

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

Region I

Report No. 50-220/79-26

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

Inspection at: Scriba, New York

Inspection conducted: December 10, 11, and 13, 1979

Inspectors: Lee H. Thonus
Lee H. Thonus, Radiation Specialist

2/15/80
date signed

date signed

date signed

Approved by: P. J. Knapp
P. J. Knapp, Chief, Radiation Support
Section, FF&MS Branch

2/15/80
date signed

Inspection Summary:

Inspection on December 10, 11 and 13, 1979 (Report No. 50-220/79-26) "

Areas Inspected: Special unannounced inspection by a regional based inspector of the licensees response to IE Bulletin 79-19 including licensee action on IE Circulars, documents, procedures, training, audits, facility tours, and records. The inspection involved 19 inspector-hours onsite by one NRC regional based inspector.

Results: No items of noncompliance or deviations were identified.



DETAILS

1. Persons Contacted

Mr. J. Aldrich, Supervisor, Training
*Mr. J. Duell, Assistant Chemistry and Radiation Protection Supervisor
Mr. C. Gerber, Radwaste Coordinator
*Mr. E. Leach, Chemistry and Radiation Protection Supervisor
*Mr. G. Leskiw, Quality Control Auditor
Mr. D. Palmer, Supervisor, Quality Control-Operations
*Mr. T. Perkins, Station Superintendent

*Denotes those present at the exit interview on December 13, 1979.

The inspector interviewed several other licensee employees including auxiliary operators, radiation protection technicians and records clerks.

2. Licensee Action on IE Circulars

79-15 The licensee does not use the respiratory protection equipment described in the circular. The inspector had no further questions.

3. Regulatory Documents

The licensee's response to IE Bulletin 79-19 indicated that current copies of NRC and DOT (Department of Transportation) regulations were maintained in the station library and that current copies of the burial site license were maintained by the radwaste operations coordinator and the radiation protection department supervisor. The inspector examined the NRC regulations (10 CFR 71) and DOT regulations (49 CFR 170-179) in the library. These copies were page change copies which are periodically updated as changes in the regulations occur. The copy of the burial site license issued by the State of South Carolina for the Barnwell facility which is maintained by the radiation protection department head was examined and found to be up to date.

No items of noncompliance or deviations were observed.

4. Procedures

The licensee's response to IE Bulletin 79-19 indicated that revised procedures covering the transfer, packaging, and transport of waste would be developed by January 1, 1980. At the time of the inspection the procedures had not been developed, reviewed and implemented; this area will be further examined at a date after the licensee's scheduled date for the completion of the procedures. (50-220/79-26-01). A letter from the general superintendent, nuclear generation to the station superintendent dated September 21, 1979 designated the radwaste coordinator and the radiation protection manager as the individuals responsible for the safe transfer, packaging and transport of low level radioactive material.

No items of noncompliance or deviations were identified.



5. Training

The licensee implemented changes in the basic "radiation worker" training and retraining on October 5, 1979. These changes emphasized minimizing the creation of low-level waste. Courses for operators and members of the radiation protection departments were under development by a contractor. This area will be further examined at a subsequent inspection when the new training programs are implemented (50-220/79-26-02).

No items of noncompliance or deviations were identified.

6. Audits

The inspector reviewed the licensee's audit program of activities associated with the transfer, packaging, and transport of low level radioactive wastes. The licensee's audits by Quality Assurance-Operations are performed in accordance with Quality Assurance Procedure 1640 which calls for an audit report within 30 days, a response to nonconformance items within 22 days for acceptance or rejection of plant responses to nonconformance items. The procedure also contains provisions for verification of the response and provisions for escalation of disputed items.

The inspector examined the results of several licensee audits in the area of radioactive material transportation and transfer. Audit SR-79-026A was conducted September 4-13, 1979 and covered shipping, handling, and receiving of radioactive material, procedures, compliance with 10 CFR 71, compliance with 49 CFR 173, IE Bulletin 79-19 response and conformance to burial site requirements. Audit SR-79-026B conducted in the same time period covered compliance with 10 CFR 71 requirements. Audit SR-79-026C was conducted from September 10-12, 1979 and dealt with compliance with 49 CFR requirements. The licensee's normal audit program covers radioactive material transportation on a more frequent than annual basis, typically twice per year.

No items of noncompliance or deviations were identified.

7. Facility Tour

The inspector toured the licensee's radwaste area; no containers of solidified or dewatered waste were onsite. These are typically shipped offsite in casks within a day of being prepared. The inspector observed a cask being filled with resin. At the completion of the inspection the filling/dewatering process had not been completed. The inspector reviewed the licensee's method of dewatering which included repeated pump downs of the resin using a well point laid horizontally on the bottom of the cask liner. The holes in the upper half of the well point had been filled with a rubber compound such that water and air could only enter through the bottom. While in the radwaste area the inspector examined area posting and high radiation area control.

No items of noncompliance or deviations were observed.



8. Shipment Records

Technical Specification (T.S.) 6.10.1 requires in part that "records shall be retained for at least five years" including "Records of radioactive shipments". The inspector examined records of approximately 15 shipments made during 1979. Certificates of compliance and supporting documents for two cask types used by the licensee were examined to verify that the licensee fulfilled the requirements for a general license to ship radioactive materials under 10 CFR 71.12.

No items of noncompliance or deviations were identified.

9. Exit Interview

The inspector met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on December 13, 1979. The inspector summarized the purpose and scope of the inspection, and the findings as presented in this report.



CENTRALFILES



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
631 PARK AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406

2 NOV 1979

Docket No. 50-220

Niagara Mohawk Power Corporation
ATTN: Mr. R. R. Schneider
Vice President
Electric Operations
300 Erie Boulevard West
Syracuse, New York 13202

Gentlemen:

Subject: Inspection 50-220/79-24

This refers to the inspection conducted by Mr. E. T. Shaub of this office on September 14, 1979 and September 26-27, 1979, at Nine Mile Point Nuclear Station Unit 1 of activities authorized by NRC License No. DPR-63 and to the discussions of our findings held by Mr. Shaub with Mr. T. Perkins of your staff at the conclusion of the inspection.

Areas examined during this inspection are described in the Office of Inspection and Enforcement Inspection Report which is enclosed with this letter. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

Within the scope of this inspection, no items of noncompliance were observed.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must be accompanied by an affidavit executed by the owner of the information, which identifies the document or part sought to be withheld, and which contains a statement of reasons which addresses with specificity the items which will be considered by the Commission as listed in subparagraph (b)(4) of Section 2.790. The information sought to be withheld shall be incorporated as far as possible into a separate part of the affidavit. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

CCP



Niagara Mohawk Power Corporation

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.. 12 NOV 1979

No reply to this letter is required; however, should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,



Walter G. Martin, Chief
Safeguards Branch

Enclosure: Office of Inspection and Enforcement Inspection Report Number
50-220/79-24 (Contains 2.790 Information)



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

REGION I

Report No. 50-220/79-24

Docket No. 50-220 License No. DPR-63 Safeguards Group IV

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

Facility Name: Nine Mile Point I

Inspection At: Oswego, New York

Inspection Conducted: September 14, 1979, September 26-27, 1979

Date of Last Material Control and Accounting Inspection

Type of Inspection: Unannounced Material Control & Accounting

Inspectors: E. T. Shaub 10/22/79
E. T. Shaub, Safeguards Technician date
P.H. Bissett 10/25/79
P.H. Bissett, Safeguards Auditor date
_____ date

Approved by: J. H. Joyner 10/25/79
J. H. Joyner, Chief, Nuclear Material Control date
Support Section, Safeguards Branch

Inspection Summary:

Areas Inspected: Facility organization and operation, measurement and controls, shipping and receiving, storage and internal control inventory, record and reports, and management of nuclear material control system. The inspection involved 26 inspector-hours on site by two NRC inspectors and was started on the regular shift.
Results: The licensee was found to be in compliance with NRC requirements in all areas examined during the inspection.



DETAILS

1. Persons Contacted

- *T. Perkins, Superintendent of Nuclear Generation
- *W. Drews, Reactor Analyst Supervisor
- *G. Leskin, Acting Supervisor QC-Operation
- *P. Harrison, QC Engineer
- *R. Tessler, Technician D Reactor Physics
- B. Eastman, Technician D Reactor Physics

* denotes those present at the exit interview.

2. Licensee Action on Previous Inspection Findings

(Closed) Noncompliance (77-21-01) Failure to maintain on a current basis Material Control Procedure No. AP-37.

(Closed) Noncompliance (77-21-02) Failure to conduct a physical inventory within a twelve month interval as required by 10 CFR 70.51(d).

(Closed) Noncompliance (77-21-03) Failure to accumulate and include plutonium decay on Form NRC-742 reports as required to CFR 70.53.

Licensee actions on these three items were reviewed and closed during inspection 78-06.

3. Exit Interview

The inspectors met with the licensee's representatives (denoted in paragraph 1) at the conclusion of the inspection on September 27, 1979. The inspectors summarized the scope and findings of the inspection.

4. Unresolved Items

There were no unresolved items.

5. Independent Inspection Effort

No items of noncompliance were noted.

The inspectors walked through various areas of the plant to observe plant operations.



6. MC 85102B - Material Control and Accounting

No items of noncompliance were noted.

Facility Organization and Operation - The inspector verified, through review, that the licensee has prepared, maintained and utilized on a current basis, adequate written procedures for nuclear material control and accounting and that written statements of responsibility and authority have been established for those positions with responsibility for SNM.

Shipping and Receiving - Inspection results were attained through review of each of the prepared Form NRC-741, Material Transaction Reports, against criteria for preparing/completing the forms, timeliness in issuance and completion, correctness of the coding information/quantitative data, and authorized signature.

Measurement and Control - The inspectors reviewed procedures, ledgers and process computer printouts to ascertain that the licensee has established, maintained and utilized a method of computation for the determination of the total element and isotope composition of nuclear material. The licensee uses a General Electric supplied computer program, OD-12, to determine element and isotopic composition and exposure history for each fuel assembly in the reactor core. The licensee's backup method for determining thermal power output of the core is a calorimetric determination.

The inspector's independent determination of the uranium and uranium-235 fission and transmutation and plutonium production agrees with the licensee's reported figures as shown on the Forms NRC-742, Nuclear Material Status Reports, submitted for the period July 1, 1976 through March 31, 1979.

Storage and Internal Control - The licensee has established a system of storage and internal control of SNM which provides for knowledge of the quantity and location of all SNM within the facility. The inspectors reviewed SNM accountability system documents maintained by the licensee, including Fuel Element History Cards, Fuel Movement Sheets (Internal Transfer Forms), and Reactor Core and Spent Fuel Pool tagboards.

Physical Inventory - The inspectors verified the licensee's latest physical inventory by an item count of the irradiated fuel elements in the spent fuel pool and by verification of a random sample of approximately 25% of the fuel elements in the spent fuel pool to tagboards and grid maps. The core inventory was verified by selecting a random



sample of 25% of the fuel elements and comparing the location of each fuel assembly selected to the fuel element history cards, reactor core tagboards and Fuel Loading Procedure for Cycle 6, Fuel Loading.

The inspector's verification confirmed the facility SNM inventory to be as follows:

<u>Location</u>	<u>Fuel Assemblies</u>
Reactor Core	532
Spent Fuel Pool	844
Total	1,376

Records and Reports - A 100% audit of Material Status Reports (Form NRC-742) and Material Transaction Reports (Form NRC-741) filed by the licensee for the period April 1, 1977 through March 31, 1979 was performed to verify compliance with 10 CFR 70.53 and 10 CFR 70.54, respectively. Through this review it was noted that the licensee was including both natural and enriched uranium on on line 30 (receipts) of the enriched uranium Material Status Report. To avoid any future confusion, since all future shipments of fuel assemblies will contain both natural and enriched uranium, the licensee agreed to open a separate account for all natural uranium received and, for reporting purposes, transfer the appropriate amount of natural uranium from the normal uranium Material Status Report to line 22 of the enriched uranium Material Status Report. It was also noted during the review, that both the uranium and plutonium Material Status Reports for the period October 1, 1978 to March 31, 1979 were dated and actually reported for October 1, 1978 to March 1, 1979. The licensee agreed to submit corrected copies of both the uranium and plutonium Material Status Report.

Material Balance Summaries for the period covered by the inspection are shown in Exhibits I, II, and III.

Management of Material Control System - The inspection results were obtained through review of the Quality Control procedures. The last QC audit of the special nuclear material accountability procedures was completed in July, 1978. Also, QC checks are performed continuously when reactor fuel is received, moved or shipped at the site.



EXHIBIT I

PERIOD: 4/1/77 - 3/31/79

MATERIAL BALANCE SUMMARY
ENRICHED URANIUM

RIS: YGX

	<u>Element</u>	<u>Grams</u>	<u>Isoptope</u>
Beginning Inventory @ 4/1/77	221595201		3010673
Receipts	<u>31588828</u>		<u>893259</u>
Material to Account For	<u>253184029</u>		<u>3903932</u>
Removals:			
Shipments	0		0
Burn-Up	<u>1256373</u>		<u>649384</u>
Total Removals	<u>1256373</u>		<u>649384</u>
Ending Inventory @ 3/31/79	251937656		3254548
Material Accounted for	<u>253184029</u>		<u>3903932</u>



EXHIBIT II

PERIOD: 4/1/77 - 3/31/79

MATERIAL BALANCE SUMMARY
PLUTONIUM

RIS: YGX	<u>Element</u>	<u>Grams</u>	<u>Isotope</u>
Beginning Inventory @ 4/1/77	1143800		868149
Receipts	0		0
Production	<u>279703</u>		<u>189607</u>
Material to Account For	<u>1423503</u>		<u>1057756</u>
Removals:			
Shipments	0		0
Decay	<u>12245</u>		<u>12245</u>
Total Removals	12245		<u>12245</u>
Ending Inventory @ 3/31/79	<u>1411258</u>		<u>1045511</u>
Material Accounted For	<u>1423503</u>		<u>1057756</u>



EXHIBIT III

PERIOD: 4/1/77 - 3/31/79

MATERIAL BALANCE SUMMARY
NATURAL URANIUM

RIS:YGX

	<u>Element</u>	<u>Grams</u>	<u>Isotope</u>
Beginning Inventory @ 4/1/77	0		0
Receipts YLG-YGX 27-33	<u>958721</u>		<u>8095</u>
Material to Account For	<u>958721</u>		<u>8095</u>
Removals:			
Shipments	0		0
Burn-Up	<u>0</u>		<u>0</u>
Total Removals	0		<u>0</u>
Ending Inventory @ 3/31/79	<u>958721</u>		<u>8095</u>
Material Accounted For	<u>958721</u>		<u>8095</u>

Natural uranium will be transferred to the enriched uranium account in the next Form NRC-742 reporting period (4/1/79 - 9/30/79), for simplification of accounting and reporting requirements. (See paragraph 6 for details).

