

Tribal Notification of Spent Nuclear Fuel Shipments

The U.S. Nuclear Regulatory Commission offers Federally recognized Tribal governments the opportunity to be notified before irradiated reactor fuel – better known as spent nuclear fuel, or SNF – is shipped through or within their reservations. The NRC makes this option available to Tribal governments out of respect for their sovereignty and their responsibility to protect public health and safety within their jurisdictions.

The notifications include information about the schedule and route of the shipments and are therefore considered Safeguards Information, or SGI. Tribal governments choosing to receive notifications must protect that information. Officials designated to receive the notifications must be trained in NRC's regulations for handling, storing and protecting SGI.



Type B MP197HB spent fuel package on a transport vehicle. Photo courtesy © Orano.

Tribal governments opting to receive advance notification of SNF shipments through their reservations must take the following steps:

- Notify the NRC that they have decided to participate in the program
- Designate an official and an alternate to receive the notifications and provide contact information for those officials and an emergency response official to the NRC
- Develop a program for protecting SGI
- Certify that the designated officials have received the required NRC training in how to handle and protect SGI
- Review a map provided by the NRC of the Tribe's reservation(s), showing main roads, railroads and waterways, and verify its accuracy.

Notifications

The NRC's requirements for Tribal advance notification of SNF shipments are spelled out in detail in 10 CFR 73.37. The notification would come from the NRC's licensee – the operator of a commercial nuclear power plant or spent fuel storage facility. The essential requirements are:

- The notification must be in writing, addressed to the Tribal official or the Tribal official's designee.

- If sent by U.S. Mail, the notification must be postmarked at least 10 days in advance of the scheduled shipment. If delivered by other means, the notification must arrive at least seven days in advance of the shipment within or across the border of the Tribal reservation.

The notification must include the following information:

- Name, address and telephone number of the shipper, carrier and receiver of the shipment, with the NRC license number of the shipper and receiver
- A description of the shipment as specified in U.S. Department of Transportation regulations at 49 CFR 172.202 and 172.203(d)
- A list of the routes to be used within the Tribal reservation.

In a separate enclosure along with the notification, the NRC licensee must include:

- Estimated date and time of departure from the point of origin
- Estimated date and time of entry into the Tribal reservation
- Estimated date and time of arrival at destination.

Tribal officials receiving the notifications are required to protect the schedule information until at least 10 days after the shipment enters their reservation, or 10 days after the final shipment in a related series.

Safety and Security of Spent Nuclear Fuel Transportation

Spent nuclear fuel has been safely transported in the United States and other countries for more than four decades without release of radioactive material to the environment.

NRC regulations establish safety standards for the design and construction of shipping packages as the primary way to protect the public during transportation of SNF. Packages used to move spent fuel by rail or highway are designed to be robust and withstand accidents. U.S. regulations require that these packages be evaluated for a series of tests simulating accident conditions, in accordance with international safety standards. After the tests, the packages must still meet safety criteria for containment of radioactive material, radiation shielding and criticality safety.

Before any shipment of SNF, the NRC staff must review and approve a route plan provided by the licensee. The plan includes pre-arranged safe havens located every 50 miles along highway routes and arrangements with local law enforcement and emergency response agencies along the route.

Security requirements for SNF shipments include advance coordination with local law enforcement agencies along the entire route, armed escorts, continuous monitoring of the shipment and a capability for the driver to immobilize the vehicle in the event of an incident. The robust design of the package provides additional security.

For More Information:

Transportation of Spent Nuclear Fuel
<https://www.nrc.gov/waste/spent-fuel-transp.html>

Safety of Spent Fuel Transportation (NUREG/BR-0292, Revision 2)
<https://www.nrc.gov/reading-rm/doc-collections/nuregs/brochures/br0292/index.html>

Flyer – Security of Irradiated Reactor Fuel in Transit
<https://www.nrc.gov/waste/spent-fuel-transp/flyer-security-irradiated-reactor-fuel-tansit.pdf>

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