

U. S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-220/82-16

Docket No. 50-220

License No. DPR-63 Priority -- Category C

Licensee: Niagara Mohawk Power Corporation

Facility Name: Nine Mile Point Unit 1

Inspection At: Scriba, New York

Inspection Conducted: August 24 - 27, 1982

Inspectors: E. H. Gray 9/13/82
E. H. Gray, Reactor Inspector date

R. A. McBrearty 9/13/82
R. A. McBrearty, Reactor Inspector date

Approved by: J. P. Durr 9/14/82
J. P. Durr, Chief, Materials & Processes Section date

Inspection Summary:

Inspection on August 24 - 27, 1982 (Report No. 50-220/82-16)

Areas Inspected: Routine unannounced inspection of the Inservice Inspection (ISI) Program; activities associated with the recirculation system modification including welder training/qualification, weld procedures, weld wire control, weld shrinkage, piping system stress conditions, and plans for inspection of welding by the licensee and contractors; and licensee action on previous inspection findings. The inspection involved 51 inspector-hours onsite by two regional based NRC inspectors.

Results: No violations were identified.

DETAILS

1. Persons Contacted

Niagara Mohawk Power Corporation

T. Briegle, Lead Q.A. Engineer
*G. J. Gresock, Project Manager - Engineering
F. A. Hawksley, ISI Corrdinator
*G. Leskiw, Assistant Q.A. Supervisor
*D. Palmer, Q.A. Supervisor
*R. Peceri, Q.A. Engineer
*T. J. Perkins, General Superintendent

Newport News Industrial Corporation (NNI)

*T. W. Gillman, Project Engineer
T. Watson, Q.A. Manager
J. Pastorok, Welding Engineer

Nuclear Energy Services, Inc. (NES) Construction Inspection

R. Zieber, Site Supervisor - Level III RT

Factory Mutual Insurance Company

F. Stelter, Authorized Nuclear Inspector

*Denotes those present at the exit interview.

2. References

- a) 10 CFR Part 50 Appendix B
- b) ASME Code Section III, Summer 1977
- c) ASME Code Section XI, Summer 1977
- d) ANSI B31.1, 1955
- e) ASME Code Section IX Latest Edition and Appendix A

3. Licensee Action on Previous Inspection Findings

(Closed) Unresolved item (220/82-13-01): RT level II certification record. The inspector reviewed additional NES records including a memorandum from L. D. Ludwig, Level III which certified that the individual in question completed the required training on February 5, 1981 for certification as a level II radiographer. Based on the above this item is considered closed.

(Closed) Inspector followup item (220/82-13-03): The Q.C. check that the welder does in fact have the required weld material is accomplished by the weld history record entry made by the Q.C. inspector showing the actual weld material in use. This item is closed.

(Open) Inspector Followup item (220/82-13-02): Training and qualification aspects of weld process control using television monitoring equipment. During the inspection 82-16, the NRC inspector observed that the Qualified

Welders list as revised on August 21, 1982 did not show which welders were qualified and trained to weld using the video equipment. Also the qualification/training procedure 1399-K-W002, Revision E, does not address the question of operator use of video equipment to control welding. By telephone discussion with Mr. J. Pastorok, the NNI welding Engineer, on September 1, 1982, the list of qualified welders has been revised to show those welders who are adequately trained to use the television system.

The item also indicates that procedure 1399-K-W002 would be revised by NNI to provide for adequate machine operator retraining just prior to component welding. Revision E of 1399-K-W002 of August 23, 1982 does not cover retraining of weld machine operators. This item continued to be unresolved.

4. Inspection Areas and Findings

a) Independent Inspection Effort.

The inspectors observed portions of evaluation of safe end and recirculation pipe weld cracks by representatives of the General Electric Company. Testing observed included visual examination, liquid penetrant testing and ultrasonic examination. The dimensions were taken of one roughly elliptical shaped crack 2 1/8" Long x 0.45" deep that appeared to be intergranular stress corrosion cracking as initiated from the material surface at the edge of root weld pass.

The inspectors visited the television monitoring center where all significant in containment work activities are being monitored and video recorded.

No violations were noted.

b) Reactor Coolant Loop Piping - Welding Procedures Specifications and QA Procedures.

The portion of procedure number 1399-K-W001 covering machine gas tungsten arc welding (MGTAW) was reviewed. During observation of welding it was confirmed that the welding operator did have access to essential welding procedure variables at the welding station and that they were being followed. No violations were noted.

c) Weld Material Control.

During observation of welds and welding in process the inspector verified that empty weld material spools and boxes as well as weld wire on the machines were that required for the welding of safe ends to nozzle buildup.

The inspector observed the weld materials holding and distribution area. The weld materials observed in the approved for issue area were clearly identified. The latest list of approved weld materials was available and in use at the weld materials distribution area.

Issue of weld material requires the welders' supervisor to complete a "weld metal draw chit." Review of weld metal draw chits for MGTAW showed no identification of the supervisor who had filled out the chit, therefore the inspector noted that it was not certain that the chit had actually been prepared by the supervisor of the welder. By memo of the NNI QA Manager of August 26, 1982 each weld metal draw chit will be initiated by the originating supervisor. This item is considered unresolved pending licensee review of previous weld metal draw chits to assure they were prepared by the authorized individual. (220/82-16-01)

While in the weld wire issue area, the inspector noted and pointed out to the NNI representative that welding materials of different material types were in the same storage bin. Although the materials were marked, not separating different types of weld materials presents an unnecessary risk of material mixup. A recheck of the weld issue area on the following day showed weld materials to be separated by material type.

No violations were identified.

d) Welder Qualification and Training

During inspection 220/82-13 NNI stated that the welding operator qualification and the training document 1399-K-W002 would be revised to provide for adequate training of welders who are qualified for MGTAW with stainless steel weld materials to weld with the MGTAW process where Inconel (ER Ni CR-3) weld materials are required. The inspector reviewed those portions of Revision E, dated August 23, 1982 of Procedure 1399-K-W002 which accomplished the above change. The inspector observed portions of a weld machine operator 6G Test in progress, verified the identification of the welder and determined the welder was knowledgeable about the operation of the welding equipment.

e) Reactor Coolant Pressure Boundary Piping Work Observation

The letter of August 6, 1982 of T. E. Lempges (NMPC) to D. G. Eisenhut (NRC) states that "Since the Configuration of the system will be the same as the original design, Niagara Mohawk does not intend to redo the existing stress analysis. The seismic design criteria are as specified in Section III of the Final Safety Analysis Report."

NNI has not prepared the CWI for replacement of the recirculation piping including the closure component pipe welding. The inspector questioned both NNI and NMPC to determine what original construction instructions or procedures would be used in preparing this CWI so that the original piping configuration will be duplicated by the replacement piping system. The original construction instructions or procedures for piping installation were not available. This item is unresolved (220/82-16-02).

The inspector observed safe end welding in progress, both directly and by video monitoring, checked weld operators qualifications and discussed weld equipment operation with certain welders. Radiographs of weld root layers and completed welds were reviewed.

No violations were noted.

5. Recirculation System Modification

The inspector held discussions with NNI representatives and reviewed documentation associated with the recirculation system modification.

The following were included in the review:

- . NES Liquid Penetrant Procedure No. 80 A 6456, Revision A, "Procedure for Solvent Removable Color Contrast Penetration Examination 1977 Plus S 77"
- . Available liquid penetrant inspection records

The modification is governed by the requirements of ASME Section III, 1977 Edition, which requires that a surface examination, liquid penetrant or magnetic particle, be performed on external and all accessible internal surfaces of welds.

The inspectors' discussion with the NNI QA Manager indicated that internal surface penetrant examinations were not planned, that the external surfaces only would be examined. When the NNI representative was advised of the code requirement he stated that it would be considered. At the exit meeting the licensee representative stated that the code requirement would be complied with. The inspector stated that the applicable CWI should be revised to identify the surfaces which must be examined. He further stated that welds which are determined to be inaccessible should be identified with reasons for that determination. This item is considered unresolved pending licensee action and subsequent NRC review. (220/82-16-03).

At the exit meeting the licensee was advised that unresolved item 220/82-13-01 would be closed, but that it appeared that the licensee's review of NDE contractor personnel certification records was not as complete as it should be. The inspector stated that those records would be examined during a subsequent NRC inspection.

No violations were identified.

7. Inservice Inspection (ISI) Program Review

The ISI program was reviewed with respect to 10 CFR 50.55a requirements and applicable requirements in the ASME Code, Section XI.

The 1974 Edition of Section XI is applicable until the end of the current ten year inspection interval which is scheduled to end in 1985. Prior to the end of the interval the ISI program must be updated in accordance with the requirements of 10 CFR 50.55a.

The NES document entitled "Examination Report - Spring 1981 Outage Including 10 Year and Augmented Inservice Inspection Program for Nine Mile Point Unit 1," includes a compilation of the ISI items completed and the percent complete up to the 1981 refueling outage, but does not include the examinations completed during that outage. At that time 51 percent of the 10 year program was completed and 96 percent of the augmented program was done.

Discussions with licensee personnel indicated that no procedural method exists to assure that new welds get into the ISI program after system modifications are made. At the exit meeting the licensee representative stated that the necessary procedure will be provided by November 1, 1982. This item is considered unresolved pending licensee action and subsequent NRC review. (220/82-16-04)

No violations were identified.

7. Unresolved Items

Unresolved items are matters about which more information is required to determine whether they are acceptable items, violations or deviations. Unresolved items identified during this inspection are discussed in paragraphs 4, 5C, 5e, 6 and 7.

8. Exit Interview

The inspectors met with the licensee representatives denoted in paragraph 1 at the conclusion of the inspection on August 27, 1982. The inspectors summarized the purpose and the scope of the inspection and the findings. Mr. S. Hudson, NRC Resident Inspector was present at the exit interview.