



Northern States Power Company

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December 16, 1983

Mr Richard C DeYoung, Director
Office of Inspection and Enforcement
U S Nuclear Regulatory Commission
Washington, D C 20555

MONTICELLO NUCLEAR GENERATING PLANT
Docket No. 50-263 License No. DPR-22

Response to NRC Enforcement Letter Dated November 22, 1983

This refers to the notice of violation and proposed imposition of civil penalties issued by the Director of Office of Inspection and Enforcement, NRC, to Mr C E Larson, NSP, dated November 22, 1983. Two alleged violations were referenced in this report. Pursuant to 10CFR2.201 and 10CFR2.205, the following report is herewith submitted.

In response to the violation designated as A in the notice of violation report: NSP agrees that 49CFR 173.245(b)(1) was violated.

Description of the Event

In May of 1983, the fill-head for the Chem-Nuclear mobile solidification unit had become contaminated to the extent that it was an external exposure hazard to personnel in the area. Decontamination failed and a new fill-head was obtained to replace the contaminated equipment.

Because of the exposure rates on the contaminated fill-head, it had to be made inaccessible to personnel. By placing it into a steel LSA box and positioning the box within a high radiation area, accessible whole body dose rates greater than 1000 mr/hr were prevented and the requirement to lock the area was negated. The fill-head remained as described for several months, for it was Chem-Nuclear's intention to have the equipment returned to Barnwell for refurbishing.

On September 15th, the Chem-Nuclear operator stationed at Monticello notified the radioactive material shipping coordinator that a shielded van was enroute to Monticello to retrieve the contaminated fill-head. The truck arrived on the following morning.

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NORTHERN STATES POWER COMPANY

Director, I&E
December 16, 1983
Page 2

The normal shipping process was initiated to handle the shipment. Two procedures were identified to provide instructions: #8110, MASTER RADIOACTIVE MATERIAL SHIPPING PROCEDURE, and #8077, RADIOACTIVE MATERIALS SHIPMENT-LSA-NOT EXCEEDING A TYPE "A" QUANTITY IN EXCLUSIVE USE VEHICLE.

Upon arrival of the shipment at Barnwell Waste Management Facility, a routine receipt inspection revealed a hole in the bottom of the box. Compliance personnel of the Chem-Nuclear organization at Barnwell subsequently notified the Monticello shipping coordinator by telephone. Even though NSP was not required to report this event, the U.S. Nuclear Regulatory Commission, Region III, was notified by NSP in accordance with the policy set forth in Section IV.A, paragraph (3), of 10CFR Part 2, Appendix C. Northern States Power offered to immediately send a representative to Barnwell to assist the site personnel with assessment or any cleanup that might be required. Because of the inconsequential nature and insignificance of the event, Chem-Nuclear stated that NSP presence was not necessary. Even so, Northern States Power did elect to send the Supervisor of Radiation Services at Chem-Nuclear's earliest convenience to inspect the LSA box, its contents and discuss the matter with site personnel.

Cause of Violation

The box was punctured during transportation by a tie-down tab on the fill-head. There are four welded tie-down appendages extending radially from the upper part of the fill-head. When the fill-head was placed on its side in the box, two of the protruding tie-down tabs were supporting one end of the head. It is believed that the concentrated weight, combined with the vibrations associated with truck transportation, produced a puncture between the supporting skids on the bottom of the box.

In accordance with 49CFR 173.425(b)(1) which requires that shipments of low specific activity (LSA) materials transported in exclusive use vehicles must be packaged in strong, tight packages so that there will be no leakage of radioactive material under conditions normally incident to transportation, the fill-head was in a strong tight container when it left the Monticello Nuclear Plant. It was believed at that time by radwaste shipping personnel that there would be no breach of package integrity under conditions normally incident to transportation. It should also be noted that the fill-head was not removed from the LSA box for obvious ALARA concerns in regard to exposure but was braced to prevent any lateral movement.

Immediate Corrective Steps Taken

Because of the nature of this event, there was no immediate corrective action available. The radioactive material was safely in the hands of another licensee and there was nothing that could undo or ameliorate the situation.

Corrective Steps Taken To Avoid Further Violations

To prevent repetition of this event, several actions were taken. First, the problem was discussed with the personnel involved in the specific shipment, plus those who may be involved in future shipments, to ensure that the cause and possible preventive measures for this event are understood.

NORTHERN STATES POWER COMPANY

Director, I&E
December 16, 1983
Page 3

Secondly, a representative traveled to Barnwell to take advantage of anything which could be learned from inspecting the box and contents or from talking to site personnel.

Finally, procedures #8077 (previously referenced) and #8089 (Radioactive Material Shipment - Type A Quantity, Fissile Exempt) were revised to include a step for the radioactive material shipping coordinator to inspect all packages, except compacted waste which is inspected prior to compaction, specifically to identify problems which could develop enroute.

Date When Full Compliance Will Be Achieved

The procedures referenced, #8089 and #8077, were revised and approved October 6, 1983, only 20 days after the event was identified in accordance with the policy set forth in Section IV.A of 10CFR Part 2, Appendix C.

In response to the Violation designated as B in the Notice of Violation Report: NSP agrees that 49CFR173.441(b)(a) was violated.

Description of the Event

Upon arrival of the LSA shipment containing the contaminated fill-head, previously discussed, at the Barnwell Waste Management Facility a routine receipt inspection revealed dose rates on contact with the bottom of the package in excess of 1000 mr/hr.

Compliance personnel of the Chem-Nuclear organization at Barnwell subsequently notified the Monticello shipping coordinator by telephone. In turn, the U.S. Nuclear Regulatory Commission, Region III was notified by NSP in accordance with the policy set forth in Section IV.A, paragraph 3, of 10CFR Part 2, Appendix C.

Cause of Violation

Procedure #8077 used in conjunction with shipping operations at Monticello did not reflect the recent change, as of July 1, 1983, to the shipping regulations. This was an over-sight on the part of the Radiation Protection personnel who reviewed the rules revisions. It should be noted that as of July 1, 1983, there were substantial changes to the shipping regulations made by D.O.T. and if the shipment was made prior to that date there would not have been a violation.

Immediate Corrective Steps Taken

Because of the nature of this event, there was no immediate corrective action available. The radioactive material was safely in the hands of another licensee and there was nothing that could undo or ameliorate the situation.

Corrective Steps Taken To Avoid Further Violations

To prevent repetition of this event, shipping procedures #8077 and #8089 were revised to include the new exposure dose rate limit. Also, the problem was

NORTHERN STATES POWER COMPANY

Director, I&E
December 16, 1983
Page 4

discussed with the personnel involved in the specific shipment, plus those who may be involved in future shipments to ensure that the cause and possible preventive measures for this event are understood.

Date When Full Compliance Will Be Achieved

The shipping procedures #8089 and #8077 were revised and approved October 6, 1983, only 20 days after the event was identified in accordance with the policy set forth in Section IV.A of 10CFR Part 2, Appendix C.

With respect to the analysis of the event, the following is offered:

This event did not result in a release of radioactive material to the environment and did not present radiation exposure hazards for the general public in excess of allowable limits.

The hole did permit a small amount of radioactive material to escape the shipping package even though the majority of the contamination was fixed; however, the contamination was confined to a small area directly below the box on the bed of the enclosed trailer. (Chem-Nuclear surveys indicated ≤ 4000 dpm/100 cm^2 , within applicable limits.) Chem-Nuclear personnel attended to this matter and safely disposed of the material.

The exposure rates on the box did exceed the limits for the mode of transport, but the exposure rates measured on the accessible surfaces of the vehicle were within the limits established for all radioactive shipments. Since this was an exclusive use shipment, there was no occasion for the driver or other member of the general public to enter the trailer and be exposed to the excessive dose rates.

Section I of 10CFR Part 2 states "the purpose of the NRC enforcement program is to promote and protect the radiological health and safety of the public, including employees' health and safety, the common defense and security, and the environment ..." and "each enforcement action is dependent on the circumstances of the case and requires the exercise of the discretion after consideration of these policies and procedures."

It should be noted as addressed in Section III of 10CFR Part 2, Appendix C that the examples given in Supplement V (Transportation) of 10CFR Part 2, Appendix C do not create new requirements. They are neither exhaustive nor controlling. It states that, "in each case, the severity of a violation will be characterized at the level best suited to the significance of the particular violation", therefore to assess the violation as a Severity Level III merely because it appears as an example implies a mechanistic approach to the determination of severity levels, which is contradictory to Section VI of 10CFR Part 2, Appendix C.

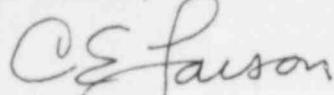
Based on the extenuating circumstances addressed above, Northern States Power respectfully requests that the violation be reconsidered as a Severity Level V and the enclosed \$2500 be remitted. We would also like to state, that Northern States Power is fully aware of its responsibilities to the health and safety of the public and recognizes the importance of properly packaging materials for shipment. This was demonstrated by NSP's prompt attention to the

NORTHERN STATES POWER COMPANY

Director, I&E
December 16, 1983
Page 5

aforementioned event. Therefore, to emphasize importance through an elevated enforcement action is unnecessary and contradictory to the policies and philosophies delineated in 10CFR Part 2.

Enclosed is a check for \$2,500, pending your disposition of the protested civil penalties, which is the amount specified in the NRC Enforcement Letter.



C E Larson
Director of Nuclear Generation

cc: J G Keppler
NRC Resident Inspector
NRC NRR Project Manager

Enclosure