

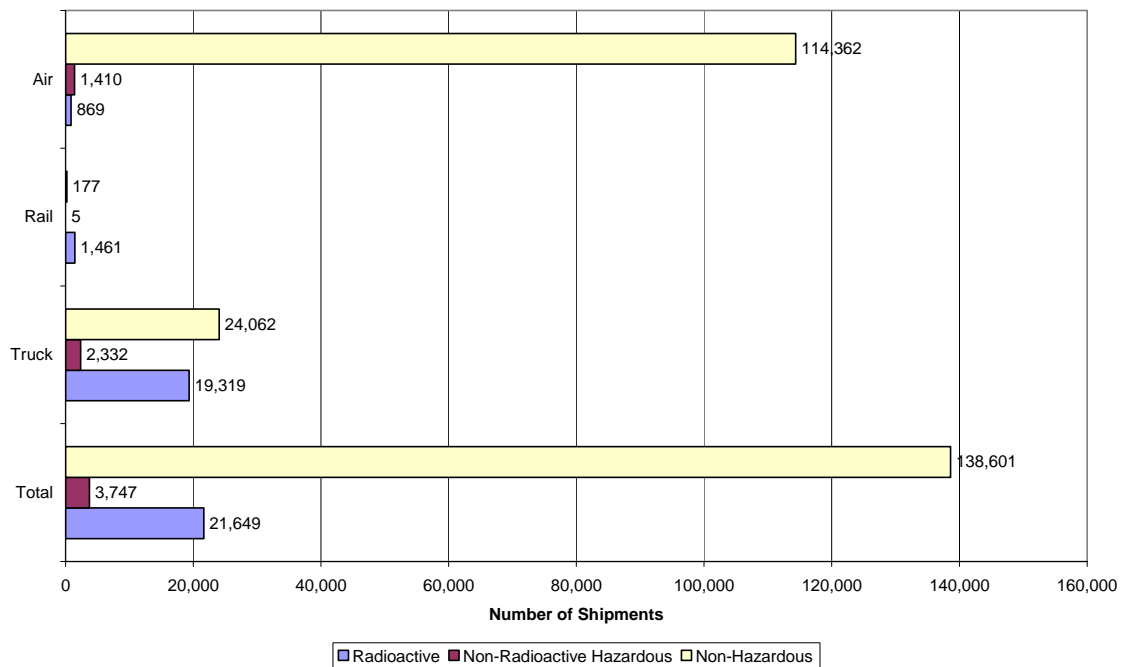
# Questions and Answers About Transportation of Radioactive Materials by DOE

For more than 60 years, the U.S. Department of Energy (DOE) and its predecessor agencies have maintained a record of safe and efficient transportation of radioactive materials. On average, DOE ships approximately 22,000 radioactive material/waste shipments a year. The majority of these shipments are made under the auspices of the Office of Environmental Management (EM) mission of site remediation and cleanup. The most ambitious and far ranging of these missions is dealing with the environmental legacy of the Cold War. Many problems posed by EM's operations are unique, and include the transportation of unprecedented amounts of contaminated waste, water, and soil, and a vast number of contaminated structures. External regulation and oversight of these shipments are provided by the Department of Transportation and other Federal and state regulatory bodies.

## How does DOE ship its radioactive material?

DOE ships its radioactive materials/wastes by all modes of transportation through commercial and private carriers.

## FY2004 DOE Shipments by Mode



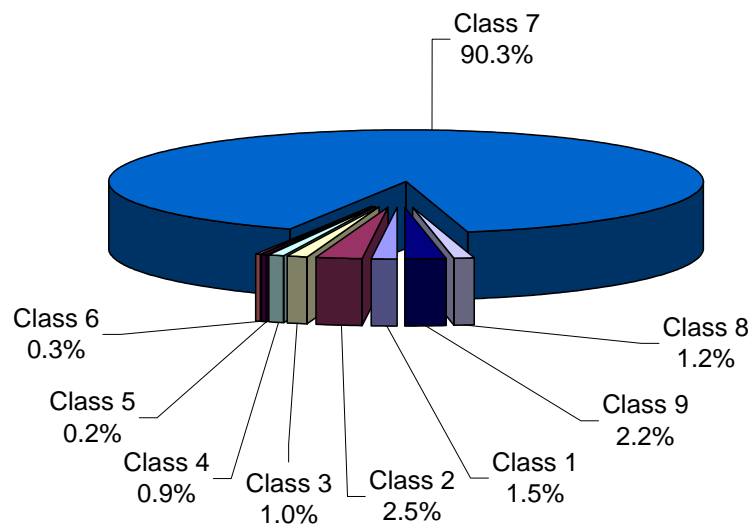
- The Department uses U.S. Department of Transportation (DOT) authorized packagings for its non-defense transportation activities. These packagings are designed to minimize the risk of materials being released during transportation. Nuclear Regulatory Commission (NRC) certified packagings are used for spent fuel shipments. DOT and NRC prescribe the kinds of packages to be used depending on the material being shipped. DOE ensures the appropriate package is used through quality assurance and other managerial and oversight activities.

- The Department follows DOT routing regulations and coordinates with States and Tribes for identification of alternative routes. Highway route selection criteria include shortest time in transit, shortest distance and use of interstates and beltways around population centers.

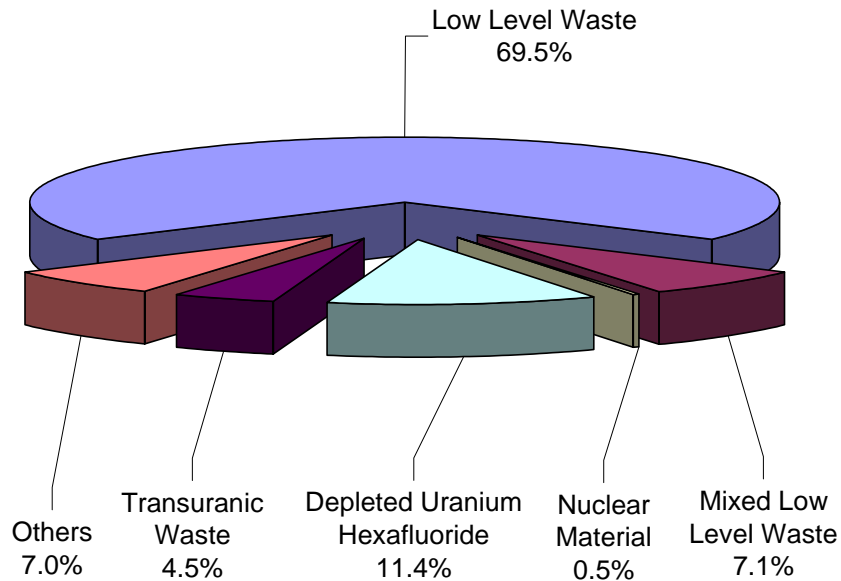
### How much does DOE ship annually?

- In FY 2004, DOE completed 163,997 shipments, which consisted of 138,601 non-hazardous shipments and 25,396 hazardous materials shipments, of which, 21,649 were radioactive material or waste shipments.

### FY2004 DOE Hazardous Material Shipments



## FY2004 DOE Radioactive Material Shipments



### How is transportation implemented in the Department?

- The Department's packaging and transportation activities are performed through the various Program Offices which provide program and policy direction and oversight. The National Nuclear Security Agency in DOE manages weapons components and subassemblies, naval spent fuel and isotope transportation and packaging activities, the Office of Environmental Management manages transportation of spent fuel, special nuclear materials and radioactive and hazardous waste materials.
- DOE Site Offices are responsible for detailed planning for shipments and for full regulatory compliance, and provide the focal point for local public and stakeholder interactions.

### What agencies regulate the Department of Energy transportation activities?

- DOE is subject to DOT, NRC and U.S. Environmental Protection Agency transportation regulations for non-defense shipments. These regulations cover packaging and transportation of hazardous materials on public highways, railroads, airways, and waterways. These non-defense shipments are also subject to applicable State, Tribal, and local government requirements.

### **How does DOE involve state and tribal officials in transportation planning?**

- To address transportation issues, the DOE has established several forums to involve key stakeholders in transportation activities. Stakeholders include internal and external parties.
- The Transportation External Coordination Working Group (TEC), which is composed of State, Tribal and local organizations, industry, and professional and technical associations. The Offices of Environmental Management and Civilian Radioactive Waste Management serve as the co-chairs of the TEC. Through the TEC/WG, DOE interacts with representatives of organizations at the state, tribal, and local levels who are working cooperatively with DOE, to obtain input for program needs assessment, development and management, and to enhance their capability to carry out transportation emergency preparedness and safety activities specifically related to radioactive materials shipments. With the overall objective of developing a consolidated, multi-year set of goals and plans of action, DOE and the state, tribal, local government, and industry members address the following issues:
  - review funding and training requirements under Section 180(c) of the Nuclear Waste Policy Act, as amended, (including emergency response and safe routine transport);
  - promote the functional integration of DOE emergency preparedness activities with the overall DOE transportation system;
  - identify emergency response, planning, training, and exercise needs of responders;
  - identify areas for DOE to coordinate activities with state, tribal, and local jurisdictions and industry and with other federal agencies and identify areas for DOE-specific initiative; and
  - develop recommendations for providing technical assistance.

- Under TEC, Topic Groups are established to enable a small number of participants to focus intensively on key issues at a level of. The Topic Groups are intended to work on significant issues, produce a relevant product and sunset the group when the work is completed, allowing members to move to the other Topic Groups as time and interest allow.
- Coordination of transportation activities through the State Regional Groups. DOE supports state coordination and shipment planning through regional state organizations. Activities include participation in DOE workshops and meetings, development of transportation plans, comments on DOE program and policy documents and research and operational support for states on DOE transportation activities. Coordination is through the following groups:
  - Northeastern Office of the Council of State Governments <http://www.csgeast.org/>
  - Midwestern Office of the Council of State Governments <http://www.csgmidwest.org/>
  - Southern States Energy Board <http://www.sseb.org/>
  - Western Governors' Association <http://www.westgov.org/>
  - Western Interstate Energy Board <http://www.westgov.org/wieb/wieb.html>

### **What notification does DOE provide for shipments of hazardous materials?**

- DOE provides formal notifications for highway route controlled quantity of radioactive materials to the NRC, DOT, States and Tribes. This notification is equivalent to that which is required by the NRC, except for notification to Tribal officials. Local governments are not formally notified by DOE of these shipments; however, States may notify local officials on a need-to-know basis.
- No notifications are made formally to State, Tribal, and local governments for routine low-level hazardous materials shipments. Site Offices may have informal agreements to inform officials of these shipments.
- DOE performs real-time shipment tracking of spent fuel, high-level waste, and other high visibility shipments through a satellite-based automated system called TRANSCOM. The NRC, DOT, States, and Tribes have access to this system to track shipments within their respective jurisdictions.
- DOE does not notify about shipments of classified materials.

### **What happens in the event of an accident involving a DOE radioactive shipment?**

- State, Tribal, and local governments respond to any accident involving DOE shipments. The local responders are responsible for safety and enforcement within their jurisdictions.
- DOE maintains a 24-hour emergency point-of-contact at Headquarters and at each Field Office. The appropriate point-of-contact for the shipment is listed on the shipping papers as required by DOT regulation.
- During and after an accident DOE provides response advice, radiation monitoring, and other support as requested by State or Tribal governments.
- DOE's Transportation Emergency Preparedness Program provides the guidance and training that emergency responders need to safely, efficiently, and effectively respond to radioactive material shipment accidents and incidents ([www.em.doe.gov/otem](http://www.em.doe.gov/otem)).

Please refer to:

- [Transporting Radioactive Materials Safely: Guide to DOE Transportation](#)