

U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

Region I

Report No. 50-220/78-20

Docket No. 50-220

License No. DPR-63 Priority -- Category C

Licensee: Niagara Mohawk Power Corporation

300 Erie Boulevard, West

Syracuse, New York 13202

Facility Name: Nine Mile Point Nuclear Station, Unit 1

Inspection at: Scriba, New York

Inspection conducted: November 27-29, 1978

Inspectors: Lee H. Thonus

Lee H. Thonus, Radiation Specialist

12/26/78

date signed

Karl E. Plumlee for

Karl E. Plumlee, Radiation Specialist

12/26/78

date signed

date signed

Approved by: Hilbert W. Crocker

Hilbert W. Crocker, Acting Chief, Radiation
Support Section, FF&MS Branch

12/28/78

date signed

Inspection Summary:

Inspection on November 27-29, 1978 (Report No. 50-220/78-20)

Areas Inspected: Routine, unannounced inspection of radiation protection during operation by two regional based inspectors including: licensee action on Bulletins and Circulars; licensee audit; posting; labelling and control; notifications and reports; and facility tours. Upon arrival, at 4:30 p.m. on the second shift, a tour was conducted of the restricted area to observe radiation safety practices. The inspection involved 35 inspector-hours onsite by two NRC regional based inspectors.

Results: Of the five areas inspected, one apparent item of noncompliance was found in one area (Infraction - failure to follow radiation protection procedures - paragraph 4).



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DETAILS

1. Persons Contacted

Principal Licensee Employees

- J. Aldrich, Training Supervisor
- V. AuClair, Station Shift Supervisor
- L. Donoghue, Assistant Office Supervisor
- *J. Duell, Assistant Supervisor, Radiochemistry and Radiation Protection
- *E. Leach, Supervisor, Radiochemistry and Radiation Protection
- G. Leskiw, Supervisor, Operations Quality Control
- W. Mosher, Office Supervisor
- *J. Pavel, Assistant to the General Superintendent - Nuclear Generation
- *T. Perkins, Station Superintendent
- *G. Sagliocca, Assistant Supervisor, Radiochemistry and Radiation Protection
- G. Shelling, Assistant Supervisor, Radiochemistry and Radiation Protection
- *M. Silliman, Results Superintendent
- C. Stuart, Operations Supervisor

The inspector also interviewed approximately 10 other individuals including radiation protection technicians, auxiliary operators, clerical personnel and members of the security force.

* denotes those present at the exit interview

2. Licensee Action on IE Bulletins and Circulars

Bulletins

- 78-07 Protection afforded by air-line respirators and supplied-air hoods. This item was previously inspected in inspection (50-220/78-12). The licensee does not use air-line supplied-air respirators in the demand mode. Air flow thru hoods was measured and found to range from 7-9 SCFM with the vortex valve fully closed and from 10.5 to 14 SCFM with the vortex valve fully open. This exceeds the recommended minimum value of 6 SCFM. A protection factor of 1000 is utilized for these devices. The inspector had no further questions regarding this item.

Circulars

- 76-03 Corrective actions to minimize exposures in reactor cavities. The licensee's high radiation area control has been examined. The areas encompassed by Circular 76-03 have been reviewed and completed. Further review of high radiation area control will be followed via item (50-220/78-12-04).



78-03 Packaging greater than type A quantities of low specific activity radioactive material for transport. The inspector verified that the licensee had the necessary certificates of compliance and supporting documentation to qualify for a general license to ship radioactive materials in accordance with 10 CFR 71.12 and had provided the Director of Nuclear Material Safety and Safeguards with the required information. The inspector also reviewed the licensee's quality assurance program regarding shipments. The inspector had no further questions regarding this item.

No items of noncompliance were identified.

3. Licensee Audit

Technical Specification 6.5.2.7 requires that audits shall be performed under the cognizance of the Safety Review and Audit Board (SRAB) including an audit encompassing "the conformance of facility operation to all provisions contained within Technical Specifications and applicable license conditions at least once per year."

The inspector examined results of an SRAB audit conducted August 1-4, 1977, which covered radiation protection related Technical Specifications. Areas covered included, Radiation Work Permits, Exposure Control, Surveys, Radioactive Effluents, Radiochemical Analyses, Water Chemistry, Instrumentation Calibration, Waste Shipments and others.

The licensee's 1978 SRAB audit had been conducted, but the report was not yet available. The inspector discussed the preliminary results with members of the Radiochemistry and Radiation Protection Staff.

In-plant audits and inspections were also reviewed. Topics covered included dosimeters and high radiation area control.

No items of noncompliance were identified.

4. Posting, Labelling and Control

Radiation areas and high radiation areas are required to be posted in accordance with 10 CFR 20.203(b) and 10 CFR 20.203(c), respectively.

Approximately 15 of each were examined to verify that they were properly posted. Several containers of radioactive materials were observed to be labelled in accordance with 10 CFR 20.203(f).

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10 CFR 19.11 requires the licensee to post copies of certain documents or the locations where the documents may be examined. These documents include 10 CFR 20, the facility license, operating procedures, any notice of violation involving radiological working conditions and form NRC-3. The inspector observed form NRC-3 and a recent notice of violation posted and that a notice detailing the availability and locations of the other required documents was posted.

Technical Specification (TS) 6.11, "Radiation Protection Program," requires that: "Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure."

The inspectors reviewed the licensee's revised procedure RP-2, Radiation Work Permit Procedure (dated September, 1978) developed pursuant to TS 6.11. Several Radiation Work Permits (RWP) were selected to determine if the revised procedural requirements were being adhered to.

Paragraph 4.6 of procedure RP-2 requires the radiation protection technician to enter the remaining authorized radiation exposure during the calendar quarter on the RWP for each individual selected to work on the job. Paragraph 5.8 requires that individuals added to the work force review their exposure authorization with a radiation protection technician and that the review be recorded by entering the remaining authorized radiation exposure when signing in on the RWP.

Review of RWP No. 8973, dated October 31, 1978, indicated that 100 mrem was erroneously entered as the authorized exposure for each of three individuals instead of their actual authorized exposures of 900 to 1000 mrem. On RWP No. 9072, dated November 14, 1978, the authorized exposure of one of two individuals working on the job was similarly in error. The individuals had entered estimated exposures rather than remaining authorized exposure. The inspector noted that though these particular errors were in a conservative direction, they would not have been for individuals with high quarterly exposures. The inspector identified the above failure to follow procedure RP-2 as noncompliance with Technical Specification 6.11 (50- 220/78-20-01).

The inspectors noted that the above three individuals had not attended any of the licensee's training sessions on the revised RWP requirements. A licensee representative stated that the individuals had been self-trained by reviewing the procedure.

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5. Notifications and Reports

Exposure records of 8 individuals were examined to verify that notifications were made in compliance with 10 CFR 20.408 and 10 CFR 20.409 requirements. The licensee's summary report required by 10 CFR 20.407 and Technical Specification 6.9.6 was reviewed. Review of the licensee's master exposure record printout indicated that no reports pursuant to 10 CFR 20.405 were required.

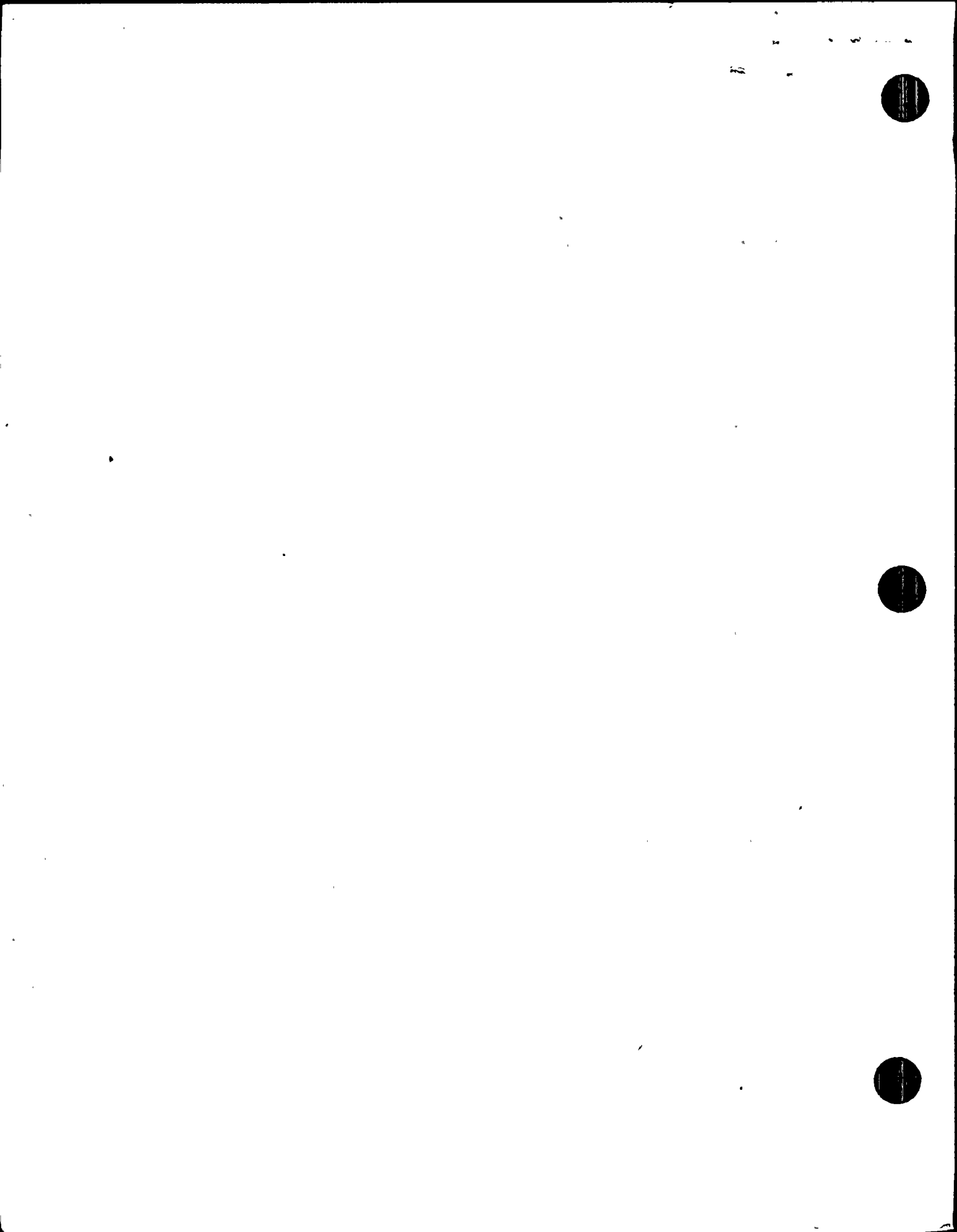
No items of noncompliance were identified.

6. Facility Tours

Upon arrival at 4:30 p.m. on the second shift, November 27, 1978, a tour of the restricted area was performed to observe radiation work practices utilized by personnel. An additional tour was made on November 28, 1978; contamination control, high radiation area control and adherence to technical specifications and radiation protection procedures were observed. Independent measurements were made by the inspectors to evaluate licensee posting and control.

The inspector identified a locked alarmed door at the entrance to a high radiation area which could be opened in a few seconds without a key. The high radiation area was a cubicle on the 225 foot elevation of the radwaste building containing waste drums with radiation levels as high as 110 R/hr on contact. The inspector referred to Technical Specification 6.13.1 which states: "In lieu of the 'control device' or 'alarm signal' required by paragraph 20.203(c)(2) of 10 CFR 20:

- a. Each High Radiation Area in which the intensity of radiation is greater than 100 mrem/hr but less than 1000 mrem/hr shall be barricaded and conspicuously posted as a High Radiation Area and entrance thereto shall be controlled by issuance of a Radiation Work Permit and any individual or group of individuals permitted to enter such areas shall be provided with a radiation monitoring device which continuously indicates the radiation dose rate in the area.
- b. Each High Radiation Area in which the intensity of radiation is greater than 1000 mrem/hr shall be subject to the provisions of 6.13.1(a) above, and in addition, locked doors shall be provided to prevent unauthorized entry into such areas and the keys shall be maintained under the administrative control of the Shift Supervisor on duty."



The licensee representative maintained that the words "in lieu of" allowed them the option of conforming to the requirements of either TS 6.13.1 or 10 CFR 20.203(c)(2), and that the door was alarmed per 10 CFR 20.203(c)(2). The inspector stated that it was the position of the NRC, Region I staff that the Technical Specification (TS) did not allow the licensee the option and that TS 6.13.1 must be followed. The inspector further stated that this item could be reviewed in a subsequent inspection.

The inspector had no further questions at this time.

7. Exit Interview

The inspectors met with licensee management representatives (denoted in paragraph 1) at the conclusion of the inspection on November 29, 1978. The inspectors summarized the purpose and scope of the inspection and the inspection findings.

A licensee management representative stated that the door (paragraph 6) had been modified to prevent entry without the required key.

