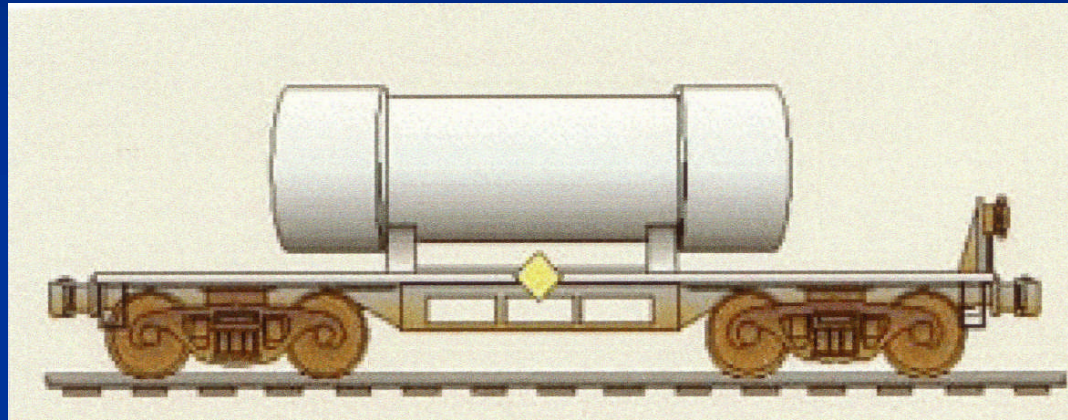


NRC's Role in Transportation of Spent Nuclear Fuel



A Presentation to the National Academy of Science's
Committee on Transportation of Radioactive Waste
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Objectives

- What are the NRC roles in regulating spent fuel shipments ?
- What is the regulatory basis for each of these roles ?
- How does the NRC implement its roles ?
- What is the relationship between NRC's role and that of other parties ?

NRC Roles in Regulating Spent Fuel Shipments

- Certification of Shipping Casks
- Inspection of Cask Designers, Fabricators
- Enforcement of NRC and DOT safety rules
- Enforcement of Physical Protection Measures
- Emergency Response – assistance to first responders, lead Federal Agency

Relationship of NRC's Roles to those of other Parties

Nuclear Regulatory Commission

- Licenses the commercial use of Radioactive material, including transportation.

Department of Transportation

- Regulates the transportation of all hazardous material, including spent fuel.

Department of Energy

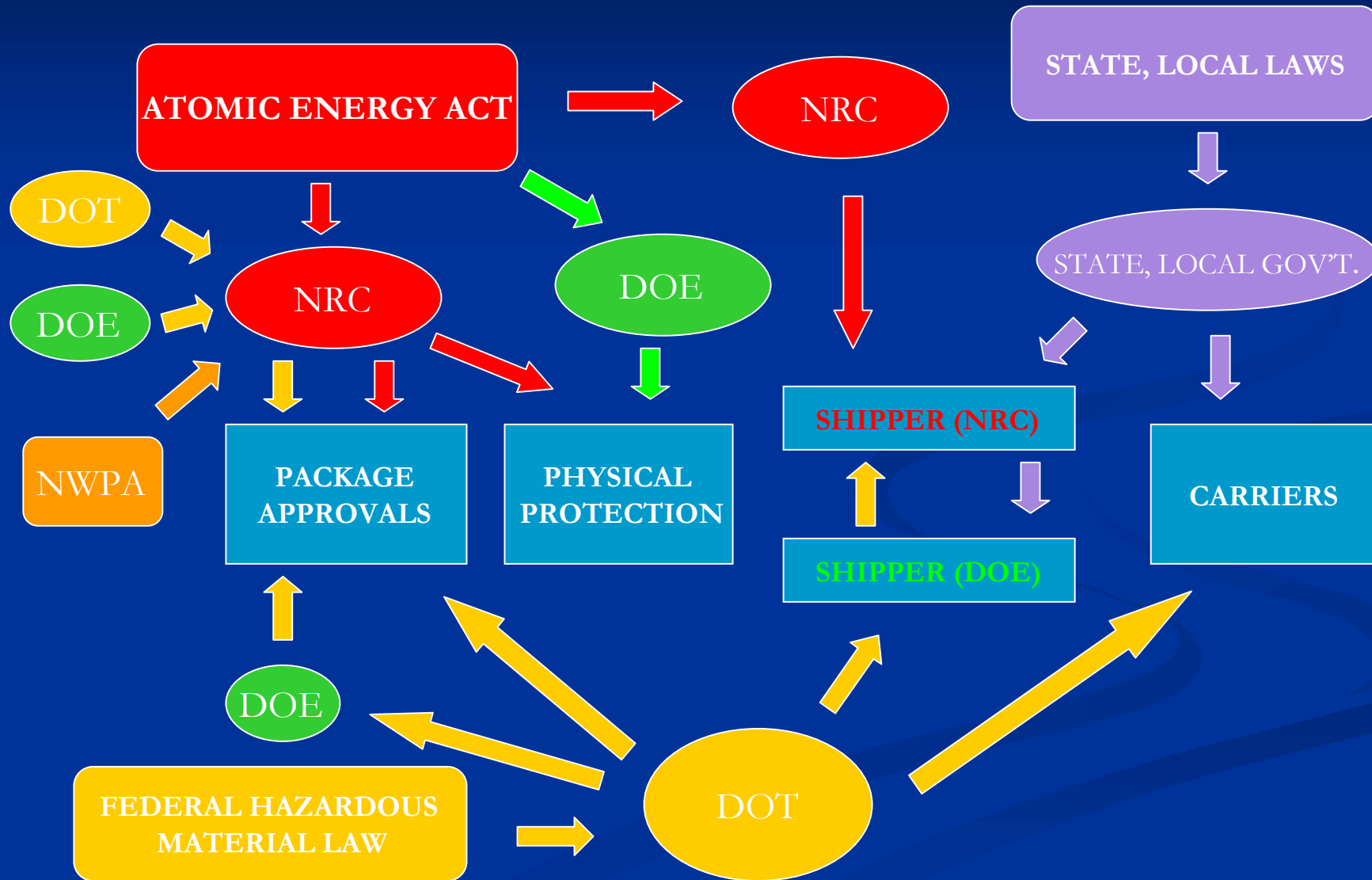
- Conducts largest non-commercial transportation of spent fuel.

Relationship of NRC's Roles to other those of other Parties (cont.)

State and Local Governments

- May enact additional safety requirements that are not incompatible with DOT requirements.
- Have lead role in responding to Emergencies.

Regulatory Bases for Transport Regulations



Roles in Spent Fuel Transportation

| | NRC LICENSEE | DEPARTMENT OF ENERGY | | | |
|------------------------|-----------------|----------------------|-------------------|---------------------------|-------------------------|
| | | West Valley | Yucca Mountain | Foreign Reactor | Naval Reactors |
| Package Approval | NRC DOT | NRC ¹ | NRC ² | DOT NRC ^{1,3} | DOE NRC ¹ |
| Package Preparation | NRC DOT | DOE DOT | DOE DOT | DOE DOT NRC | DOE DOT |
| Carrier Safety | DOT STATES | DOT STATES | DOT STATES | DOT STATES | DOT STATES |

¹ Per NRC/DOE Reimbursable Agreement

² Per Nuclear Waste Policy Act

³ Per NRC/DOT Memorandum of Understanding

Roles in Spent Fuel Transportation (continued)

| | NRC LICENSEE | DEPARTMENT OF ENERGY | | | |
|------------------------|-----------------|----------------------|-------------------|--------------------|-------------------|
| | | West Valley | Yucca Mountain | Foreign Reactor | Naval Reactors |
| Physical Protection | NRC | DOE | DOE | NRC DOE | DOE |
| Emergency Response | | | | | |
| First Response | STATE LOCAL | STATE LOCAL | STATE LOCAL | STATE LOCAL | STATE LOCAL |
| Lead Federal Agency | NRC | DOE | DOE | DOE NRC | DOE |
| DOE Response Teams | DOE | DOE | DOE | DOE | DOE |

Primary Roles in Selecting and Approving Highway Routes for Spent Fuel Transportation

| | NRC LICENSEE | DEPARTMENT OF ENERGY | | |
|---------------------------------|-------------------------|----------------------|-------------------|--------------------|
| | | West Valley | Yucca Mountain | Foreign Reactor |
| Route Selection | NRC LICENSEE | DOE | DOE | DOE |
| Route Selection Criteria | DOT | DOT | DOT | DOT |
| Safeguards Route Approval | NRC | DOE | DOE | DOE NRC |

Final Thoughts

- The US Regulatory Framework for Spent Fuel Shipments is a comprehensive mosaic involving many Federal, State and Local entities.
- The complexity of the mosaic sometimes leads to the misconception that there are “regulatory” gaps.
- The Regulatory Framework has been used successfully for four decades and has resulted in an exemplary safety record.