

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-410/87-14

Docket No. 50-410

License No. NPF-54 Category B

Licensee: Niagara Mohawk Power Corporation
300 Erie Boulevard West
Syracuse, New York 13202

Facility Name: Nine Mile Point Nuclear Power Station, Unit 2

Inspection At: Scriba, New York

Inspection Conducted: April 13-17, 1987

Inspector: H. I. Gregg
H. I. Gregg, Lead Reactor Engineer

5-21-87
date

Approved by: J. R. Strosnider
J. R. Strosnider, Chief, Materials
and Processes Section, Engineering
Branch, DRS

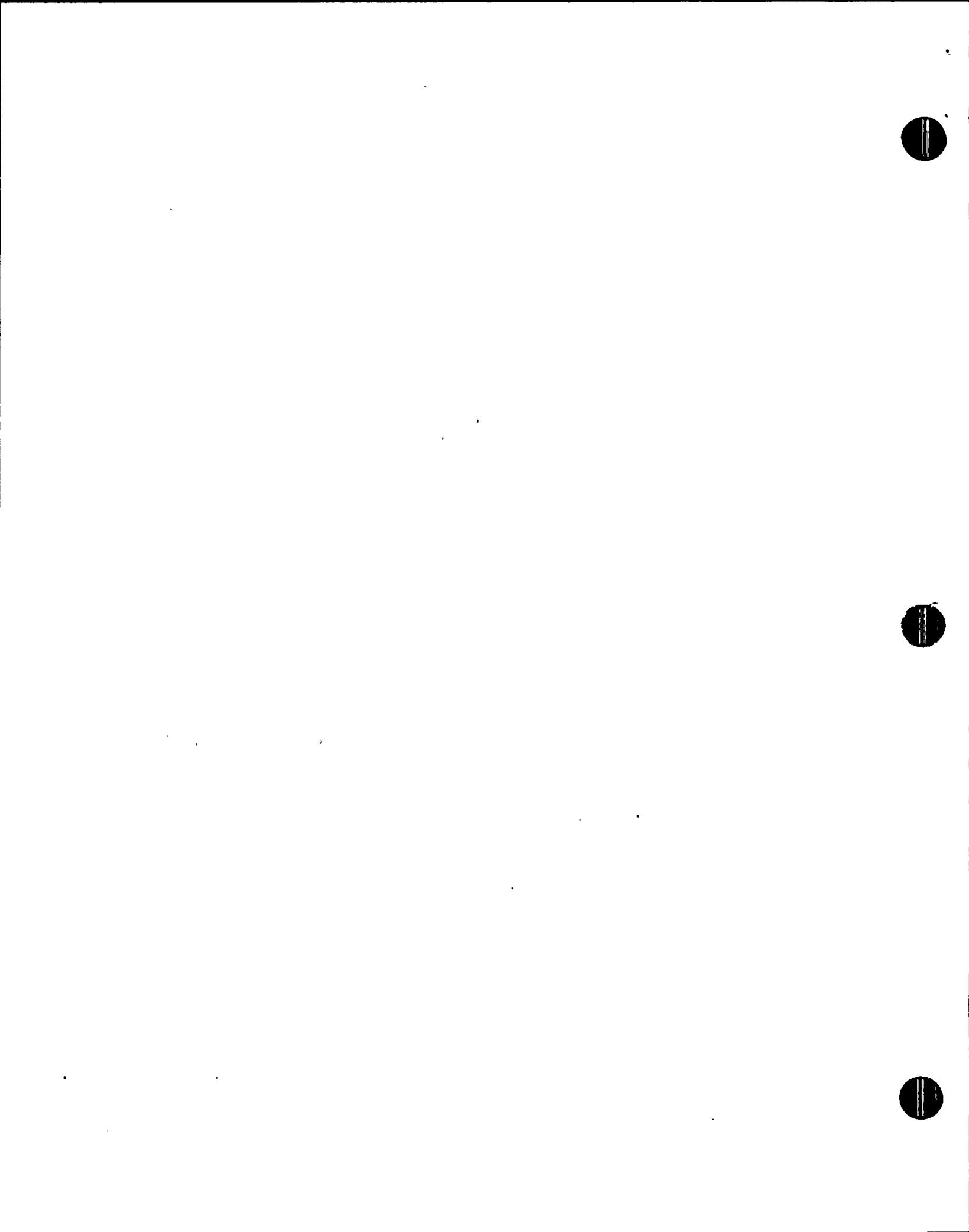
5/26/87
date

Inspection Summary: Inspection on April 13-17, 1987 (Report No. 50-410/87-14)

Areas Inspected: This inspection was a routine unannounced follow-up inspection of the licensee's activities related to the installation of the new Rockwell "Y" pattern globe type MSIVs. (These new valves have replaced the Crosby ball type MSIVs.) This inspection effort focused on the completion of the large bore (26" pipe) welds of the MSIVs and the preliminary informational leak tests conducted on valves 6D and 7D.

Results: No violations were identified.

8706080059 870529
PDR ADDCK 05000410
Q PDR



DETAILS

1.0 Persons Contacted

1.1 Niagara Mohawk Power Corporation (NMPC)

R. Abbott, Station Superintendent
*C. Beckham, MSIV QA Coordinator
T. Collopy, MSIV Construction Superintendent
D. Pike, MSIV Engineering Manager
A. Pinter, Site Licensing Coordinator
*M. Ray, MSIV Project Manager
D. Student, QA Surveillance Engineer

1.2 Stone and Webster Engineering Corporation

*M. Allan, Power Engineer
T. Arrington, Resident Manager, FQC
R. Blackwelder, Senior FQC Inspector
P. Hanks, Welding Supervisor
R. Keech, Operations Engineer
*D. Koehl, Startup and Test Lead Engineer
E. Magilley, Assistant Superintendent, FQC
*D. McCullough, Startup and Test Engineer
N. Palmer, Chief Welding Supervisor

1.3 General Electric Company

C. Nieh, Principal Engineer

1.4 New York State Public Service Commission

*P. Eddy, Site Representative

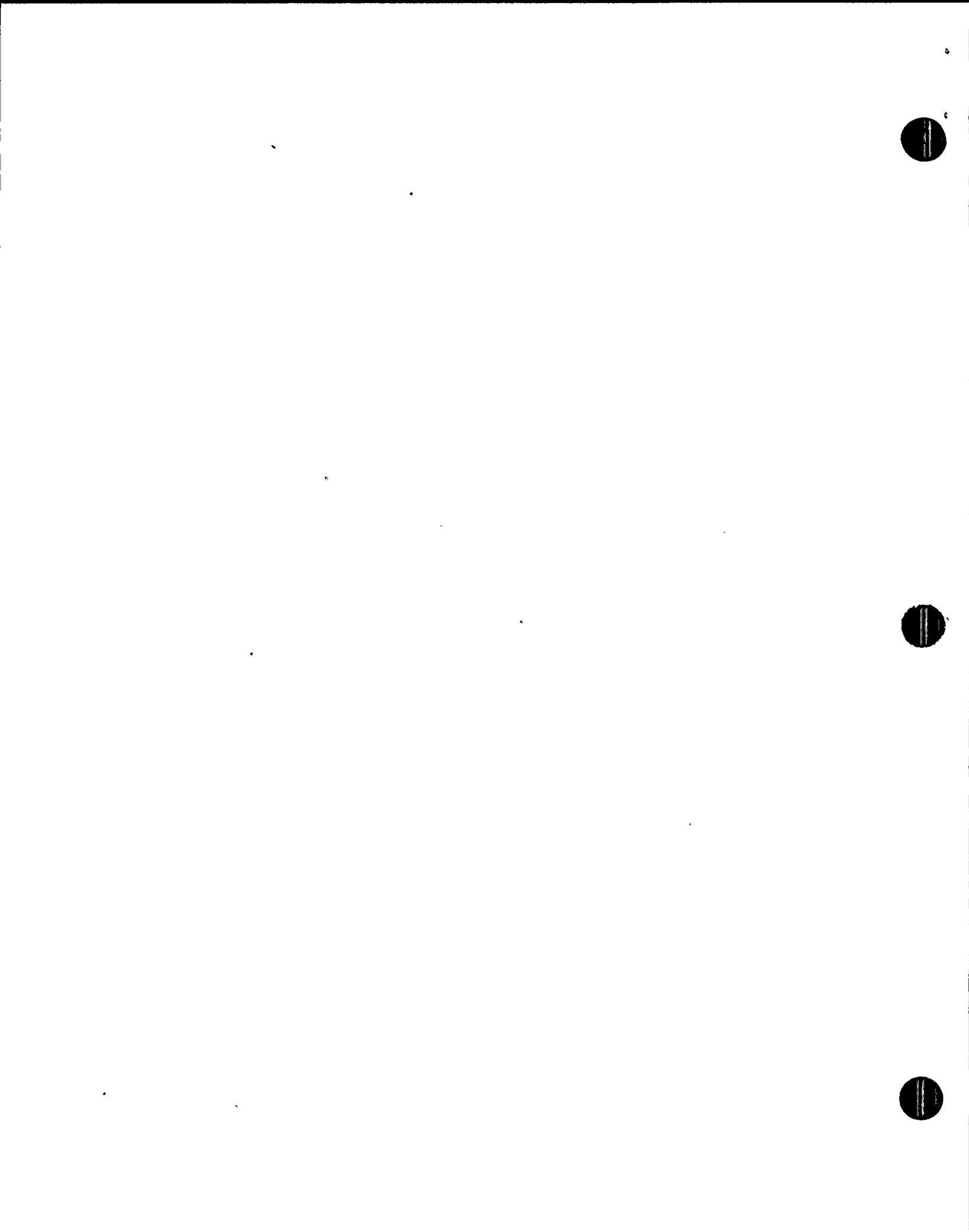
1.5 U.S. Nuclear Regulatory Commission

*W. Cook, Senior Resident Inspector
*W. Schmidt, Resident Inspector

*Denotes those present at the exit meeting.

2.0 Installation of Rockwell "Y" Type MSIVs

At the conclusion of inspection 87-11 that covered MSIV replacement activities, four of the new MSIVs were in place and several welds were in process. The only completed welds were those made in the fabrication shop where transition pieces were welded to the MSIVs prior to the MSIVs being moved to their location inside the reactor building.



2.1 Purpose of Inspection

The purpose of this inspection was to follow-up on the MSIV installation (Mod package 204), observe the in-process welding of the MSIVs to their adjoining piping, review the completed weld documentation, and to review problems that occurred and their resolution. Other areas to be reviewed were: the preliminary MSIV leak testing of valves 6D and 7D, the fabrication details of the eight air accumulator tanks and their hydrostatic tests, and the proposed method of Type "C" leak testing of the MSIVs. In each of the inspection areas, compliance to regulatory requirements and adherence to commitments to applicable codes, standards and procedures were reviewed.

2.2 MSIV to 26" Piping Weld

The inspector observed the in-process welding of the four MSIVs inside the drywell (valves 6A,B,C, and D) and the four MSIVs in the steam tunnel (valves 7A,B,C and D). The specific welds, 6B-FW001 and FW003, 6C-FW001 and FW002, and 7A-FW003 were observed during welding.

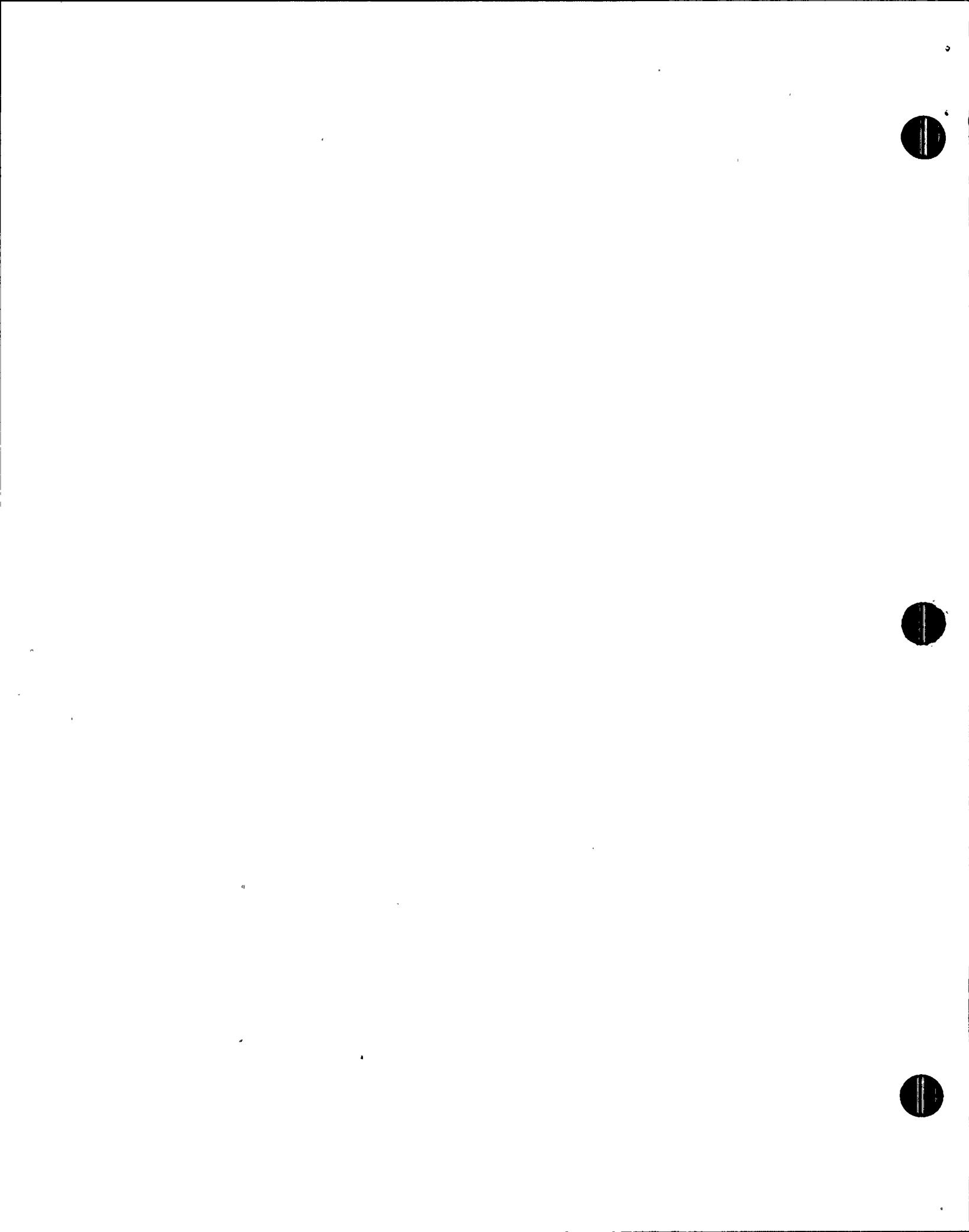
The inspector reviewed the data sheets for the above welds and several completed welds (6A-FW001 and FW002). The weld data sheets contained the appropriate welding and examination details, sign-offs of root and final pass welding, radiography acceptance and ANII approvals. The inspector reviewed the Non-conformance and Deficiency Reports (N&Ds) related to weld 6A-FW002 because it was noted there had been a fit-up problem involved with this weld. N&Ds 17187 and 17188 covering root pass repairs and the final RT records were reviewed and the inspector verified that the licensee's disposition of this problem was acceptable.

Problems of porosity and lack of fusion of root weld 7A-FW003 resulted in repeated rejections. The inspector reviewed the documentation pertaining to the root weld, discussions were held with cognizant personnel and observations were made of the weld problem location. The problem area of the weld was located at the 3 o'clock position facing the valve inlet. An adjacent I beam restricted accessibility to this location. The rejected weld area was gradually reduced and after the eighth repair, was found acceptable. The N&Ds associated with this repair (N&D 17200, 17201, 17202, 17204 and 17205) were reviewed.

No violations were identified.

2.3 Internal Cleanliness of 26" Steam Piping

The inspector reviewed the licensee's position that flushing of the MSIVs and piping is not needed following welding activities. A GE Field Deviation Disposition Request KG1-0774, Revision 14, responded to the licensee's request for deletion of flushing and recommended 6 practices to be observed when flushing is deleted.



One GE recommended practice dealt with open butt welds where the internal cleanliness following welding activities should be restored to a Class B cleanliness level. The inspector was concerned that the open butt root weld repairs being made represented a source of grinding chips and inappropriate internal cleanliness.

A SWEC memo dated April 17, 1987, described cleanliness operations during MSIV installations. The memo stated the methods utilized to maintain cleanliness (inspection and vacuum cleaning through gamma holes) when a weld repair preparation involved grinding through the root. The licensee has committed to document the cleaning for repair welds that involved grinding through the root. SWEC verification of cleanliness will be placed on the weld data sheet and will include an appropriate sign off acceptance. Subsequent to the inspection exit, the inspector was advised that water flushing was performed before acceptable MSIV leakage rates were obtained.

No violations were identified.

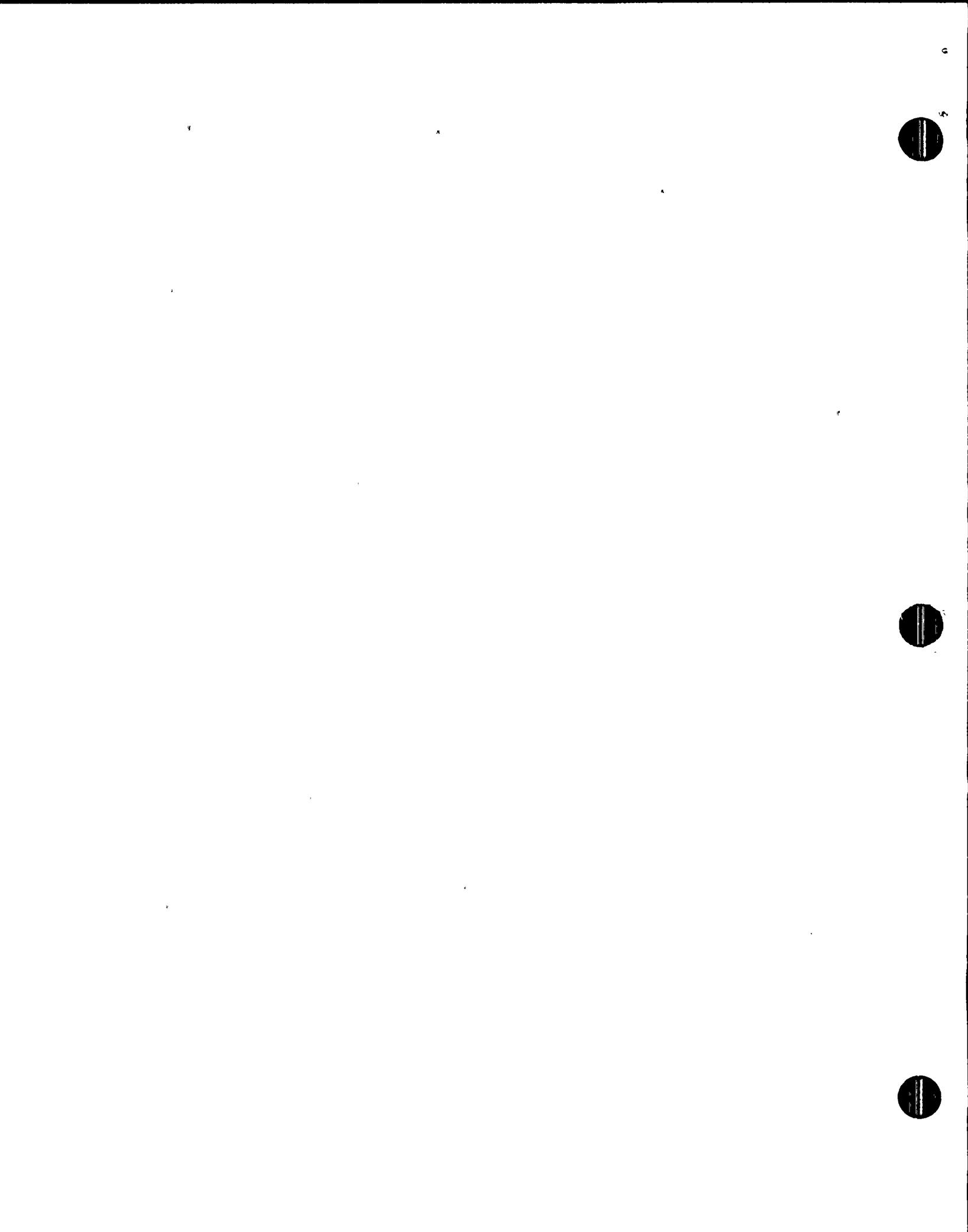
2.4 Preliminary Valve Leakage Test (Line D")

The inspector observed the licensee perform preliminary leak testing of valves 6D and 7D. This test was performed by supplying 20 psig air between the valves and determining the gross leakage. Upstream pressure at valve 6D and downstream pressure at valve 7D was 0 psig and there was no air supplied to the actuator. (Closing force on the valves was by springs only.) This test resulted in gross leakage that could not be quantified.

After review of the results and discussions with GE, the valves were stroked and set for closing time and between the valve testing was reperformed. This test was performed with approximately 120 psi air supplied to the actuator (the other conditions were the same as the earlier test). The test results were improved, however, the leakage was still offscale indicating that it was greater than 40 standard cubic feet per hour (SCFH). The technical specification maximum allowable leak rate is 6 SCFH.

Subsequent to these tests, a meeting was held with NMP-2, GE, and SWEC to review the test results and plan next leak test. It was decided that the seating loads were not sufficient. An additional seating force resulting from 40 psig air pressure applied over the main disc to provide increased seat sealing contact force is planned in future leak rate testing. The group also concluded that verification of stroke (to assure no mechanical hang-up) and cleaning of air lines should be performed prior to the next test.

No violations were identified.



2.5 Air Accumulators

The inspector reviewed the records of the 8 accumulator tanks that were fabricated on-site. The weld data records were complete.

The inspector reviewed the pressure test records for each of the tanks (IAS-H-054). The tanks were designed to ASME Section III, Class 3, for a design pressure of 225 psig. The testing was a pneumatic test at a 345 psig minimum pressure and inspection was performed at 254 psig minimum pressure. Although each test result record was completely signed off, they had notations of leakage at the threaded plug. These threaded openings were used to examine fabrication welding and will be ultimately seal welded. During the test, there was no gasketing or "O" ring sealing of the threads. The signing of the ASME N-5 forms by the ANI is being held up pending pressure testing of the tanks after seal welding of the threaded plugs.

No violations were identified.

3.0 Exit Meeting

The inspector met with the licensee's representatives (identified in paragraph 1.0) at the conclusion of the inspection on April 17, 1987, to summarize the findings of this inspection. The NRC Senior Resident Inspector, W. Cook, and NRC Resident Inspector W. Schmidt were also in attendance.

During this inspection, the inspector did not provide any written material to the licensee.

