

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

Region I

Report No. 50-320/80-03

Docket No. 50-320

License No. DPR-73 Priority -- Category C

Licensee: Metropolitan Edison Company

P. O. Box 542

Reading, Pennsylvania 19603

Facility Name: Three Mile Island Nuclear Station, Unit 2

Inspection at: Middletown, Pennsylvania

Inspection conducted: March 17 - April 11, 1980

Inspector: L. H. Thonus 6/24/80
L. H. Thonus, Radiation Specialist date signed

Approved by: A. N. Fasano 6/24/80
A. N. Fasano, Chief, Site Operations Section, date signed
TMI Program Office

Inspection Summary:

Inspection on March 17 - April 11, 1980 (Report Number 50-320/80-03)

Areas Inspected: Special unannounced inspection by one resident inspector of shipments of radioactive liquid samples to Babcock and Wilcox and Oak Ridge National Laboratory including review of discrepant shipments and review of regulatory requirements.

Results: Of the two areas inspected, one item of noncompliance was identified: (Violation - Failure to use authorized packaging for a Type A liquid shipment and failure to use leak resistant inner containment vessels for radioactive liquid shipments - Paragraph 3).

DETAILS

1. Persons Contacted

J. Hess, Radioactive Material Coordinator, Nuclear Support Services
L. Zehner, Radioactive Material Coordinator, Nuclear Support Services
W. Pitka, Chemist, Babcock and Wilcox
J. Price, Chemist, Oak Ridge National Laboratory

2. Review of Discrepant Shipments

On February 6, 1980, the licensee shipped a reactor coolant sample to Babcock and Wilcox, Lynchburg, Virginia. The 30 ml sample was packaged in a sample bomb which was placed in absorbent material and dunnage inside a Department of Transportation (DOT) specification 7A (17H certified as 7A) drum. The sample contained approximately 100 uCi/ml of mixed fission products. When the shipment arrived in Lynchburg, the consignee found that approximately one half of the coolant sample had leaked outside the sample bomb (inner containment vessel).

No radioactive material leaked outside the outer container (drum) as indicated by the recipients smear surveys. Radiation levels on the outside of the drum also remained within limits based upon the recipient's survey. The shipment did represent an increased radiological hazard and potential for personnel contamination for the recipient in that the radioactive material was partially dispersed and in a location where it was not expected.

Review of the incident and discussions with the licensee and contractor personnel involved with the shipment indicated that the leak was caused by the valve handles being left on the sample bomb and the lack of end caps during shipment. Normally the valve handles are removed to prevent movement of the valve stems and caps placed over the ends of the sample bomb outboard of the valves to prevent the possibility of leakage. If the valve handles are left on during shipment, the sample bomb is susceptible to leakage when vibrations cause the valve handle to bump against the packaging and turn.

Babcock and Wilcox personnel notified the licensee of the leakage and problems associated with the shipment. The licensee took immediate corrective action by modifying the reactor coolant sample (RCS) procedure to require removal of the valve handles and installation of caps on the sample bombs. This step in the procedure now requires a verification signature by the individual performing the activity.

On March 6, 1980, the licensee shipped a 55 gallon Department of Transportation (DOT) specification 7A drum (17H certified as 7A) to Oak Ridge National Laboratory (ORNL), Oak Ridge, Tennessee. The drum contained 10 lead wrapped 250 ml polyethylene sample bottles. One bottle contained a reactor coolant bleed tank (RCBT) sample with activity of approximately 100 uCi/ml of mixed fission products. The other 9 bottles contained several orders of magnitude less activity.

When the shipment arrived in Oak Ridge the consignee found that the bottle containing the RCBT sample and 3 other bottles had leaked during transit. The RCBT sample bottle was at the bottom of the drum and was crushed by the weight of the other samples. The RCBT sample was in a wide-mouth screw cap polyethylene bottle and pressure transients encountered during the air shipments may have contributed to the leakage.

No radioactive material leaked outside the outer container (drum) as indicated by ORNL smear surveys. Radiation levels on the outside of the drum also remained within limits, based upon ORNL surveys.

The shipment represented an increased radiological hazard to the recipient due to the dispersal of the radioactive material inside the drum. High-activity and low-activity samples were shipped within the same drum without a diagram showing the location and identity of each sample.

ORNL personnel notified the licensee of the leakage and problems associated with the shipment via the Department of Energy (DOE). The licensee's immediate corrective action was to suspend shipments of this configuration (polyethylene bottles in a 17H/7A 55 gallon drum) pending further evaluation.

3. Review of Regulatory Requirements

10 CFR Part 71.5 "Transportation of licensed material," states in part "No licensee shall transport any licensed material outside of the confines of his plant or other place of use, or deliver any licensed material to a carrier for transport, unless the licensee complies with the applicable requirements to the regulations appropriate to the mode of transport, of the Department of Transportation in 49 CFR Parts 170-189, and the U.S. Postal Service in 39 CFR Parts 14 and 15 insofar as such regulations relate to the packaging of byproduct, source, or special nuclear material, marking and labeling of the packages, loading and storage of packages, placarding of the transportation vehicle, monitoring requirements and accident reporting.

49 CFR Part 173.395 "Radioactive material in normal form," requires that "In addition to the applicable requirements of paragraphs 173.24 and 173.393, a Type A quantity of normal form radioactive material must be packaged as follows:

- (1) Specification 7A (paragraph 178.350 of this subchapter) Type A general packaging. Each shipper of a specification 7A packaging must maintain on file for at least one year after the latest shipment, and be prepared to provide the Department, a complete certification and supporting safety analysis demonstrating that the construction methods, packaging design, and materials of construction are in compliance with the specification..."

The inspector subsequently reviewed the licensee's certification and supporting safety analysis for 17H drums demonstrating that the construction methods, packaging design and materials of construction are in compliance with the specification. The section titled "Authorized Contents" listed "Type 'A'" quantities of solid radioactive material in normal or special form." The test data were excerpted from Mound Laboratory report MLM-2228.

The safety analysis contained no test data or calculations demonstrating that the packaging would meet the requirements for radioactive liquids contained in 49 CFR Part 173.393(g)(1) which states: "The packaging must be adequate to prevent loss or dispersal of the radioactive contents from the inner containment vessel if the package was subjected to the 9 meter (30-foot) drop test prescribed in paragraph 173.398(c)(2)(i)..."

The requirements of 49 CFR Part 173.395 were not met in that the use of 17H drums for radioactive liquid shipments was not authorized by the licensee's safety analysis and no analysis was conducted demonstrating that the packaging would meet the requirements of paragraph 173.393(g)(1). Thus the drums were not authorized for shipment of Type "A" liquid radioactive material.

49 CFR Part 173.393(g) requires that "Liquid radioactive material in Type A quantities must be packaged in or within a leak-resistant and corrosion-resistant inner containment vessel. The fact that the inner containment vessels leaked during the two referenced shipments demonstrated that these inner containment vessels were not leak-resistant in the configuration in which they were shipped. The inspector observed that thus the requirements of 49 CFR Part 173.393(g) were not met.

The inspector noted that the failure to meet the requirements of 49 CFR Part 173.395(a)(1) and 173.393(g) constituted noncompliance with 10 CFR Part 71.5. (50-320/80-03-01)

**ROUTING SLIP
(TMI PROGRAM OFFICE)**

	NAME/TITLE	INITIALS	DATE
✓	John T. Collins, Deputy Program Manager		
	Suzanne Isaacs, Secretary		
SITE OPERATIONS SECTION			
	T. Fasano, Chief		
	D. Haverkamp, U-1 Inspector		
	R. Conte, U-2 Inspector		
	M. Shanbaky, Senior Radiation Specialist		
	L. Thonus, Shift Inspector		
	L. Prough, Clerk/Typist		
TECHNICAL SUPPORT SECTION			
	M. Greenberg, Acting Chief		
	R. Weller, Waste Mgmt. Engineer		
	L. Bell, Waste Mgmt. Engineer		
	J. Lee, Waste Mgmt. Engineer		
	G. Kalman, Reactor Sys. Engineer		
	A. Ignatonis, Reactor Sys. Engineer		
COMMENTS			
<p>John</p> <p>Attached is a copy of the Draft proposed Civil Penalty Reg. transportation problems encountered with the RCS samples. Mr. Thonus should discuss this proposed enforcement action with NRC:RI ASAP, so we can send it to HQ.</p> <p align="right">M. Shanbaky 5/22</p>			
RETURN			
FILE			
	NO RETURN		

DRAFT

Working copy

Docket No.: 50-320

MEMORANDUM FOR: Dudley Thompson, Executive Officer for Operations Support, IE

FROM: Boyce H. Grier, Director

SUBJECT: PROPOSED ENFORCEMENT ACTION FOR METROPOLITAN EDISON COMPANY

Reference: Inspection Report 50-320/80-03

The referenced report for the investigation of the radioactive material shipments which were found to have leaked is attached. This investigation disclosed that Metropolitan Edison Company did not follow NRC and DOT regulations.

As a result of the referenced investigation, we recommend the issuance of the enclosed enforcement letter, Notice of Violation, and Notice of a Proposed Imposition of Civil Penalties amounting to \$6,000 to Metropolitan Edison Company.

The proposed civil penalty actions are in accordance with MC 0800, and are consistent with the Director's correspondence to all NRC licensees, dated December 3, 1979, CRITERIA FOR ENFORCEMENT ACTION FOR FAILURE TO COMPLY WITH 10 CFR 71.

Boyce H. Grier
Director

Enclosures:

1. Draft Enforcement Letter with Two Appendices to ~~Metropolitan Edison~~
2. Office of Inspection and Enforcement Inspection Report No. 50-320/80-03

cc w/encl:

- R. C. DeYound, DD
- N.C. Moseley, Director, RROI
- J. H. Sneizek, Director, FFMSI
- I. Brockett (5 copies)

DRAFT

DRAFT

at No.: 50-320

Metropolitan Edison Company
ATTN: Mr. R. C. Arnold
Senior Vice President
100 Interpace Parkway
Parsippany, NJ 07054

Gentlemen:

The findings of our investigation conducted March 17 through April 11, 1980, of events involving the transportation of radioactive liquid samples from your facility on February 6 and March 6, 1980, revealed that ^{certain of} your activities were not conducted in full compliance with NRC regulations. The items of noncompliance are listed in Appendix A to this letter.

In view of the circumstances surrounding these events, we propose civil penalties in the cumulative amount of \$6,000 for the noncompliance items as set forth in Appendix A. Appendix B to this letter is the Notice of Proposed Imposition of Civil Penalties. You are required to respond to this letter, and in preparing your response you should follow the instructions in Appendices A and B.

Your written reply to this letter, combined with our findings from our continuing inspection program, will be considered in determining whether any further enforcement action, such as modification, suspension, or revocation of your license, is appropriate.

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 enclosures will be placed in the NRC Public Document Room.

DRAFT

DRAFT

Sincerely,

Victor Stello, Jr.
Director
Office of Inspection and Enforcement

Enclosures:

1. Appendix a, Notice of Violation
2. Appendix B, Notice of Proposed Imposition of Civil Penalties

DRAFT

APPENDIX A

NOTICE OF VIOLATION

Metropolitan Edison Company

Docket No. 50-320

Based on the results of an NRC inspection conducted on March 17 through April 11, 1980, it ~~appears that~~ certain of your activities were not conducted in full compliance with NRC regulations as indicated below.

A. 10 CFR 71.5, "Transportation of licensed material" states "no licensee shall transport any licensed material outside of the confines of his plant or other place of use, or deliver any licensed material to a carrier for transport, unless the licensee complies with the applicable requirements of the regulations appropriate to the mode of transport, of the Department of Transportation in 49 CFR 170-189..."

49 CFR 173.393(g) states that, "Liquid radioactive material in Type A quantities must be packaged in or within a leak-resistant and corrosion-resistant inner containment vessel. In addition:

- (1) The packaging must be adequate to prevent loss or dispersal of the radioactive contents from the inner containment vessel if the package were subjected to the 9 meter (30 foot) drop test prescribed in §173.393(c)(2)(i); and ..."

Contrary to the above requirements on February 6 and March 6, 1980, licensed radioactive liquids in Type A quantities were transported outside the licensed facility and delivered to a carrier for transport which did not meet the requirements of 173.393(g). The inner

containment vessels leaked during ^{NORMAL} transport, demonstrating that the inner containment vessels were not leak resistant and not adequate to prevent dispersal of the contents if the container were subjected to the more strenuous conditions of the 9 meter drop.

This is a Severity Level II Violation (Civil Penalty \$3,000).

B. 10 CFR 71.5, "Transportation of licensed material" states "no licensee shall transport any licensed material outside of the confines of his plant or other place of use, or deliver any licensed material to a carrier for transport, unless the licensee complies with the applicable requirements of the regulations appropriate to the mode of transport, of the Department of Transportation in 49 CFR Parts 170-189..."

49 CFR 173.395 "Radioactive material in normal form" requires that, "In addition to the applicable requirements of §173.393, a Type A quantity of normal form radioactive material must be packaged as follows:

- (1) Specification 7A (§178.350 of this subchapter) Type A general packaging. Each shipper of a specification 7A packaging must maintain on file for at least one year after the latest shipment, and be prepared to provide the Department, a complete certification and supporting safety analysis demonstrating that the construction methods, packaging design, and materials of construction are in compliance with the specification..."

Contrary to the above requirement on February 6 and March 6, 1980, licensed radioactive liquids in Type A quantities were transported outside the licensed facility and delivered to a carrier for transport which did not fulfill the requirements of 49 CFR 173.395. The liquids were shipped in a specification 7A container which licensees safety

analysis stated was limited to solid radioactive material.

This is a Severity Level II Violation (Civil Penalty \$3,000).

APPENDIX A

NOTICE OF VIOLATION

Metropolitan Edison Company

Docket No. 50-320

Based on the results of an NRC inspection conducted on March 17 through April 11, 1980, it ~~appears that~~ one of your activities was not conducted in full compliance with NRC regulations as indicated below.

10 CFR 71.5, "Transportation of licensed material" states "no licensee shall transport any licensed material outside of the confines of his plant or other place of use, or deliver any licensed material to a carrier for transport, unless the licensee complies with the applicable requirements of the regulations appropriate to the mode of transport, of the Department of Transportation in 49 CFR Parts 170-189..."

49 CFR 173.395 "Radioactive material in normal form," requires that, "In addition to the applicable requirements of §§173.24 and 173.393, a Type A quantity of normal form radioactive material must be packaged as follows:

- (1) Specification 7A (§178.350 of this subchapter) Type A general packaging. Each shipper of a specification 7A packaging must maintain on file for at least one year after the latest shipment, and be prepared to provide the Department, a complete certification and supporting safety analysis demonstrating that the construction methods, packaging design, and materials of construction are in compliance with the specification..."

49 CFR 173.393(g) states that, "Liquid radioactive material in Type A quantities must be packaged in or within a leak-resistant and corrosion-resistant inner containment vessel. In addition:

- (1) The packaging must be adequate to prevent loss of dispersal of the radioactive contents from the inner containment vessel if the package were subjected to the 9 meter (30 foot) drop test prescribed in §173.393(c)(2)(i); and..."

Contrary to the above requirements, on February 6, 1980, licensed radioactive liquids in Type A quantities were transported outside the licensed facility and delivered to a carrier for transport which did not meet the requirements of 49 CFR 173.395 and 49 CFR 173.393(g)(1). The liquid shipment was made in a specification 7A container which the licensee's safety analysis report stated was authorized for solid radioactive material only. The inner containment vessel leaked during conditions normally incident to transport demonstrating that the packaging was not ^{leak resistant and not} adequate to prevent loss or dispersal of the radioactive contents from the inner containment vessel if subjected to the more strenuous conditions of the 9 meter drop test. The shipment consisted of a pressurizer liquid sample and a reactor coolant sample sent to Babcock and Wilcox, Lynchburg, Virginia.

Contrary to the above requirements, on March 6, 1980, licensed radioactive liquids in Type A quantities were transported outside the licensed facility and delivered to a carrier for transport which did not meet the requirements of 49 CFR 173.395 and 49 CFR 173.393(g)(1). The liquid shipment was made in a specification 7A container which the licensee's safety analysis report

stated was authorized for solid radioactive material only. The inner containment vessel leaked during conditions normally incident to transport demonstrating that the packaging was not ^{leak resistant and not} adequate to prevent loss or dispersal of the radioactive contents from the inner containment vessel if subjected to the more strenuous conditions of the 9 meter drop test. The shipment consisted of a reactor coolant bleed tank sample and several low activity demineralized water samples sent to Oak Ridge National Laboratory, Oak Ridge, Tennessee.

This is a Severity Level II Violation (Civil Penalty \$5,000).

APPENDIX B

NOTICE OF PROPOSED IMPOSITION OF CIVIL PENALTIES

This office proposes to impose civil penalties pursuant to Section 234 of the Atomic Energy Act of 1954 as amended, (42 USC 2282), and to 10 CFR 2.205 in the cumulative amount of Six Thousand Dollars (\$6,000) for the specific items of noncompliance set forth in Appendix A to the cover letter. In proposing to impose civil penalties pursuant to this section of the Act and in fixing the proposed amount of the penalties, the factors identified in the Statements of Consideration published in the Federal Register with the rule making action which adopted 10 CFR 2.205 (36 FR 16894) August 26, 1971; the "Criteria for Determining Enforcement Actions," which was sent to NRC licensees on December 31, 1974; and the "Criteria for Enforcement Action for Failure to Comply with 10 CFR 71," which was sent to NRC licensees on December 3, 1979, have been taken into account.

Metropolitan Edison Company may, within twenty (20) days of receipt of this notice pay the civil penalties in the cumulative amount of Six Thousand Dollars (\$6,000) or may protest the imposition of the civil penalties in whole or in part by a written answer. Should Metropolitan Edison Company fail to answer within the time specified, this office will issue an order imposing the civil penalties in the amount proposed above. Should Metropolitan Edison Company elect to file an answer protesting the civil penalties, such answer may (a) deny the items of noncompliance listed in the Notice of Violation in whole or in part, (b) demonstrate extenuating circumstances, (c) show error in the Notice of Violation, or (d) show other reasons why the penalties should not be imposed. In addition to protesting the civil penalties in whole or in part, such answer may request remission or mitigation of the penalties. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate by specific reference (e.g., giving page and paragraph numbers) to avoid repetition.

Metropolitan Edison Company's attention is directed to the other provisions of 10 CFR 2.205 regarding, in particular, failure to answer and ensuing orders; answer, consideration by this office, and ensuing orders; requests for hearings, hearings and ensuing orders; compromise; and collection.

Upon failure to pay any civil penalty due which has been subsequently determined in accordance with the applicable provisions of 10 CFR 2.205, the matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Atomic Energy Act of 1954, as amended (42 USC 2282).

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

Region I

Report No. 80-03

Docket No. 50-320

License No. DPR-73 Priority -- Category c

Licensee: Metropolitan Edison Company

P. O. Box 542

Reading, Pennsylvania 19603

Facility Name: Three Mile Island Nuclear Station; Unit 2

Inspection at: Middletown, Pennsylvania

Inspection conducted: March 17 - April 11, 1980

Inspector: _____ date signed
L. H. Thonus, Radiation Specialist

Approved by: _____ date signed
A. N. Fasano, Chief, Site Operations Section,
THI Program Office

Inspection Summary: Inspection on March 17 - April 11, 1980, (Inspection Report
No. 50-320/80-03).

Areas Inspected: Special unannounced inspection by one resident inspector of shipments of radioactive liquid samples to Babcock and Wilcox and Oak Ridge National Laboratory including review of discrepant shipments and packaging safety analysis.

Results: Of the two areas inspected, one item of noncompliance was identified in each area (violation - failure to use leak resistant inner containment vessel for radioactive liquid shipments - paragraph 2. Violation - failure to comply with use authorized packaging for a Type A shipment - paragraph 3.

DETAILS

1. Persons Contacted

J. Hess, Radioactive Material Coordinator, Nuclear Support Services
L. Zehner, Radioactive Material Coordinator, Nuclear Support Services
W. Pitka, Chemist, Babcock and Wilcox
J. Price, Chemist, Oak Ridge National Laboratory

2. Review of Discrepant Shipments

On February 6, 1980, the licensee shipped a reactor coolant sample to Babcock and Wilcox, Lynchburg, Virginia. The 30 ml sample was packaged in a sample bomb which was placed in absorbent material and dunnage inside a Department of Transportation (DOT) specification 7A (17H certified as 7A) drum. When the shipment arrived in Lynchburg, the consignee found that approximately one half of the coolant sample had leaked outside the sample bomb (inner containment vessel).

No radioactive material leaked outside the outer container (drum) as indicated by the recipient's smear surveys. Radiation levels on the outside of the drum also remained within limits based upon the recipient's recipients survey. The shipment did represent an increased radiological hazard and potential for personnel contamination for the recipient in that the radioactive material was partially dispersed and in a location where it was not expected.

Review of the incident and discussions with the licensee and contractor personnel involved with the shipment indicated that the leak was caused by the valve handles being left on the sample bomb during shipment.

Normally the valve handles are removed to prevent movement of the valve stem and caps placed over the ends of the sample bomb to

prevent the possibility of leakage. If the valve handles are left on during shipment, the sample bomb is susceptible to leakage ~~if~~ ^{when} vibrations cause the valve handle to bump against the packaging and turn.

The inspector noted that 10 CFR 173.393(g)(1) requires that "Liquid radioactive material in Type A quantities must be packaged in or within a leak-resistant and corrosion-resistant inner containment vessel. In addition:

- (1) The packaging must be adequate to prevent loss or dispersal of the radioactive contents from the inner containment vessel if the package were subjected to the 9 meter (30-foot) drop test prescribed in §173.398(c)(2)(i)..."

In that the container leaked during conditions incident to normal transportation it is ^{obvious} obvious that the packaging would not have been able to prevent dispersal of the radioactive contents if subjected to the more strenuous conditions of a 9 meter drop. The inspector identified the above as noncompliance with 49 CFR 173.393(g)(1) and 10 CFR 71.5 which requires compliance with 49 CFR Parts 170-189. (50-320/80-03-01).

The licensee took immediate corrective action by modifying the reactor coolant sample (RCS) procedure to require removal of the valve handles and installation of caps on the sample bombs. This step in the procedure requires a verification signature.

On March 6, 1980, the licensee shipped a 55 gallon Department of Transportation (DOT) specification 7A drum (17H certified as 7A) to Oak Ridge National Laboratory (ORNL), Oak Ridge, Tennessee. The drum contained 10 lead wrapped 250 ml polyethylene sample bottles. One bottle contained a reactor coolant bleed tank sample with activity of approximately 100 uCi/ml. The other 9 bottles contained several orders of magnitude less activity.

When the shipment arrived in Oak Ridge the consignee found that the bottle containing the RCBT sample and 3 other bottles had leaked during transit. The RCBT sample bottle was at the bottom of the drum and was crushed by the weight of the other samples. The RCBT sample was in a wide-mouth screw cap poly bottle and pressure transients encountered during the air shipments may have contributed to the leakage. The inspector noted that this shipment also did not meet the requirements of 173.393(g)(1).

No radioactive material leaked outside the outer container (drum) as indicated by ORNL smear surveys. Radiation levels on the outside of the drum also remained within limits, based upon ORNL surveys.

The shipment represented an increased radiological hazard to the recipient due to the dispersal of the radioactive material inside the drum. High-^{Activity} ~~level~~ and low-^{Activity} ~~level~~ samples were shipped within the same drum without a diagram showing the location and identity of each sample.

The licensee's immediate corrective action was to suspend shipments of this configuration (poly bottles in a 17H/7A 55 gallon drum) pending further evaluation.

3. Package Safety Analysis

10 CFR 71.5 "Transportation of licensed material," states in part "No licensee shall transport any licensed material outside of the confines of his plant or other place of use, or deliver any licensed material to a carrier for transport, unless the licensee complies with the applicable requirements to the regulations appropriate to the mode of transport, of the Department of Transportation in 49 CFR Parts 170-189, and the U.S. Postal Service in 39 CFR Parts 14 and 15 insofar as such regulations relate to the packaging of byproduct, source, or special nuclear material, marking and labeling of the packages, loading and storage of packages, placarding of the transportation vehicle, monitoring requirements and accident reporting.

10 CFR 173.395 "Radioactive material in normal form," requires that "In addition to the applicable requirements of §§173.24 and 173.393, a Type A quantity of normal form radioactive material must be packaged as follows:

- (1) Specification 7A (§178.350 of this subchapter) Type A general packaging. Each shipper of a specification 7A packaging must maintain on file for at least one year after the latest shipment, and be prepared to

provide the Department, a complete certification and supporting safety analysis demonstrating that the construction methods, packaging design, and materials of construction are in compliance with the specification..."

The inspector subsequently reviewed the licensee's certification and supporting safety analysis demonstrating that the construction methods, packaging design and materials of construction are in compliance with the specification. The section titled "Authorized Contents" listed "Type A" quantities of solid radioactive material in normal or special form." The test data were excerpted from Mound Laboratory report MLM-2228. No test data for the 9 meter drop test was included.

The inspector noted that the liquid shipment ~~did not fit in~~ ^{was not within} ~~the envelope~~ contents authorized by the licensee's safety analysis and test data. The inspector noted the above constituted noncompliance with 49 CFR 173.395 and 10 CFR 71.5. (50-320/80-03-02).

2