



December 12, 2008

Document Control Desk  
Director, Spent Fuel Project Office  
Office of Nuclear Material Safety and Safeguards.  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

In accordance with 10 CFR 71.5(b), we are providing the attached report of a discrepancy discovered during an internal company review of shipment documentation related to a transfer of low level radioactive waste.

The event involves an administrative error during leak testing of a package following closure. The subsequent transportation and unloading of the package occurred without incident and no components or systems were inoperable at any time during transport. The error did not result in unanticipated exposures to radiation or radioactive materials.

Please contact me if additional information is required or if you have questions concerning this event.

Sincerely,

Philip Gianutsos, CHP  
Radiation Safety Officer  
EnergySolutions Bear Creek Operations

Cc: Pat Paquin, EnergySolutions  
Joe Heckman, EnergySolutions

## **§ 71.95 Reports.**

*(c) Each licensee shall submit, in accordance with § 71.1, a written report required by paragraph (a) or (b) of this section within 60 days of the event or discovery of the event. The licensee shall also provide a copy of each report submitted to the NRC to the applicable certificate holder. Written reports prepared under other regulations may be submitted to fulfill this requirement if the reports contain all the necessary information, and the appropriate distribution is made. Using an appropriate method listed in § 71.1(a), the licensee shall report to: ATTN: Document Control Desk, Director, Spent Fuel Project Office, Office of Nuclear Material Safety and Safeguards. These written reports must include the following:*

*(1) A brief abstract describing the major occurrences during the event, including all component or system failures that contributed to the event and significant corrective action taken or planned to prevent recurrence.*

EnergySolutions hereby submits this report, as required by 10CFR71.95(b). On January 25, 2008, EnergySolutions personnel prepared a shipment of radioactive material to be transported from our Oak Ridge, TN facility to the Palisades Nuclear Power Plant. The shipment was packaged in the Model 10-142B package, Certificate of Compliance (CoC) number 9208. The package was inspected and closed in accordance with EnergySolutions procedure Technical 3015, which meets the requirements of the Operating Procedures in Section 7.0 of the Safety Analysis Report as referenced in Condition 9. (b) of the CoC. Following closure, a leak test was performed as required by Technical 3015 by an EnergySolutions employee. The shipment was transported to and offloaded by the consignee (Palisades Nuclear Power Plant) without incident.

During a review of documentation associated with this shipment, EnergySolutions personnel discovered a possible conflict with the qualification of the employee performing the required pre-shipment leak test with respect to the EnergySolutions qualification and certification requirements. The technician performing the leak test mistakenly assumed that he maintained his previous certification to perform this leak test, however due to unique qualification requirements of this cask; the technician was not evaluated and certified in accordance with the EnergySolutions' requirements.

*(2) A clear, specific, narrative description of the event that occurred so that knowledgeable readers conversant with the requirements of part 71, but not familiar with the design of the packaging, can understand the complete event. The narrative description must include the following specific information as appropriate for the particular event.*

The operating procedures for the 10-142B cask require a pre-shipment leak test to be performed for shipments of Type B quantities of radioactive materials not meeting the criteria of Low Specific Activity (LSA) or Surface Contaminated Objects (SCO) as

defined in 10CFR71.4. This shipment was a Type B quantity and did not meet the definition of LSA or SCO. The 10-142B Leak Test Procedure references an EnergySolutions' procedure entitled "QC Personnel Qualification and Certification". The individual performing the leak test, although previously qualified to perform this task, was not evaluated and certified in accordance with the referenced procedure.

*(i) Status of components or systems that were inoperable at the start of the event and that contributed to the event;*

There were no components or systems that were inoperable at any time during this shipment.

*(ii) Dates and approximate times of occurrences;*

The shipment began January 25, 2008. The shipment ended January 28, 2008. The initial investigation of events began February 20, 2008. The determination that the shipment was not in full compliance with the application to the CoC was made on October 14, 2008.

*(iii) The cause of each component or system failure or personnel error, if known;*

An employee assumed that a previous qualification to perform leak tests required by the application to the 10-142B was still valid, but due to the unique qualification specification, the employee was not evaluated and certified to the extent specified in the supporting procedure.

*(iv) The failure mode, mechanism, and effect of each failed component, if known;*

There were no components or systems that were inoperable at any time during this shipment.

*(v) A list of systems or secondary functions that were also affected for failures of components with multiple functions;*

There were no components or systems that were inoperable at any time during this shipment.

*(vi) The method of discovery of each component or system failure or procedural error;*

An independent review of the shipment was performed by personnel from the EnergySolutions Quality Assurance department. The review identified the potential conflict in qualifications. A review of the individual's previous work history demonstrated that the employee was previously qualified, and most-likely meets the qualification requirements specified, but had not been certified in accordance with the referenced procedure.

*(vii) For each human performance-related root cause, a discussion of the cause(s) and circumstances;*

The individual assumed that his previous qualifications remained effective with respect to the leak test on this cask. Additionally, the qualification requirements specified in this cask were not harmonized with the requirements of other Type B containers when the cask was acquired by EnergySolutions, leading to a very limited number of qualified individuals. Due to the October 1, 2008, expiration of the CoC (as required by 10CFR71.19(a)(3)), an amendment to the CoC to harmonize the procedures with the rest of the EnergySolutions fleet was not pursued.

*(viii) The manufacturer and model number (or other identification) of each component that failed during the event; and*

There were no components or systems that were inoperable at any time during this shipment.

*(ix) For events occurring during use of a packaging, the quantities and chemical and physical form(s) of the package contents.*

The shipment involved the transportation of contaminated filters packaged in a polyethylene container. The contamination consists of mixed fission products and activation products associated with primary and secondary systems in a commercial nuclear power plant. The contaminants were primarily solid oxides imbedded on the filter media to varying extents. The shipping container (cask) contained a 28 cubic foot polyethylene container with 250 pounds of dewatered liquid filters. The shipment contained a nominal activity of 136 Ci.

*(3) An assessment of the safety consequences and implications of the event. This assessment must include the availability of other systems or components that could have performed the same function as the components and systems that failed during the event.*

This event is of low safety significance. The leak test was performed by an experienced individual and the results indicated that the cask was appropriately sealed. Additionally, the cask passed leak tests performed by other users of the cask within a few days prior and following this event. Therefore, there is no reason to believe that safety was compromised in any way during this shipment. The loading, closure, transportation, and unloading of the shipment occurred without incident.

*(4) A description of any corrective actions planned as a result of the event, including the means employed to repair any defects, and actions taken to reduce the probability of similar events occurring in the future.*

The qualification requirements in the application for the CoC of this cask are unique. The CoC expired on October 1, 2008. There is no possibility of recurrence on this cask. However, this event has been identified by use of a condition report.

*(5) Reference to any previous similar events involving the same packaging that are known to the licensee or certificate holder.*

EnergySolutions has no knowledge of similar events involving this package.

*(6) The name and telephone number of a person within the licensee's organization who is knowledgeable about the event and can provide additional information.*

For additional information regarding this event, please contact:

Joe Heckman 865-481-0222

Phil Gianutsos 865-481-0222

Doug Hatch 865-481-0222

*(7) The extent of exposure of individuals to radiation or to radioactive materials without identification of individuals by name.*

This event involves an administrative error during leak testing the package following closure. There was no unanticipated exposure to radiation or radioactive materials due to the event.