

Judicial Ordering of Intergovernmental Roles in Hazardous Materials Transportation

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I. INTRODUCTION

During the past ten years, public attention has repeatedly focused on the transportation of hazardous materials. The tank car explosion at Waverly, Tennessee in February 1978 that killed fifteen people and destroyed two city blocks first dramatized the potential danger inherent in the transportation of many commodities.¹ The 1984 chemical plant disas-

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1. STAFF OF SENATE COMM. ON COMMERCE, SCIENCE & TRANSP., 96TH CONG., 1ST SESS.,

ter at Bhopal, India² and the 1986 railroad fire at Miamisburg, Ohio heightened anxiety about hazardous materials.³ Nevertheless, the transportation of hazardous materials is ubiquitous in the United States: over 250,000 hazardous materials shipments are made in the United States each day and thousands of hazardous materials incidents occur each year.⁴

The governmental response to the threat of hazardous materials has been uniform across the country: schemes to regulate the handling and movement of dangerous commodities have been devised at the local, state, and federal levels.⁵ Critics of the hazardous material regulation regime in the United States have focused on this preference for regulatory standard-setting and, as a result, most proposals for regulatory reform in the area have advocated a greater reliance on tort liability to control carriers of hazardous material.⁶ Although no legislative action has been taken to explicitly balance standard-setting with tort liability, an inadvertent but fortuitous result of hazardous materials litigation in the past five years has been the assignment of intergovernmental roles in hazardous materials policymaking: a zone of regulatory standard-setting authority has been reserved for the federal government and a zone of control through tort remedies has been preserved for the states. The federal courts have assumed a unique role in the hazardous materials area, ordering intergovernmental responsibility in an area of substantive law and creating a national regulatory regime in the absence of legislative action.

II. THE FEDERAL REGULATORY PROGRAM

The federal government exerts a pervasive standard-setting control over hazardous materials shipments in the United States. Congress has delegated to the federal Secretary of Transportation sole authority to define what commodities are hazardous materials,⁷ strengthening and continuing a long tradition of federal activity in controlling transportation of dangerous materials.

The Interstate Commerce Commission (the "ICC") and other federal

HAZARDOUS MATERIALS TRANSPORTATION: A REVIEW AND ANALYSIS OF THE DEPARTMENT OF TRANSPORTATION'S REGULATORY PROGRAM 14 (Comm. Print 1979).

2. TIME, Dec. 17, 1984, at 22-35.

3. *Ohio's Toxic Nightmare*, NEWSWEEK, July 21, 1986, at 19.

4. OFFICE OF TECHNOLOGY ASSESSMENT, TRANSPORTATION OF HAZARDOUS MATERIALS 4 (1986) [hereinafter O.T.A.].

5. See generally, BOWMAN, HAZARDOUS MATERIALS PROGRAMS IN THE FIFTY STATES (1988).

6. See, e.g., Marten, *Regulation of the Transportation of Hazardous Materials: A Critique and a Proposal*, 5 HARV. ENV. L. REV. 345 (1981); Comment, *Common Carriers and Risk Distribution: Absolute Liability for Transporting Hazardous Materials*, 67 KY. L.J. 441 (1979).

7. 49 U.S.C. § 1803 (1982).

agencies had regulated dangerous commodities since 1866, but in 1966, authority to regulate the transportation of hazardous materials was transferred from the ICC, the Department of the Treasury, and the Civil Aeronautics Board to the newly formed Department of Transportation (the "DOT"). Within DOT, separate modal administrations were retained to preserve organizational continuity. Moreover, modal administration functions specified by the Act could not be delegated to other Department administrations by the Secretary of Transportation. Thus, although the Secretary had Cabinet-level responsibility for transportation safety standards (including hazardous materials), each modal administration was allowed to promulgate independent regulations.⁸

After a series of accidents involving the rail shipment of propane in 1969 and 1970, legislation was passed in 1970 imposing greater requirements on DOT to coordinate standards for carriers of hazardous materials. Under the Hazardous Materials Transportation Control Act of 1970,⁹ the Secretary was required to establish facilities and technical staff for evaluating hazards associated with hazardous materials; establish a central reporting system for hazardous material accidents; conduct a review of all aspects of hazardous material transportation and recommend appropriate steps to be taken immediately to provide greater control over shipments; and prepare an annual report for Congress on regulatory, enforcement, and exemption activities as well as accident and casualty statistics. However, DOT was unable to implement the statute because of a shortage of administrative and enforcement resources. Consequently, the provisions of the law were incorporated into the Hazardous Material Transportation Act of 1975.¹⁰

As a result of the National Transportation Safety Board's investigation of a Boeing 707 crash in 1973, which revealed a general lack of compliance with existing hazardous materials regulations due to fragmentation of the regulatory authorities, complexity of the regulations, lack of industry familiarity at the moving level with federal regulations, and inadequate government surveillance and enforcement,¹¹ the Hazardous Materials Transportation Act (the "HMTA") was finally passed into law in 1975. The intent of the law was to improve regulatory and enforcement activities by providing the Secretary of Transportation with broad authority to enact

8. O.T.A., *supra* note 4, at 147.

9. 49 U.S.C. § 1761 (1982).

10. O.T.A., *supra* note 4, at 147.

11. National Transportation Safety Board, Aircraft Accident Report, NTBS-AAR-74-16 (1974). An earlier report by the National Academy of Sciences also found problems with the federal regulatory program at that time. See National Academy of Sciences, National Research Council, A Study of Transportation of Hazardous Materials (1969).

regulation applicable to all modes of transport.¹² Specifically, the HMTA:

1. Expanded DOT's potential jurisdiction to any traffic "affecting" interstate commerce.¹³
2. Authorized the designation of hazardous materials, defined as materials or classes of materials in quantities and forms that the Secretary of Transportation determines may pose an unreasonable risk to health and safety or property.¹⁴
3. Authorized DOT to issue regulations related to packing, repacking, handling, labeling, marking, placarding, and routing; expanded the regulated community to include those who manufacture, test, maintain, and recondition containers or packages used to transport hazardous materials.¹⁵
4. Authorized the establishment of a registration program for shippers, carriers, and container manufacturers and reconditioners.¹⁶
5. Codified DOT procedures for granting regulatory exemptions.¹⁷
6. Provided the Secretary with the ability to conduct surveillance activities (e.g., hold hearings and conduct investigations), establish recordkeeping requirements, and conduct inspections. Provisions of the 1970 ACT were also included in this section of the HMTA, such as submission of an annual report to Congress.¹⁸
7. Authorized the DOT to assess civil and criminal penalties for violations of the HMTA.¹⁹
8. Defined the relationship between the federal regulations and those of the states and local governments, preempting non-federal rules found to be inconsistent with the federal program and establishing a procedure whereby DOT could waive preemption.²⁰

Shortly after the HMTA was enacted, the Secretary created the Materials Transportation Bureau (the "MTB") within the Research and Special Programs Administration, which was designated the lead DOT agency for hazardous materials regulation. The Hazardous Materials Board was terminated and the responsibilities of the Office of Hazardous Materials were transferred to the newly formed MTB. MTB was delegated responsibility for issuing all hazardous materials transportation regulations except those governing bulk transport by water, which continues to be regulated by the Coast Guard.²¹

Two other federal agencies, the U.S. Environmental Protection Agency and the Nuclear Regulatory Commission, establish transportation-related requirements for hazardous substances, hazardous wastes,

12. O.T.A., *supra* note 4, at 148.

13. 49 U.S.C. § 1802 (1982).

14. 49 U.S.C. § 1803 (1982).

15. 49 U.S.C. § 1804 (1982).

16. 49 U.S.C. § 1805 (1982).

17. 49 U.S.C. § 1806 (1982).

18. 49 U.S.C. § 1808 (1982).

19. 49 U.S.C. § 1809 (1982).

20. 49 U.S.C. § 1811 (1982).

21. O.T.A., *supra* note 4, at 148.

and radioactive materials.²² The Occupational Safety and Health Administration regulates workplace safety for employees of carriers of hazardous materials.²³ The Interstate Commerce Commission requires carriers to publish rates and obtain operating certificates. The Department of Defense and the Department of Energy have also established some additional transportation requirements for their own shipments of radioactive material. In addition, hazardous materials sent by mail must comply with both DOT and U.S. Postal Service regulations.²⁴

The standard-setting function of the federal government in the hazardous materials area is essential. A nation-wide classification of materials that are hazardous when transported, the quantities of those substances that may be safely transported, and the characteristics of the containers in which the substances may be safely carried are examples of chemical and engineering standards that must be set if there is to be a minimum level of public safety in the area.

The standard-setting function should be performed at the federal level for two reasons. The most obvious reason is that most hazardous materials transported in the United States are shipped to states other than the state of their manufacture.²⁵ Consequently, each state setting its own standards would create both a burden on interstate commerce and a diseconomy of scale in setting the standards causing each state to incur higher transaction and information costs. Therefore, one agent, the federal government, should set the standards to be applied nationwide.²⁶

A more subtle reason for nationwide standard-setting is avoiding what has been called "the tragedy of the commons."²⁷ This phenomenon is recognized in the environmental area and occurs when the setting of environmental standards is delegated to local governments, who are concerned not only with public safety and environmental quality, but also with economic growth. Richard Stewart has reasoned that:

Given the mobility of industry and commerce, any individual state or community may rationally decline unilaterally to adopt high environmental standards that entail substantial costs for industry and obstacles to economic development for fear that the resulting environmental gains will be more than offset by movement of capital to other areas with lower standards. If each locality reasons in the same way, all will adopt lower standards of environmental quality than they would prefer if there were some binding mechanism that enabled them simultaneously to enact higher standards, thus eliminating the

22. *Id.* at 151.

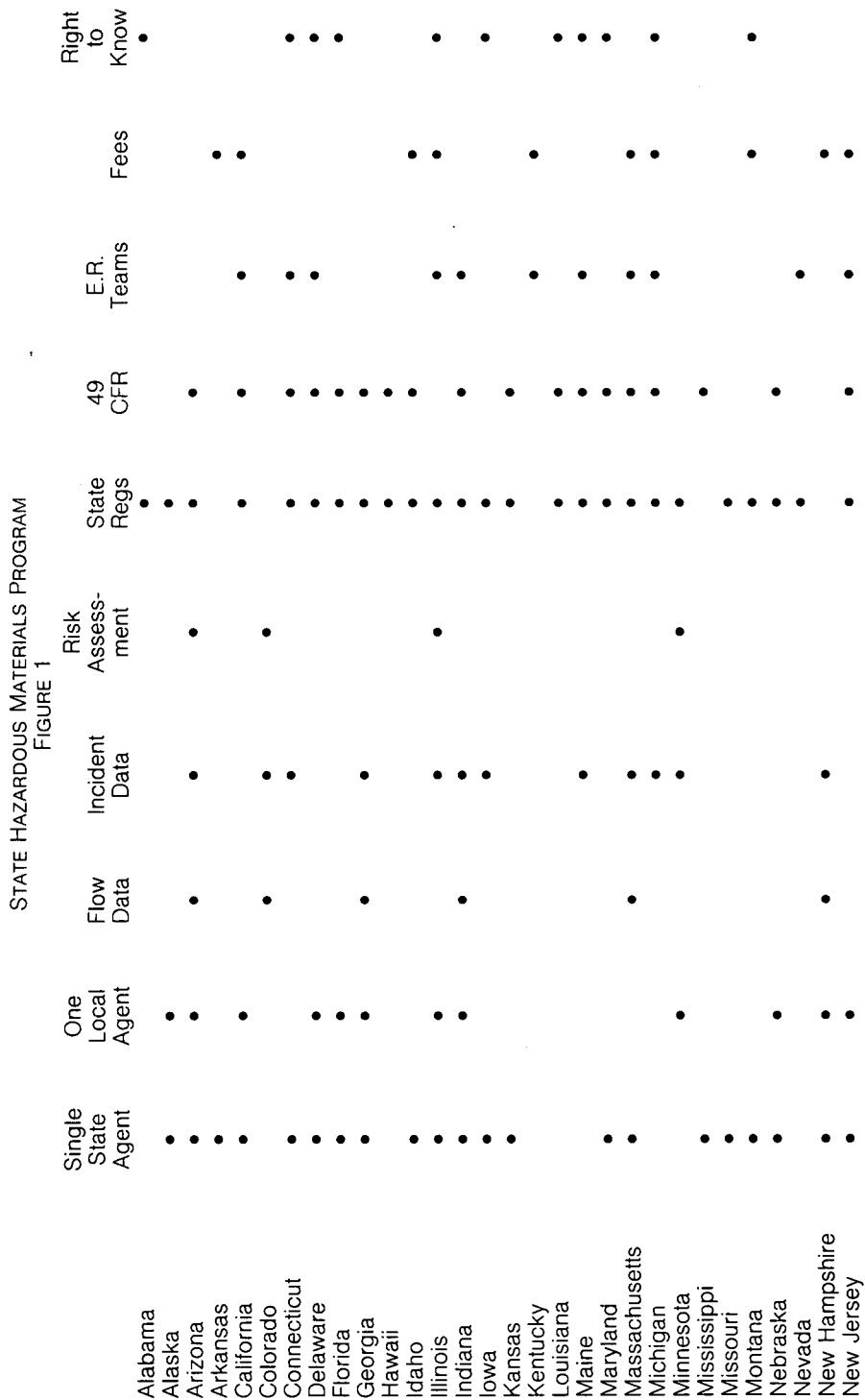
23. *Id.*

24. *Id.*

25. O.T.A., *supra* note 4, at 119.

26. See generally, R. POSNER, *ECONOMIC ANALYSIS OF LAW* 600 (3rd ed. 1986).

27. Stewart, *Pyramids of Sacrifice? Problems of Federalism in National Environmental Policy*, 86 *YALE L.J.* 1196, 1211 (1977).



1989]

Hazardous Materials Transportation

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FIGURE 1 (continued)

	Single State Agent	One Local Agent	Flow Data	Incident Data	Risk Assessment	State Regs	49 CFR	E.R. Teams	Fees	Right to Know
New Mexico	•			•		•	•		•	•
New York	•					•	•	•	•	
North Carolina	•					•	•	•	•	
North Dakota	•					•	•		•	
Ohio	•	•	•	•		•	•		•	
Oklahoma	•					•	•		•	
Oregon	•		•	•		•	•	•	•	
Pennsylvania	•		•	•		•	•	•	•	
Rhode Island	•					•	•		•	
South Carolina	•					•	•	•	•	
South Dakota	•					•	•		•	
Tennessee	•	•		•		•	•	•	•	
Texas	•					•	•	•	•	
Utah	•	•	•	•		•	•		•	
Vermont	•					•	•	•	•	
Virginia	•	•	•	•		•	•	•	•	
Washington	•					•	•	•	•	
West Virginia	•		•	•		•	•		•	
Wisconsin	•	•		•		•	•		•	
Wyoming	•		•	•		•	•		•	

threatened loss of industry or development.²⁸

Thus, uniform national standards are enacted to reduce the transaction costs of interstate bargaining.²⁹

Nevertheless, there are problems inherent in a legal regime that includes only regulatory standards. A commonly recognized problem is that the process of setting standards, based on a calculation of minimum acceptable public safety if the standards are followed, necessarily excludes an analysis of the probability that the regulated firms will comply with the regulations.³⁰ Thus, as the costs of optimal precautions increases,

[S]ome firms may find it cheaper to violate the regulations than to comply with them. Even assuming that required precautions improve the safety record of firms that comply, the improvement in safety achieved by complying firms will be offset by the reduction in the number of firms that comply. In the extreme case, increasing the costs of compliance actually may reduce overall safety.³¹

The effectiveness of enforcement is a key variable in determining the extent to which the regulated firms ought to comply with the regulations; in the current era of fiscal decrementalism, it is likely that the enforcement of hazardous materials regulations will not be increased,³² even though there is now an extensive regulatory regime under the HMTA.³³

III. STATE HAZARDOUS MATERIALS PROGRAM

Despite the expansive federal activity in regulating hazardous materials and the problems with standard-setting that regulation entails, all of the states and many localities throughout the United States have enacted their own programs for regulating hazardous shipments in their jurisdiction.³⁴ The proliferation of state and local programs is evidence of a widespread belief that the federal regime does not provide adequate protection to the citizens of local areas.³⁵ Thus, the "tragedy of the commons" that characterizes state environmental policy-making does not generally characterize hazardous materials transportation regulation at the state level.

A 1988 survey of the fifty states' hazardous materials programs

28. *Id.* at 1212.

29. Posner, *supra* note 26, at 600.

30. See generally, W. Viscusi & R. Zeckhauser, *Optimal Standards with Incomplete Enforcement*, 27 *PUB. POL'Y* 437 (1979).

31. Comment, *supra* note 6, at 365.

32. The shortage of enforcement resources at the federal level is recognized as the most serious problem with the hazardous materials regulatory program. O.T.A., *supra* note 4, at 206.

33. *Id.*

34. See generally, Bowman, *supra* note 5.

35. Marten, *supra* note 6, at 354.

demonstrated the proliferation of state and local programs. The most striking conclusion of the study was that there is a great variety in the approaches that the states have taken in regulating hazardous materials transportation. No two states have done exactly the same thing, even when types of programs were broken down into broad categories as in Figure 1 above.³⁶

The most uniformity that has been achieved has been in the adoption of the federal hazardous materials regulations in twenty-six states, but no state has adopted the federal regulations without amendment or supplementation. Eighteen states currently have hazardous materials emergency response teams that are supported by the state government. Five more states are developing state-supported teams. Eighteen states have imposed fees on carriers of hazardous materials, but none of the states with fee programs use the revenues to directly fund the prevention and cleanup of hazardous materials incidents, although such schemes are common in the environmental area. The hazardous materials user fee programs are aimed at deterrence of incidents, rather than at compensation or abatement; but no state has conducted an evaluation of the effect of its fees on carriers or safety regulation compliance.³⁷

The most common theme expressed in the fifty state study was that the nature of hazardous materials transportation needs to be studied more before policy can be made to increase public safety. Twenty-seven states are studying hazardous materials policy. All of those twenty-seven states are studying new policy using state agency task forces, composed of representatives of various state agencies, to oversee the process.³⁸

The State of Virginia is illustrative of how states are attempting to develop a hazardous waste policy. Virginia has a variety of regulations that affect the transportation of hazardous materials and has adopted restrictive regulations for its bridges and tunnels. A State Task Force, appointed by Governor Charles Robb, studied the hazardous materials threat in Virginia throughout 1985 and 1986.³⁹

The only clear conclusion drawn by the task force was that the agencies of the Virginia government that are responsible for hazardous materials need data about the manufacturers, shippers, carriers, commodity

36. The categories are whether the state has appointed a single agent to coordinate hazardous materials policy throughout the state, whether the state collects incident data, whether the state has conducted a risk assessment, whether the state has adopted the state hazardous materials regulations, whether the state has adopted the federal regulations in 49 CFR § 171 *et seq.*, whether the state imposes fees on hazardous materials carriers, and whether the state has a right to know law.

37. Bowman, *supra* note 5, at IV-1-IV-4.

38. *Id.*

39. See generally, G. BOWMAN, HAZARDOUS MATERIALS TRANSPORTATION REGULATION IN VIRGINIA (1987).

flow, and accidents to help them draft regulations, plan for accident prevention and emergency response, and target enforcement efforts.⁴⁰ In Virginia, as in all states, no state agency maintains a comprehensive database on fixed facilities that handle hazardous materials, the routes on which hazardous materials travel, or accidents in which hazardous materials are involved. A variety of federal hazardous material databases exists, but the data in the federal bases are too aggregated to be very useful in a particular state like Virginia.⁴¹

The widely accepted method of gathering and examining data on hazardous materials flow is the use of risk assessment techniques.⁴² Risk assessment involves estimating the frequencies and consequences of undesirable events, then evaluating the associated risk in quantitative terms. The process of risk assessment organizes thought about risks, permitting the judgments of interdisciplinary teams of experts to be integrated in a systematic way. It also helps identify risks that might not have been thought of otherwise and it motivates improvements in data collection by pointing out database deficiencies. The results of risk assessment provide knowledge essential to informed decisionmaking.⁴³

Public concern is greatest about risks that are involuntary, uncontrolled, unfamiliar, immediate, manmade, and catastrophic. Hazardous materials transportation possesses many and sometimes all of those attributes. Risk assessment can help to address two fundamental questions, one quantitative and objective, and one qualitative and subjective: What is the level of risk? Further, what level of risk is acceptable to the parties concerned? The first question is readily addressed with adequate data and proper methodology, whereas the second question involves numerous judgments and often a great deal of discussion and negotiation. This is especially true when large numbers of people and several governmental jurisdictions are involved. Professional risk assessment places heavy emphasis on quantitative results. Where policy issues are involved, however, and involuntary risks exist, such as those associated with the transportation of hazardous materials, qualitative judgments are important.⁴⁴

In the technical detail of risk assessment models, the question of risk acceptability is complicated further by the fact that some of the concerned parties may have risk *perceptions* that differ from the *actual* risks.⁴⁵ Risk

40. *Id.*

41. *Id.*

42. The standard work in this area is Rowe, *Risk Assessment Processes for Hazardous Materials Transportation* (Transportation Research Board Report, 1983).

43. Bowman, *supra* note 39, at 2.

44. *Id.*

45. *Id.*

equity, the appropriate distribution of risks among different members of society, is another complicating factor. Factors of perception, actual risk, and equity are important policy considerations in the initial stages of developing a state hazardous material program. The Virginia data in Figure 2 suggest that the problems of hazardous material incidents is so small the preemptive governmental intervention in the area may not be warranted.⁴⁶

Year	Total Incidents	Injuries	Deaths
1982	NA	32	1
1983	177	52	0
1984	190	20	0
1985	255	44	0

Figure 2

Both actual accident experience and the accident forecasts demonstrate that the number of hazardous material accidents is not great. Every day, thousands of tons of hazardous material travel through Virginia without incident. Although the possibility of a catastrophic incident in Virginia exists, it has not yet occurred (the U.S. Department of Transportation estimates that the average hazardous material incident only involves \$1100 in property damage) and the best available data indicates that a catastrophe will not occur while the current level of enforcement and emergency response resources are maintained.⁴⁷

The most rigorous study of how hazardous materials incidents occur reached this conclusion.⁴⁸ Hazardous materials incidents are random events: the frequency of accidents is not related to the total number of non-hazardous material accidents (which occur in relation to the number of cargo-miles), the causes of the accidents are random and not representative of the overall distribution of accident causes, the number of casualties in any one year does not appear to be related to the number of accidents, and each accident is unique in its characteristics.⁴⁹ In short, each hazardous material accident is a freak occurrence, which is not an ideal target for prevention by government regulation.

The respondents to the 1987 survey of state hazardous materials programs illustrated the unsuitability of current state programs to reduce the risk of hazardous materials incidents.⁵⁰ All of the respondents indicated that the goal of their state policies was, in economic terms, to mini-

46. *Id.* at 8.

47. *Id.*

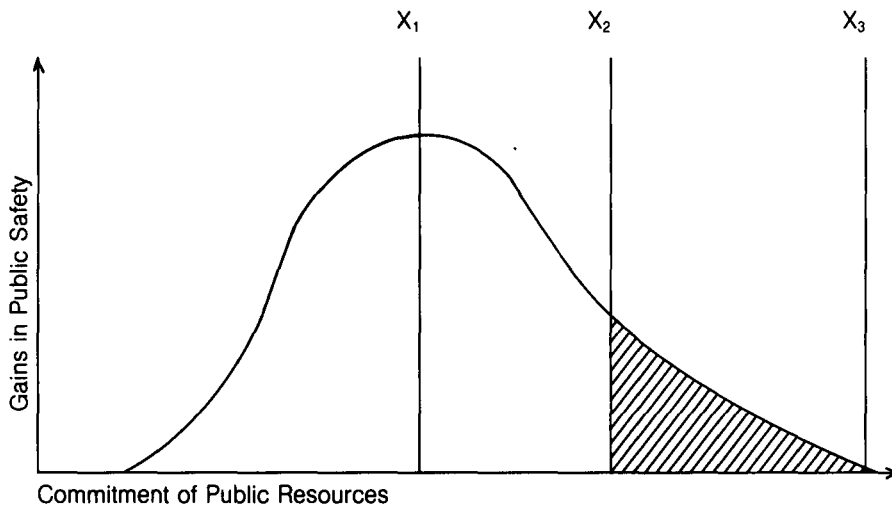
48. See Wolfe, *An Examination of Risk Costs Associated with the Movement of Hazardous Materials* (Association of American Railroads, 1984).

49. *Id.* at 23.

50. Bowman, *supra* note 5, at IV-1.

mize the transfer costs (in public safety as well as dollars) from hazardous materials incidents to their states' populations. The design of state programs (such as the establishment of user fines and fees) is appropriate for forcing the generators and carriers of hazardous material, who create the hazard, to shoulder the costs of their activity. The level of user fees and fines, however, has not produced an optimal level of risk transfer, regardless of how that level is measured.⁵¹

The problem can be viewed in the following illustrations borrowed from welfare economics methodology.



TOTAL BENEFIT OF GOVERNMENT INTERVENTION
FIGURE 3

The total benefit curve in Figure 3 illustrates that increasing the commitment of resources through direct expenditure by the government (in enforcement or in emergency response) or through indirect expenditure by the private sector (in fines and user fees) will yield increasing gains in public welfare, but only up to a point (at X_1). More expenditure, beyond X_1 , will produce marginally less benefit in welfare.

If viewed in conjunction with the total benefit curve in Figure 3, the cost incurred in Figure 4 yields implications for the appropriate level of public expenditure. At X_1 , the marginal cost curve reaches its minimum, meaning that every additional increment in public expenditure will result in less benefit than the previous increment of expenditure. This is consistent with the behavior of the total benefit curve in Figure 3. At X_1 , the amount of total benefit begins gradually to decline, even with increased commit-

51. *Id.* at IV-2.

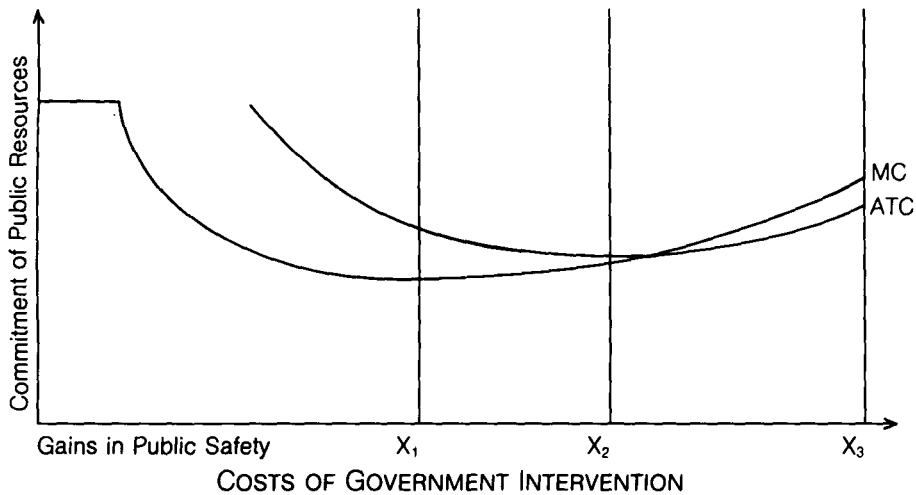


FIGURE 4

ment of resources. From a cost-benefit perspective, public expenditure to this point would be optimal.

At point X_2 , where the average total cost of the program and the marginal cost of the program are the same, another possible optimal point is reached. The additional gain in public welfare is equal to the additional cost of the program at X_2 . Beyond X_2 , increasing commitment of resources will buy more public welfare, but the cost of the increase in safety will be greater than the gain itself. Thus, X_2 is probably the most appropriate target for hazardous materials policies, since the amount of safety not directly provided by the program beyond X_2 (the shaded area in Figure 3) can be increased through targeting emergency response efforts not specifically concerned with hazardous materials, such as fire department preparedness.

An absolute degree of safety is achieved at X_3 . At this point, hazardous materials incidents can be entirely eliminated, but only at a very high public expenditure. For instance, a ban on hazardous material transportation would eliminate hazardous materials transportation accidents, but at an unacceptable cost.

The interesting aspect of the states' hazardous materials safety programs is that most state officials, when queried about this aspect of their state's program, believe that their state's level of expenditure is somewhere to the right of X_1 . Thus, no state has achieved an optimal level of hazardous material safety, regardless of the criteria of safety used by the policymakers in the state.⁵²

52. *Id.*

In fact, since hazardous materials accidents are random events, risk costs are equal to the expected severity of the accident.⁵³ It is thus impossible to achieve the level of safety sought through the state regulatory programs.

At the state level, the imposition of a risk-distribution program through tort remedies is a more appropriate legal approach to controlling the risk of hazardous materials incidents than standard-setting regulation. A tort liability system, that applies sanctions after hazardous materials incidents occur, allows the risk and value of hazardous material transportation to be "priced," facilitating the most efficient allocation of transportation resources. As Professor Calabresi has pointed out:

[T]he most desirable system of loss distribution under a strict resource-allocation theory is one in which the prices of goods accurately reflect their full cost to society. The theory therefore requires, first, that the cost of injuries should be borne by the activities which caused them, whether or not fault is involved, because, either way, the injury is a real cost of those activities. . . . Second, the theory requires that among the several parties engaged in an enterprise the loss should be placed on the party which is most likely to cause the burden to be reflected in the price of whatever the enterprise sells.⁵⁴

This risk-distribution theory is very powerful in the hazardous materials context because the carrier is the logical party to bear the risk of the materials he carries, he is the party with the best information as to the nature of his cargo and the route over which the cargo will be carried. The result of the application of liability to carriers should be that carriers will obtain the optimal amounts of insurance to abate their risk of liability, passing the cost of the insurance along to shippers through increased carriage rates, and the shippers will increase the price of their goods to the public, spreading the risk of the hazardous transportation across society without the imposition of a standard-based regulatory system at the state level.⁵⁵

IV. LOCAL GOVERNMENT REGULATORY PROGRAMS

Local governments have been the most outspoken critics of the federal regulatory regime. Many local officials believe that the federal program does not sufficiently adapt to the unique hazardous materials risks in specific local areas. As the City of Boston has written:

A major north-south interstate highway passes through the most densely

53. Wolfe, *supra* note 48, at 1.

54. Calabresi, *The Cost of Accidents: A Legal and Economic Analysis* 135 (1970).

55. This concept is developed by Marten, *supra* note 6, at 371-374, but he focused only on strict liability as achieving risk-distribution results. A negligence system would also achieve the desired risk-distribution result if the fact-finders are effective at determining fault. See Posner, *supra* note 26, at 164; Shavell, *Strict Liability versus Negligence*, 9 J. LEGAL STUD. 1 (1980).

populate section of New England, that being downtown Boston. At present, no state or federal regulation restricts the use of this highway, in spite of requests by the City to both state and federal agencies. . . . The City would prefer that a national or state plan would address this problem, but none exists. In the absence of such a state or national plan, the City has acted to reduce the dangers to people working and living within its boundaries.⁵⁶

As a result, many localities have adopted their own ordinances restricting the movement of hazardous materials. The Boston ordinance is the most well-known local program. Its 1980 ordinance completely banned the transportation of hazardous materials through the city except when: (1) no practical alternative exists, or (2) Boston is the starting point or destination point of the shipment. Trucks which satisfied the exceptions were only allowed to operate during daylight hours or on special routes.⁵⁷

The criticisms of state programs apply *a fortiori* to local regulatory schemes. Proliferation of state and local licensing, registration, and permit requirements, usually applicable to trucks, create economic externalities and can pose hardships for carriers. Aside from the impact of a requirement within the regulating state, transporters are concerned about the cumulative economic impact of these requirements and particularly about permits or licenses that must be obtained per vehicle or per trip. The latter usually increase transit time and increase the cost of carriage to shippers who are not located in the regulating locality.⁵⁸

Notification requirements have been established by numerous local governments as a means for regulating hazardous waste transportation. A study conducted by Battelle Memorial Institute for DOT found that 136 localities had established laws requiring carriers to notify local officials when hazardous materials were going to be transported in the area.⁵⁹ The Battelle study found that even when notification is made under these laws, local police authorities are too busy with other activities to monitor the movement of the hazardous materials shipments. Further, the proliferation of state and local notification requirements creates unsurmountable scheduling difficulties for carriers and require the hiring of large staffs by both carriers and local governments to monitor shipments.⁶⁰

There is a consensus, however, that routing is an important tool for local governments to prevent or reduce the consequences of hazardous

56. City of Boston Rules Governing Transportation of Certain Hazardous Materials by Highway Within the City, 46 Fed. Reg. 18918 (Dep't Transp. 1981) (Inconsistency Ruling 3) [hereinafter IR-3].

57. Marten, *supra* note 6, at 355.

58. Bowman, *supra* note 30, at 33.

59. O.T.A., *supra* note 4, at 181.

60. *Id.*

material accidents. Increasing numbers of cities, counties, and townships across the country are adopting ordinances requiring hazardous materials carriers to use designate routes.⁶¹ Carefully made routing decisions restrict hazardous materials shipments to the safest routes, which are often interstate highways and beltways, providing a low cost prevention measure that local police can enforce without additional equipment or training. DOT has attempted to foster the adoption of routing programs at the local level.⁶²

Routing is an important adjunct to a regulatory program and a tort liability regime. Regulatory programs are promulgated with the assumption that they will be followed; the risk-distribution basis of tort remedies assumes that rational actors will buy the appropriate amounts of insurance. Since the deregulation of the trucking industry in the early-1980s, and the lowering of the regulatory barriers to entry in the industry, a class of carriers has emerged that challenge both regulation and tort.⁶³ The independent truckers, who are usually impecunious and who often survive in an almost purely competitive market by not incurring the costs inherent in proper maintenance and insurance, cause most of the hazardous materials incidents in the United States.⁶⁴ Thus, they are both the most risky class of carriers and the group least likely to be affected by either a regulatory or a liability-based system of hazardous materials transportation controls. Routing systems require that all hazardous materials shipments be conducted on routes with the least risk of damage in the event of an incident and provide an extra margin of public safety in relation to carriers who are not sensitive to other controls. To this extent, local routing controls are the safety net in the hazardous materials control regime.

V. FEDERAL COURT ORDERING OF HAZARDOUS MATERIALS CONTROL ROLES

Since there are different echelons of control required in the hazardous materials field, an efficient national system of hazardous materials regulation requires the delineation of clear roles for federal, state, and local governments in the area. This ordering within the federal system

61. Bowman, *supra* note 39, at 33.

62. *Id.* To assist state and communities with the designation of routes for both radioactive and nonradioactive shipments of hazardous materials, the DOT published two guidance documents, the most important of which is the Peat-Marwick-Mitchell program in *Guidelines for Applying Criteria to Designate Routes for Transporting Hazardous Materials*.

63. On the effect of deregulation in the trucking industry, see M. Derthick & P. Quirk, *THE POLITICS OF DEREGULATION* (1985).

64. Bowman, *supra* note 39, at 29.

was not done by Congress when it passed the HMTA.⁶⁵ As a result, the task of ordering the intergovernmental relationship in the hazardous materials area has increasingly been performed by the federal courts applying the Hazardous Materials Transportation Act.⁶⁶

The role of the federal courts in ordering intergovernmental relations has traditionally been based on an assumption that the power of the states was primary and that positive federal action merely overlay state activity:

Federal law is generally interstitial in nature. It rarely occupies a legal field completely, totally excluding all participation by the legal systems of the states. This was plainly true in the beginning when the federal legislative product (including the Constitution) was extremely small. It is significantly true today, despite the volume of Congressional enactments, and even within areas where Congress has been very active. Federal legislation, on the whole, has been conceived and drafted on an *ad hoc* basis to accomplish limited objectives. It builds upon legal relationships established by the states, altering or supplanting them only so far as necessary for the special purpose. Congress acts, in short, against the background of the total *corpus juris* of the states in much the way that a state legislature acts against the background of the common law, assumed to govern unless changed by legislation.⁶⁷

To the extent that the federal courts are only empowered to act in the hazardous materials area under the Hazardous Materials Transportation Act, the role of the federal courts is interstitial. In fact, the HMTA was passed by Congress to accomplish an interstitial purpose: to close the gaps between inconsistent regulation and "to preclude a multiplicity of state and local regulations and the potential for varying as well as conflicting regulations in the area of hazardous materials transportation."⁶⁸ However, the Act does not specifically delineate the zone of federal authority in the hazardous material area: the Act delegated that responsibility to the Secretary of Transportation.⁶⁹

Since the passage of the HMTA, the DOT itself has acknowledged that state and local action may be consistent with the Act if they do not involve the seven elements of inconsistency delineated in the DOT's regulations.⁷⁰ However, nineteen inconsistency reviews⁷¹ have been under-

65. Hazardous Materials, 49 Fed. Reg. 46632, 46633 (Dep't Transp. 1984) (Inconsistency Rulings).

66. National Tank Truck Carriers, Inc. v. Burks, 698 F.2d 559, 560 (1st Cir. 1983).

67. P. Bator, P. Mishkin, D. Shapiro & N. Wechsler, HART & WECHSLER'S THE FEDERAL COURTS AND THE FEDERAL SYSTEM 470 (2d ed. 1973).

68. Jersey Cent. Power & Light Co. v. Township of Lacey, 772 F.2d 1103, 1113 (3d Cir. 1985), *cert. denied*, 475 U.S. 1013 (1986).

69. 49 U.S.C. § 1802 (1982).

70. Hazardous Materials, *supra* note 65, 46633.

71. The HMTA authorizes the Secretary of Transportation to make inconsistency rulings as

taken by the DOT since the passage of the HMTA in 1974, and DOT has never determined that a challenged state or local program is consistent with the Act.⁷² So, although there may be a zone of permissible state and local activity in the field, the boundaries of that zone have not been identified by the executive branch. Thus, the interstitial gap that the federal courts have been forced to fill is expansive.

The restrictions on state and local activity have led to much litigation on the preemptive effect of the HMTA, with either a plaintiff state or local government arguing that the DOT's inconsistency ruling represented an over-restrictive reading of the HMTA or with a plaintiff carrier arguing that the HMTA prohibited a particular state or local regulation. From this procedural posture, the federal courts have been forced to identify zones of federal, state, and local authority and, thus, order intergovernmental roles in the hazardous materials area.

The federal courts have long resolved federalism questions through the preemption doctrine, which arises from the interaction between the supremacy clause of the United States Constitution and the Tenth Amendment's reservation of authority to the states to exercise all powers not delegated to the federal government. The doctrine stands for the principle that a valid exercise of the supreme federal power preempts or supercedes an incompatible state law.⁷³

Since most preemption issues arise under the commerce clause, the court's analysis in preemption cases is similar to commerce clause analysis,⁷⁴ although most preemption cases are broader than a strict commerce clause controversy. In hazardous materials cases, the courts have applied preemption analysis.⁷⁵

The first question of a preemption analysis is whether Congress has validly established federal legislation in the hazardous material field pursuant to the powers delegated by the Constitution. It is clear that the power to regulate transportation comes from the commerce clause, the war powers clause, and the authority to promote the general welfare and

to the effect of specific state and local regulations on the Act. 49 U.S.C. 1811. However, DOT has been reluctant to make inconsistency rulings because they "have the effect of contributing to an adversarial, confrontational relationship with regional entities and militate against the creation of a nationwide, consistent, hazardous materials transportation policy." U.S. DOT, 1982 ANNUAL REPORT ON HAZARDOUS MATERIALS TRANSPORTATION 40 (1983). As a result, there is believed to be concurrent primary jurisdiction vested in both DOT and the federal courts to review intergovernmental conflicts in this area. *State of Rhode Island Rules and Regulations Governing the Transp. of Liquefied Natural Gas and Liquefied Propane Gas*, 44 Fed. Reg. 75566, 75567 (Dep't Transp. 1979) (Inconsistency Ruling 2).

72. O.T.A., *supra* note 4, at 248-53.

73. See Note, *Preemption as a Preferential State Ground: New Canon of Construction*, 12 STAN. L. REV. 208 (1959).

74. *Id.*

75. *National Tank Truck Carriers, Inc. v. Burke*, 608 F.2d 819 (1st Cir. 1979).

to protect the general public. Accordingly, the majority of commentators and courts have assumed valid congressional authority to regulate interstate transportation.⁷⁶

The second inquiry is whether Congress has expressly preempted state and local authority to regulate in a particular field. If compliance with both federal and state law is impossible because the laws are in conflict, no finding of congressional intent need be ascertained, and the state or local law is preempted. This principle has been acknowledged by the Supreme Court in modern times in *Florida Lime & Avocado Growers v. Paul*.⁷⁷ In that case, the Court held that absent any direct conflict between federal and state law, a court must determine whether Congress has manifested an express intent to preempt state law in a given area. If Congress clearly intended to preempt the field, state law must give way to Congressional authority.⁷⁸

If no express intent is found, Congress may nevertheless have implicitly preempted state law when it creates a "scheme of regulation" in a particular field. In *Rice v. Santa Fe Elevator Corp.*,⁷⁹ the Supreme Court said, "where the federal government, in the exercise of its superior authority in the field, has enacted a complete scheme of regulation . . . states cannot, inconsistently with the purpose of the Congress, conflict or . . . complement the federal law, or enforce additional or auxiliary regulations."⁸⁰ The Court indicated that the goal in each case was to determine Congress' purpose in enacting the legislation:

Such a purpose may be evidenced in several ways. The scheme of federal regulation may be so pervasive as to make unreasonable the inference that Congress left no room for the States to supplement it. Or the 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. Likewise, the object sought to be obtained by the federal law and the character of obligations imposed by it may reveal the same purpose. Or the state policy may produce a result inconsistent with the objective of the federal statute.⁸¹

Thus, the preemption doctrine consists of a set of unstructured principles which, as the Supreme Court admitted in *Hines v. Davidowitz*,⁸² provide no "rigid formula or rule which can be used as a universal pattern

76. There is a long line of commerce clause cases involving various aspects of truck transportation. See, e.g., *Bibb v. Navajo Freight Lines*, 359 U.S. 520 (1959); *Kassel v. Consolidated Freightways Corp.*, 450 U.S. 662 (1981); *Philadelphia v. New Jersey*, 437 U.S. 617 (1978).

77. 373 U.S. 132 (1963).

78. *Id.* at 143.

79. 331 U.S. 218 (1943).

80. *Id.* at 230.

81. *Id.*

82. 312 U.S. 52 (1941).

to determine the meaning and purpose of every act of Congress."⁸³ The Court uses various terms in attempts to pinpoint how federal law preempts state or local law, but acknowledged, in *Hines*, that, "[i]n the final analysis, there can be no one crystal clear distinctly marked formula."⁸⁴ However, the Court does assert that its "primary function is to determine whether . . . [state] law stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress."⁸⁵

The DOT's inconsistency rulings have taken a restrictive approach to state action under the HMTA. DOT inconsistency rulings are conducted under the dual compliance test first articulated by the U.S. Supreme Court in *Ray v. Atlantic Richfield Co.*⁸⁶

The first criterion [of inconsistency analysis] is the dual compliance or direct conflict test and concerns those State or local requirements that are incongruous with Federal requirements; that is, compliance with the State requirement causes the Federal requirement to be violated or vice versa. The second criterion in a sense subsumes the first and concerns those State or local laws that, regardless of conflict with a Federal requirement, stand as "an obstacle to the accomplishment and execution of the [HMTA] and the regulations issued under the [HMTA]." In determining whether a State or local requirement presents such an obstacle, it is necessary to look at the full purposes and objectives of Congress in enacting the HMTA and the manner and extent to which those purposes and objectives have been carried through MTB's regulatory program.⁸⁷

The DOT has applied this test to preclude all state and local hazardous materials control initiatives that have been scrutinized under the inconsistency ruling process.⁸⁸ In Inconsistency Ruling 2, which involved New York City's bridge and tunnel regulations, DOT made clear that it believes there is no state or local role in the area:

There are also certain areas where the need for national uniformity is so crucial and the scope of Federal regulation is so pervasive that it is difficult to envision any situation where State or local regulation would not present an obstacle to the accomplishment and execution of the HMTA and the Hazardous Materials Regulations.⁸⁹

A unique aspect of the law in this area is that despite legislative action in the form of the HMTA, which delegates authority in the hazardous

83. *Id.* at 67.

84. *Id.*

85. *Id.*

86. 435 U.S. 151 (1978).

87. IR-3, *supra* note 56, at 18919.

88. The dual-compliance test was specifically extended to the hazardous materials area in *National Tank Carriers, Inc. v. City of New York*, 677 F.2d 270 (2d Cir. 1982).

89. *State of Rhode Island Rules and Regulations Governing the Transp. of Liquefied Natural Gas and Liquefied Propane Gas*, 44 Fed. Reg. 75566, 775568 (Dep't Transp. 1979) (Inconsistency Rulings 2) [hereinafter IR-2].

materials area to the executive branch DOT, and despite the clear holding of the DOT administrators that federal authority is plenary in the hazardous materials area, the federal judiciary has forged roles for the states and localities while protecting the plenary federal regulatory authority.

In most of the preemption litigation involving the HMTA, the courts have endorsed the executive branch position that the federal authority to set standards and promulgate regulations involving standards is exclusive. For instance, in *City of New York v. DOT*,⁹⁰ the City of New York sued to enjoin the enforcement of DOT rules governing the shipment of radioactive material, eliminating the preemption of the City's own regulations. At the District Court level, Judge Abraham Sofaer found that since it could be demonstrated that the DOT regulations promulgated under the HMTA did not "maximize" public safety, the federal regulations were not the appropriate controls to be applied in the City. Judge Sofaer looked to the comparative public safety impact of the two sets of rules rather than the intergovernmental impact.⁹¹ On appeal, the Second Circuit did not consider the relative effect of the two sets of regulations, but held that Congress passed the HMTA to create "a single federal authority" responsible "for overseeing the transportation of hazardous materials by all modes. This centralization was designed to achieve a comprehensive approach to reducing risk. . . ." ⁹² The judicial inquiry into public safety justifications for regulations was specifically rejected by the appeals court. They found that, "[s]uch a requirement would constitute a radical shift in regulatory policy with serious ramifications for the transportation industry. In the past, we have been extremely reluctant to hold Congress to have made such a basic change in regulatory procedure absent explicit statutory language or other clear manifestation of Congressional intent."⁹³

The same deference to federal regulatory authority was demonstrated by the Third Circuit in *Jersey Cent. Power & Light v. Township of Lacey*⁹⁴ in 1985. That case arose after the Nuclear Regulatory Commission ordered Jersey Central to remove 224 spent fuel assemblies from its West Valley nuclear demonstration project. The Township of Lacey enacted ordinances to ban the transportation of the radioactive material within its boundaries. Judge Higgenbotham's opinion highlighted the clear intention of the federal courts to preclude state regulatory action in

90. 715 F.2d 732 (2d Cir. 1983), *cert. denied*, 465 U.S. 1055 (1984).

91. Courts increasingly inquire into the scientific basis for regulations in the environmental context. See, e.g., *Ethyl Corp. v. EPA*, 541 F.2d 1 (D.C. Cir. 1976) (concerning lead particulates in automobile exhaust), *cert. denied*, 426 U.S. 941 (1976).

92. 715 F.2d at 741.

93. *Id.*

94. 772 F.2d 1103 (3rd Cir. 1985), *cert. denied*, 475 U.S. 1013 (1986).

the area. He wrote that, "[t]he ultimate basis for DOT's Final Rule is that the public risks in transporting these materials by highways are too low to justify the unilateral imposition by local governments of bans and other severe restrictions on the highway mode of transportation."⁹⁵ He concluded that, "the HMTA regulations preempt 'inconsistent' state and local regulations."⁹⁶

Recently, in *CSX Transp. Inc. v. P.U.C. of Ohio*⁹⁷ U.S. District Judge James Graham of the District of Southern Ohio considered a suit filed by four railroads which claimed that the Ohio railroads which claimed that the Ohio railroad safety legislation passed in the wake of the 1986 Miamisburg incident was preempted by the HMTA and the Federal Railroad Safety Act.⁹⁸ The Ohio laws set type, quantity, and container standards for the transportation of hazardous substances through Ohio by rail.⁹⁹ The State of Ohio defended its regulations by claiming that since the rules related to hazardous materials, the state could regulate the railroads as long as the regulations were not inconsistent with the HMTA. Judge Graham rejected that argument. He wrote that:

There is no dichotomy . . . between the FRSA and the HMTA, with the former limited to general railroad safety and the latter directed specifically toward the intermodal regulation of the transportation of hazardous materials. Indeed the regulation of the transportation of hazardous materials by rail is inextricably intertwined with the regulation of railroad equipment and operating procedures. The legislative history of the FRSA evidences a clear Congressional intent that rail safety regulations be nationally uniform and that all enforcement should be by federal authorities.¹⁰⁰

It is apparent from *CSX v. Ohio* that the states have little freedom to set standards for hazardous materials transportation, especially when the state standards impact on railroad safety.

However, in other recent major litigation under the HMTA, a federal court staked out an independent area of responsibility for the states. In *Borough of Ridgefield v. New York Susquehanna & W.R.R.*,¹⁰¹ several localities in New Jersey attempted to bring a civil suit in federal court to enforce the standards codified in the federal hazardous materials regulations. This was the first attempt to bring a private enforcement action under the HMTA.¹⁰² The Third Circuit noted that the defendant carriers

95. *Id.* at 1113 (quoting 46 Fed. Reg. 5298, 5299 (codified at 49 C.F.R. pts. 171, 172, 173, 177)).

96. *Id.*

97. 701 F. Supp. 608 (1988).

98. 45 U.S.C. §§ 421-444 (1982).

99. See, OHIO REV. CODE ANN. § 4907.64 (Anderson 1988 Supp.); OHIO ADMIN. CODE § 4901:3-1-10 (1988 Supp.).

100. 701 F. Supp. at 612.

101. 810 F.2d 57 (3rd Cir. 1987).

102. *Id.* at 60.

were subject to the regulations, but the court held that damage suits for unsafe activity in the hazardous materials area are matters for state statutory and common law and must be pursued in state court. The court specifically recognized the federal ordering inherent in the hazardous materials area, stating that the "cooperative system of regulations allows municipalities to ensure a safe environment, while allowing oversight by the federal agency. In filing their complaint in district court, the Municipalities' chose an unavailable route to ensure the safety of butane transportation by New York Susquehanna & Western."¹⁰³

The *Borough of Ridgefield* case extends the holding of *S. Pac. Transp. Co. v. United States*¹⁰⁴ that state liability systems are a second-tier or control in the hazardous materials area. In the well-known case *Chavez v. S. Pac. Transp. Co.*,¹⁰⁵ which involved damages resulting from the explosion of eighteen box cars of bombs in a rail yard, the federal district court concluded that liability for the accident was to be assessed under California law. The transportation of hazardous materials is recognized to be an ultrahazardous activity, so the court applied the risk-distribution approach of California law, developed by Judge Traynor,¹⁰⁶ to hold the carrier strictly liable for the incident. Recognizing the traditional common carrier exception to the strict liability rule,¹⁰⁷ the *Chavez* court nevertheless reasoned that the exception does not apply in the hazardous materials area:

... there is no logical reason for creating a "public duty" exception when the rationale for subjecting the carrier to absolute liability is the carrier's ability to distribute the loss to the public. Simply stated, the public pays for requiring the carrier to engage in the activity which is by nature dangerous to the public. Consequently, 'the harsh impact of inevitable disasters is softened by spreading the cost among a greater population and over a larger time period.' The person engaged in the hazardous enterprise is in the most suitable position to pass the cost to the public and the social and economic benefits which are ordinarily derived from imposing strict liability are

103. *Id.* at 60.

104. 632 F. Supp. 582 (E.D. Cal. 1978). The court there noted that the HMTA, "... evidences no intent to affect state regulation of tort liability." See also, Thompson, *The Hazardous Materials Transportation Act: Chemicals at Uncertain Crossroads*, 15 TRANS. L.J. 411, 427 (1987).

105. 413 F. Supp. 1203 (E.D. Cal. 1976).

106. In *Greenman v. Yuba Power Products, Inc.*, 59 Cal.2d 57, 377 P.2d 897, 27 Cal. Rptr. 697 (1962), Justice Traynor of the California Supreme Court established the principle that strict liability should be applied to the manufacturer of defective products.

107. RESTATEMENT (SECOND) OF TORTS § 519 states that the general rule that one who engages in ultrahazardous activity must bear absolute liability for damages resulting from that activity. However, Restatement § 521 codifies the rule of *Aktiesselskabet Ingrid v. Cent. R.R.*, 216 F. 72 (2d Cir. 1914), *cert. denied* 238 U.S. 615 (1915).

achieved.¹⁰⁸

The *Chavez* approach has been adopted throughout the United States since 1978, although the question of whether enterprise liability should always be applied to hazardous materials carriers is still unsettled. Nevertheless, the federal courts have left that question, as part of a zone of responsibility for non-standard setting control of hazardous materials transportation, to the states.¹⁰⁹

The local governments have also been assigned a role in controlling hazardous materials shipments. In *New Hampshire Motor Transp. Assoc. v. Flynn*,¹¹⁰ the First Circuit examined New Hampshire regulations requiring permits and routing of hazardous materials highway shipments. The DOT had previously determined that the New Hampshire requirements were inconsistent with the HMTA because it believed that the rules were "inconsistent with an important federal objective" and could cause transportation delay.¹¹¹ The DOT inconsistency ruling was affirmed by the District Court.¹¹² In an approach both converse and complimentary to the Second Circuit's approach in *City of New York v. DOT*,¹¹³ where the appeals court did not look at the impact of challenged federal regulations before affirming them, the appeals court in *Flynn* did look at the impact of the challenged state regulations before rejecting them. That analysis revealed that the permit and routing requirements did not create delays, since permits and routing were available at all times, and, as a result, the court ruled that the New Hampshire rules were not inconsistent with the federal regulatory scheme.¹¹⁴

Dicta in other decisions involving routing requirements, including *City of New York* and *Jersey Central Power* indicate that the federal courts are willing to allow local routing requirements to coexist with the federal regulations as long as the routing requirements do not have the impact of burdening interstate commerce.¹¹⁵ The inquiry in routing cases focuses on the commerce clause rather than the HMTA, and the Supreme Court has often stated its deference to local regulation of highway transportation in Commerce Clause litigation. For instance, in *Kassel v. Consol. Freightways*, Justice Powell wrote:

[A] state's power to regulate commerce is never greater than in matters tra-

108. Comment, *Common Carriers and Risk Distribution: Absolute Liability for Transporting Hazardous Materials*, 67 Ky. L.J. 441, 449 (1979).

109. *Indiana Harbor Belt Railroad v. American Cyanamid Co.*, 517 F. Supp. 314 (N.D. Ill. 1981).

110. 751 F.2d 43 (1st Cir. 1984).

111. *Ir-2*, *supra* note 89, at 75566.

112. 751 F.2d at 43 (1st Cir. 1984).

113. 715 F.2d 732 (2d Cir. 1983), *cert. denied*, 465 U.S. 1055 (1984).

114. 751 F.2d at 51.

115. See Thompson, *supra* note 99, at 422-23.

ditionally of local concern. For example, regulations that touch upon safety—especially highway safety—are those that “the Court has been most reluctant to invalidate”. . . . Indeed, “if safety justifications are not illusory, the court will not second-guess legislative judgments about their importance in comparison with related burdens on interstate commerce.” (citations omitted)¹¹⁶

An interesting aspect of the federal case law in the hazardous materials area is that the jurisprudence, made on the basis of different facts and even in different circuits, has created a hazardous materials control regime that embraces each of the three aspects of optimal hazardous materials control: standard-setting, allocation of risk through tort liability, and routing. In establishing this system, the courts have also allocated responsibility for each area to a different level of the federal system: the national government is responsible for standard-setting and the promulgation of regulations, the states are responsible for distributing risk through their tort systems, and state and local governments are responsible for routing.

VI. CONCLUSION

In the period after *Garcia v. San Antonio Metro. Transit Auth.*,¹¹⁷ it has been often noted that effective national management in many policy areas requires more than “a confectionery federalism. It needs one that is rooted in the realities—political, fiscal, administrative, programmatic, and procedural—of today’s intergovernmental relations. Above all, it needs a judicial approach and theory that reflects a genuine sense of balance.”¹¹⁸

Judge Posner has noted that federalism really only means an allocation of responsibilities among levels of government so that the diseconomies of scale associated with centralization and the externalities that are often associated with decentralization are balanced.¹¹⁹ In the hazardous materials area, a balance, both between branches of the national government and among levels of the federal system, appears to have been achieved and, remarkably, the balance has been created by the judicial branch of the federal government—the branch considered least likely to create comprehensive programs.

116. 450 U.S. 662, 670 (1981).

117. 469 U.S. 528 (1985).

118. WALKER, *Federal Judges and Federal Grants: A Dimension Of Today's Dysfunctional Federalism*, in ADVISORY COMMITTEE ON INTERGOVERNMENTAL RELATIONS, *AWAKENING THE SLUMBERING GIANT: INTERGOVERNMENTAL RELATIONS AND FEDERAL GRANT LAW* 100 (1980).

119. Posner, *supra* note 26, at 599-601.

