

# Niagara Mohawk



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February 23, 1998  
NMP1L 1289

Mr. James Lieberman  
Director, Office of Enforcement  
U.S. Nuclear Regulatory Commission  
One White Flint North  
11555 Rockville Pike  
Rockville, MD 20852-2738

RE: Nine Mile Point Unit 1  
Docket No. 50-220  
DPR-63

Nine Mile Point Unit 2  
Docket No. 50-410  
NPF-69

**Subject:** *Reply to Notice of Violation and Proposed Imposition of Civil Penalty (NRC Inspection Report Nos. 50-220/97-07 and 50-410/97-07)*

Dear Mr. Lieberman:

This letter is in response to the NRC letter of January 22, 1998 from Mr. Hubert J. Miller, Regional Administrator transmitting a Notice of Violation regarding transportation and radwaste program requirements. Niagara Mohawk Power Corporation (NMPC) does not dispute the cited violation and therefore, will electronically transfer \$55,000 on February 23, 1998 in payment of the associated civil penalty.

In addition to the specific corrective actions addressed in the attached reply to the Notice of Violation, as we discussed during the December 19, 1997 predecisional enforcement conference, NMPC has initiated additional actions to improve human performance and leadership within the Nuclear Division. Specifically, NMPC has undertaken actions to enhance the training and development of supervisors and managers in the area of human performance improvement through improved leadership skills. We are scheduling a future meeting with Regional Management to discuss these efforts.

Very truly yours,

  
John H. Mueller  
Chief Nuclear Officer

JE14/1

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JHM/GJG/cmk  
Attachment



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xc: Mr. H. J. Miller, Regional Administrator, Region I  
Mr. S. S. Bajwa, Director, Project Directorate I-1, NRR  
Mr. B. S. Norris, Senior Resident Inspector  
Mr. D. S. Hood, Senior Project Manager, NRR  
NRC Document Control Desk  
Records Management



UNITED STATES NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
Niagara Mohawk Power Corporation	)	Docket No. 50-220
	)	Docket No. 50-410
Nine Mile Point Unit 1 and Unit 2	)	

John H. Mueller, being duly sworn, states that he is the Chief Nuclear Officer of Niagara Mohawk Power Corporation; that he is authorized on the part of said Corporation to sign and file with the Nuclear Regulatory Commission the documents attached hereto; and that the documents are true and correct to the best of his knowledge, information, and belief.

  
 \_\_\_\_\_  
 John H. Mueller  
 Chief Nuclear Officer

Subscribed and Sworn before me, a Notary Public in and for the State of New York and the County of Oswego, this 23rd day of February 1998.

  
 \_\_\_\_\_  
 Notary Public in and for

Oswego County, New York

My Commission Expires:

2/28/00

BEVERLY W. RIPKA  
 Notary Public State of New York  
 Qual. in Oswego Co. No. 4644879  
 My Commission Exp. Mar. 31, 1999  
2/28/00



ATTACHMENT A

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT UNIT 1 AND UNIT 2  
DOCKET NO. 50-220/50-410  
DPR-63/NPF-69

**"REPLY TO NOTICE OF VIOLATION," AS CONTAINED IN  
INSPECTION REPORT 50-220/97-07 and 50-410/97-07**

- A. 10 CFR71.5 requires that each licensee who transports radioactive material comply with the applicable DOT regulations contained in 49 CFR Parts 170-189. 49 CFR173.441 requires that radiation levels in any normally occupied space of the vehicle not exceed 0.02 milliSieverts per hour (2 mrem/hr).

Contrary to the above, on July 24, 1997, the licensee transported a package containing two metal samples from the Unit 1 core shroud, to BWX Technologies, Inc., Lynchburg, Virginia, and upon receipt of the package at BWX, the dose rate in the normally occupied section of the vehicle was 2.8 mrem/hr.

*I. THE REASON FOR THE VIOLATION*

Niagara Mohawk Power Corporation (NMPC) agrees with the violation as stated. After a comprehensive review by NMPC management, including returning the truck to NMPC for evaluation, it was determined that the survey technique during the initial survey prior to the shipment leaving NMPC was inadequate due to poor job performance by the technician. The technician performing the radiation survey scanned the forward portion of the sleeper compartment, but did not survey the rear extremities of the sleeper compartment. The survey yielded an incorrect maximum dose rate of 1 mrem/hr. Subsequently, NMPC and BWX Technologies, Inc. resurveyed the truck cab in Lynchburg, Virginia and correctly determined that the dose rates in portions of the sleeper compartment were as high as 2.8 mrem/hr.

Contributors to this violation were non-conservative decision making and inadequate technical review. The shipping container contact dose rate was 800 to 900 mrem/hr. Since that dose rate is close to the regulatory limits established in 49CFR173.441, a more conservative approach should have been taken by the individuals involved. For example, additional shielding could have been used to reduce the dose rate external to the shipping container. In addition, this shipment was initially planned to be shipped in a 16 foot truck. A calculation was performed which showed that the shipping container needed to be farther from the truck cab to meet Department of Transportation (DOT) regulatory limits. Therefore, a longer truck was ordered. However, when the container was loaded, it was placed at a distance from the cab which was within the distance



of a 16 foot truck, which defeated the purpose of the larger truck. Inadequate technical review by NMPC personnel failed to address the significance of the shipping container placement.

## **II. CORRECTIVE ACTIONS TAKEN AND RESULTS ACHIEVED**

Personnel involved with this shipment, including management and technical staff, were counseled and disciplinary action taken as appropriate. Discussions were held with Radiation Protection technicians to provide the details of this event and reinforce expectations regarding adequate surveys. In addition, the Radiation Protection Manager is now required to review and approve shipments of radioactive material to ensure a higher level of oversight. The Radiation Protection Managers for both units were trained in the applicable requirements of 49CFR to enhance their knowledge of the shipping regulations. Radiation Protection Manager approval of shipments will continue until the procedure revisions and training are completed.

## **III. ACTIONS TAKEN TO PREVENT RECURRENCE**

The following actions will be taken to prevent recurrence:

1. This event will be thoroughly reviewed during Radiation Protection continuing training and will stress the need for individual accountability and responsibility for job performance, attention to detail and a questioning attitude. The purpose of this training is to increase the sensitivity and knowledge of Radiation Protection personnel and to emphasize their role in implementing the standards necessary to meet regulatory requirements. Training will be completed by June 30, 1998.
2. The Radiation Protection survey procedures will be revised to set specific expectations for a thorough survey of truck cab and sleeper areas. These revisions will be completed by April 30, 1998.

## **IV. DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED**

Full compliance was achieved in July 1997 when the radioactive material was removed from the vehicle.



- B. 10 CFR 71.5 requires, in part, that each licensee who delivers licensed material to a carrier for transport, comply with the applicable requirements stated in 49 CFR Parts 170-189.

Title 49 CFR 172.203 (d)(4) requires that the activity contained in each package of the shipment in terms of the appropriate SI units or in terms of the appropriate SI units followed by the customary units shall be included on the shipping papers.

Title 49 CFR 172.204 (a) requires, in part, that each person who offers a hazardous material for transportation shall certify that the material is offered for transportation in accordance with this subchapter (manually or mechanically) in the shipping paper containing the required shipping description the certification contained in paragraph (a)(1) of this section or the certification (declaration) containing the language contained in paragraph (a)(2) of this section.

Contrary to the above, on September 3, 1997, the licensee shipped a cask from Unit 2 to Molten Metal Technology, Oak Ridge, Tennessee, and

1. the cask contained a liner of spent resins that was different than the liner that was intended for shipment as noted on the shipment papers. As a result, the activity recorded on the shipping papers was not reflective of that contained in the liner as required by 49 CFR 172.203(d)(4); and
2. licensee personnel failed to carry out procedurally required steps to certify that the shipment was proper in accordance with 49 CFR 172.204(a).

I. THE REASON FOR THE VIOLATION

NMPC agrees with the violation as stated. The root cause of this violation is that the individual responsible for reviewing and approving the shipping manifest failed to perform the required verification. The individual had been appropriately trained and was aware of the requirements, but failed to perform the required verification.

A contributor to this violation is that the documentation related to the liner location was incorrect, due to a separate personnel error. When the waste liners were relocated in the Radwaste Solidification and Storage Building, a data entry error was made which incorrectly identified the liner location. There were additional opportunities to identify this discrepancy when the liner was being prepared for shipment which should have identified that the wrong liner was being shipped. However, had the responsible individual performed the required verification of the manifest, the inconsistency between the manifest and the radiation survey would have been identified and the violation would have been prevented.



**II. CORRECTIVE ACTIONS TAKEN AND RESULTS ACHIEVED**

The following corrective actions have been taken:

1. The individual responsible for verifying the manifest was terminated from employment at NMPC.
2. Other personnel who made the data input error and were involved with this shipment have been counseled and disciplined.
3. A verification of all liner locations has been completed and no further discrepancies were identified.

**III. ACTIONS TAKEN TO PREVENT RECURRENCE**

1. Senior management has reinforced ownership, accountability and attention to detail with supervisors and managers responsible for radioactive material shipping.

**IV. DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED**

Full compliance was achieved on September 5, 1997 when the manifest was corrected.



- C. 10 CFR 71.0(b) states that "the packaging and transport of licensed material are also subject to other parts of this chapter (e.g., Parts 20, 21, 30, 39, 40, 70, and 73) and to the regulations of other agencies (e.g., the US Department of Transportation and the US Postal Service) having jurisdiction over means of transport. The requirements of this part are in addition to, and not in substitution for other requirements."

Title 10 CFR 30.41 requires that before transferring byproduct material to a specific licensee of the Commission or an Agreement State or to a general licensee who is required to register with the Commission or with an Agreement State prior to receipt of the byproduct material, the licensee transferring the material shall verify that the transferee's license authorizes the receipt of type, form and quantity of byproduct material to be transferred."

1. Contrary to the above, on September 25, 1997, the licensee sent a package containing a metal sample removed from a Unit 1 emergency cooling condenser tube sheet, to a BWX Contracts Officer in an administrative office complex in Lynchburg, Virginia, and that office complex was not listed on the material License Certificate for receipt of radioactive shipments.
2. Contrary to the above, on May 24, 1995, the licensee sent a source range detector to the General Electric (GE) facility in San Jose, California, and that facility did not have a license to receive radioactive material.

#### I. THE REASON FOR THE VIOLATION

NMPC agrees with the violation as stated. The cause of the May 24, 1995 event was a cognitive error by the stock handler reviewing the shipping documents. Contributors to that event were inadequacies in the procedure controlling radioactive material shipments in accordance with 10CFR30. As a result, the procedure was revised to explicitly require verification by the stock handler that the address was the same as the shipping certification statement.

The September 25, 1997 event was again a cognitive error by the stock handler responsible for assuring that the radioactive material shipment was properly addressed. The individual failed to adequately perform an independent verification of the required documentation.

#### II. CORRECTIVE ACTIONS TAKEN AND RESULTS ACHIEVED

1. The responsible individual was disciplined.
2. Each package was retrieved and forwarded to the appropriate licensed facility.



*III. ACTIONS TAKEN TO PREVENT RECURRENCE*

Since other shipments of radioactive material are performed by the Radioactive Waste groups, NMPC has revised its procedures to require that all shipments of radioactive material be performed by the Radioactive Waste groups. The knowledge of Radwaste personnel of the requirements and daily involvement in radioactive material handling, and the elimination of an additional hand-off between groups, will prevent recurrence.

*IV. DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED*

Full compliance was achieved in September 1997 when the package was forwarded to the appropriate licensed facility.



**D. ADDITIONAL CORRECTIVE AND PREVENTIVE ACTIONS**

Based on a comprehensive review of the circumstances surrounding these events, additional information and actions are provided below which deal with fundamental deficiencies in the area of radioactive waste shipping.

It is evident that adequate management oversight was not applied to ensure that radioactive waste shipping was performed in accordance with regulatory requirements. For example, the high dose rates associated with the core shroud metal samples should have prompted additional oversight and management attention to ensure that potential problem areas were adequately identified and evaluated.

As a result, additional actions have been or are being taken in the area of radioactive waste shipping which should improve NMPC's performance. These include:

1. Radioactive waste transfers and shipments are now controlled by the NMPC work control process. This process assures systematic planning, verification and management oversight as appropriate, and is being used pending revisions to the procedures. The procedure revisions will be completed by April 30, 1998.
2. The radioactive waste shipping groups had not been included in past branch level self-assessments. Radioactive waste activities will be included in the semi-annual self-assessments by their respective Branch Managers, which should promptly identify weaknesses and assure that these areas receive adequate oversight.
3. An assessment was recently performed at NMPC by industry peers of the radiation protection practices associated with the control of radioactive materials at NMPC. This assessment provided additional recommendations for improvements in the control of radioactive materials, as well as in the release of radioactive materials from the radiologically controlled area. Further enhancements are being evaluated for future action.

