Recent Developments in the Transportation of Hazardous Materials

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I. INTRODUCTION

Since the fall of 1976 there has been a rapidly growing interest in the protection of workers, the public, and the environment from the dangers of hazardous materials.[1] Alarmed by accidents involving tank cars filled with toxic gases, incidents of massive environmental contamination by pollutants such as mercury and kepone, and the discovery of carcinogenic substances in workplaces and public water supplies, environmental, labor, and consumer protection groups have strengthened their demands for federal regulatory activity. President Carter, in his Environmental Message to Congress in May, 1977, stressed the high priority his Administration places on the control of hazardous chemicals.[2]

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1. Although the Clean Air Act, 42 U.S.C. §§ 7601-7626 (1976), the Federal Water Pollution Control Act, 33 U.S.C. §§ 1251-1376 (1976) and the Safe Drinking Water Act, 21 U.S.C. § 349, 42 U.S.C. §§ 201, 300f to 300j-9 (1976), all had provisions dealing with hazardous or toxic pollutants, and regulations under the Occupational Safety and Health Act, 29 U.S.C. §§ 651-678 (1976), providing for protection of employees from certain hazardous substances have been in existence for several years, real concern over hazardous substances, particularly those with subtle or chronic health effects, has been steadily increasing in recent years.

2. 123 CONG. REC. S8364 (daily ed. May 23, 1977).

Not surprisingly, this concern has resulted in federal legislative and regulatory activity, including new federal regulations concerning hazardous materials which will have a significant impact on the transportation industry. Prior to these recent developments, federal control over the transportation of hazardous materials was vested exclusively in the Secretary of Transportation under the Hazardous Materials Transportation Act (HMTA).[3] In 1976, through the enactment of the Resource Conservation and Recovery Act of 1976[4] and the Toxic Substances Control Act,[5] the Environmental Protection Agency was given new regulatory authority concerning hazardous wastes and toxic chemical substances and mixtures, to which carriers of these substances will frequently be subject. Regulations under the authority of these two statutes will first be promulgated in 1978. EPA has already promulgated regulations prohibiting spills of hazardous substances under the Federal Water Pollution Control Act.[6] Meanwhile, the Occupational Safety and Health Administration is developing regulations under the authority of the Occupational Safety and Health Act of 1970 dealing with three areas: employee exposure to carcinogens; labeling and data availability for hazardous substances; and training and health monitoring for employees who handle hazardous substances. The applicability of these impending regulations to the transportation industry, the interaction of these statutes with each other and with other federal and state legislation, and the potential effects of these new developments on the transportation industry will be examined.

II. Hazardous Waste Transportation

The Resource Conservation and Recovery Act of 1976 is the environmental legislation most clearly applicable to the transportation industry. Congress had previously addressed the problem of solid waste management in the Solid Waste Disposal Act of 1965[7] and the Resource Recovery Act of 1970.[8] The earlier laws provided federal assistance to state and local governments for the planning and development of resource recovery and solid waste disposal programs and authorized the promulgation of

3. 49 U.S.C. §§ 1471, 1655, 1761-1762, 1801, 1812 (1976). The Secretary is directed to "protect the Nation adequately against the risks to life and property which are inherent in the transportation of hazardous materials in commerce." *Id.* § 1801. The Materials Transportation Bureau within the Department of Transportation (DOT) is responsible for the enforcement of a large number of regulations governing container manufacturers, shippers, and carriers of materials determined by DOT to be hazardous when transported in interstate commerce. 49 C.F.R. ch. 1 (1976).

4. 42 U.S.C. §§ 6901-6987 (1976).

5. 15 U.S.C. §§ 2601-2629 (1976).

6. 43 Fed. Reg. 10,474 (1978) (to be codified at 40 C.F.R. §§ 116-19).

7. Pub. L. No. 89-272, 79 Stat. 997 (1965) (current version at 42 U.S.C. §§ 6901-6987 (1976)).

8. Pub. L. No. 91-512, 84 Stat. 1227 (1970) (repealed 1976).

waste management guidelines. Under this federal encouragement, all of the states had issued some kind of solid waste disposal regulations by 1975.[9] These state programs did little, however, to curb the growing dangers to health and the environment from hazardous wastes.[10] This was one of the major concerns behind the enactment of the Resource Conservation and Recovery Act of 1976.

A. *Statutory Provisions*

The Act addresses three areas of solid waste problems: municipal waste disposal, including open dumping; government procurement of recovered materials; and hazardous wastes. Subtitle C of the Act, "Hazardous Waste Management,"[11] provides the EPA with direct regulatory authority over transporters of hazardous waste.[12] A hazardous waste is defined in the Act as any solid waste,[13] or combination of solid wastes, which may:

> (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or
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> (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.[14]

Many types of wastes which are frequently transported in large quantities could fall within this definition.[15] The EPA Administrator is directed to

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9. Savas, Evaluating the Organization of Service Delivery: Solid Waste Collection and Disposal, ch. 14 at 33 (1975).

10. U.S. Environmental Protection Agency, Third Report to Congress: Resource Recovery and Waste Reduction (1975); H.R. Rep. No. 1491, 94th Cong., 2d Sess. 11, *reprinted in* [1976] U.S. Code Cong. & Ad. News 6238,6249.

11. 42 U.S.C. §§ 6921-6931 (1976).

12. A different provision of the Act may eventually have a greater, though less direct, impact on the transportation industry. Section 8002(j), 42 U.S.C. § 6982(j) (1976), established a Resource Conservation Committee directed to study and report to Congress and the President on, *inter alia*, "the effect of existing public policies . . . upon resource conservation, and the likely effect of the modification or elimination of such incentives and disincentives upon resource conservation." One of the subjects being considered by the committee is the effect of freight rates and regulations on resource conservation. *Cf.* Ex Parte No. 319, Investigation of Freight Rates for the Transportation of Recyclable or Recycled Commodities (ICC investigation into the rate structure for rail transportation of recycled materials). For a detailed examination of the legislative history and the various provisions of the Act, *see* Kovacs & Klucsik, *The New Federal Role in Solid Waste Management: The Resource Conservation and Recovery Act of 1976*, 3 Colum. J. Env. L. 205-61 (1977).

13. "Solid waste" here need not necessarily be in solid form; any solid, liquid, semisolid, or contained gaseous wastes which are not regulated under the Federal Water Pollution Control Act or the Atomic Energy Act of 1954, 42 U.S.C. §§ 2011-2254 (1976), are within the definition of "solid waste" provided in § 1004(27) of the Act, 42 U.S.C. § 6903(27).

14. Section 1004(5), 42 U.S.C. § 6903(5) (1976).

15. A 1976 report by the House Interstate and Foreign Commerce Committee estimated that 30-35 million tons of hazardous wastes are placed in open dumps each year. H.R. Rep. No. 1491, *supra* note 10, at 11.

promulgate regulations identifying characteristics of hazardous wastes and listing particular hazardous wastes subject to the provisions of the Act.[16] Following identification of hazardous wastes, EPA must promulgate standards for those persons who generate, transport, store, treat, or dispose of such wastes.

EPA can set strict performance standards and will have to issue permits for approved hazardous waste treatment and disposal facilities,[17] but its regulatory authority over generators and transporters of hazardous wastes is much more limited. The primary goal of the provisions of the Act dealing with generators and transporters is the institution of a "cradle to grave" recordkeeping system which allows EPA to monitor all hazardous wastes from creation to final disposal, thereby ensuring that all of these wastes eventually reach authorized disposal facilities.[18] Although there is no authority in the Act to directly regulate the generation of wastes, generators will be required to keep transportation records showing the carrier to whom the wastes were given and the intended destination of the wastes. The generator will also be responsible for the use of appropriate containers and for labeling in accordance with EPA standards.[19]

Section 3003 of the Act[20] requires the EPA Administrator to establish such standards applicable to transporters of hazardous wastes identified or listed by EPA as may be necessary to protect human health and the environment. These standards shall include requirements for:

> (1) recordkeeping concerning such hazardous waste transported, and their [sic] source and delivery points;
> (2) transportation of such waste only if properly labeled;
> (3) compliance with the manifest system . . . ; and
> (4) transportation of all such hazardous waste only to the hazardous waste treatment, storage, or disposal facilities which the shipper designates on the manifest form . . . [21]

For any hazardous waste which is subject to the Hazardous Materials Transportation Act, the regulations promulgated by EPA for hazardous waste transporters must be consistent with DOT regulations under the HMTA.[22] Violation of any standard promulgated under the Act could result in imposition of a civil penalty of not more that $25,000 per day of noncom-

16. Section 3001(b), 42 U.S.C. § 6921(b) (1976).
17. Sections 3004-3005, 42 U.S.C. §§ 6924-6925 (1976).
18. Sections 3002-3003, 42 U.S.C. §§ 6922-6923 (1976).
19. H.R. Rep. No. 1491, *supra* note 10, at 26.
20. 42 U.S.C. § 6923 (1976).
21. Section 3003(a), 42 U.S.C. § 6923(a) (1976).
22. Section 3003(b), 42 U.S.C. § 6923(b) (1976). Since regulations requiring compliance with the manifest system, for example, were obviously intended to be different from DOT regulations requiring a shipper's certification before acceptance of a shipment of hazardous materials, 49 C.F.R. § 177.817 (1976), it seems that EPA requirements can be different from and additional to DOT regulations without being "inconsistent" within the meaning of this section.

pliance.[23] Any person who knowingly transports hazardous waste to a facility which does not have an EPA permit or makes a false statement in any manifest, record, or report is subject to a criminal penalty of a fine of not more than $25,000 for each day of violation or imprisonment for not more than one year.[24]

Two other provisions of the Resource Conservation and Recovery Act could affect transporters of hazardous waste. First, regardless of any other provisions of the Act or regulations promulgated thereunder, the Administrator, whenever he finds that the handling, storage, treatment, transportation, or disposal of any solid waste or hazardous waste "is presenting an imminent and substantial endangerment to health or the environment," may bring suit in federal district court to restrain such handling or to take such other action as may be necessary.[25] Second, § 3006 of the Act[26] provides for EPA authorization of state hazardous waste programs which meet certain criteria. After EPA authorization, enforcement of hazardous waste regulations would be handled by the state agency. While such state programs are being developed, the EPA Administrator may grant two-year interim authorization to states which have existing hazardous waste programs.[27] Because no more than $25 million was authorized for grants to assist states in development and implementation of authorized state hazardous waste programs,[28] it is unlikely that most states will wish to take on the responsibilities of administering hazardous waste programs under the Act without further incentives.

B. *Proposed Regulations*

Although regulations for waste generators and transporters were statutorily required to be promulgated by April 1, 1978, EPA did not publish proposed regulations for transporters until April 28, 1978,[29] with comments on these proposed regulations to be submitted by early fall and final regulations expected sometime in late 1978.[30] Proposed Subpart C of 40 C.F.R. Part 250 sets out the requirements for recordkeeping, compliance

23. Section 3008(a), 42 U.S.C. § 6928(a) (1976). Note that this is considerably more than the $10,000 civil penalty provided in the HMTA, 49 U.S.C. § 1809 (1976).

24. Section 3008(d), 42 U.S.C. § 6928(d) (1976).

25. Section 7003, 42 U.S.C. § 6973 (1976).

26. 42 U.S.C. § 6926 (1976).

27. Section 3006(c), 42 U.S.C. § 6926(c) (1976).

28. Section 3011(a), 42 U.S.C. § 6931(a) (1976).

29. 43 Fed. Reg. 18,506 (1978). Four environmrntal groups have notified EPA, pursuant to § 7002 (c) of the Act, of their intention to commence legal actions against the agency for failing to promulgate certain regulations within the statutory deadlines. 43 Fed. Reg. 36, 323 (1978).

30. The comment period will not close until 60 days after all regulations under §§ 3001-3005 (42 U.S.C. §§ 6921-6925) have been proposed, which is expected to be late in the summer of 1978. Final regulations will be effective six months after publication.

with the manifest system, loading, storage, delivery, emergency procedures, and marking and placarding of vehicles for transporters of hazardous wastes, as identified or listed by EPA.[31] To comply with the above-mentioned requirement that hazardous waste transportation regulations must be "consistent with" DOT regulations under the HMTA,[32] the proposed regulations do not set up separate standards for containers and procedures used in the transportation of hazardous wastes, but rather incorporate the DOT regulations by a general requirement that any hazardous waste which meets the DOT criteria for a hazardous material must be handled in accordance with the provisions of the DOT hazardous materials regulations in addition to EPA regulations.[33] At the same time, DOT is revising its regulations under the HMTA to include on the Hazardous Materials Table[34] all listed hazardous materials when transported as wastes and all materials subject to EPA hazardous waste regulations, to address the problem of mixtures of several types of wastes, and to make several other revisions to ensure consistency with EPA hazardous waste regulations and to adequately protect the public from the dangers of the transportation of hazardous wastes.[35] Publication of final DOT regulations is planned to coincide with that of final EPA regulations for hazardous waste transporters in late 1978.

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31. There is some question whether a waste which meets EPA criteria for a hazardous waste, *e.g.*, flammability, but has not been specifically listed by the Administrator as a hazardous waste is subject to hazardous waste regulations promulgated under the Act. In a cover letter circulated with draft proposed regulations on identifying hazardous wastes, EPA indicated a belief that wastes need not be specifically listed to be subject to regulation: "Several options for lists include waste types, process types, industry categories, substances, or a combination. In addition, whether the list is an example of wastes that are potentially dangerous, a definitive enforceable list of those defined to be hazardous, or some other approach is still under discussion." Although §§ 3002-3004 of the Act (42 U.S.C. §§ 6922-6924 (1976), refer to "hazardous wastes identified or listed under this subtitle," the House Committee Report, H.R. REP. NO. 1491 *supra* note 10, at 25, stated: "the criteria for determining what should be considered hazardous should not be confused with an actual hazardous waste . . . . Only after the criteria for determining what is hazardous has [sic] been developed can the Administrator determine which specific wastes are hazardous."

32. *See* note 22 *supra*.

33. Proposed 40 C.F.R. § 250.30(c), 43 Fed. Reg. 18,510 (1978). DOT regulations incorporated into EPA hazardous waste regulations would, however, be applicable to both interstate and intrastate transportation of hazardous waste. *See also* note 35 *infra*.

34. 49 C.F.R. § 172.101 (1976).

35. 43 Fed. Reg. 22,626 (1978). In a largely unanticipated development, DOT has suggested that the fact that the Resource Conservation and Recovery Act applied to both interstate and intrastate transportation of hazardous wastes amounts to a congressional finding that intrastate transportation of hazardous wastes affects interstate commerce, so DOT proposed regulations would be applicable to both interstate and intrastate transportation of hazardous wastes by all modes. *Id.* at 22,626-27. EPA is also considering recommending that DOT develop a new placard for wastes which are toxic, bioaccumulative, carcinogenic, or mutagenic. 43 Fed. Reg. 18,507-09 (1978).

An analysis of the statement on applicability in the proposed regulations gives rise to several questions. The statement indicates that the regulations "do not apply to persons . . . that transport hazardous waste(s) on the site of a hazardous waste generator or a permitted hazardous waste management facility."[36] Although § 3002 of the Act[37] does not require the use of the manifest system for transportation of hazardous wastes on the premises of the waste generator, there is no definition of "transport" or "transporter of hazardous waste" and no other provision in the Act which would limit the application of hazardous waste transportation standards to off-site transportation. Thus this limitation in EPA and DOT regulations may be subject to challenge by environmentalists.

A question of greater significance to the transportation industry is whether the carrier is obligated to determine the hazardous nature of any waste he accepts for transport. Will the carrier be subject to the standards established by these proposed regulations whenever he transports a waste which has been identified or listed as hazardous by EPA, or only when the waste generator has identified the waste as hazardous through compliance with labeling or manifest requirements? The plain language of § 3003 of the Act[38] makes hazardous waste transportation standards "applicable to transporters of hazardous waste identified or listed under this subtitle . . ." and gives no indication that notification of the hazardous nature of the waste by the generator is required. However, the Report of the House Committee on Interstate and Foreign Commerce stated that, under the Act, the waste generator "will bear the burden of . . . providing information and warning to the transporter of the waste," while "the duties of the transporter are to accept only those hazardous wastes properly labeled and in compliance with the manifest system. . . ."[39] The ambiguity of these and similar provisions[40] makes it uncertain to what extent transporters of hazardous waste may be held liable for transportation of a waste material

36. Proposed 40 C.F.R. § 250.30(b), 43 Fed. Reg. 18,510 (1978).

37. 42 U.S.C. § 6922 (1976).

38. *Id.* § 6923.

39. H.R. REP. No. 1491 *supra* note 10, at 26-27. A similar conflict may be found in the proposed regulations for hazardous waste transporters. Although the preamble to the proposed regulations states that preparation of the manifest, labeling, and packaging for hazardous wastes is the responsibility of the waste generator (43 Fed. Reg. 18,508 (1978)), several sections of the proposed regulations seem to indicate that transporters are required to comply with these proposed standards regardless of whether a hazardous waste has been so designated by the generator. For example, § 205.34(a) provides that: "A transporter shall not accept from a generator a shipment of hazardous waste without a manifest . . . signed by the generator . . . ." and § 250.34(b) forbids the transporter to "transport a shipment of hazardous waste in containers not properly labeled or marked in accordance with the provisions of § 250.26." *See also* preamble to proposed DOT regulations, 43 Fed. Reg. 22,626-28 (1978).

40. *See* note 39 *supra*

which qualifies as a hazardous waste under criteria promulgated by EPA, but which was not so identified by the waste generator prior to shipment.

The manifest system is the cornerstone of the EPA program for the management of hazardous waste. Under the proposed regulations, the transporter may not accept a shipment of hazardous waste without a manifest issued by the generator indicating the nature of the waste and designating a permitted hazardous waste storage, treatment, or disposal facility to which the waste is to be delivered. The transporter will be required to sign the manifest acknowledging acceptance of the hazardous waste, have a copy of the manifest with the shipment at all times, deliver the manifest to the designated facility, and keep a copy of the manifest for at least three years from the date of certification of delivery to the permitted hazardous waste management facility.[41] The transporter must deliver the entire quantity of hazardous waste or wastes accepted from the generator to the permitted hazardous waste management facility which has been designated on the manifest. Through the use of this system, EPA can ensure that all hazardous wastes are handled by facilities which have obtained an EPA permit and could trace the origin or the final disposition of any hazardous waste at a later date.

The proposed EPA regulations are considerably more stringent than existing DOT regulations with regard to emergency incidents involving hazardous waste. Proposed § 250.37(b) requires notification of the United States Coast Guard National Response Center and submission of written reports to EPA and DOT "in the event of any spill of hazardous waste during transportation," regardless of whether such an event presents a hazard to health or the environment. In contrast, DOT hazardous materials transportation regulations permit repair or temporary storage of a leaking package or container when safe and practicable.[42] It is questionable whether it is necessary for the EPA proposed regulation to be so strict in order to protect public health and the environment.

Within 90 days after promulgation of regulations identifying or listing any substance as a hazardous waste, any person transporting such substance is required to file with the EPA Administrator a notification stating the location and description of such activity and the identified or listed hazardous waste handled by such person.[43] Under proposed regulations, hazardous waste transporters would be required to submit a notification for each terminal the transporter owns and utilizes for vehicles transporting hazardous wastes. The transporter would also have to identify the types of hazard-

41. Proposed 40 C.F.R. §§ 250.33-.36, 43 Fed. Reg. 18,511 (1978).

42. 49 C.F.R. § 177.854 (1976). Recently proposed amendments to DOT regulations would require telephonic and written notification for *any* leakage of hazardous wastes, as opposed to other hazardous materials. Fed. Reg. 22,626-31 (1978).

43. Section 3010(a), 42 U.S.C. § 6930(a) (1976).

ous waste handled and estimate the annual amount of such waste handled based on 1977 volume.[44] Neither the Act nor the proposed regulations are clear about whether a new or additional notification will be required whenever a transporter begins handling a new type of hazardous waste; however, this interpretation, which could be burdensome for many carriers, could be implied from the statement in § 3010(a) of the Act that: "No identified or listed hazardous waste subject to this subtitle may be transported, treated, stored or disposed of unless notification has been given as required under this subsection."[45]

C. Potential Impacts

Since transporters of hazardous materials are already required to comply with DOT standards for packaging, labeling, and handling of hazardous materials as well as requirements for obtaining shipper's certification on shipping papers for hazardous materials, EPA regulations for hazardous waste transporters are unlikely to impose many new affirmative obligations on such carriers. However, many waste materials, which have not until this time been treated as hazardous materials requiring compliance with DOT standards, will now be subject to such requirements after identification and listing of hazardous wastes is completed by EPA and after DOT regulations for hazardous materials transportation are amended to conform with hazardous waste regulations.[46] On the other hand, requirements of the Resource Conservation and Recovery Act that hazardous waste treatment, storage, and disposal facilities must obtain EPA approval and meet certain performance standards will mean that, in the future, there will be considerably fewer facilities in the United States capable of receiving hazardous waste. Therefore, the need for transportation of hazardous wastes over longer distances will increase. Increased awareness of the environmental effects of solid waste disposal facilities will create greater public demand for transportation of solid wastes.[47]

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44. Proposed 40 C.F.R. Part 250, Subpart G, 43 Fed. Reg. 18,510-12 (1978).

45. Section 3010(a), 42 U.S.C. § 6930(a) (1976). The preamble to the draft proposed notification regulations contributes to this ambiguity: "Revised Section 3001 [hazardous waste indentification] regulations will become effective in 180 days after promulgation and all persons who generate, transport, treat, store, or dispose of such hazardous wastes will be required to notify EPA . . . . No additional notification is required from those persons unaffected by the Section 3001 regulations revisions."

46. The provision of proposed DOT revisions of hazardous materials regulations which may be most troublesome for waste transporters is proposed 49 C.F.R. § 173.510(5), 43 Fed. Reg. 22,626 and 22,633 (1978), which would prohibit the use of open-top or tarp-covered vehicles for bulk shipments of hazardous wastes or any other hazardous materials.

47. For example, an EPA study suggests that, in order to protect groundwater supplies, land disposal of solid waste "is not environmentally feasible in many areas," so that alternatives such as waste transport to a more suitable area should be investigated. Environmental Protection Agency,

III. Employee Exposure to Hazardous Materials

The Occupational Safety and Health Act of 1970[48] had as its primary purpose the reduction of safety hazards and assurance, so far as possible, of safe and healthful working conditions for every working man and woman. The Act set up the Occupational Safety and Health Administration (OSHA) to carry out the purposes of the Act. One of the means prescribed by Congress to provide employees with a safe and non-hazardous environment is the authority vested in the Secretary of Labor to set mandatory safety and health standards.[49] Special attention was given in the Act to the dangers of occupational exposure to hazardous or toxic materials:

> The Secretary, in promulgating standards dealing with toxic materials or harmful physical agents under this subsection, shall set the standard which most adequately assures, to the extent feasible, on the basis of the best available evidence, that no employee will suffer material impairment of health or functional capacity even if such employee has regular exposure to the hazard dealt with by such standard for the period of his working life. . . . [I]n addition to the attainment of the highest degree of health and safety protection for the employee, other considerations shall be the latest available scientific data in the field, the feasibility of the standards, and experience gained under this and other health and safety laws.[50]

Most OSHA standards are uniform for all employers to which the Act is applicable, rather than varying for different industries. For this reason, an OSHA standard which establishes requirements for conduct or exposure levels sufficiently stringent to meet the criteria set forth above will frequently be considerably more stringent than such a standard would be if established only for the transportation industry, where exposures to hazardous materials are likely to be brief and widely intermittent.

Almost all employers are familiar to some extent with OSHA. Health and safety standards covering a wide range of workplace conditions and exposure levels have been in existence for several years; protective equipment, employee health monitoring, workplace environment monitoring, and warning signs and labels are currently required for at least eighteen substances, while employee exposure limits have been established for numerous other substances.[51] Spurred on by the current Administration's commitment to the control of toxic substances in the workplace and by increasing pressure from labor and environmental groups, OHSA has re-

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Office of Water Supply and Office of Solid Waste Management Programs, Waste Disposal Practices and their Effects on Ground Water, The Report to Congress (1977).

48. 29 U.S.C. §§ 651-678 (1976).

49. *Id.* § 655(b). The term "occupational safety and health standard" is defined as: "A standard which requires conditions, or the adoption or use of one or more practices, means, methods, operations or processes, reasonably necessary or appropriate to provide safe or healthful employment and places of employment."

50. *Id.* § 655(b)(5).

51. 29 C.F.R. § 1910.1000 (1977).

cently launched a series of rulemaking proceedings which will greatly increase OSHA's involvement in assuring employee protection from the dangers of hazardous and toxic materials. Such proceedings are underway for establishing occupational exposure levels for suspected carcinogens,[52] and for establishing standards relating to various hazardous or toxic chemicals in the areas of labeling, data availability to employees, and employee training. The first carcinogen occupational standards, for benzene[53] and inorganic arsenic,[54] have been promulgated. OSHA estimates the first-year costs for compliance with the benzene exposure standard will be in excess of $2 million for the transportation industry alone.[55]

A. *Applicability to the Transportation Industry*

In considering the impact of these OSHA regulatory developments upon the transportation industry, the threshhold question is whether OSHA health and safety standards can be applied to the transportation industry, which is already regulated by the Department of Transportation. Section 4(b)(1) of the Act provides: "Nothing in this [Act] shall apply to working conditions[56] of employees with respect to which other Federal agencies . . . exercise statutory authority to prescribe or enforce standards or regulations affecting occupational safety or health."[57] It is now well-settled that this provision of the Act does not provide an industry-wide exemption from the Act for the transportation industry.[58] "[I]t is clear that the exemption applies only when another Federal agency has actually exercised its statutory authority. It does not apply where such an agency has regulatory authority but has failed to exercise it."[59] Whether another regulatory agency's

52. *See* OSHA Proposed Policy on Carcinogens and Model Exposure Standard, 42 Fed. Reg. 54,148 (1977).

53. 43 Fed. Reg. 5918 (1978). Note that liquid mixtures containing 0.5% or less benzene have been exempted from the standard for three years, and liquid mixtures containing 5% or less benzene which are already packaged have been exempted from labeling requirements of the standard. 43 Fed. Reg 27,962 (1978).

The Court of Appeals for the Fifth Circuit issued an order staying enforcement of the benzene standard until the Court rules on its validity. American Petroleum Institute v. OSHA, Civ. No. 78-1257 (5th Cir. April 18, 1978).

54. 43 Fed. Reg. 19,584 (1978). A petition for review of the arsenic exposure standard was filed in the Court of Appeals for the Ninth Circuit on May 3, 1978. American Smelting & Refining Co. v. Bingham, Civ. No. 78-1959.

55. 43 Fed. Reg. 5918, 5938 (1978).

56. The term "working conditions" has been defined as something more limited than every aspect of an entire industry, encompassing both a worker's "surrounding" and the "hazards" involved in his work. Corning Glass Works v. Brennan, 417 U.S. 188, 202 (1974).

57. 29 U.S.C. § 653(b)(1) (1976).

58. Southern Ry. v. OSHRC, 539 F.2d 335 (4th Cir.), *cert. denied* 429 U.S. 999 (1976) (railroads); Lee Way Motor Freight, Inc., [1973-1974] OSHD (CCH) ¶ 17, 693, *aff'd* 511 F.2d 364 (10th Cir. 1975) (motor carriers).

59. Southern Ry. v. OSHRC, 539 F.2d 335, 336 (4th Cir. 1976).

actions will preempt OSHA regulations depends upon the intent of that agency.[60] The other agency need not exercise its regulatory authority in the same manner or in an equally stringent manner as OSHA;[61] however, it must articulate some formal position "that a given working condition should go unregulated or that certain regulations—and no others—should apply to a defined subject."[62]

A good example of this principle of exemption under § 4(b)(1) is provided in *Southern Pacific Transportation Co. v. Usery* with respect to the Federal Railroad Administration (FRA): "[c]omprehensive FRA treatment of the general problem of railroad fire protection will displace all OSHA regulations on fire protection, even if the FRA activity does not encompass every detail of the OSHA fire protection standards, but FRA regulation of portable fire extinguishers will not displace OSHA standards on fire alarm signaling systems."[63] In *Southern Railway v. OSHRC*,[64] for example, the fact that the Secretary of Transportation had exercised his authority to promulgate various safety regulations affecting the working conditions of railway employees did not exempt petitioner's maintenance facility from OSHA safety standards. The Court noted, "The safety regulations of the Department of Transportation are confined almost exclusively to those areas of the railway industry which affect over-the-road operations such as locomotives, rolling stock, signal installations, roadbeds and related facilities. While the regulatory program in these areas reflects a concern for the safety of the employees, it is directed primarily toward the general safety of transportation operations."[65]

The applicability to the transportation industry of conduct and exposure standards promulgated and being developed for hazardous and toxic materials has not yet been clearly determined. OSHA obviously intends for these regulations to be applicable to the transportation industry.[66] However, a different conclusion was reached by an OSHA Review Commission Judge in *Hermann Forwarding Co.*,[67] where an interstate trucking operation was determined to be exempt from OSHA regulations concerning the handling of hazardous materials because it was subject to DOT regulations governing the activity. In *Hermann*, the employer was cited for violation of OSHA regulations requiring availability of respirators during truck loading

60. Southern Pac. Transp. Co. v. Usery, 539 F.2d 386, 392 (5th Cir. 1976).
61. Secretary v. Mushroom Transp. Co., [1973] 5 OSHARC REPORTS (BNA) 64, 67.
62. 539 F.2d 386, 392 (5th Cir. 1976).
63. *Id.* at 391.
64. 539 F.2d 335 (4th Cir. 1976).
65. *Id.* at 338.
66. In the preamble to the benzene exposure standard, for example, the unqualified assertion is made that: "Companies engaged in the transportation of benzene and benzene contaminated products are covered by the benzene standard." 43 Fed. Reg. 5918, 5938 (1978).
67. [1974-1975] OSHD (CCH) ¶ 19,473.

and unloading for use in case of spills of hazardous materials. The OSHA Review Commission Judge based his determination on the fact that DOT's enabling statute was addressed to securing safety in transit, including loading and handling, and that a DOT publication used as a reference by the employer suggested use of respirators in case of spills.[68]

The applicability of OSHA health and safety standards for hazardous materials to the transportation industry will have to be determined through application of the criteria discussed in the *Southern Railway* and *Usery* cases discussed above. Current DOT regulations governing hazardous materials transportation are arguably addressed primarily to the general safety of transportation operations rather than to health hazards for individual employees. There are no DOT regulations requiring health monitoring or workplace environment monitoring for employees exposed to hazardous or toxic materials, no requirements for employee training programs for employees routinely exposed to chemicals, no specific requirements for the use of respirators or protective clothing for employees exposed to chemicals.[69] Labeling and marking requirements fall far short of proposed OSHA labels which would include a description of the hazard of exposure to the chemical, symptoms of exposure, appropriate emergency treatment, and precautions for safe use or exposure.[70] Because of the Carter Administration's emphasis on the dangers of toxic materials in the workplace, the increasing concern over worker exposure expressed by labor groups, and the considerably broader scope of OSHA hazardous materials regulations, it seems likely that most of the recent and pending OSHA regulations concerning use of and exposure to hazardous and toxic materials will be enforced against the transportation industry by OSHA and by the courts.

B. Carcinogen Exposure Standards: The Benzene Example

The recently promulgated OSHA standard for occupational exposure to benzene[71] is indicative of the extent and complexity of OSHA hazardous materials regulations, especially those for suspected carcinogens. This standard provides for the measurement of employee exposure, engineering controls, work practices, protective clothing and equipment, signs and labels, employee training, medical surveillance, and recordkeeping. The supplemental information published with the benzene standard itself occupies

68. Because this decision was handed down before the appellate courts considered the question of exemption for the transportation industry in several cases and because the actual evidence of an OSHA violation or any endangerment of worker health was slight, this decision seems to be a very weak precedent.

69. 49 C.F.R. Parts 174-177 (1976).

70. Draft Proposed Chemical Labeling Standard, [1978] Occupational Safety and Health Reporter Current Report (BNA) 1255.

71. 43 Fed. Reg. 5918 (1978).

forty-five pages of the *Federal Register.* The standard applies to the storage and discharge of gasoline and other petroleum products at bulk terminals; OSHA estimates that 23,471 drivers are potentially exposed to benzene at such terminals and that first-year compliance costs for bulk terminals will be approximately $17.9 million, recurring annual costs approximately $3 million, and capital investment approximately $51.5 million.[72] Within thirty days after the effective date of the benzene standard,[73] initial monitoring of airborne exposure levels is required by each employer who has a place of employment where benzene is produced, reacted, released, packaged, repackaged, stored, transported, handled or used. Employees must be notified of the results of this monitoring. Discovery of exposure levels over specified limits will require additional periodic monitoring, engineering and work practice controls where feasible, free medical surveillance, and use of personal protective equipment where necessary. All employers involved with the transportation or handling of benzene will be required to provide employee training programs, certain precautionary signs and labels, and extensive recordkeeping.[74] As OSHA develops exposure standards for more hazardous and toxic materials, and as awareness of employees and labor organizations of the dangers of workplace exposure to chemicals increases, many shippers and carriers will be required to expend much time and capital to comply with OSHA exposure standards.[75]

C. *Proposed Labeling Standard*

Section 6(b)(7) of the Occupational Safety and Health Act authorized the Secretary of Labor to issue standards which "prescribe the use of labels or other appropriate forms of warning as are necessary to ensure that employees are apprised of all hazards to which they are exposed, relevant symptoms and appropriate emergency treatment, and proper conditions and precautions of safe use or exposure."[76] A Standards Advisory Committee on Hazardous Materials Labeling was set up in § 7(b) of the Act[77] to develop guidelines for the implementation of § 6(b)(7). In September, 1976, the Committee on Government Operations of the House of Repre-

72. *Id.* at 5937.

73. March 18, 1978; however, *see* note 53 *supra.*

74. 43 Fed. Reg. 5918, 5964 (1978) (to be codified in 29 C.F.R. § 1910.1028(d)).

75. The Act recognizes that the promulgation of some of the standards will have to be completed before sufficient data is available to make a fully informed decision. AFL-CIO v. Hodgson, 499 F.2d 467, 474 (D.C. Cir. 1974). In addition, standards are not limited by existing technology; they may require refinements in existing technology or the development of new technology. Society of the Plastics Industry, Inc. v. OSHA, 509 F.2d 1301, 1309 (2d Cir.) *cert. denied* 421 U.S. 992 (1975). These "technology-forcing" aspects of OSHA standards could make compliance with some standards extremely costly.

76. 29 U.S.C. § 655(b)(7) (1976).

77. *Id.* § 656(b).

sentatives issued a report[78] which concluded that OSHA had failed to adequately implement § 6(b)(7) of the Act. As a result of pressure from Congress and petitions from various public interest groups, OSHA published an Advance Notice of Proposed Rulemaking which indicated OSHA's intent to develop a labeling standard,[79] and a draft of the proposed chemical labeling standards was circulated on December 30, 1977.[80]

This draft standard sets up a hazardous chemical information program which involves requirements for: (a) a list of chemical and common names of all chemicals used in the workplace which would be posted or available to employees; (b) labeling of all chemical containers in the workplace, including special labeling requirements for hazardous or toxic substances; (c) substance data sheets to be prepared and available for each hazardous or toxic substance in the workplace; and (d) programs for education and training of all employees who are routinely exposed to chemicals. The draft regulations would define "hazardous substance" as any chemical which is listed in the DOT Hazardous Materials Table,[81] or which meets the OSHA criteria for classification as a combustible substance, compressed gas, explosive, flammable substance, organic peroxide, oxidizer, or unstable (reactive) substance. "Toxic substance" is defined as a chemical which is listed in the National Institute for Occupational Safety and Health's Registry of Toxic Effects of Chemical Substances, or which is reported in the *Federal Register* or known to the employer as being mutagenic, teratogenic, injury or disease causing, or affecting mental alertness or behavior.

An economic analysis of the draft labeling standard was to be completed in April, 1978, and may result in some reductions in the scope of the final standard. Proposed regulations will probably not be published until mid-summer, 1978, and final regulations should not be expected prior to the fall of 1978 at best. These regulations, which could impose much greater recordkeeping, employee training, health and environment monitoring, and labeling requirements on carriers who handle hazardous or toxic chemicals, will undoubtedly require major compliance efforts by many carriers. In addition, increased availability of data on exposure to chemicals and increased awareness of the dangers thereof will undoubtedly multiply the claims for occupational injuries and disease by employees.

IV. Toxic Substances Control Act

The Toxic Substances Control Act[82] was enacted in 1976 after five years of Congressional hearings and consideration of bills. The purpose of

78. H.R. Rep. No. 1688, 94th Cong., 2d Sess. (1976).
79. 42 Fed. Reg. 5372 (1977).
80. [1978] Occupational Safety and Health Reporter Current Report (BNA) 1254.
81. 49 C.F.R. § 172.101 (1976).
82. 15 U.S.C. §§ 2601-2629 (1976).

the Act is to prevent unreasonable risk of injury to health or the environment associated with the manufacture, processing, distribution in commerce, use, or disposal of chemical substances.[83] Congressional concern was expressed over the growing number of new chemical substances introduced into commerce each year, the uncertainty over the long-term health and environmental effects of such chemicals, and the wide variety of often overlapping and uncoordinated regulatory authorities concerned with toxic substances. The word "toxic" here does not necessarily mean highly poisonous or dangerous, but rather refers to the serious effects which the substance may have on human health or on the environment over short- or long-term exposures. The control of toxic substances has been assigned a very high priority by the current Administration and by the EPA.[84]

The Act, which became effective January 1, 1977, sets up an Office of Toxic Substances within the EPA to implement the toxic substances control program.[85] In order to avoid development and widespread use of new chemical substances without adequate knowledge of their effects on health and the environment, EPA may require testing of a new chemical substance prior to its introduction into commerce. An inventory, to be published late in 1978, is to be developed of all chemical substances currently in use; after the inventory is published, a manufacturer must notify EPA 90 days prior to the introduction of any chemical substance not on the inventory list. EPA may also require testing of any existing substance if such substance may permit an unreasonable risk to health or the environment when distributed in commerce.[86]

There are two provisions of the Act which could have a significant impact on the transportation industry: EPA regulation of chemical substances and mixtures determined to be toxic and the requirement that EPA be notified of any information indicating that a chemical substance or mixture presents a substantial risk to health or the environment. Under section 6 of the Act,[87] if the Administrator finds that there is "a reasonable basis to conclude that the manufacture, processing, distribution in commerce, use or disposal of a chemical substance or mixture, or that any combination of such activities, presents or will present an unreasonable risk of injury to health or the environment," he must take steps necessary to prevent such a risk. Regulation of chemical substances and mixtures under this section

83. *Id.* at § 2601.

84. EPA Administrator Douglas Costle has predicted that, within the decade, the EPA program for toxic substances control "will drive all others in EPA. Increasingly, our efforts will be focused on preventing the introduction of harmful substances into our air, water, and soil, rather than cleaning them up after the damage has been done." [1977] ENVIR. REP. CURRENT DEVELOPMENTS (BNA) 857.

85. 15 U.S.C. § 2625(g) (1976).

86. *Id.* §§ 2603-2604.

87. *Id.* § 2605.

may be: a total prohibition on manufacturing, processing, distribution, or use of a chemical substance or mixture; limitations on the amount of the substance which may be manufactured or distributed or on the types of uses for which the substance may be provided; limitations on the manner or method of commercial use or disposal of such substance or mixture; a requirement for notification of such unreasonable risk of injury to distributors or users of such substance or mixture; and other labeling and recordkeeping requirements.[88] Such action has already been taken with respect to one chemical substance, polychlorinated biphenyls (PCB's),[89] as mandated by section 6(e) of the Act.[90]

The recently promulgated PCB regulations give some indication of what may be required of transporters of chemical substances which are regulated under section 6. After October 1, 1978, any motor vehicle or rail car loaded with PCB containers containing more than 45 kilograms of PCB's or PCB mixtures or loaded with one or more PCB-filled transformers must be marked in accordance with EPA regulations for precautionary labels.[91] Additionally, any tank car or other PCB container must be decontaminated in accordance with specific requirements.[92] As the implementation of the Act proceeds and numerous other substances are regulated, transporters of these substances will have to be aware of and comply with an increasing number of performance standards.[93]

In addition to regulations under section 6, the Administrator, if he determines that a chemical substance or mixture presents an imminent and unreasonable risk of serious or widespread injury to health or the environment, may commence a civil action for seizure of an imminently hazardous substance or any article containing such substance. The Administrator may also seek relief against any person who manufactures, processes, distrib-

88. Apparently "distribution in commerce" encompasses the transportation of a substance as well as its marketing. "Distribution in commerce" of a chemical substance or mixture is defined to mean "to sell or the sale of the substance, mixture, or article in commerce, to introduce or deliver for introduction into commerce, or the introduction or delivery for introduction into commerce . . . ; or to hold, or the holding of the substance, mixture or article after its introduction into commerce." "Commerce" includes trade, traffic, transportation, or other commerce. 15 U.S.C. § 2602 (1976). That EPA considers that transporters of chemical substances may be regulated under the Act can be seen in the recently promulgated PCB regulations, *infra* note 89.

89. 43 Fed. Reg. 7150, 7159 (1978) (to be codified in 40 C.F.R. § 761.20(a)(2)).

90. 15 U.S.C. § 2605(e) (1976).

91. 43 Fed. Reg. 7150, 7159 (1978) (to be codified in 40 C.F.R. § 761.20(a)(2)).

92. *Id.* at 7163 (to be codified in 40 C.F.R. § 761.43(a)).

93. Note, however, that § 6(c)(1) of the Act, 15 U.S.C. § 2605(c)(1) (1976) provides that, if the Administrator determines that the risk of injury could be prevented or reduced to a sufficient extent by actions taken under another federal law administered by EPA, action can be taken under § 6 only if the Administrator determines that it is in the public interest to protect against the risk under this Act. Thus actions to control hazardous materials, the problems of which are limited to waste management, will be taken under the Resource Conservation and Recovery Act rather than the Toxic Substances Control Act.

utes in commerce, or uses or disposes of such substance or article.[94]

Section 8(e) of the Act[95] requires that any person involved in the manufacture, processing, or distribution of a chemical substance who obtains information which "reasonably supports the conclusion" that a chemical substance or mixture presents a substantial risk of injury to health or the environment must immediately notify EPA of such information unless such person has actual knowledge that EPA has been adequately informed of such information. This would apply to a corporation which obtains such knowledge by virtue of the fact that its employees have such knowledge or that such information was obtained by an independent laboratory under contract to the corporation. Failure to report such information could subject the person to civil or criminal fines of up to $25,000 per day or imprisonment for not more than one year.[96] EPA has issued a "Statement of Interpretation and Enforcement Policy"[97] to provide guidance for compliance with the substantial risk notification requirements of the Act. This policy statement suggests that human health effects which would constitute substantial risk information include: (1) *any* instance of cancer, birth defects, mutagenicity, death or serious or prolonged incapacitation if one or a few chemicals are strongly implicated; or (2) any pattern of defects or evidence which reasonably supports the conclusion that the chemical substance can produce cancer, mutation, birth defects, or toxic effects resulting in death, or serious or prolonged incapacitation.[98] Companies wishing to avoid direct submission to EPA of substantial risk information by lower-level employees, may, through the establishment and internal publicizing of corporate procedures for employee submission of data to the corporation, relieve such employees of any responsibility for further reporting substantial risk information directly to EPA.[99] Labor organizations will soon become aware of this type of statutory provision, if they are not already. Consequently, transporters which carry a considerable amount of potentially hazardous materials should consider a program to deal with possible substantial risk data.

V. Spills of Hazardous Substances

Section 311 of the Federal Water Pollution Control Act[100] sets up a regulatory scheme for the prevention and cleanup of spills of oil and hazardous substances. This section provides for civil and criminal penalties for discharges, liability for cleanup costs, and federal authority to prescribe spill

94. *Id.* § 2606.
95. *Id.* § 2607(e).
96. *Id.* § 2615.
97. 43 Fed. Reg. 11,110 (1978).
98. *Id.* at 11,112.
99. *Id.* at 11,111.
100. 33 U.S.C. § 1321 (1976).

prevention measures for vessels and facilities handling, transporting, or storing oil or hazardous substances. Section 311(b)(2)(A) requires the EPA Administrator to promulgate regulations designating as "hazardous substances": materials which, when discharged in any quantity into the waters of the United States, would "present an imminent and substantial danger to the public health or welfare . . . "[101] Due to internal delays and unavailability of data, no hazardous substances had been designated by EPA until March 13, 1978, when 271 substances were designated as hazardous.[102] Although many of these 271 substances are complex organic compounds with limited use, a large number of common substances, such as ammonia, sulfuric acid, and sodium nitrite, which are frequently transported in large quantities, are included on the list.[103]

The prohibition of discharges of oil and hazardous substances is not limited to discharges from vessels, but also applies to the owner or operator of any on-shore facility, which is defined in the Act to include motor vehicles and rolling stock.[104] For each hazardous substance, EPA regulations set forth the amount which is considered to constitute a harmful quantity, and any discharge in excess of this quantity is a per se violation of the Act and subjects the owner or operator to imposition by the U.S. Coast Guard of a civil penalty of up to $5,000.[105] In addition, if the substance is one which EPA has determined cannot be removed after a discharge, EPA may assess a civil penalty of up to $500,000 in the case of an on-shore facility (including tank car or truck) or up to $5,000,000 in the case of a vessel.[106] Finally, with some exceptions for discharges for which the owner or operator was blameless, any owner or operator who discharges a hazardous substance is liable to the federal government for the actual cost of removal of the hazardous substance or other attempts to mitigate the effects of the discharge, up to a maximum of $50,000,000.[107]

Clearly a motor carrier could incur some very large liabilities if a leak or spill of one of the designated hazardous substances should enter a sewer or a nearby body of water. EPA is authorized to establish a maximum liability for cleanup costs for on-shore facilities of less than $50,000,000 but not less that $8,000,000, and the agency is currently working on regulations

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101. *Id.* § 1321(b)(2)(A).

102. 43 Fed. Reg. 10,474 (1978). On August 4, 1978, a U.S. District Court in Louisiana permanently enjoined EPA from enforcing its hazardous substances regulations. Manufacturing Chemists Ass'n v. Costle, Civ. No. 78-0578 (W.D. La.). That decision has been appealed by the EPA to the Fifth Circuit Court of Appeals (Civ. No. 78-2697).

103. An additional 28 substances have been proposed for addition to the list of hazardous substances. 43 Fed. Reg. 10,506 (1978).

104. Section 311(a)(10), 33 U.S.C. § 1321(a)(10) (1976).

105. Section 311(b)(2)(B)(iii), 33 U.S.C. § 1321(b)(2)(B)(iii) (1976).

106. *Id.*

107. Sections 311(f)-(g), 33 U.S.C.A. §§ 1321 (f)-(g) (West Supp. 1970-77).

for that purpose.[108] Aside from cleanup costs, EPA has followed a policy that any spill, regardless of fault, should result in imposition of a civil penalty; consequently considerable monetary liability could be incurred by the discharge of a hazardous substance even if no cleanup was necessary. EPA and the U.S. Coast Guard have also pursued a strict enforcement policy for failure to comply with Coast Guard regulations requiring prompt reporting of any spill of oil or other hazardous materials.[109] Knowing failure to report is a criminal violation of the Act which could be punished by a fine of up to $10,000 or imprisonment of up to one year, or both.[110] Thus, carriers will find that they have been suddenly subjected to large potential liability for spills of a great number of substances. Increased precautions in transportation of these substances as well as adequate employee training with respect to spill prevention and notification will be necessary.

VI. Probable Impacts of New Hazardous Materials Regulations

A. *Increased Potential Liability*

As a result of the hazardous materials regulations being developed by EPA and OSHA, transporters of hazardous materials will be subjected to some new potential liability for violation of statutory requirements as well as for injury to employees or to the public. The added liability for civil and criminal penalties for violation of the new regulations should be of some concern, but should also be reasonably easy to protect against through an effective compliance program.[111] The uncertain factor in analyzing the impact of these new regulations on the transportation industry is the extent to which carriers of hazardous materials will be subjected to new liability for injuries caused to their employees, the environment, or the public arising out of the transportation of hazardous materials. This question is of particular concern in light of the tremendous property damage and loss of life

108. Section 311(q), 33 U.S.C.A. § 1321(q) (West Supp. 1970-77).

109. *See, e.g.*, United States v. LeBeouf Bros. Towing Co., 377 F. Supp. 558, 564 (E.D. La. 1974), *rev'd* 537 F.2d 149 (5th Cir. 1976); *cert. denied* 430 U.S. 987 (1977).

110. Section 311(b)(5), 33 U.S.C. § 1321(b)(5) (1976). Note that a knowing violation of the Act does not require actual knowledge of the owner or operator of the facility, but such knowledge can be imputed from an employee. Apex Oil Co. v. United States, 530 F.2d 1291 (8th Cir. 1976).

111. Of course it should be anticipated that, because these regulations are addressed at protecting the public and the environment from a perceived threat from hazardous materials, violations of these regulations will be taken more seriously and result in higher penalties than violations of similar statutes not addressed to such hazard. It should also be noted that, because these statutes are for the protection of a public interest, courts will be more willing to impose corporate liability for acts of employees through the doctrine of *respondeat superior* "thus stimulating a maximum effort by owners and managers to assure adherence by such agents to the requirements of the Act." United States v. Hilton Hotels Corp., 467 F.2d 1000, 1005 (9th Cir. 1973); *see also*, Apex Oil Co. v. United States, 530 F.2d 1291 (8th Cir. 1976) (corporate liability for failure of employee to report oil spill to Coast Guard or EPA).

which has occurred in 1978 as a result of incidents involving railroad transportation of hazardous materials.

There is, of course, a doctrine of strict liability in many jurisdictions which may be applied to the transportation of hazardous materials. Under this doctrine, an "ultrahazardous" or "abnormally dangerous" activity may result in the imposition of liability without intentional malfeasance or negligence.[112] The potential for imposition of strict liability on transporters of hazardous materials has been present in most jurisdictions for some time and will not be affected by current regulatory activities except that, as a result of further definition of the dangers of hazardous materials, more activities of transporters may, in the future, fall within the classification of ultrahazardous or abnormally dangerous activities.

The new regulations may, however, serve as a standard of conduct or define negligence itself with respect to either employees or members of the public. The employer's duty to employees may arise either out of the general common law duty to maintain a safe workplace or out of some statutory duty for the protection of employees, such as the Federal Employers' Liability Act[113] or workmen's compensation statutes. In most jurisdictions, the recently enacted statutes could be applied in negligence suits against transporters of hazardous materials through the doctrine of negligence per se. If the plaintiff is within the class of persons which the statute was designed to protect and the injury which occurred was the type of injury against which the statute was designed to protect, an unexcused violation of that statute would be conclusive on the issue of negligence[114] although some of the courts which follow this rule as to statutes would hold that breach of the regulations of administrative bodies is only evidence of negligence for the jury.[115] For example, the courts have repeatedly rejected the argument that the Occupational Safety and Health Act impliedly creates a private cause of action in employees under federal law for violation of OSHA standards, but it has been held that a violation of an OSHA regulation can be negligence per se with respect to an injured employee.[116] Although violation of an OSHA standard could constitute negligence per se only with respect to an

112. *See, e.g.*, RESTATEMENT (SECOND) OF TORTS § 520; Morris, *Hazardous Enterprises and Risk Bearing Capacity*, 61 YALE L.J. 1172 (1952).

113. 45 U.S.C. §§ 51-60 (1970). For railroad's liability under the Federal Employers' Liability Act for industrial or occupational disease or poisoning contracted by its employees, *see* Annot., 30 A.L.R. 3d 735 (1970).

114. *See* RESTATEMENT (SECOND) OF TORTS § 288B (1965); Marshall v. Isthmian Lines, Inc., 334 F.2d 131 (5th Cir. 1964).

115. *Compare* Claypool v. Mohawk Motors, 155 Ohio St. 8, 97 N.E.2d 32 (1951) *with* Kane v. Branch Motor Express Co., 290 F.2d 503 (2d Cir. 1961).

116. Arthur v. Flota Mercante Gran Centro Americana S.A., 487 F.2d 561 (5th Cir. 1973), *reh. denied*, 488 F.2d 552. For other cases discussing the effect of violation of OSHA standards on tort liability, *see* Annot., 79 A.L.R.3d 962 (1977).

employee, EPA regulations are arguably designed to protect any member of the public, and an OSHA standard could be admissible as evidence of negligence even against a non-employee.

In addition, an OSHA or EPA regulation may be admissible as evidence of the standard of care, even if such regulation is not strictly applicable to the transporter's operation.[117] This could be true, for example, of OSHA regulations from which a transporter is exempted by virtue of § 4(b)(1) of the Occupational Safety and Health Act.[118] Intentional violation of regulations by the injured party or other negligent action on his part may constitute contributory negligence but in some cases such a defense may not be available. Some statutes, such as the Boiler Inspection Act[119] and factory acts for the protection of workmen[120] have been construed to be intended to protect persons against their own negligence and therefore to place the entire responsibility for protection of that class of persons upon the railroad or factory owner.

If a carrier complies with all OSHA, EPA, and DOT regulations, is this conclusive evidence that he was not negligent with respect to the persons whom those regulations are intended to protect? If the regulatory standard is so comprehensive and so circumscribed that the carrier is precluded from taking any actions or precautions other than those required under the regulations, compliance with the regulation will almost certainly insulate him from any liability for negligence. In any other case, however, courts have generally taken the position that compliance with the regulation only indicates some degree of care, but not necessarily the level of care owed to the injured party.[121] In *Hubbard-Hall Chemical Co. v. Silverman*,[122] the defendant insecticide manufacturer had complied with U.S. Department of Agriculture labeling requirements under the Federal Insecticide, Fungicide, and Rodenticide Act.[123] In a wrongful death suit for the poisoning deaths of two illiterate farm workers, it was held that the warning provided by Hubbard-Hall was insufficient to provide "adequate instructions or warnings of [the insecticide's] dangerous condition" despite the fact that the label had

117. For the similar issue of the admissibility of voluntary safety codes or standards on the issue of negligence, *see* Annot., 58 A.L.R. 3d 148 (1974).

118. *See* text accompanying notes 56-70 *supra*.

119. Gowins v. Pennsylvania Ry., 299 F.2d 431 (6th Cir.), *cert. denied*, 371 U.S. 824 (1962).

120. Osborne v. Salvation Army, 107 F.2d 929 (2d Cir. 1939).

121. *Cf.* RESTATEMENT (SECOND) OF TORTS § 288C (1965); Stevens v. Parke, Davis & Co., 9 Cal.3d 51, 507 P.2d 653, 107 Cal. Rptr. 45 (1973) (compliance with Food and Drug Administration regulations); Louisville & N.R. v. Botts, 173 F.2d 164 (8th Cir. 1949) (compliance with Boiler Inspection Act); Delevie v. Reading Co., 176 F.2d 496 (3d Cir. 1949) (compliance with ICC regulations and passing ICC safety inspection).

122. 340 F.2d 402 (1st Cir. 1965).

123. 7 U.S.C. §§ 135-135k (1976).

been fully approved by the Department of Agriculture.[124] Thus complete compliance with the regulatory programs discussed in this article will not ensure the carrier from liability to injuries sustained to employees, the environment, or the public as a result of its transportation of hazardous materials.

B. *Inconsistency*

It is difficult to predict whether the hazardous waste and toxic substances regulations will have the effect of increasing or decreasing the variation which currently occurs from state to state in the regulation of hazardous materials transportation. In the toxic chemical substance area, several states have already passed legislation dealing with the dangers of toxic chemical substances.[125] Additional states may now follow the federal lead and pass their own toxic substances legislation; however, section 18 of the Toxic Substances Control Act[126] provides for the preemption by EPA regulations of any state law or regulation which is not at least as stringent as the EPA requirement or which, "through difficulties in marketing, distribution, or other factors, unduly burden[s] interstate commerce."[127] Due to the expected complexity of toxic substances control, it seems unlikely that individual states will wish to create or expand their own toxic substances control programs.

Authorized state hazardous waste programs under the Resource Conservation and Recovery Act[128] must be "equivalent" to the federal minimum standards for hazardous waste management,[129] but this does not mean that individual states could not develop different or more stringent requirements for transporters of hazardous waste than established by EPA standards or by other state hazardous waste programs. Unlike the Hazardous Materials Transportation Act, the Resource Conservation and Recovery Act does not have any provision for requesting a determination of whether a state requirement is inconsistent with and therefore preempted by the Act.[130] There is consequently some potential for troublesome variations in

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124. 340 F.2d at 405.

125. *See, e.g.*, Mich. Comp. Laws Ann. §§ 286.451-.463 (Supp. 1977); §§ 299.351-.360; Va. Code §§ 32-428 to 32-438 (Supp. 1977); Iowa House File 490 (1977) (to be codified in Iowa Code, ch. 455 B, div. IV).

126. 15 U.S.C. § 2617 (1976).

127. 15 U.S.C. § 2617(b)(2) (1976).

128. *See* text accompanying notes 27-28 *supra*.

129. 42 U.S.C. § 6926(b) (1976).

130. For HMTA preemption provision, *see* 49 U.S.C. § 1811(b) (1976); for DOT regulations for obtaining an inconsistency determination, *see* 49 C.F.R. §§ 107.201-.225 (1976). Note, however, that, to the extent that EPA regulations incorporate DOT regulations under the HMTA, inconsistent state and local requirements are preempted by HMTA requirements. *See* 43 Fed. Reg. 22,626-28 (1978).

hazardous waste transportation regulations from state to state under the Act. The threat of inconsistency among states is somewhat less under the Occupational Safety and Health Act, since any state standards developed and enforced under an approved state program relating to a health and safety issue which has been addressed by an OSHA standard must be "required by compelling local conditions" and must not "unduly burden interstate commerce."[131]

VII. Conclusions

The developments discussed above in the areas of hazardous wastes, toxic substances, and employee exposure will affect the transportation industry in several areas. Some firms will find the new regulations cause an increase in their business while others will find that they are unable to profitably handle hazardous materials, but most carriers will experience compliance costs and exposure to significant liability as a result of the regulations now being developed. Compliance costs will vary with the type of operation and amount of hazardous materials handled, but it seems likely that OSHA standards could require the greatest compliance effort. The Resource Conservation and Recovery Act[132] has the potential for increasing the need for transportation of solid waste and especially hazardous waste. As the transportation of hazardous and toxic materials becomes more highly regulated and requires greater precautionary efforts, many firms will be unable or unwilling to make the necessary compliance efforts, and those firms which are committed to compliance with such hazardous materials regulations will undoubtedly find increased need for their services.

It will take several years for the OSHA and EPA regulatory programs discussed above to begin to have their full impact upon the transportation industry. It is important at this time to become aware of these developments and to ensure, so far as possible, through participation in the rulemaking process, that these regulations do not present an unreasonable burden to carriers of hazardous materials.

131. 29 U.S.C. § 667(c)(2) (1976).
132. 32 U.S.C. §§ 6901-6987 (1976).