRI Registry of Qualified Personnel for UT of IGSCC. Licensee Level II personnel were determined to be properly certified to appropriate examination methods included by SNT-TC-1A.

Conclusion

The personnel responsible for performing inservice inspection at Nine Mile Point were properly qualified and certified in compliance with applicable ASME Code requirements.



Inservice Inspection Related Nonconformance Reports (73753)

Nonconformance reports (NCR) related to inservice inspection activities at Unit I and Unit II were selected for inspection to ascertain whether problems were clearly identified, the appropriate disposition was provided by Engineering, and that proper closeout of each NCR was accomplished. The following were included in the inspection:

Unit I NCRs

- NCR No. 1-89-0496, opened on 7/20/89 to document a minimum wall violation regarding feedwater system weld 51-BFS-SW-33A
- NCR No. 1-89-0554, opened on 11/8/89 to document rejectable surface examination indications in base metal of pipe at support 93-SCR-91, and to document undersized integral attachment welds
- NCR No. 1-89-0188, opened to document excessive liquid penetrant bleedout on weld 38-02-SW-1

Findings

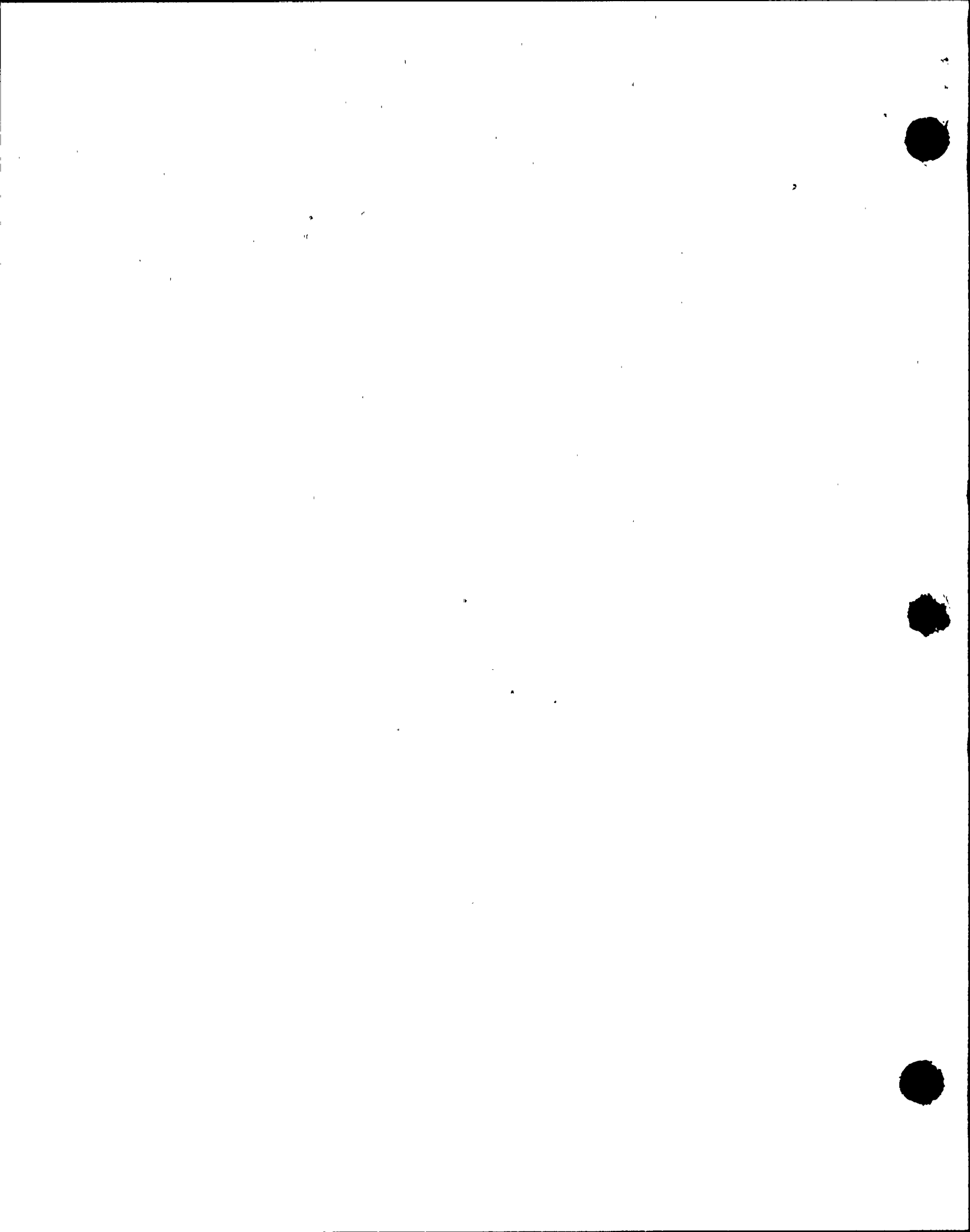
The two welds displaying wall thickness below the minimum allowable thickness were repaired and reinspection confirmed that the wall thickness was acceptable. Based on the re-inspection results the NCRs were closed.

NCR 1-89-0554 was closed subsequent to repair and re-examination of the base metal indications and the use-as-is disposition of the undersized welds based on engineering evaluation of the welds.

Weld 38-02-SW-1 was re-examined by the liquid penetrant method and was ascertained to be acceptable. The excessive bleedout was determined to be a results of inadequate penetrant removal after the penetrant dwell time has elapsed.

Unit II NCRs

- NCR No. 2-90-0041, opened on 10/9/90 to document rejectable visual inspection results on support 2RHS-PSS-P033A2
- NCR No. 2-88-0050, opened on 19/19/88 to document rejectable ultrasonic indications on weld 2-MSS-01-014-FW027
- NCR No. 2-90-0064, opened on 10/29/90 to document ultrasonic indications on weld KC32



Findings

Support 2 RHS-PSS-PO33A2 was restored to an acceptable condition by repair welding and by re-installing support clamps per the installation procedure. Additional supports were examined to comply with ASME Section XI requirements. Based on verifications that the rejectable conditions were corrected the NCR was closed.

Weld 2-MSS-01-14-FW027 was repaired subsequent to the removal of the source of the ultrasonic indications. The NCR was closed based on the repair and acceptable reinspection results. Three additional welds were examined to comply with ASME Section XI sample expansion requirements.

Weld KC32 is the N16 core spray nozzle safe-end extension to safe-end weld which displayed an indications evaluated as IGSCC. Re-examination after application of the Mechanical Stress Improvement Process (MSIP) showed a significant change in circumferential length and through wall depth of the crack. The licensee committed to re-examine the weld during a mid-cycle shutdown (5 to 10 months from start up from the 1990 refueling outage), and to prepare a revised fracture mechanics evaluation which assesses parameters identified in the NRC Safety Evaluation. At the exit meeting the licensee confirmed its commitment as stated above. The NCR remains open pending inclusion of the requirement to monitor the defect during the mid-cycle outage.

Nonconformance reports are entered in a computer data base for tracking purposes. During a refueling outage a list of outstanding NCRs is generated daily and controls are in place to assure that NCRs are closed prior to plant start up, or the documented problem is evaluated to determine that the plant can be started prior to closeout.

Conclusion

The NCRs clearly identified the related discrepancies, dispositions were determined to be appropriate for the stated problem, and NCR closeout was based on documented information.

Controls are in place to assure NCR closeout prior to plant start up after an outage, or NCR evaluation to determine that plant operability will not be adversely affected.

5.0 Exit Meeting

The inspector met with licensee representatives denoted in Paragraph I at the conclusion of the inspection on March 8, 1991. The inspector summarized the scope and findings of the inspection.

The licensee did not indicate that proprietary information was involved within the scope of this inspection.

