DOT-VNTSC-RSPA-94-1

PB94-206398

U.S. Department
of Transportation
Research and
Special Programs
Administration

A Comparison of Transportation Hazardous Material Release Incident Reports Submitted to DOT/RSPA's HMIS with Incident Reports Submitted to the States of New Jersey, New York and California

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Final Report
August 1994

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Prepared for the
Office of Hazardous Materials Safety
Research and Special Programs Administration
U.S. Department of Transportation
Washington, D.C. 20590

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1 PB94-206398

2. REPORT DATE
August 1994

3. REPORT TYPE AND DATES COVERED
Final Report
Jan. 1992 - Dec. 1992

4. TITLE AND SUBTITLE
A Comparison of Transportation Hazardous Material Release Incident Reports Submitted to DOT/RSPA's HMIS with Incident Reports Submitted to the States of New Jersey, New York and California

5. FUNDING NUMBERS
RS430/P4001

6. AUTHOR(S)
Ping Hu and Leo Casey

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
U.S. Department of Transportation
Research and Special Programs Administration
Volpe National Transportation Systems Center
Cambridge, MA 02142-1093

8. PERFORMING ORGANIZATION REPORT NUMBER
DOT-VNTSC-RSPA-94-1

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)
U.S. Department of Transportation
Research and Special Programs Administration
Office of Hazardous Materials Safety
400 7th Street, S.W.
Washington, DC 20590

10. SPONSORING/MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION/AVAILABILITY STATEMENT
This document is available to the public through the National Technical Information Service, Springfield, VA 22161

12b. DISTRIBUTION CODE

13. ABSTRACT (Maximum 200 words)

The U.S. Department of Transportation's (DOT) Research and Special Programs Administration (RSPA) receives written reports of releases of hazardous materials that occur during transportation as required in 49 CFR Section 171.16. These regulations require carriers to report within 30 days any incident that results in the unintentional release of a hazardous material or waste during commercial transport. These written reports are transcribed by RSPA into the Hazardous Materials Information System (HMIS).

This study compares two recent years (1988 and 1989) of HMIS release reports with similar information from three representative states, New Jersey, New York and California. The study addresses the issue of the apparent receipt by state agencies of more reports of hazardous materials releases during transportation than are received by RSPA for the same time period and state.

14. SUBJECT TERMS
Hazardous Materials Information System (HMIS), New Jersey Hazardous Spill Notification System, New York State Spill Information System, California Hazardous Material Incident Reporting System (CHMIRS)

15. NUMBER OF PAGES
48

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	

PREFACE

This report was prepared by the U.S. Department of Transportation's (DOT) Research and Special Programs Administration (RSPA), Volpe National Transportation Systems Center. The effort was supported by RSPA's Office of Hazardous Material Planning and Analysis (DHM-60) under the Associate Administrator for Hazardous Material Safety. This study compared Federal to state reports of transportation-related release incidents of hazardous materials. The reports received by DOT's Hazardous Materials Information System (HMIS) were matched with reports received by the states of New Jersey, New York and California.

The technical advice of David Donaldson, Joseph Nalevanko, Sadie Willoughby and Richard Hannon of RSPA is gratefully acknowledged.

METRIC/ENGLISH CONVERSION FACTORS

ENGLISH TO METRIC

LENGTH (APPROXIMATE)

1 inch (in) = 2.5 centimeters (cm)
1 foot (ft) = 30 centimeters (cm)
1 yard (yd) = 0.9 meter (m)
1 mile (mi) = 1.6 kilometers (km)

AREA (APPROXIMATE)

1 square inch (sq in, in^2) = 6.5 square centimeters (cm^2)
1 square foot (sq ft, ft^2) = 0.09 square meter (m_2)
1 square yard (sq yd, yd^2) = 0.8 square meter (m^2)
1 square mile (sq mi, mi^2) = 2.6 square kilometers (km^2)
1 acre = 0.4 hectares (he) = 4,000 square meters (m^2)

MASS - WEIGHT (APPROXIMATE)

1 ounce (oz) = 28 grams (gr)
1 pound (lb) = .45 kilogram (kg)
1 short ton = 2,000 pounds (lb) = 0.9 tonne (t)

VOLUME (APPROXIMATE)

1 teaspoon (tsp) = 5 milliliters (ml)
1 tablespoon (tbsp) = 15 milliliters (ml)
1 fluid ounce (fl oz) = 30 milliliters (ml)
1 cup (c) = 0.24 liter (1)
1 pint (pt) = 0.47 liter (1)
1 quart (qt) = 0.96 liter (1)
1 gallon (gal) = 3.8 liters (1)
1 cubic foot (cu ft, ft^3) = 0.03 cubic meter (m^3)
1 cubic yard (cu yd, yd^3) = 0.76 cubic meter (m^3)

TEMPERATURE (EXACT)

[(x-32)(5/9)] ^oF = y ^oC

METRIC TO ENGLISH

LENGTH (APPROXIMATE)

1 millimeter (mm) = 0.04 inch (in)
1 centimeter (cm) = 0.4 inch (in)
1 meter (m) = 3.3 feet (ft)
1 meter (m) = 1.1 yards (yd)
1 kilometer (km) = 0.6 mile (mi)

AREA (APPROXIMATE)

1 square centimeter (cm^2) = 0.16 square inch (sq in, in^2)
1 square meter (m^2) = 1.2 square yeards (sq yd, yd^2)
1 square kilometer (km^2) = 0.4 square mile (sq mi, mi^2)
1 hectare (he) = 10,000 square meters (m^2) = 2.5 acres

MASS - WEIGHT (APPROXIMATE)

1 gram (gr) = 0.036 ounce (oz)
1 kilogram (kg) = 2.2 pounds (lb)
1 tonne (t) = 1,000 kilograms (kg) = 1.1 short tons

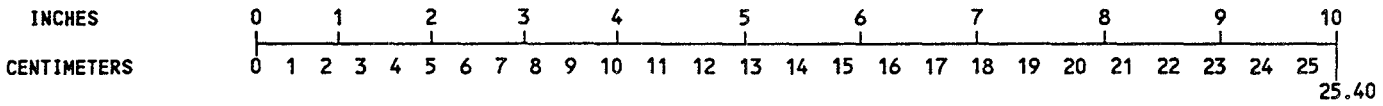
VOLUME (APPROXIMATE)

1 milliliters (ml) = 0.03 fluid ounce (fl oz)
1 liter (1) = 2.1 pints (pt)
1 liter (1) = 1.06 quarts (qt)
1 liter (1) = 0.26 gallon (gal)
1 cubic meter (m^3) = 36 cubic feet (cu ft, ft^3)
1 cubic meter (m^3) = 1.3 cubic yards (cu yd, yd^3)

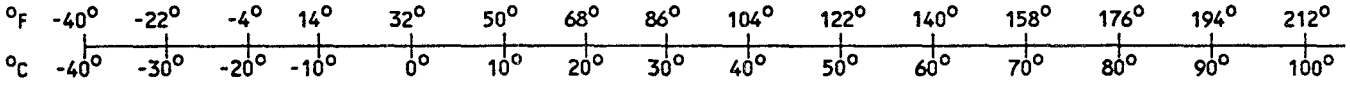
TEMPERATURE (EXACT)

[(9/5) y + 32] ^oC = x ^oF

QUICK INCH-CENTIMETER LENGTH CONVERSION



QUICK FAHRENHEIT-CELSIUS TEMPERATURE CONVERSION



For more exact and or other conversion factors, see NBS Miscellaneous Publication 286, Units of Weights and Measures. Price $2.50. SD Catalog No. C13 10286.

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EXECUTIVE SUMMARY

The U.S. Department of Transportation's (DOT) Research and Special Programs Administration (RSPA) receives written reports of releases of hazardous materials that occur during transportation as required in 49 CFR Section 171.16. These regulations require carriers to report within 30 days any incident that results in the unintentional release of a hazardous material or waste during commercial transport. These written reports are transcribed by RSPA into the Hazardous Materials Information System (HMIS).

This study compares two recent years (1988 and 1989) of HMIS release reports with similar information from three representative states, New Jersey, New York and California. The study addresses the issue of the apparent receipt by state agencies of more reports of hazardous materials releases during transportation than are received by RSPA for the same time period and state. This has been cited in previous assessments of the HMIS as an indication of industry failure to comply with the DOT reporting requirements. DOT/RSPA also has need of this comparison to better understand various state notification systems and to evaluate possible additional sources of release data and the impact of possible future program requirements.

Over 4800 state and Federal hazardous material incident reports were examined for this analysis. The comparisons were complicated by the fact that many of the state reports were incomplete, being immediate telephonic notifications, usually made by responders, to the appropriate state agency at a time when all the facts surrounding the incident may not be known. The HMIS notification consists of a written report submitted by the carrier within 30 days of an incident. DOT/RSPA performs verification and quality control on these reports. The analysis was further complicated by difficulties in loading the California computer files. California comparisons were performed manually from hard copy.

The results of the analysis showed that the percentage of reports that matched between the state and HMIS databases was low, approximately 8.5% for New Jersey and New York and 5% for California (see Tables 2 through 9). By separating the reports by type of material released (oil, hazardous or other) and the amount of material released, further insights were gained into the differences between the state and Federal reporting systems. Over 60% of the New Jersey reports were of small releases of diesel fuel or gasoline that may be from vehicle fuel tanks (not reportable to HMIS) or released during intrastate delivery by fuel trucks (also not reportable to HMIS). Reports to New York state had a much lower percentage (36%) of oil reports and many of these appeared to be releases of oil with some other hazardous material. For both New Jersey and New York, HMIS received at least twice as many non-oil hazardous material reports as were received by the two states during the two years examined (the match rate was still low). Even though detailed sorts could not be performed on California reports, the state's data trends appeared similar to those noted in New Jersey.

It is evident that a comparison of total numbers of reports received by states with those received by DOT/RSPA for that state doesn't present a true picture of the rate of compliance with each system. The differences, in large degree, can be found in the reporting requirements of state and Federal systems (see Table 1). For instance, Federal requirements specifically exclude reports on materials not in carriage, such as gasoline and diesel fuel used to power the vehicle, and reports on materials in intrastate commerce that are not hazardous substances or wastes, or flammable cryogenic liquid from a portable tank or cargo tank. An attempt to identify interstate highway carriers in the state reports had limited success (see Tables 10 and 11). The Federal reporting requirements appear to exclude many of the reports that were made to the state agencies. In contrast, HMIS receives more reports of non-oil hazardous materials than did the states of New York or New Jersey. Again, the match rate is low.

Because of the difficulties in determining which state incident reports would be reportable to HMIS, it could not be verified that performing such state/Federal comparisons on a routine basis would be beneficial or cost-effective. However, the routine submission of reports of major incidents by state agencies to DOT/RSPA could provide a workable body of data to compare with the HMIS reports as a means of assessing compliance rates. Additional state databases covering a two-year period should be examined to determine if the trends noted in this study are characteristic of other state systems. Studies should also be performed to ascertain the reasons for non-reporting, when such reporting is required, to HMIS.

1. INTRODUCTION

This report compares written notifications of transportation releases of hazardous materials reported to the U.S. Department of Transportation's (DOT) Research and Special Programs Administration (RSPA) Hazardous Materials Information System (HMIS) with those notifications made to the states of New Jersey, New York and California. DOT/RSPA regulations require carriers to report within 30 days any incident that results in the release of a hazardous material or waste during commercial transport (see 49 CFR Section 171.16). These written reports (Appendix A) are transcribed into the HMIS database which is the basis for the DOT portion of the comparisons found in this report.

The purpose of this report is to ascertain the number of incidents that should have been reported to DOT/RSPA, but were not, and to examine the potential for increased reporting to DOT if the reporting requirements were extended to all carriers. (For instance, intrastate highway carriers are presently required to file a written report only upon the release of a hazardous substance or waste or of flammable cryogenic liquid from a portable tank or cargo tank.) This information is also required so that DOT/RSPA can determine the possible benefit of conducting regular comparisons between state and Federal data.

Two years of data were obtained from the three states for this comparison. The state data were converted to the same database management system (System 1032) and computer (DOT/RSPA's Hazmat VAX) used for the HMIS data. Computer routines were written for the initial identification of potential matches between DOT and state reports. In all cases, because of reporting inconsistencies, final matches were determined by the research team. Where discrepancies were noted between state and DOT reports, the Volpe National Transportation Systems Center (Volpe Center) attempted to find reasons (other than failure to report) for the differences, such as variations in reporting requirements. In total, over 4800 incident reports were examined for this study.

All modes of transportation (highway, rail, vessel and aircraft) are required to notify DOT of incidents under DOT's requirements. All modes are included in the analysis. The vast majority of incidents, however, are highway and rail (e.g., in the case of the HMIS system approximately 90%), and much of the discussion in this report is directed toward the highway and rail modes.

2. APPROACH

The state Departments of Environmental Protection, or their equivalents, in New Jersey, New York and California were contacted for the purpose of acquiring computer-based copies of their state hazardous material transportation-related incident databases for two recent years.

These three states were selected because machine readable data was available; they represent a large proportion of the population and petrochemical-transportation industry and are considered to be environmental leaders. The organizations and individuals contacted in each of the states for information on their systems are given in Appendix B.

The New Jersey Hazardous Material Spill Incident Notification System is maintained by the state Department of Environmental Protection. Eleven state regulations require telephonic notification to the Department's Communications Center. These regulations address air pollution, pesticides, solid waste, water contamination and toxic catastrophes, and include Comprehensive Environmental Response Compensation and Liability Act (CERCLA) and Superfund Amendments and Reauthorization Act (SARA) requirements. The reports are required from the owner or operator of a facility or the shipper/carrier, but may also come from the responder or a private citizen. Appendix A also includes the incident reporting forms for New Jersey, New York and California. Table 1 compares HMIS to the three states' reporting systems based on reporting criteria and principal items reported.

The New York State Spill Information System is maintained by the Bureau of Spill Prevention and Response. As with New Jersey, regulations requiring reporting covering air, land and water releases, and responding to CERCLA and SARA requirements. These reports are required from the responsible party, but may also come from a responder, local government or a private citizen. The incident reporting form is shown in Appendix A and the reporting requirements are summarized in Table 1.

The California Hazardous Material Incident Reporting System (CHMIRS) is maintained by the Office of Emergency Services (OES). The California Code of Regulations requires an immediate telephone report about any release or threatened release of a hazardous material. The CHMIRS report is to be completed by the agency responsible for incident command (usually the police or fire departments) after the conclusion of the emergency response phase, and sent to the OES. The incident reporting form is shown in Appendix A and the reporting requirements are summarized in Table 1.

The data obtained from the three states were converted into System 1032 on the Hazmat VAX located at the Volpe Center and transportation incidents were identified. The state data were matched record by record against the DOT/RSPA's national HMIS data for the three states to identify those incidents that were common to the states and HMIS data. The process of identifying reports of the same incident from different databases proved to be time-consuming. Computerized searching on text fields was of limited value. For New Jersey and New York, a first cut by computer was performed for spill location and for spill

TABLE 1. REQUIREMENTS FOR REPORTING HAZMAT INCIDENTS IN TRANSPORTATION

Jurisdiction and Database	Reporter and Criteria for Reporting	Principal Items Reported				
		General	Location	Firms	Material	Consequences
United States: Hazardous Materials Incident Report (HMIS)	Reporter: All carriers including intrastate truckers of hazardous substances & waste. Criteria: Any release of hazardous materials or waste. Evacuation or closure of transport facility as direct result of hazardous materials. Suspected contamination from radioactive materials or etiologic agents. Any release of hazardous substance from a package containing the RQ or more.	Date Mode Cause Contributing Factors Container Info	State City County Route/ Street	Carrier Shipper Consignee	Shipping Name Chemical Name Hazard Class ID Number	Amount Released Fatalities Injuries Evacuees Product Loss Property Damage Cleanup Cost (Hazmat only)
New Jersey: New Jersey Hazardous Material Spill Incident Notification System	Reporter: Owner or operator of facility, hazardous waste transporter. Criteria: Discharge which may be harmful to public health or welfare, or natural resources.	Date	Municipal County Street	Responsible Party	Substance Name CAS Number	Amount Released* Injuries:Y/N Public Evac:Y/N * When called: actual/pot./est.
New York: New York State Spill Information System	Reporter: Owner or operator of facility, hazardous waste transporter. Criteria: Any release of petroleum products or an EHS/ CERCLA hazardous substance equal to or greater than RQ.	Date Source/ Cause	City Street/ Location	Spiller	Pet. Spill or Other Material Material Class	Quantity Amount Recovered Resource Affected
California: California Hazardous Incident Report (CHMIRS)	Reporter: Responder (highway patrolman, fire marshal, state agency personnel). Criteria: Release or threatened release to which reporter would normally respond.	Date MP Type	City County Address/ Location	ID Number	Chemical Name Hazard Class ID Number CAS Number	Amount Released Fatalities Injuries Decontaminees (Hazmat only)

date (spanning two weeks). Further match-ups were then performed by the research team. In the case of California, after many attempts to obtain a machine readable file, all comparisons were manually performed from hard copies of the incident records.

The spill incident data from the states were often found to be incomplete. For example, the responsible carrier/person's name is missing from 1310 out of 1853 records in the California database and from 552 out of 1054 records in the New Jersey database. This presented a substantial obstacle when attempting to confirm matches between HMIS and state records.

The example in Table 2 illustrates some of the difficulties in matching HMIS and state records. The two records in the table indicate that the incidents happened on the same date and spilled the same chemical, but the other data items appear to be different. By checking a map, Vernon was found to be located close to central Los Angeles. The company name listed in the California state database is W.I.C. Trucking, which may stand for West Imperial Chemical Trucking. The quantities of spilled materials reported in these two records are significantly different. The quantity reported, however, can vary depending on when it was reported or on the person reporting the incident. The HMIS data was based upon a written report from the trucking company that was filed sometime after the incident with, probably, more accurate data, while the CHMIRS report was an immediate telephonic notification probably by a state trooper responding to the incident. We concluded that these two reports, in spite of their differences, are similar enough to be considered as a likely match.

TABLE 2. COMPARISON OF CALIFORNIA REPORT WITH HMIS REPORT

DOT/RSPA HMIS REPORT	
Report number:	89070327
Date of incident:	06/13/1989
Incident city:	Los Angeles
Incident state:	CA
Commodity shipping name:	Ferric Chloride Solution
Carrier name:	West Imperial Chemical
Quantity released:	550 gal
CALIFORNIA CHMIRS REPORT	
OES #:	8906647
Incident date:	13-JUN-89
City:	Vernon
Chemical:	Ferric Chloride
Company name:	W.I.C. Trucking
Quantity:	4200 gal

3. RESULTS

The following is a summary of the Volpe Center analyses that compared the three states to the HMIS database. It should be noted that the results shown below do not attempt to account for differences in reporting requirements between state and Federal regulations, such as the fact that Federal reports are required from highway carriers involved in intrastate transportation only when a release occurs of a hazardous substance or waste, or of flammable cryogenic liquid from a portable tank or cargo tank. These factors and their effects are considered in Section 4.

3.1 NEW JERSEY

The reports from the state of New Jersey for 1988 and 1989 are compared with the New Jersey reports in HMIS in Table 3 and Figure 1.

TABLE 3. COMPARISON OF NEW JERSEY AND HMIS REPORTS

Year	No. of NJ reports	No. of HMIS reports	Likely matches	Percent matching*
1988	494	196	12	6.1
1989	560	210	23	11.0
Total	1054	406	35	8.6

*Percent matching is 100 multiplied by Likely matches/No. of HMIS reports.

Both the state and HMIS data were examined and categorized by dividing them into several groups, based on the type of material released and the quantity spilled, to provide further insights into the types of data being received by each system. The breakdowns are presented for the two years combined in Tables 4 and 5 and in Figures 2 and 3.

Table 4 and Figure 2 compare the types of materials released listed in the reports from the state of New Jersey with those reported to HMIS.

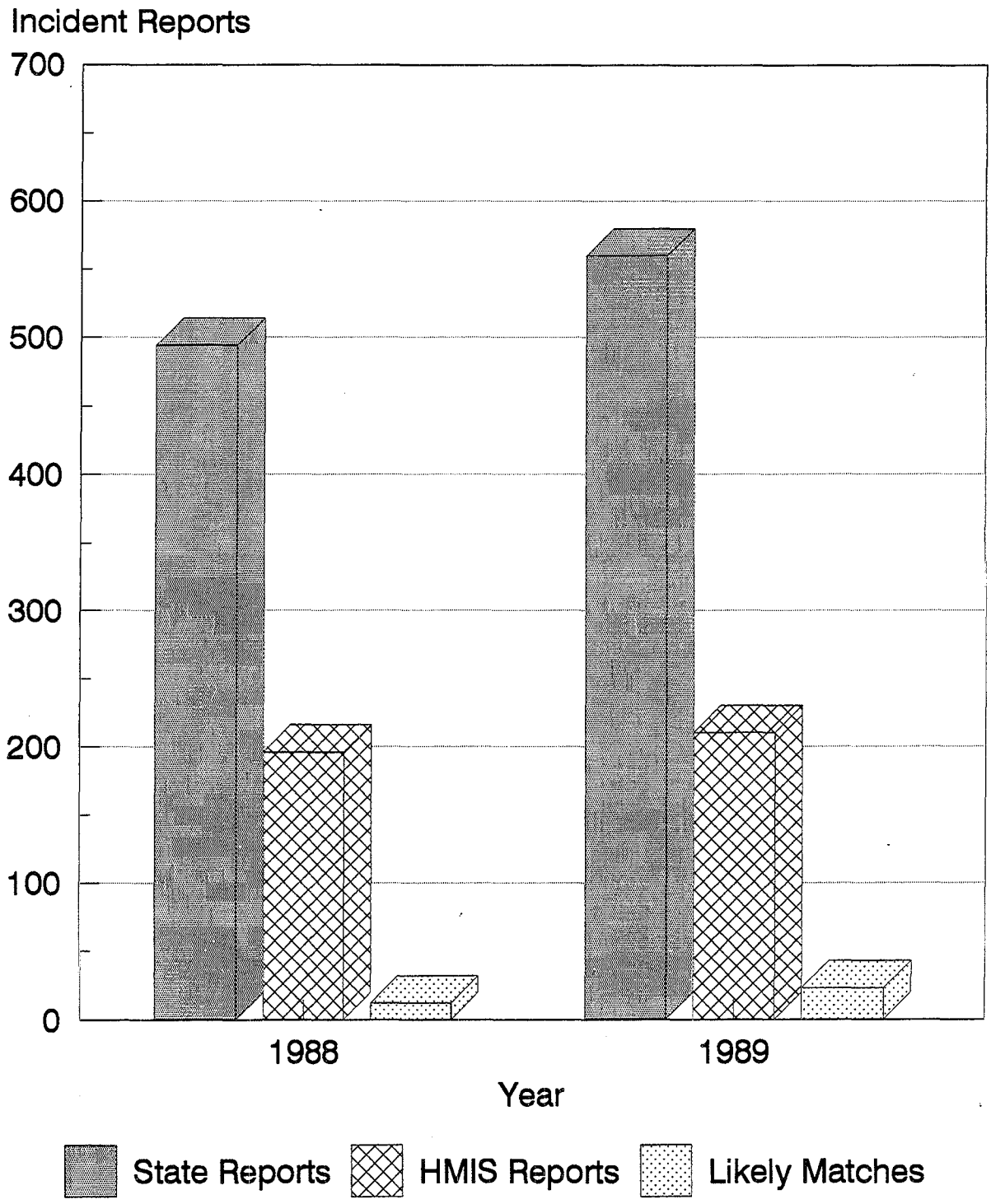


FIGURE 1. REPORTED INCIDENTS IN NEW JERSEY

TABLE 4. NEW JERSEY AND HMIS COMPARED BY MATERIAL RELEASED

Material	No. of NJ reports	No. of HMIS reports	Likely matches	Percent matching
Diesel	522	0	0	0.0
Gasoline	123	16	2	12.5
Fuel/heating/ other oils	230	7	5	71.4
Non-oil	162	383	27	7.0
Missing/ unknown	17	0	1	--*
Total	1054	406	35	8.6

*One report appeared to be a match with material missing in the state report but identified in HMIS.

Table 4 shows that oil products, including gasoline and diesel fuel, dominate the incidents reported to the state of New Jersey, whereas non-oil hazardous chemicals dominate the incident reports made to HMIS. The significance of this result is discussed in Section 4 of this report.

Table 5 and Figure 3 show the number of incidents for New Jersey reported to the state and to the HMIS by the reported quantity released. Any release of less than 200 gallons is of particular interest, since these may be from truck fuel tanks and thus not reportable to DOT/HMIS. Most tractor trucks are equipped with two diesel fuel tanks, each holding 100 gallons. Fuel being carried in the vehicle's fuel tank is not considered by RSPA to be "in commerce."

Table 5, together with Table 4, show that many of the reports received by New Jersey are for relatively small releases of oil products. The incident reports for New Jersey found in HMIS are also for small releases, but of non-oil products. This may be indicative of the HMIS reporting requirement that all hazardous materials releases, no matter how small, be reported to DOT/RSPA. The significance of these results are discussed in Section 4 of this paper.

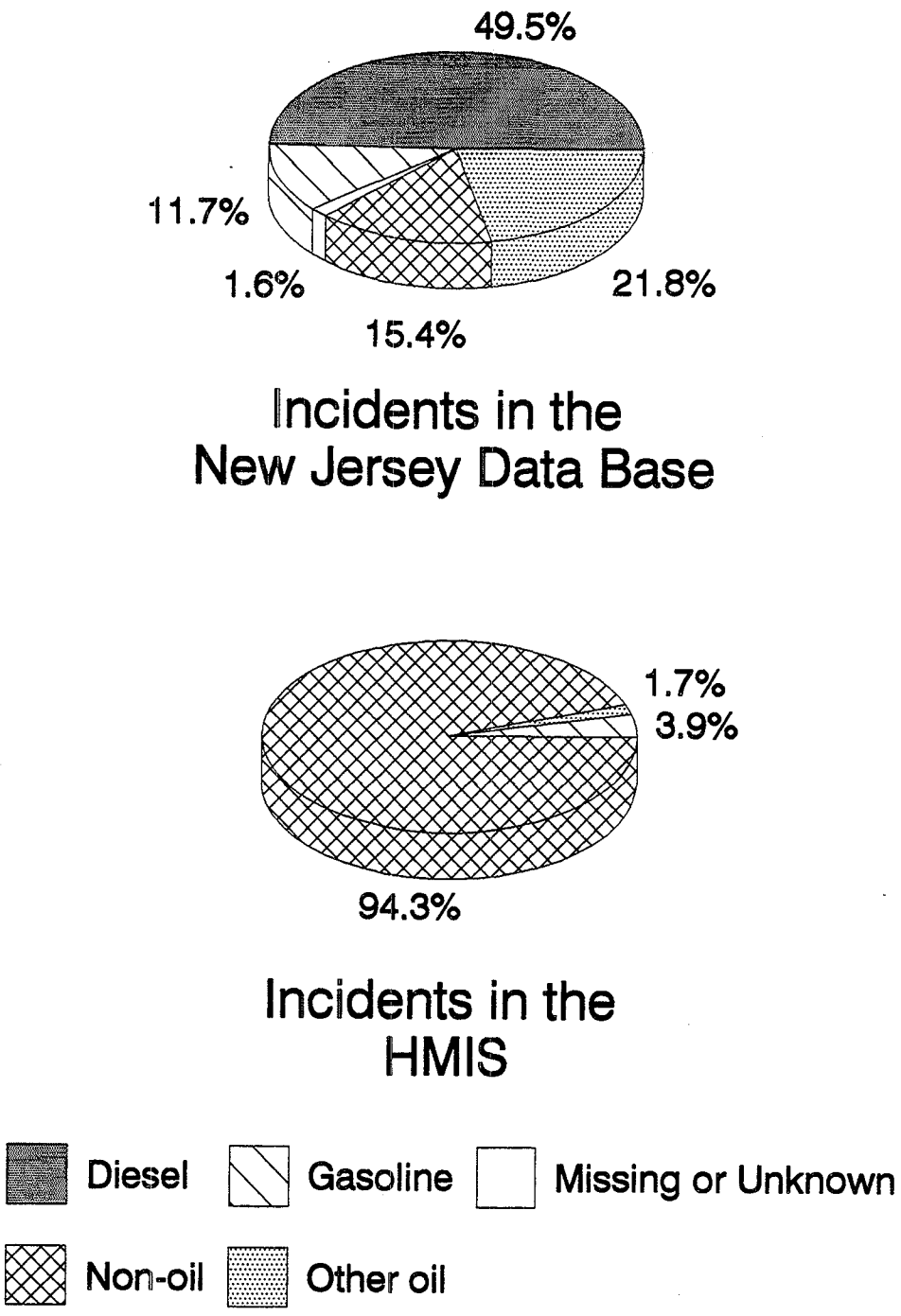
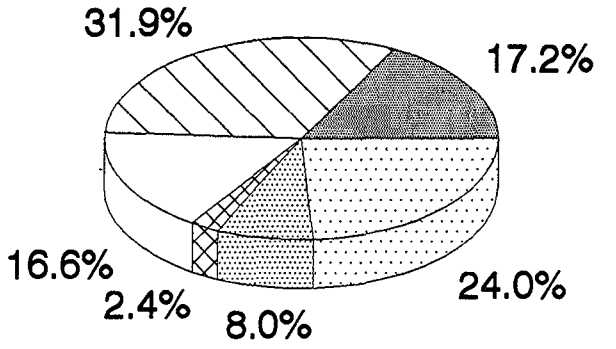
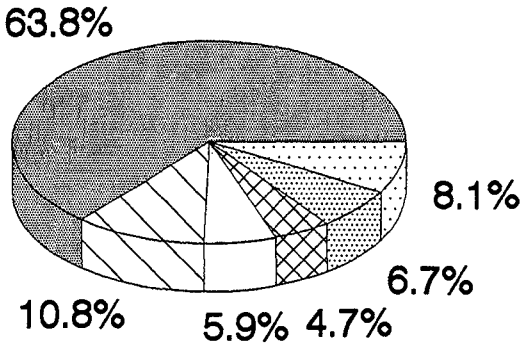


FIGURE 2. INCIDENTS IN NEW JERSEY BY MATERIAL RELEASED



Incidents in the
New Jersey Data Base



Incidents in the
HMIS

Less than 10 gal. | 10 - 50 gal. | 50 - 200 gal.

Over 200 gal. | Other units | Missing or unknown

FIGURE 3. INCIDENTS IN NEW JERSEY BY QUANTITY RELEASED

TABLE 5. NEW JERSEY AND HMIS COMPARED BY QUANTITY RELEASED

Quantity	New Jersey	HMIS	Matches	Percent
0.01 - 10 gal	181	259	4	1.5
10.01 - 50 gal	336	44	3	6.8
50.01 - 200 gal	175	24	1	4.1
Over 200 gal	25	19	3	15.8
Other units (lb, kg, etc.)	84	27	3	11.1
Missing/Unknown	253	33	21	63.6
Total	1054	406	35	8.6

3.2 NEW YORK

The transportation-related hazardous spills data for 1988 and 1989 were received from the New York State Bureau of Spill Prevention and Response and converted to System 1032 on the RSPA's Hazmat VAX. The data were then matched with the HMIS data for the same time period and state. As with New Jersey, both the state and HMIS data were categorized into groups by material and quantity spilled. The results are shown in Tables 6 through 8 and Figures 4 through 6. Table 6 shows that the state received fewer reports than HMIS did for New York.

Based upon Table 7, New York does not appear to be receiving as many reports of small oil spills as New Jersey. Table 7 also shows that the reports of incidents received by New York are 36% oil products or oil products with other materials and 50% non-oil. The reports received by New York were not overwhelmingly oil products, as were those received by New Jersey.

Table 8 shows that 40% of the matches between state and HMIS data involved releases of less than 10 gallons. The table also shows that the match rate is higher for the larger spills than for smaller ones.

TABLE 6. COMPARISON OF NEW YORK AND HMIS REPORTS

Year	No. of NY reports	No. of HMIS reports	Likely matches	Percent matching
1988	138	221	17	7.6
1989	128	254	23	9.0
Total	266	475	40	8.4

TABLE 7. NEW YORK AND HMIS COMPARED BY MATERIAL RELEASED

Material	New York	HMIS	Matches	Percent
Petroleum/oil	96*	82	12	14.6
Others/non-oil	133	393	25	6.4
Missing/unknown	37	0	3	--**
Total	266	475	40	8.4

*In 31 of the incidents, only Petroleum/oil was released. In the other 65 incidents, both Petroleum/oil and Others/non-oil were released.
**Three state reports with no spilled material identified appeared to match with HMIS reports with material identified.

TABLE 8. NEW YORK AND HMIS COMPARED BY QUANTITY RELEASED

Quantity	New York	HMIS	Matches	Percent
0.01 - 10 gal	124	299	16	5.4
10.01 - 50 gal	32	71	10	14.0
50.01 - 200 gal	27	24	3	12.5
Over 200 gal	12	17	2	11.8
Other units (lbs)*	20	15	2	13.3
Missing/unknown	51	49	7	14.3
Total	266	475	40	8.4
*in pounds:				
0.01 - 200 lbs	8	14	2	14.2
200.1-1000 lbs	7	1	0	0
over 1000 lbs	5	0	0	0

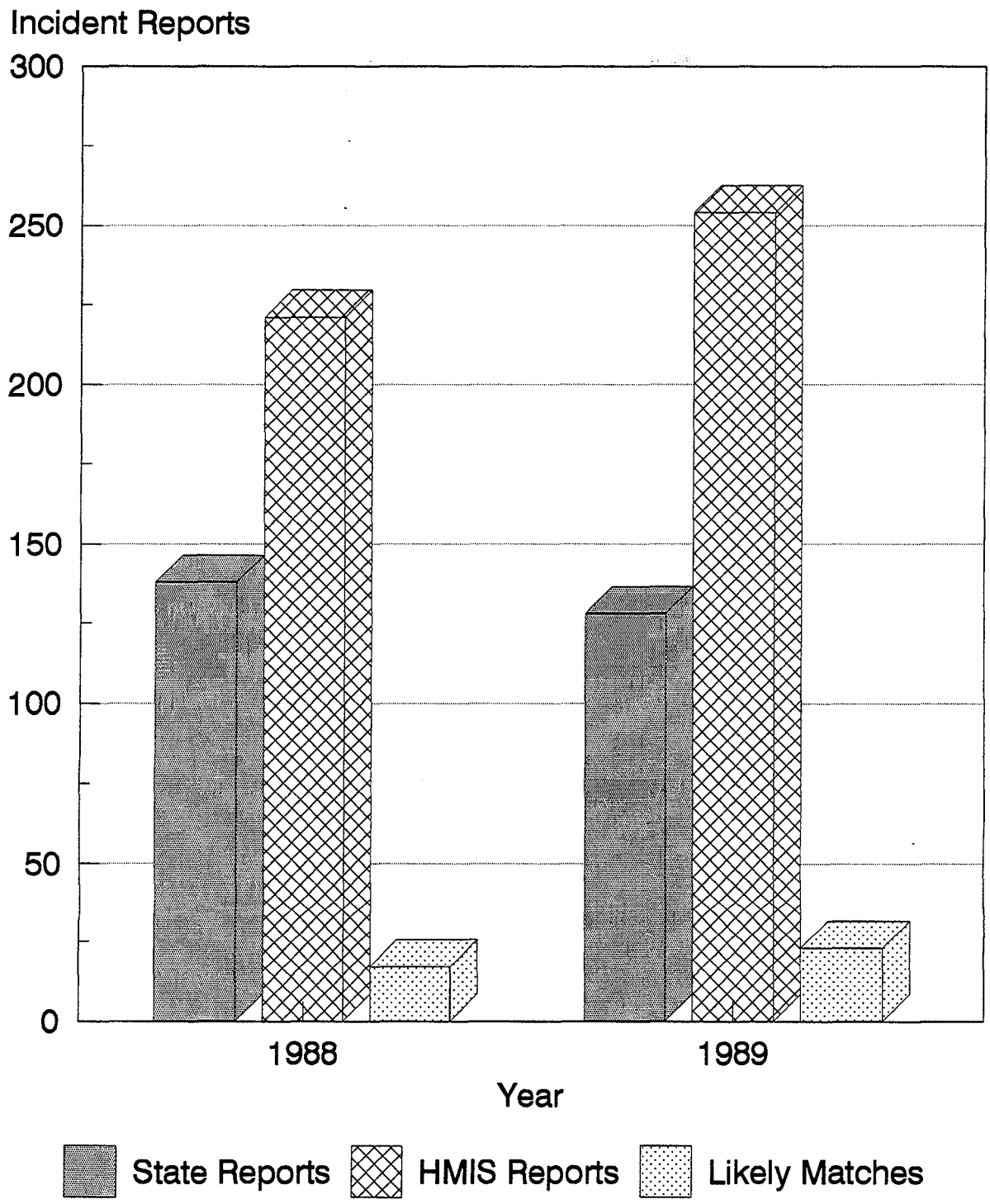


FIGURE 4. REPORTED INCIDENTS IN NEW YORK

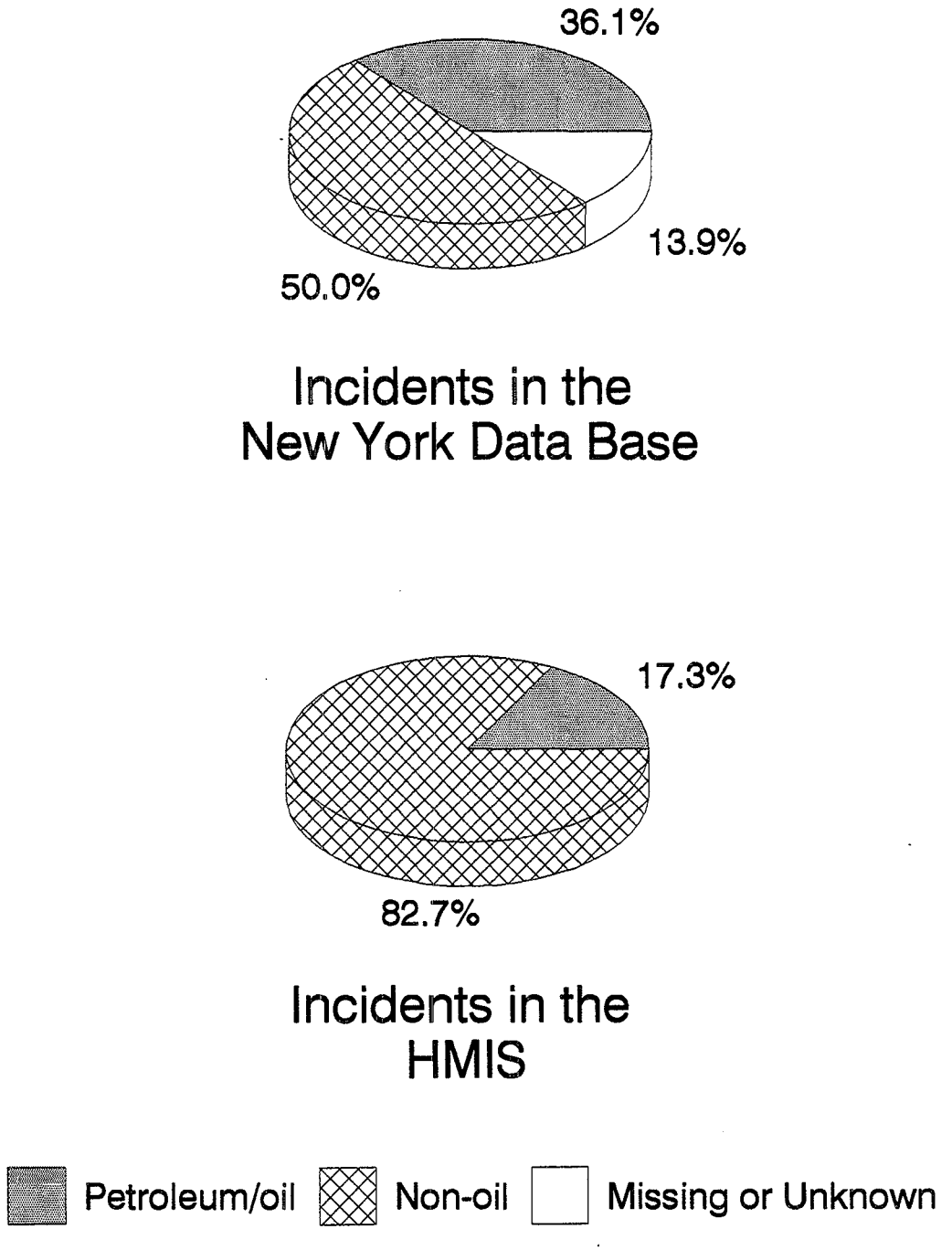


FIGURE 5. INCIDENTS IN NEW YORK BY MATERIAL RELEASED

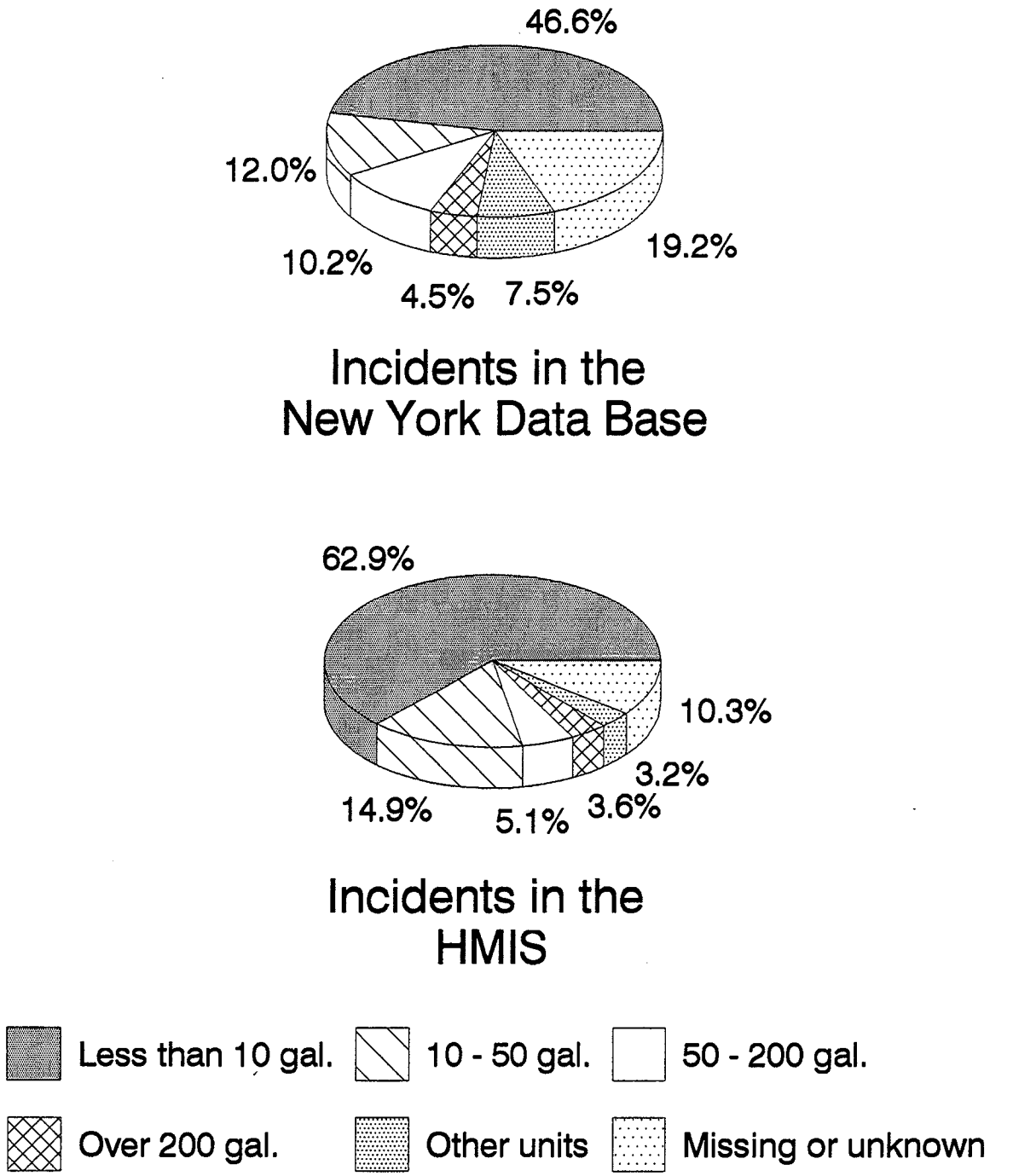


FIGURE 6. INCIDENTS IN NEW YORK BY QUANTITY RELEASED

3.3 CALIFORNIA

The California State Office of Emergency Services was contacted for a copy of the 1988 and 1989 records from the California Hazardous Material Incident Reporting System (CHMIRS). The CHMIRS is maintained in an ORACLE database. Because of difficulties in loading the computer files provided by California into the DOT/RSPA database management system, a computerized comparison of California data with the HMIS was not possible. In order to compare California and the HMIS reports, a hard-copy printout of the CHMIRS was used. This limited the types of comparisons that could be made. The results of the comparisons between California and HMIS are shown in Table 9 and Figure 7.

Table 9 indicates that California received two and one-half times the number of reports that the HMIS did for California in a two-year time period. The overall match rate is lower than either the match rate for New Jersey or the match rate for New York.

TABLE 9. COMPARISON OF CALIFORNIA AND HMIS REPORTS

Year	No. of CA reports	No. of HMIS reports	Likely matches	Percent matching
1988	907	315	18	5.7
1989	946	454	20	4.4
Total	1853	769	38	4.9

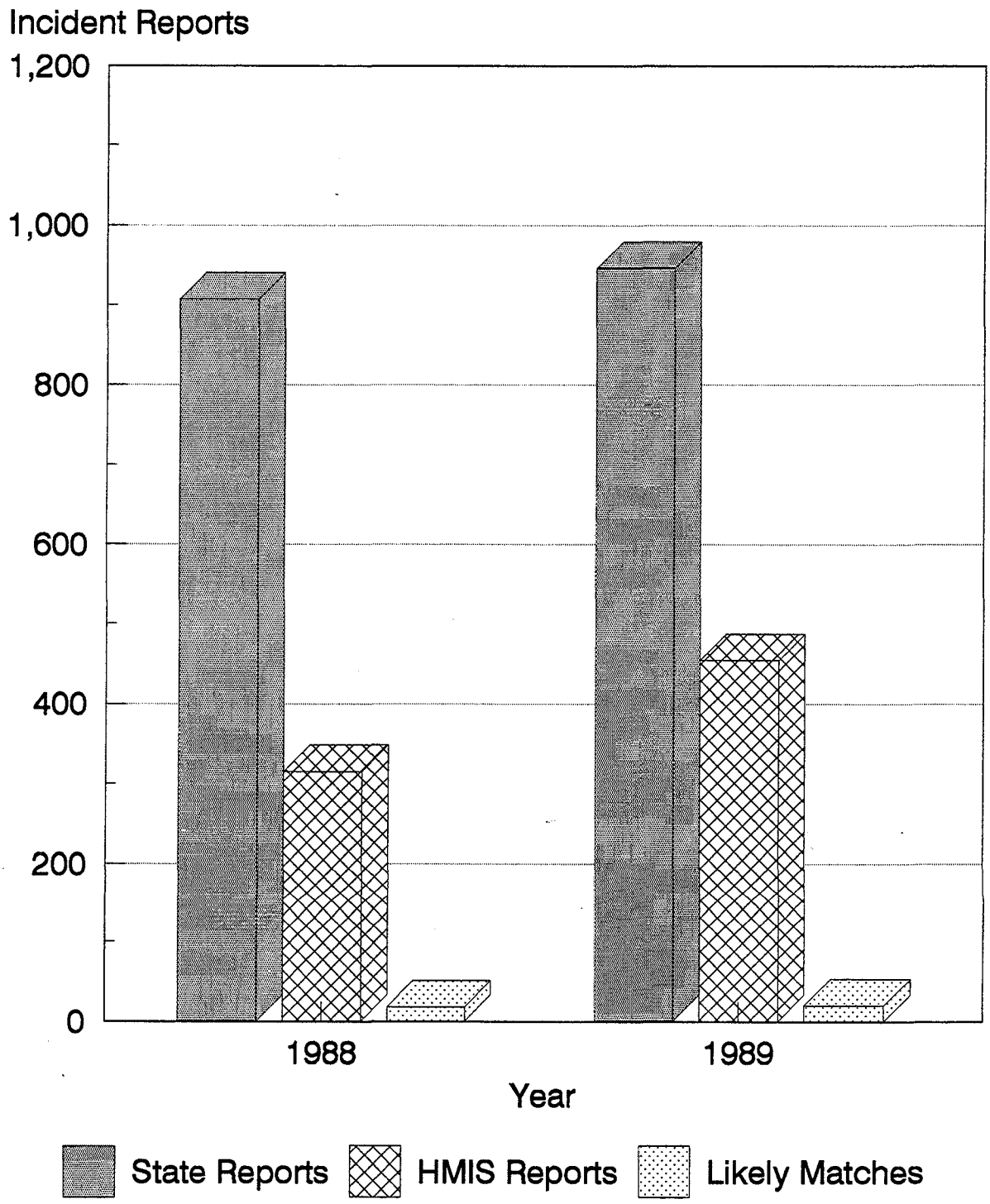


FIGURE 7. REPORTED INCIDENTS IN CALIFORNIA

4. DISCUSSION

A "first cut" assessment of the results of this analysis indicates that many more releases of hazardous materials during transport are being reported to the states than to HMIS, as indicated by the total numbers of reports received by these three states (3173) versus the total number received by HMIS for these three states (1650) for 1988 and 1989. The match rate is also very low. One state, New York, received fewer reports than did HMIS for that state in the same time period. One major reason for the variance in the number of submitted reports is the difference in reporting requirements between states and HMIS. HMIS requires a written report from the carrier of any release that occurs during transportation by highway, rail, water or air, except that intrastate highway carriers are required to report only those releases that involve hazardous substances or wastes, or flammable cryogenic liquid in a portable tank or cargo tank. The RSPA/DOT reporting regulations also specify that the material spilled must be in carriage, that is, being transported as cargo. The state reporting requirements do not differentiate between interstate and intrastate, nor do they specify that the released material be cargo. (Reports to states, therefore, would include oil spills from fuel tanks.) In fact, all states examined here have a much broader notification requirement, which basically applies to any release of a hazardous material that may pose a risk to the public health or welfare.

It is of interest to note that the HMIS received many more reports of non-oil releases (776) than did New Jersey and New York (295). It appears that in the case of hazardous non-petroleum products, the states are not receiving all the reports that should be submitted. These non-petroleum materials would not be used as fuel by the vehicle and are more likely to be an interstate cargo or a hazardous substance or waste than would a petroleum product. (Many releases of gasoline and fuel oils occur during local deliveries.) In addition, EPA's CERCLA reporting requirements may have increased the awareness among the regulated community to the need for Federal reporting of non-petroleum hazardous substances. The match rate for these non-oil products is still low, 6.7% combined for New Jersey and New York. Each state is discussed in more detail in the following sections.

4.1 NEW JERSEY

New Jersey's overall matching percentage (matches divided by the number of HMIS reports times 100) is 8.6% for the two combined years. New Jersey has a very broad definition of what must be reported to the state. It includes any release that could be harmful to the public health, welfare or environment (see Table 1). Fifty percent of their reports are diesel fuel releases. As there are no HMIS matches among these diesel fuel reports, it is highly probable that many of them are from vehicle fuel tanks and would not be reportable to HMIS. In addition, other fuel oil and gasoline releases could be associated with intrastate transport to fuel tanks and gasoline stations where small spills frequently occur. These assumptions are supported by the spill size distribution for New Jersey, which indicates that 83% of the gasoline spills and 80% of the diesel spills involved less than 200 gallons, the normal vehicle fuel tank capacity of a large truck tractor.

All interstate non-oil releases of materials found on DOT's hazardous materials list, and those in intrastate transport that meet the criteria previously enumerated, should be reported to HMIS. As previously mentioned, the match rate in this category is low (7% of HMIS, 17% of New Jersey).

In an effort to determine the importance of intrastate versus intrastate movement, the Volpe Center compared DOT's national list of interstate carriers (over 27,000 names) obtained from the Federal Highway Administration's Office of Motor Carriers (OMC), with the carrier names in the New Jersey database. In the unmatched incident reports from the state of New Jersey, only 467 had carrier names. Of those, 109 carriers in the incident reports or 23% were found on the OMC interstate list (see Table 10). This analysis does not consider the matched reports common to both databases, which are assumed to be from interstate carriers. It should be noted that, using the OMC list of over 2000 intrastate carriers, we could identify only four carriers in the New Jersey database that were specifically identified as intrastate carriers. We further determined that 80 of these 109 reports were spills of less than 200 gallons of gasoline or diesel fuel. Of the remaining reports, 14, or 32%, were matched with HMIS reports. An examination of the 14 matched reports indicated that eight were chemical spills, one was for a hazardous waste spill, two were for gasoline spills greater than 200 gallons, one was for a propane spill, and two were unknown material spills in the New Jersey data.

TABLE 10. EVALUATION OF FEDERALLY REPORTABLE INCIDENTS IN NEW JERSEY

	Only in NJ	Only in HMIS	In both	Total
All reports	1019	371	35	1425
Known carriers	467	371	35	873
Interstate reports only	109	371	35	515
Interstate report, excluding those for gas and diesel of <200 gals	30	358	34	422

4.2 NEW YORK

The overall match rate for New York is approximately twice that observed for New Jersey. In the two-year period, HMIS received 44% more reports than did the state. A significant difference between New Jersey and New York state reports when compared to HMIS can be found in oil reports. New York received proportionally fewer oil reports than did New Jersey. No reason for this difference was evident. When we queried New York officials, they stated there was no minimum-quantity reporting on oil spills to the state. Of the New York reports, 96 (36%) were oil or combinations of oil with another hazardous material and, of these, only three could be identified as gasoline or diesel, compared to 35 gasoline (no diesel) reports in HMIS. Exactly 50% (133) of the New York reports were non-oil hazardous materials, but in the same time period HMIS received nearly three times the number of non-oil reports (393). Again the match rate is low (6% of HMIS, 19% of New York). An examination of the reported materials in the spill reports received by New York indicated that a large proportion of these were reportable materials under HMIS.

We again identified carriers who were involved in interstate commerce by comparing OMC's list with the carrier name in the New York database of unmatched reports (Table 11). In New York, 65 reports had no carrier name so could not be identified as inter- or intrastate. Of the remaining reports, only 37, or 23%, could be identified as interstate transporters according to the OMC list. The 40 matched reports are assumed to be interstate carriers even if they are not on the OMC list; however, the carriers in only 13 of the 40 matched reports were found in the OMC list for a total of 50 (37 + 13) matched and unmatched incident reports. Of the 50 reports, 12 were for spills of oil and 38 were non-oil hazardous chemicals.

TABLE 11. EVALUATION OF FEDERALLY REPORTABLE INCIDENTS IN NEW YORK

	Only in NY	Only in HMIS	In both	Total
All reports	226	435	40	701
Known carriers	161	435	40	636
Interstate reports only	37	435	40	512
Interstate report, excluding those for gas and diesel of <200 gals	35	397	40	472

4.3 CALIFORNIA

Problems with the computer files limited the data sorts that could be performed on the California information. The overall match rate of 5% was somewhat lower than that for New Jersey. An examination of the material released, however, seemed to indicate that California was similar to New Jersey in that a large portion of the reports were small oil spills.

We manually compared the transporter name with those found in the OMC's interstate transporter file. Of the 1853 reports in the state files, 1310 had no transporter name. Of the remaining 543 state reports, only 194 or 35% had carrier names that could be matched with the OMC interstate list. Of these, 99 or 51% were reports of oil spills greater than 200 gallons or non-oil material. Nine of the reports had matches in HMIS and the OMC list.

5. CONCLUSIONS AND RECOMMENDATIONS

The comparisons attempted here were a difficult and time-consuming process. All conclusions must be tempered by the facts that much of the state/HMIS data is incompatible for the many reasons previously enumerated, and that the data sorts performed, whether by computer or manually, could be subject to error. (It was interesting to note that the results for California, done entirely by hand, were in basic agreement with those that used both computer and manual matching.)

The HMIS database source is a written report submitted by the carrier 30 days after the incident. As such, it contains information that has been verified and confirmed for accuracy. DOT/RSPA also performs quality checks especially on sensitive fields such as deaths or injuries related to the release. Both New Jersey and New York reports are from immediate telephone notifications and, as such, can lack data or have inaccurate data that may be available in correct form only after a more complete investigation of the incident. California's reports are submitted in writing by emergency responders after the emergency situation has passed. It should be expected that they would contain more reliable information than the New Jersey or New York reports. The missing information on carriers and spillers in the California files previously mentioned is an indicator of the difficulty in obtaining reliable, accurate data immediately following an incident.

The differences in reporting requirements that are discussed in this report between and among states and HMIS also complicate any attempt to compare data. After considerable effort, these differences could not be resolved and may not be, until a uniform reporting system is adopted (if justified) by the DOT/RSPA and the states. The cost-effectiveness of routine comparisons of HMIS with state data, based on this effort, has yet to be verified.

The following conclusions can be drawn from the comparisons of hazardous material transportation release data for three states, New Jersey, New York and California, with that found for those states for the 1988 and 1989 time period in DOT/RSPA's HMIS.

1. The raw match rate between the three states and HMIS varies from 5% in California to approximately 8.5% in New York and New Jersey.

2. Although the states of New Jersey and California received more total reports than HMIS in the two years examined, it would appear that many of those were not reportable to DOT/RSPA because they were small oil spills from fuel tanks or vehicles involved in intrastate transport such as fuel loading and delivery. Tables 10 and 11 summarize the results of an analysis to determine which state reports are "Federally reportable" incidents. The interstate carriers were identified from the OMC list. These tables assume that the OMC list is complete and that any highway release of gasoline or diesel less than 200 gallons is from vehicle fuel tanks or occurred during delivery to service stations (generally an intrastate operation). Only 109 of the New Jersey reports, 37 of the New York reports, and 194 of the California

reports could be specifically identified as interstate using the OMC list. If the small spills (less than 200 gallons) of diesel fuel and gasoline were eliminated, only 165 incident reports are left as potentially Federally reportable. (Many reports had to be eliminated from this comparison because the carrier/spiller name was missing in the state report.)

3. HMIS received over twice as many non-oil spills as did New Jersey (383 versus 162) in the two-year time period. Although the match level is low (25 reports), it is evident that HMIS received 358 reports that the state did not, whereas the state received 137 reports that were not sent to HMIS.

4. HMIS received more reports for New York (475) than did the state (266). The match rate of 8.4 % was approximately the same as for New Jersey.

5. The number of oil and oil with other materials reported in the New York database (96) was only slightly more than that found for New York in HMIS (82). There were 12 matches (14.6%). Only three of the state reports were diesel fuel or gasoline, the remaining being waste oil or oil contaminated with PCBs, etc.

6. HMIS, with 393 reports, received nearly three times the number of non-oil reports than the state of New York, which received 133. Twenty-five of these reports could be found in both the state and HMIS databases.

7. Only 37 of the New York reports could be identified with interstate carriers, and only two of these reports were for oil spills. Thirteen of the 37 reports were also found in HMIS.

8. California had the lowest percentage of matches: 4.9%. Many of the California reports were for small oil spills. Of the 1853 reports, only 194 could be identified with interstate carriers. Of these, 95 were small oil spills. Of the remaining 99, only nine matched with HMIS reports.

9. The information in the HMIS database, as it is a written report sent in by the carrier, is more complete than the state notification data. This was especially evident when we tried to compare carrier/spiller names, which were often missing in the state data.

This study has indicated that any comparison of HMIS to state data must be carefully performed to account for the differences in the reporting requirements and the quality of the data. Small oil spills that may be intrastate cargo or from fuel tanks (and not reportable to HMIS) appear to be a large fraction of some state databases and can contribute in large measure to an accurate comparison. We believe that New Jersey and California exemplify this problem. In the case of non-oil releases, it is evident that HMIS is receiving more reports than the states. The results of our examination suggest that while none of the four agencies we examined receive all the applicable notifications, any comparison must fully consider the reporting requirements and data quality of the systems under consideration or the results will be misleading and inconclusive.

If DOT/RSPA requires that all intrastate releases be reported to HMIS, the data here, especially that for New Jersey, indicate that the system would see significant increases in reports of small oil spills. As DOT/RSPA is now receiving more reports of non-oil products than the states, the increases for these would be less significant.

We recommend that a machine readable California file be obtained, as well as incident data for a few other states with automated reporting systems, perhaps Pennsylvania and Colorado, to verify the results seen here. For instance, California's database has a "mobile property-type" field that would explain if the release was from the freight or the vehicle (i.e., fuel tanks) for all modes of transportation. In addition, further data sorts can be performed to better examine the reportable/nonreportable issue. Further sorts of New York reports could differentiate between releases from passenger and freight vehicles on the highway.

The results shown here have indicated that states are receiving some reports that are required to be submitted to DOT/RSPA. The exact number is difficult to ascertain because of the difficulties, previously enumerated, in comparing state and Federal reports. DOT/RSPA may consider doing routine cross-checking with some of the larger state (California, New Jersey, New York and Texas) incident databases to identify significant incidents that should have been reported to HMIS, but were not.

There is not enough information to determine why some HMIS-reportable incidents are not being reported. Detailed case studies of a few major incidents that were reported only to the states would help in clarifying this issue. Such case studies, however, are beyond the scope of this report.

APPENDIX A

HMIS AND STATE REPORTING FORMS

HAZARDOUS MATERIALS INFORMATION SYSTEM (HMIS) REPORTING FORM

DEPARTMENT OF TRANSPORTATION
HAZARDOUS MATERIALS INCIDENT REPORT

Form Approved OMB No. 2137-0039

INSTRUCTIONS: Submit this report in duplicate to the Information Systems Manager, Office of Hazardous Materials Transportation, DHM-63, Research and Special Programs Administration, U.S. Department of Transportation, Washington, D.C. 20590. If space provided for any item is inadequate, complete that item under Section IX, keying to the entry number being completed. Copies of this form, in limited quantities, may be obtained from the Information Systems Manager, Office of Hazardous Materials Transportation. Additional copies in this prescribed format may be reproduced and used, if on the same size and kind of paper.

I. MODE, DATE, AND LOCATION OF INCIDENT

1. MODE OF TRANSPORATION: ☐ AIR ☐ HIGHWAY ☐ RAIL ☐ WATER ☐ OTHER_____

2. DATE AND TIME OF INCIDENT
(Use Military Time, e.g. 8:30am = 0830, noon = 1200, 6pm = 1800, midnight = 2400).
Date: ____/____/____ TIME:_____

3. LOCATION OF INCIDENT (Include airport name in ROUTE/STREET if incident occurs at an airport.)
CITY:_____ STATE: _____
COUNTY:_____ ROUTE/STREET:_____

II. DESCRIPTION OF CARRIER, COMPANY, OR INDIVIDUAL REPORTING

4. FULL NAME	5. ADDRESS (Principal place of business)

6. LIST YOUR OMC MOTOR CARRIER CENSUS NUMBER, REPORTING RAILROAD ALPHABETIC CODE, MERCHANT VESSEL NAME AND ID NUMBER OR OTHER REPORTING CODE OR NUMBER.

III. SHIPMENT INFORMATION (From Shipping Paper or Packaging)

7. SHIPPER NAME AND ADDRESS (Principal place of business)	8. CONSIGNEE NAME AND ADDRESS (Principal place of business)
9. ORIGIN ADDRESS (If different from Shipper address)	10. DESTINATION ADDRESS (If different from Consignee address)

11. SHIPPING PAPER/WAYBILL IDENTIFICATION NO.

IV. HAZARDOUS MATERIAL(S) SPILLED (NOTE: REFERENCE 49 CFR SECTION 172.101.)

12. PROPER SHIPPING NAME	13. CHEMICAL/TRADE NAME	14. HAZARD CLASS	15. IDENTIFICATION NUMBER (e.g. UN 2764, NA 2020)

16. IS MATERIAL A HAZARDOUS SUBSTANCE? ☐ YES ☐ NO

17. WAS THE RQ MET? ☐ YES ☐ NO

V. CONSEQUENCES OF INCIDENT, DUE TO THE HAZARDOUS MATERIAL.

18. ESTIMATED QUANTITY HAZARDOUS MATERIAL RELEASED (Include units of measurement)	19. FATALITIES	20. HOSPITALIZED INJURIES	21. NON-HOSPITALIZED INJURIES
22. NUMBER OF PEOPLE EVACUATED			

23. ESTIMATED DOLLAR AMOUNT OF LOSS AND/OR PROPERTY DAMAGE, INCLUDING COST OF DECONTAMINATION OR CLEANUP (Round off in dollars)

A. PRODUCT LOSS	B. CARRIER DAMAGE	C. PUBLIC/PRIVATE PROPERTY DAMAGE	D. DECONTAMINATION/ CLEANUP	E. OTHER

24. CONSEQUENCES ASSOCIATED WITH THE INCIDENT: ☐ VAPOR (GAS) DISPERSION ☐ MATERIAL ENTERED WATERWAY/SEWER
☐ SPILLAGE ☐ FIRE ☐ EXPLOSION ☐ ENVIRONMENTAL DAMAGE ☐ NONE ☐ OTHER: _____

VI. TRANSPORT ENVIRONMENT

25. INDICATE TYPE(S) OF VEHICLE(S) INVOLVED: ☐ CARGO TANK ☐ VAN TRUCK/TRAILER ☐ FLAT BED TRUCK/TRAILER
☐ TANK CAR ☐ RAIL CAR ☐ TOFC/COFC ☐ AIRCRAFT ☐ BARGE ☐ SHIP ☐ OTHER: _____

26. TRANSPORTATION PHASE DURING WHICH INCIDENT OCCURRED OR WAS DISCOVERED:
☐ EN ROUTE BETWEEN ORIGIN/DESTINATION ☐ LOADING ☐ UNLOADING ☐ TEMPORARY STORAGE/TERMINAL

27. LAND USE AT INCIDENT SITE: ☐ INDUSTRIAL ☐ COMMERCIAL ☐ RESIDENTIAL ☐ AGRICULTURAL ☐ UNDEVELOPED

28. COMMUNITY TYPE AT SITE: ☐ URBAN ☐ SUBURBAN ☐ RURAL

29. WAS THE SPILL THE RESULT OF A VEHICLE ACCIDENT/DERAILMENT? ☐ YES ☐ NO
IF YES AND APPLICABLE, ANSWER PARTS A THRU C.

A. ESTIMATED SPEED:	B. HIGHWAY TYPE: ☐ DIVIDED/LIMITED ACCESS ☐ UNDIVIDED	C. TOTAL NUMBER OF LANES: ☐ ONE ☐ THREE ☐ TWO ☐ FOUR OR MORE	SPACE FOR DOT USE ONLY

FORM DOT F 5800.1 (Rev. 6/89) Supersedes DOT F 5800.1 (10/70) (9/1/76) THIS FORM MAY BE REPRODUCED

HAZARDOUS MATERIALS INFORMATION SYSTEM (HMIS) REPORTING FORM (CONTINUED)

VII. PACKAGING INFORMATION: If the package is overpacked (consists of several packages, e.g. glass jars within a fiberboard box), begin with Column A for information on the innermost package.

ITEM	A	B	C
30. TYPE OF PACKAGING, INCLUDING INNER RECEPTACLES (e.g. Steel drum, tank car)			
31. CAPACITY OR WEIGHT PER UNIT PACKAGE (e.g. 55 gallons, 65 lbs.)			
32. NUMBER OF PACKAGES OF SAME TYPE WHICH FAILED IN IDENTICAL MANNER			
33. NUMBER OF PACKAGES OF SAME TYPE IN SHIPMENT			
34. PACKAGE SPECIFICATION IDENTIFICATION (e.g. DOT 17E, DOT 105A100, UN 1A1 or none)			
35. ANY OTHER PACKAGING MARKINGS (e.g. STC, 18/16-55-88, Y1.4/150/87)			
36. NAME AND ADDRESS, SYMBOL OR REGISTRATION NUMBER OF PACKAGING MANUFACTURER			
37. SERIAL NUMBER OF CYLINDERS, PORTABLE TANKS, CARGO TANKS, TANK CARS			
38. TYPE OF LABELING OR PLACARDING APPLIED			
39. IF RECONDITIONED OR REQUALIFIED — A. REGISTRATION NUMBER OR SYMBOL			
39. IF RECONDITIONED OR REQUALIFIED — B. DATE OF LAST TEST OR INSPECTION			
40. EXEMPTION/APPROVAL/COMPETENT AUTHORITY NUMBER, IF APPLICABLE (e.g. DOT E1012)			

VIII. DESCRIPTION OF PACKAGING FAILURE: Check all applicable boxes for the package(s) identified above.

41. ACTION CONTRIBUTING TO PACKAGING FAILURE

	A	B	C		A	B	C	
a.	☐	☐	☐	TRANSPORT VEHICLE COLLISION	j.	☐	☐	☐ CORROSION
b.	☐	☐	☐	TRANSPORT VEHICLE OVERTURN	k.	☐	☐	☐ METAL FATIGUE
c.	☐	☐	☐	OVERLOADING/OVERFILLING	l.	☐	☐	☐ FRICTION/RUBBING
d.	☐	☐	☐	LOOSE FITTINGS, VALVES	m.	☐	☐	☐ FIRE/HEAT
e.	☐	☐	☐	DEFECTIVE FITTINGS, VALVES	n.	☐	☐	☐ FREEZING
f.	☐	☐	☐	DROPPED	o.	☐	☐	☐ VENTING
g.	☐	☐	☐	STRUCK/RAMMED	p.	☐	☐	☐ VANDALISM
h.	☐	☐	☐	IMPROPER LOADING	q.	☐	☐	☐ INCOMPATIBLE MATERIALS
i.	☐	☐	☐	IMPROPER BLOCKING	r.	☐	☐	☐ OTHER_____

42. OBJECT CAUSING FAILURE

	A	B	C	
a.	☐	☐	☐	OTHER FREIGHT
b.	☐	☐	☐	FORKLIFT
c.	☐	☐	☐	NAIL/PROTRUSION
d.	☐	☐	☐	OTHER TRANSPORT VEHICLE
e.	☐	☐	☐	WATER/OTHER LIQUID
f.	☐	☐	☐	GROUND/FLOOR/ROADWAY
g.	☐	☐	☐	ROADSIDE OBSTACLE
h.	☐	☐	☐	NONE
i.	☐	☐	☐	OTHER _____

43. HOW PACKAGE(S) FAILED

	A	B	C	
a.	☐	☐	☐	PUNCTURED
b.	☐	☐	☐	CRACKED
c.	☐	☐	☐	BURST/INTERNAL PRESSURE
d.	☐	☐	☐	RIPPED
e.	☐	☐	☐	CRUSHED
f.	☐	☐	☐	RUBBED/ABRADED
g.	☐	☐	☐	RUPTURED
h.	☐	☐	☐	OTHER_____

44. PACKAGE AREA THAT FAILED

	A	B	C	
a.	☐	☐	☐	END, FORWARD
b.	☐	☐	☐	END, REAR
c.	☐	☐	☐	SIDE, RIGHT
d.	☐	☐	☐	SIDE, LEFT
e.	☐	☐	☐	TOP
f.	☐	☐	☐	BOTTOM
g.	☐	☐	☐	CENTER
h.	☐	☐	☐	OTHER_____

45. WHAT FAILED ON PACKAGE(S)

	A	B	C	
a.	☐	☐	☐	BASIC PACKAGE MATERIAL
b.	☐	☐	☐	FITTING/VALVE
c.	☐	☐	☐	CLOSURE
d.	☐	☐	☐	CHIME
e.	☐	☐	☐	WELD/SEAM
f.	☐	☐	☐	HOSE/PIPING
g.	☐	☐	☐	INNER LINER
h.	☐	☐	☐	OTHER _____

IX. DESCRIPTION OF EVENTS: Describe the sequence of events that led to incident, action taken at time discovered, and action taken to prevent future incidents. Include any recommendations to improve packaging, handling, or transportation of hazardous materials. Photographs and diagrams should be submitted when necessary for clarification. ATTACH A COPY OF THE HAZARDOUS WASTE MANIFEST FOR INCIDENTS INVOLVING HAZARDOUS WASTE. Continue on additional sheets if necessary.

46. NAME OF PERSON RESPONSIBLE FOR PREPARING REPORT	47. SIGNATURE	
48. TITLE OF PERSON RESPONSIBLE FOR PREPARING REPORT	49. TELEPHONE NUMBER (Area Code)	50. DATE REPORT SIGNED

STATE OF NEW JERSEY INCIDENT REPORTING FORM

DEQ-023 A
4/89

New Jersey Department of Environmental Protection
Div. of Environmental Quality — Bur. of Communications & Support Services
Phone: (609) 292-7172

TD LOG # ____

COMMUNICATIONS CENTER NOTIFICATION REPORT

CASE NO. ____ (Yr) - ____ (Mo) - ____ (Day) - ____ (Time)

DATE ____ (Mo) - ____ (Day) - ____ (Yr) REC'D BY ____ / ____ (Initials) REVIEWED BY ____

NATURE OF INCIDENT: ___Citizen Notification ___Munic. Notification ___Facil. Notification ___Other Notification

INCIDENT REPORT BY:

Name ____ Phone ____
Street ____
Municipality ____ State ____
Affiliation/Title ____

INCIDENT LOCATION: ___Transportation ___Facility ___Other

Name (Site) ____ Phone ____
Street ____
Municipality ____ County ____ State ____ Zip Code ____

Location Type: ___Residential ___Industrial ___Rural ___Sensitive Population (Hospital, School, Nursing Home)

Date of Incident: ____ (Mo) - ____ (Day) - ____ (Yr) Time: ____

IDENTITY OF SUBSTANCE(S) SPILLED, RELEASE, ETC.: ___Known ___Suspected ___Unknown ___None

Name of Substance(s): (Gas, Liquid, Solid) ____
TCPA Chemical (Y/N/U) CAS Number ____
Amount Released/Spilled ____ ___Actual ___Potential ___Estimated
Substance Contained (Y/N/U)
Type of Release/Spill: ___Terminated ___Continuous ___Intermittent
Hazardous Material (Y/N/U) A310 Letter (Y/N) COMU CODE ____ REF CODE ____

INCIDENT DESCRIPTION:

___Fire ___Explosion ___Air Rel ___Spill ___Abandoned Containers ___Illegal Dumping
___MVA ___Odors ___Smoke/Dust ___Sewage ___NJPDES ___L.U.S.T. ___Wildlife
___Equip. Startup/Shutdown, Equip. Fail/Upset, etc. ____
___Other (Derailment, Ocean Dumping, Noise, etc.) ____

Injuries (Y/N/U)
Facility Evacuation (Y/N/U)
Public Evacuation (Y/N/U)
Contamination of ___Air ___Land ___Water
Receiving Water ____

Public Exposure (Y/N/U)
Police at Scene (Y/N/U)
Firemen at Scene (Y/N/U)
Assistance Requested (Y/N/U)
Wind Direction/Speed ____ / ____

STATUS AT INCIDENT SCENE ____

RESPONSIBLE PARTY: ___Known ___Suspected ___Unknown

Company Name ____ Phone ____
Contact ____ Title ____
Street ____
Municipality ____ County ____ State ____ Zip Code ____

OFFICIALS NOTIFIED (Name/Title):

NJSP ____ / ____ Phone ____ Date/Time ____ / ____ (T/M)
Local Health ____ / ____ Phone ____ Date/Time ____ / ____ (T/M)
Local Munic. ____ / ____ Phone ____ Date/Time ____ / ____ (T/M)
Other ____ / ____ Phone ____ Date/Time ____ / ____ (T/M)

INCIDENT REFERRED TO:

___DEQ ___DWR ___DSWM ___DHSM ___DOH ___DFG ___DPF ___DCJ ___DCR
Region: ___Northern ___Metro ___Central ___Southern ___ER1 ___ER2

1. Name/Affil ____ / ____ Phone ____ Date/Time ____ / ____ (T/M)
2. Name/Affil ____ / ____ Phone ____ Date/Time ____ / ____ (T/M)
3. Name/Affil ____ / ____ Phone ____ Date/Time ____ / ____ (T/M)

COMMENTS ____

COPIES: White - Comm. Center Yellow - Lead Agency Pink - A310

STATE OF NEW YORK INCIDENT REPORTING FORM

NYSDEC INITIAL SPILL RESPONSE FORM

REGION____ SPILL NUMBER _____

SPILL NAME_____ RESPONDER_____

CALLER'S NAME:_____ NOTIFIER'S NAME:_____

CALLER'S AGENCY:_____ NOTIFIER'S AGENCY:_____

CALLER'S PHONE: ( )_____ NOTIFIER'S PHONE: ( ) _____

SPILL DATE: ___/___/___ TIME:_____hrs. ANS SVC DATE:___/___/___ TIME:_____hrs.

CENT OFF DATE:___/___/___ TIME:_____hrs. FIRST CALL: A, R, C ANS SVC OPER_____

REG OFF DATE: ___/___/___ TIME:_____hrs. SARA Title III/CERCLA Notification Y / N

PETROLEUM SPILLED

1 - Gasoline 4 - #6 Fuel 7 - Waste Oil 10 - Kerosene
2 - #2 Fuel 5 - Diesel 8 - Non-PCB Oil 11 - Unknown
3 - #4 Fuel 6 - Jet Fuel 9 - PCB Oil

MATERIAL CLASS

1 - Petroleum 3 - Hazardous Material 5 - Unknown
2 - Non-Petro/Non-Haz 4 - Raw Sewage

QUANTITY: _____gals/lbs Amount Recovered_____

Other Material Spilled_____

SPILL LOCATION

PLACE:_____

_____

STREET:_____

T/C/V_____CO:_____

CONTACT: _____

PHONE: ( )_____

SPILLER (If Different)

NAME:_____

STREET:_____

CITY/ST/ZIP:_____

CONTACT:_____

PHONE: ( )_____

OTHER INFO:_____

SPILL CAUSE

1 - Human Error 5 - Tank Test Failure 9 - Tank Failure
2 - Traffic Accident 6 - Housekeeping 10 - Tank Overfill
3 - Equipment Failure 7 - Deliberate 11 - Other
4 - Vandalism 8 - Abandoned Drums 12 - Unknown

SPILL SOURCE

1 - Comm/Indust 5 - Gas Station 9 - Private Dwelling
2 - Non-Comm/Inst 6 - Passenger Vehicle 10 - Vessel
3 - Major Facility 400,000 gal 7 - Comm Vehicle 11 - Railroad Car
4 - Non-Maj Facility 1 :100 gal 8 - Tank Truck 12 - Unknown

RESOURCE AFFECTED

1 - On Land 3 - Groundwater 5 - Air
2 - In Sewer 4 - Surface Water

Waterbody_____

Drainage Basin/Sub-Basin_____

DEC NOTIFIED BY:

1 - Responsible Party 5 - Tank Tester 9 - Local Agency b. Tank Contractor
2 - Affected Persons 6 - DEC 10 - Federal Gov't c. Clean-up Contractor
3 - Police Department 7 - Citizen 11 - Other d. Envir. Consultant
4 - Fire Department 8 - Health Dept. a. Fuel Supplier e. _____

REMARKS:_____

PIN #	T&A	Cost Center	
Status: Active / Closed	Env. Complete / /	ISR to Central Office / /	
Non-PIN Closed / /	Last Inspection / /	Penalty Y / N	Inspector

Tank Test Failure Y / N Tank Size _____Gal. Test Method _____ System/Tank/Line

Leak Rate _____GPH PBS # _____ Tank I.D.#'s _____ Manifold Y / N

Cleaner: 1 - State 2 - Spiller 3 - Local 4 - No Action		History / / :
UST Trust Eligible Y / N	Site: A B C D E Resp. Party 1 2 3 4 5 6	

Regional Contact_____ Central Duty Ofcr_____ EDO: Y/N _____ DATA INPUT [ ]

Revised 10/05/92

STATE OF CALIFORNIA INCIDENT REPORTING FORM

CALIFORNIA HAZARDOUS MATERIAL INCIDENT REPORTING SYSTEM

INSTRUCTION MANUAL

Revised January 1991

CALIFORNIA HAZARDOUS MATERIAL INCIDENT REPORT

OES 1/91

CHANGE 1 ☐
DELETE 2 ☐

A
AGENCY NAME | AGENCY ID NO. | AGENCY INCIDENT NO. | AGENCY PHONE NO. ( )_____–_____ | OES CONTROL NO.

B
INCIDENT DATE MO DAY YEAR | TIME NOTIFIED | TIME COMPLETED | DATE COMPLETED (IF DIFFERENT) MO DAY YEAR

C
INCIDENT ADDRESS/LOCATION | CITY/COMMUNITY | COUNTY | ZIP

D
WEATHER (CHECK BEST DESCRIPTOR/S)
1__CLEAR 5__HAIL, SLEET 8__HIGH WIND
3__RAIN 6__ELECTRICAL STORM 9__OTHER
4__SNOW 7__FOG 0__UNKNOWN

ESTIMATED TEMPERATURE ___ ___ ___ (Deg. F)

PROPERTY USE (USE CODES ON REVERSE)
PROPERTY USE ___ ___ ___ SURROUNDING AREA ___ ___ ___
PROPERTY MANAGEMENT __FEDERAL __STATE __COUNTY __CITY __PRIVATE __UNKNOWN

E
RELEASE FACTORS (CHECK BEST DESCRIPTOR/S)
11__INTENTIONAL ACT
12__SUSPICIOUS ACT
30__FAILURE TO CONTROL HAZMAT
31__ABANDONED
40__MISUSE OF HAZMAT
50__MECHANICAL FAILURE
60__DESIGN, CONSTRUCTION, INSTALLATION DEFICIENCY
70__OPERATIONAL DEFICIENCY
71__COLLISION/OVERTURN
80__NATURAL CONDITION
94__FIRE/EXPLOSION
98__NO RELEASE
99__OTHER _____
00__UNDETERMINED

TYPE OF EQUIPMENT INVOLVED
10__HEATING SYSTEMS
30__AIR CONDITION/REFRIG
77__CHEM PROCESSING EQUIP
78__WASTE RECOVERY EQUIP
96__HAZMAT TRANSFER EQUIP
97__VEHICULAR FUEL SYSTEM
98__NO EQUIP INVOLVED
99__OTHER _____
00__UNDETERMINED

MOBILE PROPERTY TYPE
10__PASSENGER VEH/ROAD
20__FREIGHT VEH/ROAD
30__RAIL TRANSPORT VEH
40__WATER TRANS VESSEL
50__AIR TRANSPORT VEH
60__HEAVY EQUIP-INDUST/AGRI
98__NO MOBILE PROPERTY INVOLVED
99__OTHER _____
00__UNDETERMINED

F
ACTIONS TAKEN (CHECK BEST DESCRIPTOR/S)
31__RESCUE, REMOVE FROM HARM
32__EXTRICATION, DISENTANGLEMENT
33__EMERGENCY MEDICAL SERVICES
35__SEARCH
36__TRANSPORT
41__REMOVE HAZARD (NEUTRALIZE)
42__ID/ANALYSIS OF HAZMAT
43__EVACUATION
44__ESTABLISH SAFE AREA
45__MONITOR
46__DECON-PERSON/EQUIP
47__DECON-AREA (CLEANUP)
48__CONTAIN/CONTROL HAZMAT
61__CROWD CONTROL
62__TRAFFIC CONTROL
63__NOTIFY OTHER AGENCY
64__PROVIDE PUBLIC INFO
71__INVESTIGATE
73__SHUT DOWN SYSTEM
82__SECURE PROPERTY
92__REFER TO PROPER AUTHORITY
98__NO ACTION TAKEN
97__HAZMAT RESPONSE, MATERIAL DETERMINED TO BE NONHAZARDOUS
99__OTHER _____

G
CHEMICAL OR TRADE NAME (PRINT OR TYPE) | DOT ID NO. ____ | DOT HAZARD CLASS ___ | CAS NO. _____

PHYSICAL STATE STORED: 1__SOLID 2__LIQUID 3__GAS
PHYSICAL STATE RELEASED: 1__SOLID 2__LIQUID 3__GAS
QUANTITY RELEASED _____ 1__lbs. 2__gal. 3__cu.ft.
ENVIRONMENTAL CONTAMINATION: 1__AIR 2__WATER 3__GROUND 9__OTHER
(USE CODES ON REVERSE) EXTENT OF RELEASE____

CONTAINER DESCRIPTION
1__FIXED 2__PORTABLE 3__MOBILE
1__INSULATED 2__PRESSURIZED 3__ARMORED
(USE CODES ON REVERSE) CONTAINER TYPE___ LEVEL OF CONTAINER___ CONTAINER MATERIAL___
CONTAINER CAPACITY _____ 1__lbs. 2__gal. 3__cu. ft.

CHEMICAL OR TRADE NAME (PRINT OR TYPE) | DOT ID NO. ____ | DOT HAZARD CLASS ___ | CAS NO. _____

PHYSICAL STATE STORED: 1__SOLID 2__LIQUID 3__GAS
PHYSICAL STATE RELEASED: 1__SOLID 2__LIQUID 3__GAS
QUANTITY RELEASED _____ 1__lbs. 2__gal. 3__cu.ft.
ENVIRONMENTAL CONTAMINATION: 1__AIR 2__WATER 3__GROUND 9__OTHER
(USE CODES ON REVERSE) EXTENT OF RELEASE____

CONTAINER DESCRIPTION
1__FIXED 2__PORTABLE 3__MOBILE
1__INSULATED 2__PRESSURIZED 3__ARMORED
(USE CODES ON REVERSE) CONTAINER TYPE___ LEVEL OF CONTAINER___ CONTAINER MATERIAL___
CONTAINER CAPACITY _____ 1__lbs. 2__gal. 3__cu. ft.

H
MORE THAN 2 SUBSTANCES INVOLVED? ___YES ___NO (LIST ADDITIONAL INFORMATION ON REVERSE SIDE)

I
SPECIAL STUDIES LOCAL USE 1. A B C D 2. A B C D 3. A B C D | STATE USE 4. A B C D 5. A B C D 6. A B C D

J
HAZMAT IDENTIFICATION SOURCES (CHECK BEST DESCRIPTOR/S)

PERSONNEL
19__ON-SITE FIRE SERVICES
29__OFF-SITE FIRE SERVICES
40__ON-SITE NON-FIRE SERVICES
50__OFF-SITE NON-FIRE SERVICES
54__CHEMIST
58__TOX CENTER
59__CHEMTREC
99__OTHER _____

REFERENCE MATERIAL
21__DOT MANUAL
23__MSDS
24__PLACARDS/SIGNS
25__PRIVATE INFO SOURCE
26__COMPUTER SOFTWARE
27__SHIPPING PAPERS
98__NO REFERENCE MATERIAL USED
99__OTHER _____

HAZMAT CASUALTIES

	NUMBER OF DECONTAMINATED	NUMBER OF INJURIES	NUMBER OF FATALITIES
RESPONDING AGENCY PERSONNEL	____	____	____
OTHERS	____	____	____

K

VEHICLE MAKE/YEAR	VEHICLE LICENSE NO.	STATE	VEHICLE ID NO. (VIN)	CA/DOT/PUC/ICC NO.	COMPANY NAME

L
REPORTING OFFICER NAME/ID NO. (PRINT OR TYPE) | DATE | COMMENTS ON BACK? ___YES ___NO

APPENDIX B

STATE ORGANIZATIONS AND INDIVIDUALS CONTACTED

STATE ORGANIZATIONS AND INDIVIDUALS CONTACTED

THE STATE OF NEW JERSEY
New Jersey Hazardous Material Spill Incident Notification System

Mike Tompkins
Department of Environmental Protection
Division of Environmental Quality
Third Floor
Nine Ewing Street
Trenton, New Jersey 08625
(609)633-0898 or (609)633-2930

THE STATE OF NEW YORK
New York State Spill Information System

Dick Schowe
Bureau of Spill Prevention and Response
Room 300
50 Wolf Road
Albany, New York 12223
(518)457-2462 or (518)457-0721

THE STATE OF CALIFORNIA
California Hazardous Material Incident Reporting System (CHMIRS)

Dennis Strobel
Office of Emergency Services/HAZMAT
2800 Meadowview Road
Sacramento, California 95832
(916)262-1750