

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report Nos. 50-220/90-30
50-410/90-26

Docket Nos. 50-220
50-410

License Nos. DPR-63
NPF-54

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

Facility Name: Nine Mile Point Units 1 and 2

Inspection At: Lycoming, New York

Inspection Conducted: December 17-20, 1990

Inspector:

J. Furia for

J. Furia, Senior Radiation Specialist,
Facilities Radiological Protection Section
(FRPS), Facilities Radiological Safety and
Safeguards Branch (FRSSB), Division of
Radiation Safety and Safeguards (DRSS)

12/21/90
date

Approved by:

W. Pasciak

W. Pasciak, Chief, FRPS, FRSSB, DRSS

12/21/90
date

Inspection Summary: Inspection on December 17-20, 1990 (Combined
Inspection Report Nos. 50-220/90-30; 50-410/90-26)

Areas Inspected: Routine, unannounced inspection of the radiation protection and radioactive materials transportation programs including: management organization, contamination control, ALARA, Quality Assurance, transportation and implementation of the above programs.

Results: Within the areas inspected, no violations or deviations were noted.



DETAILS

1. Personnel Contacted

1.1 Licensee Personnel

- * W. Allen, Radiological Assessment Manager, MATS, Inc.
- * D. Barcomb, General Supervisor-Radiation Protection, Unit 2
- * J. Burton, Supervisor, Quality Assurance Audits
- * M. Carson, Regulatory Compliance
- * L. Fletcher, Quality Assurance Lead Auditor
- * C. Gerber, Radwaste Supervisor, Unit 1
- * J. Pavel, Site Licensing
- * P. Swafford, Radiation Protection Manager, Unit 2
- * W. Thomson, Radiation Protection Manager, Unit 1

1.2 NRC Personnel

- W. Cook, Senior Resident Inspector
- R. Laura, Resident Inspector
- R. Temps, Resident Inspector

* Denotes those present at the exit interview on December 20, 1990.

2. Purpose

The purpose of this routine inspection was to review the licensee's programs for radiation protection during routine and outage operations, Radiation Work Permit (RWP) implementation, assurance of quality and transportation of radioactive materials.

3. Radiation Protection Program

3.1 Management Structure

Since the last inspection in this area, the licensee has abolished the position of Manager, Radiation Protection, under the Site Support Services organization. Each unit now has a Radiation Protection Manager, who reports directly to their respective unit Superintendents. Those activities still under the Site Support Services organization include internal and external dosimetry, respiratory protection and transportation. The head of this new health physics support organization had not been selected at the time of this inspection. The position of Radiation Protection Manager for each unit was filled by a qualified individual.

Staffing levels remained high at Unit 2 due to the



refueling outage, with Health Physics Chiefs given responsibilities for key areas and/or buildings. All key positions within both unit's radiation protection staffs were filled. The inspector had no further questions in this area.

3.2 Plant Tours - Unit 1

At the time of this inspection, Unit 1 was in operation. On the refueling floor of the reactor building, work was underway to place irradiated hardware (control rod blades, power range monitors, and other miscellaneous materials) into one of three liners for eventual shipment via rail casks to the Hanford Low-Level Radwaste Disposal Site. These shipments were originally scheduled to start on December 17, 1990, but were delayed until some later dates, possibly beginning in the early part of January, 1991.

The licensee was utilizing contractor personnel for placement of irradiated hardware in the shipping liners. All work was being conducted in the Unit 1 Spent Fuel Pool in accordance with an RWP issued for this work. Radiation Control coverage of this work included Health Physics technicians on the refueling bridge crane. All hollow handling tools utilized in this work were either vented or filled with water prior to use.

The licensee intended to utilize a Pacific Nuclear, Inc. IF-300 rail cask for the shipment of these liners. The licensee had registered as a user of this cask in accordance with 10 CFR Part 71. The inspector discussed with the licensee the cask draining and dryness verification procedures to be utilized with this cask and liner, and determined them to be adequate.

The inspector reviewed with the licensee the decontamination activities on the 225' elevation of the Old Radwaste Building (ORB). Previously this elevation had been utilized for the processing of radwaste in 55-gallon drums. Through extensive decontamination efforts, including the purchase of a robot, much of this elevation has been cleaned, including the removal of sludge on the walls and floor, and the removal of contaminated barrels and barrel carriers. The licensee estimated that utilization of the robot in the ORB clean-up represented a 100 man-Rem savings. The inspector had no further questions in this area.

3.3 Plant Tours - Unit 2



At the time of this inspection, Unit 2 was in its first refueling outage, with plant restart scheduled for the latter part of January, 1991. Significant jobs in progress from a radiological protection standpoint included repairs on one of the inboard Main Steam Isolation Valves (MSIV) located in the drywell, and decontamination of portions of the reactor cavity, steam separator and steam dryer.

Radiation control for operations in the drywell were under the immediate direction of the Health Physics Chief for this area. All activities being conducted in the drywell were covered under one of several RWPs which were issued on a daily basis. Radiation Control technicians were located at the change-out area by the drywell entrance, both within and outside the posted contaminated areas, and conducted periodic roving patrols within the drywell. All personnel entering the drywell were observed being given a general area and specific job area briefing prior to entry in the drywell. Hot spots within the drywell were clearly identified, with lead blankets generally used to reduce dose rates in these areas.

Activities on the refueling floor were controlled by an assigned Health Physics Chief for this area. The dress-out and RWP sign-in area for the refueling floor was located one elevation below the floor. All personnel entering the refueling floor were required to wear coveralls under their cloth PCs, and to keep these coveralls on when frisking out at the dress-out area using the personnel contamination monitors. In addition, personnel were required to proceed to the reactor building outage access point in their coveralls, and to frisk out using the licensee's personnel contamination monitor stations prior to removing their coveralls. These precautions were introduced by the licensee in response to zinc injection into the reactor coolant which raises the likelihood of personnel contaminations. The first line personnel contamination monitors used by the licensee have a limited response capability for the detection of contamination, and thus the second frisk using more sensitive personnel contamination monitors was required prior to personnel dressing in their personal clothing.

In general, the licensee's operational radiation control program for the refueling outage appeared effective. The inspector had no further questions in this area.

4. Quality Assurance



The licensee's program for the assurance of quality in the Radiation Protection area included annual Quality Assurance audits, and periodic surveillances. As part of this inspection, Audit 89023-RG/IN, "Chemistry and Radiation Management", dated February 28, 1990, was reviewed. Three findings in this audit in the Radiation Protection area resulted in the issuance of Corrective Action Requests (CARs). None of these CARs involved an item of significant safety interest, and all were resolved in a timely manner. Additionally, the inspector discussed with the licensee Audit 90016-RG/IN which was just concluding at the time of this inspection. The scope and technical depth of this audit appeared to be excellent. The final audit report will be reviewed during a future inspection.

The inspector reviewed 21 Surveillance Reports for Unit 1 and 19 for Unit 2, regarding various aspects of their respective Radiation Protection programs, conducted during 1990. The scope and depth of these surveillances was very good. Items of concern identified in these Reports were promptly addressed by the respective Radiation Protection staffs. The inspector had no further questions in this area.

5. Exit Interview

The inspector met with the licensee representatives denoted in Section 1 at the conclusion of the inspection on December 20, 1990. The inspector summarized the purpose, scope and findings of the inspection.

