

# CRS Report for Congress

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## Hazardous Materials Transportation Safety—Federal Program and Legislative Issues

Paul F. Rothberg  
Specialist in Science and Technology  
Hussein D. Hassan  
Technical Information Specialist  
Resources, Science, and Industry Division

### Summary

The 106<sup>th</sup> Congress considered several bills that would have reauthorized the Hazardous Materials Transportation Act (HMTA), as amended, (including P.L. 93-633 and P.L. 101-500). That body of law specifies the broad purposes and operating authorities for the U.S. Department of Transportation's (DOT's) hazardous materials (hazmat) safety program. Although hearings were held during the 106<sup>th</sup> Congress, none of the committees of jurisdiction reported out a reauthorization bill. Among the key issues under consideration were: the level of funding to support DOT's hazmat emergency preparedness grant program, the use of registration fees to pay for portions of DOT's hazmat program, development of cost-effective strategies to improve hazmat safety, proposed exemptions for various industries from the safety regulations, and the appropriate role of DOT in the regulation of hazmat transportation. This report will be updated as necessary.

**Hazmat Transportation Safety and Federal Activities.** Hazmats, such as flammable liquids and corrosives, are pervasive in commerce and are transported to meet numerous consumer demands and industrial needs.<sup>1</sup> DOT estimates that more than 3 billion tons of regulated hazmats are transported each year and that over 800,000 shipments of these materials occur daily. During the last 10 years, the transportation industry reported to DOT that, on average, about 22 deaths and 493 injuries each year occurred because of some 13,113 releases of hazmat in transportation.<sup>2</sup> Most of these

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<sup>1</sup>For example, various chlorinated materials are transported to ensure safe drinking water, and certain radioactive materials are delivered to medical centers for use in some medical diagnostics. Likewise, heating oil is transported to warm homes, and gasoline and diesel fuel are shipped to power trucks and cars.

<sup>2</sup>In 1996 in the aviation mode, 110 people died in a crash that allegedly involved the release of  
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releases and associated deaths and injuries typically occur in the highway mode. More than 99.99% of all shipments of hazmat are transported without any reported release.<sup>3</sup>

Safety in hazmat transportation depends extensively on industry practices which are guided, in part, by government-issued requirements monitored by federal and state inspectors. Many hazmat container manufacturers, shippers, and carriers implement measures to promote transportation safety that exceed federal requirements. Despite these efforts, roughly 400 serious hazmat transportation incidents per year are reported to DOT.<sup>4</sup> Many consider the industry to have a comparatively good safety record, but others point out that additional steps should be taken to improve safety, especially since the number of hazmat incidents reported to DOT has increased from 8,879 in 1990 to 16,881 in 1999.<sup>5</sup>

Hazmats are highly regulated commodities because of the potential risks they pose during transportation. DOT's hazmat safety program is intended to provide adequate protection against the risks to life and property that may result from a release of hazmat in transportation. The key federal office regulating the transportation of hazmat is the Office of Hazardous Materials Safety (OHMS) within the Research and Special Programs Administration of the DOT.<sup>6</sup> DOT's regulations pertain to numerous areas, including the packaging and placarding of hazmat in transportation.<sup>7</sup> In order to promote innovation in packaging, OHMS may issue exemptions to its regulations. To support regulatory improvements, OHMS conducts a small (about \$1 million per year) research and development program, and maintains an incident reporting system to track releases of hazmat and their consequences. This office also provides educational materials and training to industry and federal and state compliance officers. OHMS periodically updates a national curriculum to help emergency responders choose training courses that provide a standardized background.<sup>8</sup> The FY2000 appropriation for the OHMS was \$17.710 million. For FY2001 the appropriation is \$18.75 million.

Each DOT modal administration focuses its enforcement of the hazmat regulations in its respective area: U.S. Coast Guard on the waterways and port areas, the Federal

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<sup>2</sup>(...continued)

hazmat. Because of this crash, 1996 data are not representative of the number of annual hazmat-related deaths (on average 11) that have historically been reported to DOT.

<sup>3</sup>DOT's hazardous materials information system, [<http://hazmat.dot.gov/hmisframe.htm>].

<sup>4</sup>OHMS defines a serious incident as one causing a fatality or major injury, closing a transportation facility, the evacuation of 6 or more people, or an accident or derailment resulting in a hazmat spill.

<sup>5</sup>The increased number of reports is thought to be primarily due to increased education and enforcement activities by DOT.

<sup>6</sup>That office issues the Hazardous Materials Regulations (HMR), which govern most aspects of hazmat transportation. The HMR are generally found in Title 49 of the *Code of Federal Regulations*, parts 171-180.

<sup>7</sup>Placards are signs that provide limited hazard information that are placed on the sides, front, and back of trucks and railcars.

<sup>8</sup>For additional information on the OHMS regulations, activities, and incident reports see: [<http://hazmat.dot.gov>].

Railroad Administration in the railroad environment, the Federal Motor Carrier Safety Administration (FMCSA) on the highways, and the Federal Aviation Administration in the air mode.

As authorized by Congress, DOT has extended the HMR to cover most intrastate shipments of hazmat. States and local governments also issue their own regulations that pertain to hazmat. DOT reports that 48 of the 50 states have issued hazmat regulations that are substantially the same as the federal regulations.<sup>9</sup> DOT has the authority to preempt state or local regulations that conflict with the federal HMR.<sup>10</sup>

**Legislative Issues and Options.** The Hazardous Materials Transportation Act (HMTA), as amended, sets forth the broad purposes and operating authorities for DOT's hazmat transportation safety program. That body of law has not been reauthorized since 1994. The reauthorization process provides an opportunity to review current federal programs affecting hazmat safety and to evaluate various options intended to improve those federal activities. Although hearings were held during the 106<sup>th</sup> Congress, no committee reported out a reauthorization bill. Presented below is an analysis of some of the key issues addressed as part of the reauthorization process.

**Hazmat Emergency Preparedness Grants Program.** Since the early 1990s, OHMS has provided a grant annually to each state to help pay for hazmat emergency response training, to develop and implement emergency plans, and to determine flow patterns of hazmat shipments. Local governments and Indian tribes receive about 75% of these funds. About 60% of the grant funds are used for training purposes. To date, the training of more than 690,000 emergency responders (police, firefighters, and ambulance service) has been partly supported by funds from the grant program.<sup>11</sup> Since the start of the program, OHMS has allocated on average \$6.4 million annually to assist state and local governments, but it obligated roughly \$12.8 million in grants during FY2000. The amount of grant funds distributed annually by DOT depends, in part, upon the amount of funds collected through a fee that is assessed on companies required to register with the OHMS and any limitation contained in the annual DOT appropriations act. The federal grant allocated for hazmat emergency response constitutes a small portion of the total expenditures by state and local governments in this area. The conference agreement on DOT's FY2001 appropriation specifies a limitation on obligations of \$14,300,000 for the emergency preparedness grant program.

There is widespread support in the emergency response community and industry for reauthorization of DOT's hazmat emergency preparedness grant program.<sup>12</sup> DOT issued

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<sup>9</sup>Testimony of Kelley S. Coyner in: U.S. Congress. House. Committee on Transportation and Infrastructure. Subcommittee on Economic Development, Public Buildings, Hazardous Materials, and Pipeline Safety. *Reauthorization of the Hazardous Materials Transportation Program*. 106<sup>th</sup> Congress, 1<sup>st</sup> session. February 10, 1999, p. 70.

<sup>10</sup>See 49 U.S.C. 5125.

<sup>11</sup>U.S. DOT. *Report to Congress on the Hazardous Materials Emergency Preparedness Grant Program*. 1998. p. 3.

<sup>12</sup>Given the high turnover rate of the primarily volunteer force of hazmat responders and the  
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a final rule on February 2, 2000, which set the registration fee (including a processing fee) that can be assessed at \$300 per registrant if the entity is designated a small business under the Small Business Administration guidelines and \$2,000 for all other registrants. The rulemaking also states that those required to register now include all transporters that require placarding (with the exception of farmers transporting hazmat in conjunction with their agricultural operations). Thus, in order to double the size of the grant program, DOT originally projected that it would expand the number of registrants from roughly 27,000 per year to an estimated 42,000 to 45,000, with about 1500 companies expected to pay the \$2000 per year fee.<sup>13</sup> More than 5920 companies have already paid the larger amount and thus this year's collections exceed the limitation on obligations. In December 2000, OHMS proposed to reduce the fees assessed for the next six registration years to \$275 per year for small businesses and \$500 per year for other entities, including a processing fee.

Some in the transportation industry maintain that it is difficult to levy an equitable fee, especially considering the diverse-sized companies in the hazmat industry, widely varying volumes of materials transported by different companies, as well as the wide range of risks associated with those shipments. Some companies also do not favor DOT's decision to exempt farmers from the registration requirement. Many in industry maintain that DOT could collect additional funds without raising fees if it more strictly enforced payment of the existing fee. For example, the Association of Waste Hazardous Materials Transporters states that DOT has narrowly implemented its registration authority, and has not tapped all segments of the hazmat industry that could legally be required to pay for the grant program.<sup>14</sup> On the other hand, DOT claims that it is already collecting fees from almost all of the companies that are required to pay.

***Increased Registration Fee Proposed to Support OHMS Program.*** In H.R. 968, (106<sup>th</sup> Congress), the Clinton Administration proposed to use a portion of the registration fee to pay for the operating costs of the OHMS program in addition to paying for the grant program. Historically, the OHMS operating program has been paid for using general appropriations. The Administration stated that the increased user fee would ensure that the industry that benefits from the OHMS program would pay for it instead of taxpayers.<sup>15</sup> There is substantial opposition in Congress and industry to allowing the use of registration fees to pay for OHMS operations. For example, the House Appropriations Committee stated that it did not want to have the OHMS program funded by the hazmat industry.<sup>16</sup> In the FY2001 DOT Appropriations Act (P. L. 106-346), Congress funded the costs of OHMS operations (not including the hazmat grants) from general appropriations and did not depend upon an increased fee to pay for OHMS costs.

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<sup>12</sup>(...continued)

dangers inherent in responding to spills, it is widely recognized that there is a continual need for planning and training.

<sup>13</sup>DOT. RSPA. *Hazardous Materials Transportation: Registration and Fee Assessment Program*. Federal Register. February 14, 2000. p. 7297-7310. As part of its proposal (H.R. 968) to reauthorize the HMTA, DOT wants Congress to continue the grant program through FY2005.

<sup>14</sup>Association of Waste Hazardous Materials Transporters letter, March 20, 1997.

<sup>15</sup>Testimony of Kelley S. Coyner. p. 73.

<sup>16</sup>U.S. Congress. House. *Department of Transportation and Related Agencies Appropriations Bill, 2000*. Report. H.Rept. 106-180. 106<sup>th</sup> Congress, 1<sup>st</sup> sess. June 1999. p. 183.

***Local and Regional Response Teams.*** Many jurisdictions use regional response teams to deal with spills of hazmat, but many others do not. To improve emergency response to hazmat spills, a pilot program to assess the benefits of implementing local or regional response teams has been proposed. Congressman Weiss introduced H.R. 2830 (105<sup>th</sup> Congress) to establish four local or regional response teams in rural and isolated areas with transportation corridors that carry a high volume of hazmat. This proposal, which also was discussed during the 106<sup>th</sup> Congress, would have allowed four grantees participating in the proposed pilot program to receive \$500,000 per year for four years. Under the bill, each grantee would assist local communities in responding to hazmat emergencies. The FRA Administrator, who would oversee the program, would have been required to report on the results of the projects. The \$2.0 million proposed for the pilot program would have been a substantial addition to the DOT's hazmat safety budget.

***Annual Audit of Motor Carriers Transporting Hazmat.*** H.R. 646 (106<sup>th</sup> Congress) introduced by Representative Bill Pascrell, Jr., would have required motor carriers to obtain safety permits for the transportation of hazmat. Those permits would have been subjected to annual renewal by the Secretary of Transportation. Currently, FMCSA does not require a motor carrier to have a safety permit in order to transport hazmat, and it does not review the safety fitness of each motor carrier transporting hazmat each year. Although H.R. 646 would have increased FMCSA's surveillance over hazmat carriers, the bill would likely have required that agency to rearrange its priorities and focus much more on hazmat carriers than it currently does.<sup>17</sup> In contrast, the Clinton Administration's bill would have required the FMCSA to conduct a study of alternative approaches to increase the safety of high risk hazmat carriers. The Administration maintained that the proposed study would be in lieu of the statutory requirement in the 1990 amendment to HMTA that calls for a federal safety permit (which has not yet been required) for motor carriers of high-risk hazmat.<sup>18</sup>

***Exemptions from the Regulations.*** When considering proposed amendments to the HMTA, Congress has often debated whether to exempt one industry or another from various provisions of the HMR.<sup>19</sup> Consideration of proposed exemptions often involves an evaluation of the interests of a specific industry weighed against broader concerns over public safety and an analysis of whether effective compliance with the safety regulations can be achieved if exemptions were granted. DOT maintains that strong and uniform national standards are essential to promote the safe transportation of hazmat.<sup>20</sup> For

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<sup>17</sup>DOT currently focuses on "problem" motor carriers, e.g., those that have been identified as having substantial compliance problems during inspections or audits or those which have been involved in a disproportionate number of crashes. In recent years, DOT has conducted less than 8000 audits per year on all types of motor carriers. There are over 43,800 hazmat motor carriers that have registered with the DOT.

<sup>18</sup>Letter from the Secretary of Transportation to the Honorable Al Gore transmitting the administration's reauthorization bill. February 16, 1999. p. 12 of the section by section analysis.

<sup>19</sup>For example, in the 105<sup>th</sup> Congress, Senator Burns and 10 cosponsor introduced S. 1056 to provide for farm-related exemptions from certain HMR for a specified period of time.

<sup>20</sup>DOT states that it strives for uniformity in the HMR to maximize safety and facilitate trade, but it does allow some flexibility when necessary. U.S. DOT. *RSPA FY 1997 Budget Submission*.

example, DOT has been reluctant to allow exemptions from regulations that convey information about the hazards of a material. DOT asserts that enforcement personnel, industry, and emergency responders dealing with releases of hazmat must be cognizant of this information in order to follow consistent safety practices to protect their lives and the public.<sup>21</sup> Likewise, firefighters maintain that the HMR are among the most important hazard identification standards that assist them in conducting their jobs. But, some industry groups and some state enforcement officers suggest that the risks associated with some proposed exemptions are minimal and should be allowed in view of the costs of compliance and the need to allow flexibility to states or industries.

***Appropriate Role of the DOT in Hazmat Transportation.*** Hazmat transportation safety is affected by regulations issued by other federal agencies.<sup>22</sup> Various groups have asked Congress to clarify the appropriate regulatory role of DOT in hazmat transportation vis-a-vis the role of other federal agencies and state and local governments. Many in the hazmat industry seek statutory language that would make it unambiguous that DOT is the federal entity with preeminent (or final) authority to issue hazmat safety regulations. They maintain that such a provision is necessary in light of increased activity by other federal agencies that could interfere with DOT's authority to regulate hazmat transportation.<sup>23</sup> On the other hand, many unions oppose such language because they welcome increased governmental involvement, especially from OSHA, in hazmat regulations that might lead to increased worker protection. DOT maintains that statutory language is not needed, noting that it is conducting a rulemaking that would define when the HMR apply to various transportation activities, such as loading, unloading, and storage.<sup>24</sup> Congress has also considered whether DOT's HMR should be extended to apply to mail shipments. Currently, packages delivered by the U.S. Postal Service are not covered by the HMR. S. 1359 (106<sup>th</sup> Congress) introduced by Senator Hollings, would have extended this coverage to include transportation of hazmat by the U.S. Postal Service.

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<sup>20</sup>(...continued)  
p. 16.

<sup>21</sup>Testimony of Kelley S. Coyner. p.70.

<sup>22</sup>Such as the Environmental Protection Agency, which issues regulations that affect the transportation of hazardous wastes and hazardous substances; the Department of Labor, which issues regulations pertaining to the training of workers who respond to chemical spills; and the Nuclear Regulatory Commission, which issues regulations that affect the transportation of high-level activity nuclear materials. This report deals only with the transportation of hazardous materials. Hazmat are legally distinct from both hazardous wastes, which are defined by the Resource Conservation and Recovery Act, and hazardous substances, which are defined by the Comprehensive Environmental Response, Compensation, and Liability Act.

<sup>23</sup>For example, see testimony of Randy Speight in: U.S. Congress. House. Committee on Transportation and Infrastructure. Subcommittee on Economic Development, Public Buildings, Hazardous Materials, and Pipeline Safety. *Reauthorization of the Hazardous Materials Transportation Program*. p. 379.

<sup>24</sup>U.S. DOT. Press Release. April 28, 1999.