

FEDERAL, STATE, AND LOCAL REGULATION OF RADIOACTIVE-WASTE TRANSPORTATION:

PROGRESS TOWARD A DEFINITION OF REGULATORY AUTHORITY

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ABSTRACT

The supremacy clause, the commerce clause, and the equal-protection guarantees of the U.S. Constitution establish the basic framework for defining the authority of Federal, State, and local governments to regulate the transportation of radioactive waste. Court decisions and advisory rulings of the U.S. Department of Transportation (DOT) suggest that State and local regulation of the transportation of spent nuclear fuel and high-level radioactive waste is precluded under supremacy-clause principles to the extent that such regulation addresses nuclear safety or aspects of transportation that are already specifically regulated by the Federal government. Even where State and local requirements are found to be valid under the supremacy clause, they must still satisfy constitutional requirements under the commerce and equal-protection clauses. Despite stringent standards of review, State and local transportation requirements have been upheld where directly related to the traditional exercise of police powers in the area of transportation. Legitimate State and local police-power activities identified to date by the DOT and the courts include inspection and enforcement, immediate accident reporting, local regulation of traffic, and certain time-of-day curfews. The extent to which State and local permitting requirements and license fees may be determined valid by the DOT and the courts remains unclear. Continued clarification by the DOT and the courts as to the validity of permits and fees will serve to further define the appropriate balance for Federal, State, and local regulation of radioactive-waste transportation.

INTRODUCTION

The regulation of interstate transportation has historically been shared by Federal, State, and local governments. Economic problems associated with transportation have often fallen under a national scheme of regulation to ensure the free flow of interstate commerce, while the need to regulate transportation safety has been recognized as a matter of legitimate State and local concern. However, the transportation of spent nuclear fuel and high-level radioactive waste (hereafter referred to as radioactive waste) and related issues of transportation safety have elicited new questions and often opposing views as to the appropriate regulatory roles of Federal, State, and local governments. Extensive Federal regulation developed to promote a national scheme of transportation safety for radioactive-waste shipments is increasingly supplemented by State and local transportation rules designed to address local safety concerns. State and local rules may have a significant impact on the transportation of radioactive waste through the imposition of such measures as transportation bans, time-of-day curfews, shipping-cask design requirements, operational and shipment prenotification requirements, and permit and fee systems. There is a heightened need, therefore, to define the appropriate balance of Federal, State, and local regulatory authority. Such a definition will have a significant effect on the conduct of current radioactive-waste shipments by commercial shippers and the U.S. Department of Energy (DOE) and on future shipments directed by the DOE to storage and disposal facilities pursuant to the Nuclear Waste Policy Act of 1982 (42 USC 10101 et seq.). A review of constitutional principles,

and general patterns of recent Federal agency and court rulings offers insight into the relationship between Federal, State, and local regulatory authority. Such a review further indicates potential impediments to future initiatives of States and localities to regulate the transportation of radioactive waste.

CONSTITUTIONAL PRINCIPLES

The Constitution of the United States establishes the essential relationship between Federal and State regulatory powers. A study of general constitutional principles, as interpreted and applied by courts of law, suggests a basic framework for defining governmental authority to regulate the transportation of radioactive waste.

Supremacy Clause

The supremacy clause of the Constitution (U.S. Const., Art. VI, cl. 2) declares that Federal law "shall be the Supreme Law of the Land." Appropriate subjects of Federal legislation extend to the regulation of commerce among the States (U.S. Const., Art. I, sect. 8, cl. 3). Virtually all forms of activity involving or concerning two or more States (including the transportation of materials having little or no commercial value) are covered under the term "commerce."

However, the Constitution also recognizes that certain powers not delegated to the Federal government are reserved for the States (U.S. Const., Amend. X); those powers may be further delegated by the States to local governments. The exercise of such "police powers" is related

to the need of States (and localities) to regulate local conditions in order to promote or protect public health, safety, and welfare. In practical terms, the exercise of police powers typically extends to such activities as land-use planning, police protection, response to emergency situations, and the regulation of local traffic conditions.

When Congress exercises a granted power such as the regulation of commerce, the Federal legislation may supercede State authority and preempt State law under the supremacy clause. However, Congress has typically not acted on an all-encompassing basis, and Congressional entry into a field of regulation does not necessarily preclude all State authority to regulate activities under its police powers. In considering preemption cases under the supremacy clause, courts generally "start with the assumption that the historic police powers of the States were not to be superceded by [Federal law] unless that was the clear and manifest purpose of Congress" (Rice v. Santa Fe Elevator Corp., 331 U.S. 218 (1947)). One of the legitimate inquiries is then whether Congress has either explicitly or implicitly declared that States are prohibited from regulating various aspects of an activity. (See, for example, Ray v. Atlantic Richfield, 435 U.S. 148 (1978).)

As the Supreme Court noted in the Rice case, absent explicit preemptive language, the Congressional "purpose may be evidenced in several ways. The scheme of Federal regulation may be so pervasive as to make reasonable the inference that Congress left no room for the States to supplement it.... Or, [an act] of Congress may touch a field in which the Federal interest is so dominant that the Federal system will be assumed to preclude enforcement of State laws on the same subject...." As further noted in the Atlantic Richfield case, even if Congress has not completely foreclosed State legislation in a particular area, a State statute is void to the extent that it actually conflicts with a valid Federal statute. A conflict will normally be found where (1) compliance with both Federal and State regulations is a physical impossibility or (2) the State law stands as an obstacle to the accomplishment of the full purposes and objectives of Congress.

Commerce Clause

Where Congress has acted, either expressly or implicitly, to regulate an aspect of interstate commerce, the validity of State and local requirements is determined under the supremacy-clause principles described above. Where Congress has not acted to regulate an aspect of commerce, the Constitution has been interpreted as containing an implied limit on the power of States and localities to enact laws that interfere with the free and efficient flow of interstate commerce (U.S. Const., Art. I, sect. 8, cl. 3). As previously noted, the term "commerce" extends to virtually all activities involving or concerning two or more States; such activities may involve the transportation of

goods (such as radioactive waste) having little or no commercial value.

Under such a "commerce clause" examination, courts normally consider first the underlying purpose of State and local requirements. Where a State or local requirement or restriction effectively creates a barrier against the free movement of goods into or through a jurisdiction, the measure is generally found to have an underlying intent to discriminate against transportation originating outside the jurisdiction and unfairly insulate local residents from the impacts associated with transportation. In such cases, a virtually absolute rule of invalidity has been applied by the courts. (See, for example, Philadelphia v. New Jersey, 437 U.S. 617 (1978).)

A violation of the commerce clause may also be found where a State or local requirement does not discriminate against transportation originating outside the jurisdiction but impairs the free flow of interstate commerce to too great a degree. The validity of nondiscriminatory State and local measures is determined using a balancing test that weighs the burden on commerce in relation to local benefits. The extent of permissible burdens on interstate commerce depends on the nature of the local interest involved and whether such a local interest could be promoted equally well by using a measure with less effect on interstate commerce. (See, for example, Pike v. Bruce Church, Inc., 397 U.S. 137 (1970).)

In applying such a balancing test in transportation cases, the courts have typically recognized an important local interest in regulating general transportation safety. A strong link must exist, however, between a State or local transportation requirement and its promotion of transportation safety. For example, the courts have invalidated State regulations involving transportation operational requirements that placed a substantial burden on interstate commerce while making only "speculative contributions" to transportation safety (Raymond Motor Transportation, Inc. v. Rice, 434 U.S. 429 (1978)).

State and local transportation fees and other tax measures are another form of regulation that has been challenged as impeding the free flow of commerce. Court cases suggest that discriminatory or unduly burdensome taxes are a clear violation of the commerce clause. In contrast, minimal flat fees, levied annually on motor vehicles engaged in interstate commerce, have been upheld where they were found to be fair, nondiscriminatory, and reasonably related to the costs of highway maintenance, policing of motor traffic, and administration activities; subsequent use of the proceeds of such a tax for general State purposes did not serve to invalidate the tax. (See, for example, the discussion of a \$10 flat fee in Aero Mayflower Transit Company v. Board of R.R. Commissioners of the State of Montana, 332 U.S. 495 (1947).) A precise test, however, for determining the point at which fees or taxes become unfair and burdensome has not yet been defined.

Equal Protection

Even where State and local transportation regulations meet the requirements of the supremacy clause and the commerce clause, they still must satisfy the equal-protection clause of the Constitution (U.S. Const., Amend. XIV). Under the guarantees of the equal-protection clause, general classification schemes of State and local regulation must be rationally related to legitimate police-power objectives. State and local transportation requirements that arbitrarily single out certain commodities would be unconstitutional as a violation of the equal-protection clause.

FEDERAL REGULATORY AUTHORITY

Taking such general constitutional principles into account, the balance between Federal, State, and local authority to regulate the transportation of radioactive waste can first be examined in relation to the extent to which Congress has specifically authorized Federal regulation in that area. Under Congressional legislation, Federal regulation of radioactive-waste transportation is divided primarily between the Nuclear Regulatory Commission (NRC) and the Department of Transportation (DOT). The transportation requirements of the two Federal agencies have focused on safety measures designed to protect public health and safety on a nation-wide basis. In certain instances, State and local transportation requirements duplicate, supplement, or conflict with NRC and/or DOT regulations.

Nuclear Regulatory Commission

Under the Atomic Energy Act of 1954 as amended (42 USC 2011 et seq.) and the Energy Reorganization Act of 1974 (42 USC 5801 et seq.), the NRC is directed to regulate the private nuclear industry for purposes of protecting public health and safety and the defense and security of the United States. In exercising its grant of authority, the NRC has issued regulations for shipments of nuclear waste that exceeds specified quantities and radioactive limits. Those regulations fall into three major categories: (1) safety regulation of shipments through packaging (or cask) design requirements; (2) physical protection of certain shipments (including those of spent nuclear fuel) from acts of theft and sabotage during transport; and (3) advance notification to governors of States prior to shipments into or through the State.

The regulations of the NRC require that shipping packages (or casks) be designed to prevent the loss or dispersion of their radioactive contents, provide for heat dissipation and adequate shielding from normal radioactive emissions, and prevent nuclear criticality under both normal and accident conditions of transportation. The normal and accident conditions of transportation that must be considered in cask design are specified in 10 CFR 71.71 and 71.73.

Physical protection procedures designed to safeguard spent-fuel shipments from acts of theft and sabotage during transportation are specified in 10 CFR 73.37. Required procedures currently include the use of NRC-approved routes, use of escorts, advance coordination with local law-enforcement personnel, and advance notification to the governor of a State or the governor's designee prior to transportation through or within the State.

In addition to the safeguard requirement for prenotification of spent fuel shipments, the NRC also requires that licensees provide advance notification to States prior to the transportation of other high-level waste in specified quantities and packaging (10 CFR 71.97). Unlike the prenotification requirements for spent-fuel shipments, such prenotification is not required to include the specification of transportation routes or exact shipping schedules.

State and local regulations in some instances duplicate, supplement, or conflict with NRC requirements. In such cases, adversely affected parties must challenge the validity of the various transportation requirements in a court of law.

Department of Transportation

The NRC's regulation of shipments of radioactive materials, including radioactive waste, is coordinated with that of the DOT (as specified in a Memorandum of Understanding, published in the Federal Register, vol. 44, p. 38690). Congress has extended authority to the DOT to regulate various aspects of transportation under several laws. The most significant law affecting the transportation of radioactive waste is the Hazardous Materials Transportation Act of 1974, hereafter referred to as the HMTA (49 USC 1801 et seq.). Pursuant to the HMTA, the Secretary of Transportation is authorized to issue regulations for the safe transportation of hazardous materials (including radioactive waste).

Section 112 of the HMTA provides that any requirement of States and localities that is inconsistent with the HMTA and such implementing regulations is preempted. Section 112, however, also provides one exception to a general rule of preemption. Inconsistent rules of States and localities may be found to be legitimate and not preempted by Federal law if such requirements (1) offer an equal or greater level of protection to the public than is required by the HMTA and its regulations and (2) do not unreasonably burden commerce. The HMTA further provides for the establishment of regulatory guidelines for an advisory DOT determination of potential inconsistency and preemption of State and local laws.

Pursuant to the Congressional grant of regulatory authority under the HMTA, the DOT has issued regulations that establish procedures for seeking agency advisory determinations of inconsistency. Applications to the DOT for inconsistency rulings may be made by States and

local governments to test the validity of a transportation requirement or by any party affected by the requirement. In determining whether a State or local requirement is inconsistent with the HMTA and supplemental regulations, the DOT considers (1) whether compliance with both the State or local requirement and the HMTA and its regulations is possible and (2) the extent to which the State or local requirement is an obstacle to the accomplishment and execution of the HMTA and its regulations (49 CFR 107.209(c)). Such a test follows the standards applied by courts in reviewing State and local requirements for consistency with Federal law under the supremacy clause of the Constitution.

Under DOT regulations, a State or local government having a transportation requirement that is inconsistent with the HMTA and its regulations may further seek from the DOT an advisory determination that waives Federal preemption (49 CFR 107.215). A waiver from preemption is granted by the DOT where the State or local requirement (1) is found to afford the public a level of safety at least equal to that afforded by the HMTA and its regulations, and (2) does not place an unreasonable burden on interstate commerce. Such a test is similar to court standards for examining State and local requirements under the commerce clause of the Constitution. To determine whether a State or local requirement burdens interstate commerce, the DOT considers the following factors: (1) the extent to which a State or local requirement causes increased costs or an impairment of transportation efficiency; (2) whether the State or local requirement has a rational basis; (3) whether the requirement achieves its stated purpose; and (4) whether there is a need for uniformity with regard to the regulatory matter, and if so, whether the State or local requirement competes or conflicts with the requirements of other States and local governments (49 CFR 107.221).

The DOT has also issued regulations applicable to the operational aspects of radioactive-waste transportation. The regulations delineate the responsibilities of the DOT in regulating carriers and the conditions of transportation, and extend to such activities as handling, storage, the marking and labeling of transportation packages, placarding, and vehicle and driver requirements. In addition, the DOT regulations establish a highway routing rule for shipments of "highway route controlled quantity radioactive materials," which include radioactive waste. The routing rule requires the use of interstate highways (and the use of beltways around urban areas, where possible) or alternative routes designated by the States after risk analysis and consultation with any affected local jurisdictions or other States (49 CFR 177.825(b)).

The DOT regulations described above are applicable to all radioactive-waste shipments conducted by the DOE except in those cases where an exemption is required for national security purposes (49 CFR 173.7(b) and 177.806(b)). DOT

regulations also specify that the DOE may certify its own transportation packages using standards that are equivalent to NRC standards (49 CFR 173.7(d)). For DOE shipments of spent nuclear fuel, DOT regulations require the DOE to provide physical protection from acts of theft and sabotage using procedures (approved by the DOT) that are equivalent to those of the NRC (49 CFR 173.22(c)).

Of special note in the DOT regulations is a policy statement in Appendix A of 49 CFR Part 177 intended to provide guidance as to those State and local rules that the DOT considers to be inconsistent with its requirements for the highway transportation of radioactive materials. Inconsistent State and local rules listed in Appendix A include those that--

- Prohibit highway shipments between any two points without providing an alternate route for the duration of the prohibition.
- Require additional placarding, personnel, equipment, or escorts.
- Require prenotification.
- Require accident or incident reporting other than as immediately necessary for emergency assistance.
- Conflict with Federal physical protection requirements.
- Unnecessarily delay transportation.

While such provisions are advisory and do not have the force and effect of law, they provide important guidance on patterns of DOT rulings in inconsistency proceedings. It should be noted that parties who are adversely affected by State or local regulations need not seek a DOT advisory ruling before challenging the regulations in a court of law.

PATTERNS OF DOT AND COURT RULINGS

To what extent, then, can State and local governments regulate radioactive-waste transportation in light of constitutional principles and pervasive Federal regulation? Both advisory rulings of the DOT and court decisions offer important guidelines for the definition of the "consistency" of State and local regulations with Federal law and the appropriate regulatory roles of Federal, State, and local governments.^a

Findings of Invalidity

The validity of State and local transportation requirements is normally first tested by the courts and the DOT by applying constitutional supremacy-clause principles. As a

^aAdditional discussion of DOT and court rulings is contained in other papers published in these proceedings.

general rule, State and local requirements that are related to nuclear safety or address aspects of transportation already specifically regulated by the DOT and the NRC can be argued to be preempted.

Such a conclusion is supported by a Supreme Court discussion of preemption under the Atomic Energy Act in Pacific Gas and Electric v. Energy Resources Commission, 461 U.S. 190 (1983). While addressing an issue other than regulatory authority for the transportation of radioactive materials, the Court noted that the Atomic Energy Act provided the Federal government "with exclusive jurisdiction to license the transfer, delivery, receipt, acquisition, possession, and use of nuclear materials.... Upon these subjects, no role was left for the States." The Supreme Court further noted: "State safety regulation is not preempted only when it conflicts with Federal law. Rather, the Federal government has occupied the entire field of nuclear safety concerns, except the limited power expressly ceded to the States." Powers ceded to the States under pervasive NRC regulation, the Court added, were limited to three activities: (1) the opportunity to enter into agreements with the NRC to control certain nuclear material in specified quantities not sufficient to form a critical mass (such material would not include the types of radioactive waste addressed in this paper); (2) the regulation of radioactive air emissions from nuclear power plants; and (3) the imposition of certain siting and land-use requirements for nuclear power plants.

Similarly, the DOT has declared that Federal regulation of transportation safety for radioactive materials under the HMTA and supplemental regulations has been so detailed and pervasive as to preclude independent State or local requirements that apply because of the hazardous nature of the cargo. In Inconsistency Ruling IR-8 (Federal Register, vol. 49, p. 46643), the DOT added:

The extent to which State and local government may regulate the interstate transportation of radioactive materials is limited to: (1) Traffic control or emergency restrictions which affect all transportation without regard to cargo; (2) designation of alternate preferred routes in accordance with 49 CFR 177.825; (3) adoption of Federal regulations or consistent State/local regulations; and (4) enforcement of consistent regulations or those for which a waiver of preemption has been granted pursuant to 49 CFR 107.221.

DOT advisory rulings that address the consistency of State and local regulations with Federal law have uniformly declared those regulations to be inconsistent where directly related to concerns with the safety of radioactive-material transportation or regulating some aspect of transportation in a manner different from that established under Federal law. Examples of such State and local

regulations are those that establish different systems for placarding, physical protection, and shipment prenotification.

Where no obvious inconsistency exists, the DOT and the courts will further examine a State or local requirement for its effect on certain transportation goals. Goals emphasized in DOT rulings include the need to avoid unnecessary transportation delays and promote uniform regulatory requirements to enhance the safety of radioactive materials transportation and the need to ensure that State or local requirements do not result in the unfair or discriminatory rerouting of shipments of radioactive materials to adjacent jurisdictions. Restrictive measures in the form of absolute transportation bans through a jurisdiction and State-wide transportation curfews have been found to obstruct such Federal goals.

As previously discussed, even where State and local regulations survive such an examination under the supremacy clause, they still face constitutional hurdles in the form of the commerce clause and the equal-protection clause.

Valid State and Local Regulations

Despite the stringent standards of the courts and the DOT, some forms of State and local regulation have been regularly upheld. Such regulations can be characterized as affecting the transportation of radioactive materials indirectly and only as necessary to effectively support the exercise of traditional police-power responsibilities for general transportation and public safety. A review of both DOT inconsistency rulings and court cases (addressing, in some instances, State or local requirements that have an effect on the transportation of hazardous materials other than radioactive waste) provides some insight as to activities falling within the scope of legitimate State and local regulatory authority. These activities include--

- Vehicle inspection by State officials at loading and unloading points, to ensure compliance with State and Federal requirements (where the enforcement of Federal regulations has been delegated to the States). (See, for example, American Trucking Associations, Inc. v. Larson, 683 F.2d 787 (3rd Cir. 1982) and DOT Inconsistency Rulings IR-8 and IR-15, 49 Fed. Reg. 46637 and 46660.)
- Immediate accident reporting to appropriate State or local officials to facilitate emergency response. (See, for example, National Tank Truck Carriers, Inc. v. Burke, 698 F.2d 559 (1st Cir. 1983) and DOT Inconsistency Ruling IR-3, 46 Fed. Reg. 13918.)
- Local regulation of traffic, including restrictions concerning the actual operation of motor vehicles and penalty actions for traffic violations. (See,

for example, DOT Inconsistency Ruling IR-2, 44 Fed. Reg. 75566.)

- Local transportation restrictions during certain hours of the day, to lessen the chances of an accident in densely populated areas. (See, for example, National Tank Truck Carriers, Inc. v. City of New York, 677 F.2d 270 (2nd Cir. 1982), and DOT Inconsistency Ruling IR-3, 46 Fed. Reg. 13918, which upheld time-of-day restrictions applied to shipments of certain hazardous materials originating in, or destined for, points within the City of Boston.)

The extent to which States and local governments can enforce permit and fee requirements directed at radioactive-waste transporters remains unclear. States have traditionally imposed permit and fee systems for highway transportation involving overweight trucks; those systems continue to be enforced even where they extend to overweight shipments of radioactive waste.

In contrast, the validity of permit and fee systems that are directly related to the hazardous nature of cargo being shipped, but are imposed for the purpose of supporting State and local police-power responsibilities, has not been firmly established. The DOT has declared that States and local governments have no authority "to impose a permit requirement on shipments of radioactive material which applies because of the hazardous nature of the cargo" (Inconsistency Ruling IR-8, Federal Register, vol. 49, p. 46643). A Federal court of appeals, however, has upheld one State fee system applicable to all shipments of hazardous (including radioactive) materials. New Hampshire Motor Transport Association v. Flynn, 751 F.2d 43 (1st Cir. 1984). Under that system, an annual license fee of \$25 (or \$15 fee for single trips) is charged to transporters of hazardous materials and waste

to support State activities related to emergency response, the enforcement of hazardous materials regulations, and a State hazardous waste cleanup fund. The court concluded that the license fees were reasonable in relation to the service supplied by the State and did not significantly delay transportation in violation of the DOT's "speedy-transport mandate."

The court further acknowledged the concern of the trucking industry that the imposition of similar fees by all or many of the States would greatly raise transportation costs and seriously burden interstate commerce. The court suggested that if such a circumstance should arise, the DOT remained free to promulgate a regulation prohibiting or controlling the imposition of excessive license fees.

CONCLUSION

The authority of Federal, State, and local governments to regulate the transportation of radioactive waste continues to be defined through the application of fundamental constitutional principles by courts and the DOT. Extensive Federal regulation may preclude many State and local transportation initiatives, especially those based on concerns with nuclear safety. However, State and local requirements continue to be upheld where they support traditional police-power activities conducted to promote general transportation safety. Such activities, which extend to the regulation of local traffic, inspection and enforcement, and the provision of emergency assistance, have been supported by the DOT and the courts even where they touch indirectly on aspects of radioactive-waste transportation. Clarification by the DOT and the courts as to the validity of various permit and fee systems will further assist in the development of a comprehensive definition of the appropriate balance of Federal, State, and local regulation in the area of radioactive-waste transportation.