FUNDING

DECOMMISSIONING FUNDING

Before beginning operations, nuclear power plant licensees must prove they have a financial mechanism, like a parent company guarantee or trust fund, to pay for the eventual decommissioning of said plant(s). Formulas in 10 CFR 50.75(c) determine the estimated minimum amount needed to decommission each reactor a licensee owns. These amounts are reported to the NRC every two years and generally range from \$300 million to \$400 million.

TRANSPORTATION FUNDING

Below are possible funding sources for states to prepare, for the transportation of materials away from decommissioned nuclear power plants.

- Section 180(c) assistance: Requires DOE to provide financial & technical assistance to states along transportation routes for spent nuclear fuel & high-level radioactive waste under the Nuclear Waste Policy Act (NWPA) for training emergency response personnel
- Nuclear power plant fees or other revenue
- Shipment fees: Some states in the Midwest have enacted fees on shipments of radioactive waste and materials
- Hazardous Materials Emergency Preparedness (HMEP) Grant
- Motor Carrier Safety Assistance Program (MCSAP) Grant

ABOUT

This brochure was created by the Decommissioning Guidance for States Work Group of the Midwestern Radioactive Materials Transportation Committee (MRMTC). Members of the Work Group include Steve Bertonaschi of Ohio, Kelly Horn of Illinois, and Nikki Weber of Nebraska. The MRMTC is staffed by the Council of State Governments-Midwest.



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STATES

Midwestern Radioactive Materials Transportation Committee



STEPS AND TIMELINE OF DECOMMISSIONING

1. INITIAL ACTIVITIES

- a. Certification of permanent closure to Nuclear Regulatory Commission (NRC) within 30 days of shut down
 - *i.* Written certification to NRC when all fuel is removed from the reactor, eliminating certain obligations
- b. Post-shutdown decommissioning activities report to NRC within 2 years
- c. Notice of receipt in the Federal Register, public review and comment, and public meeting near plant

2. MAJOR DECOMMISSIONING ACTIVITIES

a. Permanent removal of major components can begin 90 days after planning report

3. LICENSE TERMINATION ACTIVITIES

- a. License termination plan (LTP) to NRC within 2 years of expected license termination
 - *i*. Residual radiation must be below 25 millirem annual exposure for unrestricted public use
- b. Public meeting is held near plant before LTP approval
- c. Issuance of letter terminating operating license if NRC's survey finds site suitable for release

A more detailed timeline can be found on the NRC's *Backgrounder on Decommissioning Nuclear Power Plants*.

► T R A N S P O R T A T I O N

By virtue of their location in the center of the U.S. and the existence of several operating and decommissioning (shown in map below) nuclear power plants, the Midwestern states are frequently traversed by shipments of radioactive waste and materials. Due to many years of experience with low-level waste (LLW) and Waste Isolation Pilot Plant (WIPP) shipments, states are well prepared for small component shipments using semitrucks. Large component shipments that need to be completed over rail will need more time to plan and coordinate. In 2005, the MRMTC completed a Route Identification Project which identified the states preferred highway and rail routes. This report and the Planning Guide for Shipments of Radioactive Material through the Midwestern States can be found at https://www.csgmidwest.org/MRMTP/ MRMTP_publicinfo.aspx.



DIFFERENCES BETWEEN DOE AND LICENSEE SHIPMENTS

| | ITEM | LICENSEE SHIPMENTS | DOE SHIPMENTS |
|---|---|-----------------------|------------------|
| | Route identification (rail) | х | х |
| | Route identification (highway) | Х | х |
| | Safety Compliance Oversight Plan (SCOP) | Х | |
| | Route approval | х | |
| | Notification to Canada of shipment affecting the Great Lakes | Х | Х |
| l | Overweight permits | х | Х |
| | Preplan and coordinate with states | х | Х |
| | Curfews/key dates to avoid | х | х |
| | Inspection Requirements | х | Х |
| | Escort Requirements | х | Х |
| | Advance notification | х | |
| | State fees | х | Х |
| | CVSA Level VI Inspection (truck) | Х | Х |
| 1 | Continuous monitoring | х | |
| | Armed escorts | х | Х |
| | Route designation | x | Х |
| | Funds for training | | X |
| | TEPP training | | Х |
| | State Regional Group coordination | | х |