



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET SW SUITE 23T85
ATLANTA, GEORGIA 30303-8931

June 1, 2000

Westinghouse Electric Corporation
ATTN: Mr. J. B. Allen, Manager
Columbia Plant
Nuclear Fuel Business Unit
Drawer R
Columbia, SC 29250

SUBJECT: NRC INSPECTION REPORT NO. 70-1151/2000-03 AND NOTICE OF VIOLATION

Dear Mr. Allen:

This letter refers to the inspection conducted on May 1-4, 2000, at the Westinghouse facility. The enclosed report presents the results of this inspection.

Based on the results of the inspection, certain of your activities appeared to be in violation of NRC requirements, as specified in the enclosed Notice of Violation (Notice). However, the NRC has concluded that information regarding the reason for the violations, the corrective actions taken and planned to correct the violation and prevent recurrence is already adequately addressed in this Inspection Report (70-1151/2000-03). Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response will be made publically available.

Sincerely,

/RA/

Edward J. McAlpine, Chief
Fuel Facilities Branch
Division of Nuclear Materials Safety

Docket No. 70-1151
License No. SNM-1107

Enclosures: (See Page 2)

Enclosures: 1. Notice of Violation
2. NRC Inspection Report

cc w/encls:

Don Goldbach, Manager
Regulatory Affairs
Commercial Nuclear Fuel Division
Westinghouse Electric Corporation
P. O. Box R
Columbia, SC 29250

Virgil R. Autry, Director
Div. of Radioactive Waste Mgmt.
Dept. of Health and Environmental
Control
Electronic Mail Distribution

R. Mike Gandy
Division of Radioactive Waste Mgmt.
S. C. Department of Health and
Environmental Control
Electronic Mail Distribution

Distribution w/encls:

E. McAlpine, RII
D. Ayres, RII
M. Wattenberg, NMSS
P. Hiland, RIII
W. Britz, RIV
B. Spitzberg, RIV
PUBLIC

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| OFFICE | RII:DNMS | RII:DNMS | |
| SIGNATURE | /RA/ | /RA/ | |
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NOTICE OF VIOLATION

Westinghouse Electric Corporation
Commercial Nuclear Fuel Division

Docket No. 70-1151
License No. SNM-1107

During an NRC inspection conducted on May 1 through 4, 2000, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedures for NRC Enforcement Actions," NUREG-1600, the violations are listed below:

- A. Safety Condition No. S-1 of Special Nuclear Material License No. 1107, requires that material be used in accordance with statements, representations, and conditions in the License Application dated April 30, 1995, and supplements thereto.

Section 3.4.1 of the License Application, requires that operations to assure safe, compliant activities involving nuclear material will be conducted in accordance with approved procedures.

Chemical Operating Procedure COP-836041, "Receipt of Uranium Scrap Shipments from Outside Sources," Revision 1, issued on February 22, 2000, specified the requirements for unloading uranium materials from shipment containers.

Contrary to the above, on May 3, 2000, the licensee failed to conduct unloading activities in accordance with the requirements of COP-836041, in that, an operator removed a plastic bag of UNH crystals from an inner pail of a shipping container outside of the UNH Transfer Hood instead of placing the pail inside the transfer hood before removal of the plastic bag as required by Step 8 of COP-836041.

This is a Severity Level IV violation (Supplement VI).

- B. 10 CFR 71.133 requires, in part, the licensee to establish measures to assure that deficiencies and non-conformances are promptly identified and corrected.

10 CFR 71.12(c)(2) requires the licensee to comply with the terms and conditions of the NRC license, certificate, or other approval, as applicable, and the applicable requirements of Subparts A, G, and H of this part.

License Drawing, MCCL-301 of NRC Certificate Number 9239, Revision 10, for package Model No. MCC-3 specifies skip welds to be made in 16 locations on the external rollover angle bars on the bottom half of the shipping container shells.

Contrary to the above, on or about March 24, 2000, deficiencies and non-conformances for one Model MCC-3 fuel shipping container (Serial Number M178) had not been promptly corrected after identification of a generic non-conformance with the required minimum weld pattern on approximately 200 Model MCC-3 shipping containers.

Container M178 had been used to ship unirradiated fuel assemblies on two occasions since the implementation of corrective actions for this generic problem on October 25, 1999.

This is a Severity Level IV violation (Supplement V).

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence and the date when full compliance will be achieved is already adequately addressed on the docket in this Inspection Report. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation," and send it to the U. S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, Region II, within 30 days of the date of the letter transmitting this Notice of Violation (Notice).

If you choose to respond, your response will be made publically available. To the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made publically available without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld, and provide in detail the bases for your claim of withholding (e.g. explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.790(b) to support a request for withholding confidential, commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated at Atlanta, Georgia
this 1st day of June, 2000

U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.: 70-1151

License No.: SNM-1107

Report No.: 70-1151/2000-03

Licensee: Westinghouse Electric Company

Facility: Columbia Fuel Fabrication Facility
Columbia, SC 29250

Date: May 1-4, 2000

Inspector: W. B. Gloersen, Sr. Fuel Facilities Inspector

Approved by: E. J. McAlpine, Chief
Fuel Facilities Branch
Division of Nuclear Materials Safety

EXECUTIVE SUMMARY

Commercial Nuclear Fuel Division NRC Inspection Report 70-1151/2000-03

The focus of this routine, unannounced inspection was the observation and evaluation of the licensee's programs for radiation protection and transportation of radioactive materials. The inspection also included evaluations of the licensee's responses to previously identified issues and incidents. The report includes inspection efforts of one regional inspector. The inspection identified the following aspects of the licensee programs as outlined below:

Transportation and Radiation Protection

- MCC fuel assembly shipping packages were acceptably prepared for delivery by properly loading the package in accordance with management approved procedures; properly marking and labeling the packages in accordance with the applicable requirements in 49 CFR 172; and ensuring that the packages met the external radiation and removable surface contamination limits specified in 10 CFR 71 and 49 CFR 173 (Section 2.a(3)).
- The maintenance activities and procedures associated with the refurbishment of the MCC fuel assembly shipping containers were acceptable (Section 2.b(3)).
- The licensee adequately maintained the Certificates of Compliance for the NRC approved shipping containers used to ship radioactive materials (Section 2.c(3)).
- A violation of Section 3.4.1 of the License Application occurred for the failure to conduct radioactive materials package unloading activities in accordance with the requirements of chemical operating procedure COP-836041. The licensee's root cause determination and corrective actions to prevent recurrence were acceptable (Section 2.d(3)).
- The hazmat training program was acceptable and for the individuals receiving the function-specific training, exceeded the minimum requirements specified 49 CFR 172.704 (Section 2.e(3)).
- The licensee identified two violations involving the package effectiveness for fuel assembly shipping containers during April 2000. The corrective actions for the administrative problem appeared to be adequate to prevent recurrence. However, a violation for the failure to assure prompt correction of identified shipping container non-conformances was identified (Section 2.f(3)).

Attachment:

Persons Contacted

Lists of Items Opened, Closed, and Discussed

List of Acronyms

REPORT DETAILS

1. Summary of Plant Status

This report covered a four day period. Powder, pellet, and fuel assembly production proceeded at normal rates.

2. Transportation and Radiation Protection (IPs 83822 and 86740)

The inspector reviewed the licensee's program for the shipment of radioactive materials, to determine whether the licensee had established and was maintaining an effective management-controlled program, to ensure radiological and nuclear safety in the receipt, packaging, delivery to a carrier of licensed radioactive materials, and to determine whether transportation activities were in compliance with the applicable NRC and DOT transport regulations noted below. During the inspection, transportation and radiation protection activities associated with fissile material shipments, including procedural guidance, quality control (QC) activities, record completeness, and radiation surveys conducted in accordance with 10 CFR 20, 10 CFR 71, and 49 CFR Parts 171-178 were reviewed.

10 CFR 71.5(a) requires that licensees who transport licensed material outside the confines of its plant or other place of use, or who delivers licensed material to a carrier for transport, shall comply with the applicable requirements of the regulations appropriate to the mode of transport of the DOT in 49 CFR Parts 170 through 189.

a. Preparation and Delivery of Completed Packages for Shipment

(1) Inspection Scope

The inspector examined the licensee's written procedures and shipment records related to the preparation and delivery of completed packages for shipment of licensed material.

(2) Observations and Findings

The inspector verified that the licensee had procedures for the preparation of shipping packages and delivery of the packages to the carrier for the shipment of unirradiated fuel assemblies. The inspector reviewed selected portions of the following procedures:

- MOP-730703, Prepare Container for Loading Fuel Assemblies, Revision (Rev.) 25, dated September 30, 1999
- MOP-730713, Load Fuel Assembly into Model MCC Shipping Containers, Rev. 58, dated April 25, 2000

The inspector verified that the operators were using the procedures during fuel assembly loading operations. The procedures incorporated check-off lists to ensure certain loading operations were performed. The inspector observed that the operators made good use of the procedure check-offs.

In addition, the inspector observed shipping specialists perform appropriate radiation surveys in order to determine the transport index (TI) on six Model MCC-3 shipping containers. A radiation specialist acceptably performed the required contamination and radiation surveys on the MCC shipping casks and radiation surveys of the cab location to ensure that the packages met the external radiation and removable surface contamination limits specified in 10 CFR 71.87(i) and (j); 49 CFR 173.441, and 49 CFR 173.443. The inspector also verified that the MCC shipping containers were marked and labeled in accordance with the applicable requirements specified in 49 CFR 172.300-310 and 49 CFR 172, Subpart E.

(3) Conclusion

The licensee acceptably prepared six MCC fuel assembly shipping packages for delivery by properly loading the package in accordance with management approved procedures; properly marking and labeling the packages in accordance with the applicable requirements in 49 CFR 172; and ensuring that the packages met the external radiation and removable surface contamination limits specified in 10 CFR 71 and 49 CFR 173.

b. Periodic Maintenance of Packagings

(1) Inspection Scope

The inspector reviewed the licensee's program for periodic maintenance and refurbishment of fuel assembly shipping packages.

(2) Observations and Findings

In addition to the requirements specified in the NRC Certificate of Compliance (CoC) No. 9239 for fuel shipping containers, the requirements for routine determinations specified in 10 CFR 71.87 and 49 CFR 173.475 were applicable.

For reusable NRC-certified packagings for fuel assemblies, the inspector examined the licensee's procedures and records for refurbishment and maintenance and verified that before re-use, all of the periodic maintenance required by the CoC had been incorporated into the procedures and had been performed, except as noted in Section 2.f of this report. During the inspection, the inspector observed maintenance and refurbishment activities on four Model MCC fuel shipping containers, including the gasket replacement on one of the shipping containers. The operators used the checklist in form CF-75B-002, Fuel Assembly Shipping Container Inspection Checklist to ensure that the required maintenance was performed.

(3) Conclusion

The maintenance activities and procedures associated with the refurbishment of the MCC fuel assembly shipping containers were acceptable.

c. Records

(1) Inspection Scope

The inspector reviewed selected NRC CoCs for packages used by the licensee to ship fissile materials. 10 CFR 71.12(a) requires, in part, that a general license is issued to any licensee of the Commission to deliver to a carrier for transport, licensed material in a package for which a license, CoC, or other approval has been issued by the NRC. The general license specified in 10 CFR 71.12 applies to a licensee who (1) has a copy of the certificate of compliance and the drawings and other documents referenced in the approval relating to the use and maintenance of the packaging and to the actions to be taken prior to shipment; and (2) complies with the terms and conditions of the license, certificate, or other approval, as applicable, and the applicable requirements of Subparts A, G, and H of this part.

(2) Observations and Findings

The inspector verified that the licensee had copies of the following three NRC CoCs for packages used by the licensee to ship licensed material:

- NRC CoC 9239, Rev. 10, USA/9239/AF, Model Nos. MCC-3, MCC-4, and MCC-5
- NRC CoC 9196, Rev. 16, USA/9196/AF, Model No. UX-30
- NRC CoC 9203, Rev. 10, USA/9203/AF, Model DHTF

The inspector also verified that the licensee had registered with the NRC as a user of the NRC certified packages. The licensee's record maintenance system for the CoC's was acceptable.

(3) Conclusion

The licensee adequately maintained the Certificates of Compliance for the NRC approved shipping containers used to ship radioactive materials.

d. Receipt and Opening of Packages

(1) Inspection Scope

The inspector reviewed the licensee's procedures and program for incoming radioactive material shipments to verify compliance with the applicable requirements in 10 CFR 20.1906 relating to the pickup from a carrier, receiving, and the safe opening of packages.

(2) Observations and Findings

On May 2, 2000, the inspector observed the licensee perform incoming receipt surveys of 71 drums containing UNH crystals. The UNH crystals were received from the BWXT facility located in Lynchburg, VA on May 1, 2000, at approximately 10:45 p.m. Upon receipt, the licensee performed both direct radiation surveys and surface contamination surveys of the transport trailer containing the 71 drums of UNH crystals. The trailer was secured with a tamper safe seal which was not removed until May 2 at approximately 1:00 p.m. when the licensee began to perform individual surveys of the 71 drums containing the UNH crystals. The inspector observed the licensee perform direct surveys for alpha and beta/gamma radiation and surveys for removable surface contamination of five drums in accordance with regulatory operations procedure ROP-02-008, Surveys of Incoming Shipment of Radioactive Materials, Rev. 7, dated March 2, 2000. The licensee used appropriate instrumentation and survey techniques. Sufficient smears and measurements were taken in the most appropriate locations to yield a representative assessment of the non-fixed contamination levels. From a review of the records, none of the receipt survey results indicated that the limits specified in 49 CFR 173.441 or 173.443 were exceeded.

On May 3, 2000, the inspector observed licensee operators perform the opening of the package and removal of the UNH crystals from the inner packaging. This process was controlled by chemical operating procedure COP-836041, Receipt of Uranium Scrap Shipments from Outside Sources, Rev. 1, dated February 22, 2000. The inspector noted that an operator did not follow step 8 of COP-836041, which required placing the pail of UNH crystals on a clean piece of paper inside the UNH crystal enclosure hood. The purpose of placing the material inside the hood was to reduce the potential airborne radioactivity concentrations in the work area and contamination control. Instead, the operator opened the pail on the floor outside of the UNH crystal enclosure hood, removed the opened plastic bag of UNH crystals, and then placed the opened plastic bag of UNH crystals in the enclosure. The inspector noted that the COP-836041 was not available at the job location. Upon discovery of the procedural violation, a licensee representative immediately notified the area supervisor who temporarily ceased operations until corrective actions could be implemented. During the licensee's review, it appeared that not all of the operators were aware of Step 8 requirements.

After a review of the problem, the licensee determined that the primary root cause was that the processing of incoming scrap material was not a continuous operation. The operation was performed as the material was received. The receipt of this material had been discontinued for several weeks due to the plant being shutdown for maintenance and inventory. Although the operator initially reviewed the chemical operating procedure, the operator did not review the procedure after the several weeks of not performing the operation. Part of the corrective action taken was counseling the operator about his actions and the necessity of following the procedures. In addition, all of the URRS operators were retrained on the procedure and on the importance of following all procedures. A secondary cause was the procedure had some sections which could be confusing. To prevent recurrence, the licensee had initiated the revision of COP-836041 so that the requirements for opening the packages were delineated in a clearer manner. All procedures are currently being revised by an outside professional procedure writing group. This procedure has been given a priority status for revision. The inspector determined that the information regarding the reason for the violation, the

corrective actions taken and planned to correct the violation and prevent recurrence was adequately addressed. The inspector discussed the event with licensee representatives, and indicated that a violation of Section 3.4.1 of the License Application occurred (VIO: 70-1151/00-03-01: Failure to conduct radioactive materials package unloading activities in accordance with the requirements of COP-836041).

(3) Conclusion

A violation of Section 3.4.1 of the License Application occurred for the failure to conduct radioactive materials package unloading activities in accordance with the requirements of chemical operating procedure COP-836041. The licensee's root cause determination and corrective actions to prevent recurrence were acceptable.

e. Training

(1) Inspection Scope

The inspector reviewed the hazardous material (HAZMAT) training program provided to hazmat employees involved with the handling of hazardous materials. The requirements for training hazmat employees are specified in 49 CFR 172 subpart H.

(2) Observations and Findings

The inspector reviewed the training records of selected hazmat employees. A hazmat employee is defined in 49 CFR 171.8. The hazmat training included general awareness/familiarization training, function-specific training, and safety training. The type of work the hazmat employee performed would dictate which of three hazmat training elements the employee would receive. The licensee provided general awareness and safety training during March 1998 and September 1999 to a total of 85 attendees. The licensee's training program was set up to provide the hazmat training once per three years in accordance with the requirements of 49 CFR 172.704(c)(2). However, each area supervisor was responsible for making the determination as to who would be a hazmat employee. The inspector noted that one Health Physics Technician had not received the hazmat training in March 1998 or September 1999. However, this individual was performing radiation survey over checks and was not involved with shipping package labeling or the determination of the transport index. The inspector reviewed the general awareness and safety training course material and exams and determined that the hazmat training was acceptable and satisfied the requirements specified 49 CFR 172.704.

The inspector also verified that function-specific training was provided in accordance with the requirements specified in 49 CFR 172.704 to four individuals of the shipping and traffic office who were directly responsible for the safety of transporting hazardous materials and involved with the preparation of hazardous materials for transportation. The licensee had elected to provide this training on an annual basis even though it is required once per three years.

(3) Conclusion

The hazmat training program was acceptable and for the individuals receiving the function-specific training, exceeded the minimum requirements specified 49 CFR 172.704.

f. Reduction in Package Effectiveness Reports

(1) Inspection Scope

The inspector reviewed reduction in package effectiveness reports submitted by the licensee in accordance with 10 CFR 71.95(a) concerning self-identified violations of the CoC requirements for fuel assembly shipping containers.

(2) Observations and Findings

The inspector reviewed two reduction in package effectiveness reports submitted on April 7 and April 25, 2000, in accordance with the requirements specified in 10 CFR 71.95(a).

The 10 CFR 71.95(a) report, dated April 7, 2000, pertained to a violation that Westinghouse welders, who were performing safety-related welds on the Model MCC-3 fuel shipping containers were certified by a company that was ASME code certified, but was not on the Westinghouse Qualified Supplier List (QSL). The Westinghouse welders had received their training and certification from the same supplier that was already under contract to provide general welding services. However, the supplier was not on the Westinghouse QSL. The licensee had issued a blanket purchase order to the supplier to provide the ASME code welding certification services. Blanket purchase orders with existing suppliers were normally not routed through Product Assurance. Had a separate purchase order been issued for the shipping container welding, the Purchasing Department would have routed the requisition to the Product Assurance Department for approval. After reviewing the issue, the inspector noted that the violation was an administrative quality compliance issue. Immediate corrective actions included the issuance of a Corrective Action Report (CAR 00-0149); suspension of the welding until the CAR finding was resolved; and removing the affected containers identified in October 1999 out of service. To prevent recurrence, the licensee audited the supplier on April 4, 2000; ensuring that any material, items, or services for qualification of welders are provided by Westinghouse or procured from a supplier listed on the QSL; perform an annual audit of this supplier; and hold a pre-award meeting prior to the placement of an order for welder qualifications to assure compliance with order requirements.

The 10 CFR 71.95(a) report, dated April 25, 2000, pertained to a violation that occurred on or about March 24, 2000 when the licensee discovered that one Model MCC-3 shipping container (Serial Number M178) had been used for fuel shipments which did not reflect the minimum weld pattern on the container shell as described in License Drawing MCCL-301. The license drawing was part of the NRC CoC 9239, Rev. 10, USA/9239/AF, Model Nos. MCC-3, MCC-4, and MCC-5. Specifically, MCCL-301 specifies that skip welds are to be made in 16 locations on the external rollover angle bars on the bottom half of the container shells. Two licensee employees were assigned to inspect all shipping containers, specifically verifying that all safety-related parts

comply with License requirements. This action was taken in response to similar violations that occurred in April 1997 and October 1999 and documented as a 10 CFR 71.95(a) reports dated May 22, 1997 and November 23, 1999, respectively. During the March 24, 2000 inspection, it was discovered that container M178 had the skip welds in only 12 locations.

This problem originally became apparent in April 1997, when it was determined that several Model MCC-3 shipping containers had an incorrect weld pattern on the bottom half of the container shells. At that time, all containers with the out of specification weld pattern were taken out of service. A plan was developed to add welds to meet the license drawing requirement. In addition, a procedure was implemented to verify the proper weld patterns during container refurbishment so that the containers that were off-site at the time of the violation would be inspected and corrected prior to next use. During that time, approximately 200 containers were inspected, with 79 containers identified as having the incorrect weld patterns. However, container M178 was not identified. The licensee determined that M178 was in Taiwan at the time of the discovery of the weld deficiencies and was not segregated upon return to the Columbia Plant. On October 25, 1999, it was discovered that certain Model MCC-3 shipping containers had been used for fuel shipments which did not reflect the weld pattern on the upper container shell as specified in license drawing MCCL-301. Specifically, the licensee discovered that some of the MCC-3 containers in use had skip weld patterns which exceeded the 10-inch center-to-center requirement specified in drawing MCCL-301.

During interviews with the licensee, the inspector determined that shipping container M178 had been used twice to ship fuel assemblies during the months of January and February 2000. After reviewing this issue, the inspector identified this problem as a violation of 10 CFR 71.133 requirements (VIO: 70-1151/00-03-02: Failure to assure that shipping container non-compliances were promptly corrected). The licensee's immediate corrective actions included the removal of M178 from service and resuming the inspection of all containers. To prevent recurrence, the licensee assigned two employees to inspect safety-related parts for all containers and to develop a plan for further training. Given the circumstances regarding the location of the M178 container when this problem was initially discovered in 1997, the inspector determined that the information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence was adequately addressed.

(3) Conclusion

The licensee identified two violations involving the package effectiveness for fuel assembly shipping containers during April 2000. The corrective actions for the administrative problem appeared to be adequate to prevent recurrence. However, a violation was identified for failing to assure that shipping container non-compliances were promptly corrected.

g. Follow-up on Previously Identified Items

(1) Inspection Scope

The inspector reviewed unresolved item (URI) 99-06-04, which pertained to the welds on shipping containers not in accordance with NRC CoC.

(2) Observations and Findings

A 10 CFR 71.95(a) 30-day report dated November 23, 1999, identified several MCC-3 shipping containers that were constructed with a weld pattern different than that specified in the drawings referenced by the CoC. The weld specifications were intended to strengthen the top half of the container shell to ensure container integrity during accident conditions. The licensee's corrective actions included placing an immediate hold on the use of the affected containers; re-welding the affected containers to bring them within specification; and inspection of all fuel assembly shipping containers to ensure compliance with all applicable license drawing requirements. At the time of the inspection documented in IR 70-1151/99-06, the effect of the different weld pattern on the structural integrity of the container had not been determined. Subsequent to that inspection, the Region had referred the structural integrity question to the Spent Fuel Project Office for an evaluation. At the time of this inspection, the evaluation had not been completed.

(3) Conclusion

This unresolved item remains open.

3. Exit Meeting

The inspection scope and results were summarized on May 4, 2000, with those persons indicated in the Attachment. The inspector described the areas inspected and discussed in detail the inspection results, including the apparent violations. Although proprietary documents and processes were reviewed during this inspection, the proprietary nature of these documents or processes has been deleted from this report. No dissenting comments were noted during the exit meeting.

ATTACHMENT

1. **PARTIAL LIST OF PERSONS CONTACTED**

Licensee Personnel

- *J. Allen, Manager, Columbia Plant
- *J. Bush, Manager, Manufacturing
- *O. Connelly, Nuclear Criticality Safety Engineer
- *R. Fischer, Senior Engineer
- *D. Goldbach, Manager, Environment, Health & Safety (EH&S)
- *W. Goodwin, Consulting Engineer, EH&S
- *J. Heath, Manager, Integrated Safety Engineering
- *J. Hooper, Senior Engineer
- *B. Monley, Deputy Plant Manager
- F. Moorer, Transportation Specialist
- *C. Perkins, Manager, Maintenance
- *T. Shannon, EH&S Technician
- *J. Rankar, Associate Integrated Safety Engineer
- *T. Ross, Manager, Transportation
- W. Sillwell, Transportation engineer
- *R. Williams, Advisory Engineer

Nuclear Regulatory Commission

- *C. Drummond, Chemical Engineer (ONMSS)
- *P. Lee, Fire Protection Engineer (ONMSS)
- W. Tobin, Senior Physical Security Specialist (RII)

*Denotes those present at the exit meeting on May 4, 2000.

2. **INSPECTION PROCEDURES USED**

- IP 83822 Radiation Protection
- IP 86740 Inspection of Transportation Activities

3. **LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

| <u>Item Number</u> | <u>Status</u> | <u>Description</u> |
|--------------------|---------------|---|
| 70-1151/00-03-01 | Closed | VIO: Failure to conduct radioactive materials package unloading activities in accordance with the requirements of COP-836041(Section 2.d.(2)) . |
| 70-1151/00-03-02 | Closed | VIO: Failure to comply with the terms and conditions of the NRC CoC No. 9239 (Section 2.f.(2)). |

70-1151/99-06-04 Open URI: Welds on shipping containers not in accordance with NRC CoC (Section 2.g.(2)).

4. **ACRONYMS and ABBREVIATIONS**

| | |
|--------|--|
| ASME | American Society of Mechanical Engineers |
| CAR | Corrective Action Report |
| CoC | Certificate of Compliance |
| COP | Chemical Operating Procedure |
| DOT | Department of Transportation |
| Hazmat | Hazardous Material |
| MOP | Maintenance Operating Procedure |
| NMSS | Nuclear Material Safety and Safeguards |
| NRC | Nuclear Regulatory Commission |
| QC | Quality Control |
| QSL | Qualified Supplier List |
| SNM | Special Nuclear Material |
| TI | Transport Index |
| UNH | Uranyl Nitrate |
| URI | Unresolved Item |
| URRS | Uranium Recycle and Recovery Services |
| VIO | Violation |