

# UNIVERSITY of MISSOURI

## RESEARCH REACTOR CENTER

April 7, 2011

Cindy Bladey  
Chief, Rules, Announcements, and Directives Branch (RADB)  
Office of Administration  
Mail Stop: TWB-05-B01M  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

11/3/2010  
75 FR 67636

5

RECEIVED

2011 APR - 8 PM 2: 21

RULES AND DIRECTIVES  
BRANCH  
US NRC

**SUBJECT:** Request for Public Comment on Draft NUREG-0561, Revision 2, "Physical Protection of Shipments of Irradiated Reactor Fuel," (75 FR 67636); Docket ID NRC-2010-0340

The University of Missouri Research Reactor (MURR) appreciates the opportunity to provide comments on the proposed revision to NUREG-0561, "Physical Protection of Shipments of Irradiated Reactor Fuel," as published in the Federal Register (Volume 75, No. 212 / November 3, 2010).

The MURR has extensive knowledge and experience in the transportation of irradiated reactor fuel. On October 8, 2002, the NRC issued an Order (EA-02-109) which modified Amended Facility License R-103 with respect to the transportation of spent nuclear fuel for quantities greater than 100 grams to require compliance with specified interim safeguards and security compensatory measures. On May 21, 2003, and as supplemented by letter dated July 3, 2003, the MURR submitted to the NRC for review the "University of Missouri-Columbia Road Transportation Security Plan (TSP)," which implemented the requirements of this Order. On August 12, 2003, the NRC concluded that Revision 0 to the "University of Missouri-Columbia Road TSP" met the performance objectives and general requirements of 10 CFR 73.37 and the Commission's supplemental requirements.

On January 26, 2004, and as supplemented by letter dated April 21, 2004, the MURR submitted to the NRC for review Revision 1 to the "University of Missouri-Columbia Road TSP." The changes were requested based upon the experience gained during the first two spent fuel shipments conducted under the new TSP. MURR felt the changes fully met the intent of the NRC Order dated October 8, 2002, and helped further enhance the safety and security of each spent fuel shipment. On May 19, 2004, the NRC concluded that Revision 1 to the "University of Missouri-Columbia Road TSP" met the performance objectives and general requirements of 10 CFR 73.37 and the Commission's supplemental requirements.

Therefore, the following comments regarding the proposed revision to NUREG-0561 are based on the development of Revisions 0 and 1 to the "University of Missouri-Columbia Road TSP," and their subsequent approval by the NRC, and the 22 spent fuel shipments conducted by MURR since issuance of the Order.

SUNSI Review Complete



E-REDS = ADM-03  
Case = R. Clyde Rayland  
(rar)

Template = ADM-013

**Section 2.1 (Page 5)**

“Whenever possible, licensees should request approval of two routes...”

Comment: MURR would like further clarification on when an alternate route is required and what bases should be considered when developing that route. Currently, routes are chosen based on (1) the shortest possible travel distance, and (2) adhering to major highways. An alternate route that meets these requirements may not always be available.

**Section 2.1.1 (Page 7)**

“When selecting a route by road, licensees must survey the proposed route.”

Comment: Does this apply to a route that has already been approved, or to a new route?

**Section 2.2.2 (Page 12)**

“...one armed escort other than the driver maintains constant visual surveillance of the shipment and reports to the movement control center at regular, preset intervals not to exceed 30 minutes during periods when the shipment vehicle is stopped ...”

Comment: Requirement of armed escort calling the movement control center is not practical when Local Law Enforcement Agency (LLEA) personnel are used as the armed escorts. Movement control center calling the drivers should be an alternate option.

**Section 2.2.2.1 (Page 12)**

“The licensee should ensure that, when a shipment has stopped...”

Comment: The LLEA should be exempted from the following requirements:

- Need to be equipped with minimum of two weapons
- Means and knowledge to immobilize the transport vehicle
- Before making the stop, ensuring that the communications equipment is properly operating

**Section 2.3.3 (Page 16)**

“SGI notifications must be made by secure telephone.”

Comment: This may not be practical for a research reactor based on several factors: notably University policies, system compatibility and cost.

**Section 2.6 (Page 19)**

“However, a member of an LLEA should be briefed on the shipment procedures as necessary...”

Comment: This is something that is best deferred to the Governor’s Designees and was agreed upon by the NRC in the development of Revision 0 to the “University of Missouri-Columbia Road Transportation Security Plan.” The shipment procedures are sent to the Designee who then is expected to train the LLEA escorts.

**Section 2.7 (Page 19)**

“The NRC requires the movement control center personnel and the escorts to maintain a written log for each SNF shipment.”

**Comment:** As explained in the January 26, 2004, letter to the NRC requesting approval of Revision 1 to the “University of Missouri-Columbia Road TSP,” the movement control center maintains a detailed log of all events during the shipment. Additionally, the TRANSCOM Center generates backup logs outlining any major events during the shipment. Almost all State LLEAs perform “rolling handoffs” where their escort duties and responsibilities are transferred to one another without stopping their vehicles. In conversation with the LLEAs, they informed us that this method is far safer and more secure than stopping and placing the shipment at greater risk. Keeping a log of the shipment is a major distraction for the LLEA escorts and takes away from their primary function of driving and observing the shipment. However, non-LLEA escorts, i.e. private armed escorts, should be required to maintain a written log.

**Section 3.1 (Page 23)**

“When SNF is transported by road, the transport vehicle must be accompanied by at least two armed escorts. The requirement can be met in either one of two ways:”

**Comment:** MURR feels that these requirements can not be met. The transport vehicle second driver can not be armed since research reactors use commercial carriers, which do not use armed drivers, and as to the alternate option, the States can not provide 2 armed escorts (one in front and one in the back) for the shipment. With the financial situation of most of the states, it is difficult enough for them to provide one armed escort. Typically, the States provide one armed escort and sometimes a second vehicle with unarmed radiation detection personnel.

**Section 3.3.3 (Page 25)**

“The licensee shall submit a letter to the NRC requesting approval of the intended immobilization device in advance.”

**Comment:** We do not understand the intent of this requirement. As long as there is an immobilization method present that meets the established criteria, why does the NRC have to approve it?

**Section 6 (Page 31)**

“The requirements of 10 CFR 73.38 do not apply to Federal, State or LLEA personnel while performing SNF transport escort duties...”

**Comment:** Licensees have no control over background checks performed for state employees (non LLEAs, i.e. radiation detection personnel) that have access to the shipment during transit, and hence, licensees can not be responsible for their background checks. This responsibility should be deferred to the Governor’s Designees.

Section 6.3.8 (Page 37)

“As specified in 10 CFR 73.38(d)(6), licensees shall ensure that a full credit history of any individual who is applying for unescorted access to SNF...”

Comment: We feel that credit history evaluations should only be performed if the results obtained during the fingerprinting and FBI identification and criminal history records check and criminal history review are inconsistent. They should not be routinely required.

Section 6.5 (Page 40)

“The licensee shall conduct fingerprinting, an FBI identification and criminal history check, and a credit history reevaluation every 10 years for any individual who has been granted unescorted access to SNF in transit.”

Comment: MURR feels that research reactors should have relief from this requirement since it will cause a financial burden to the facility with minimal gain. Additionally, as stated above, licensees have no control over background checks performed for state employees (non LLEAs) that have access to the shipment during transit, and hence, licensees can not be responsible for their background checks.

Thank you for the opportunity to comment. Should you have any questions, please feel free to contact me at 573-882-4211; ButlerRa@missouri.edu or John Fruits at 573-882-5319; FruitsJ@missouri.edu.

Sincerely,



Ralph A. Butler, P.E.  
Director