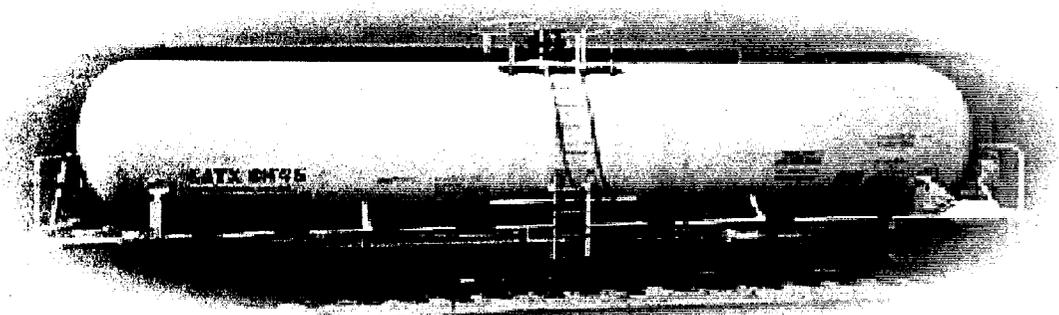


ILLINOIS
COMMERCE COMMISSION



**1999 ANNUAL REPORT
ON ACCIDENTS/INCIDENTS
Involving Hazardous Materials
on Railroads in Illinois**





ILLINOIS COMMERCE COMMISSION

Richard L. Mathias
Chairman

May 9, 2000

Members of Illinois General Assembly
State Capitol
Springfield, Illinois 62706

Re: 1999 ICC Hazardous Materials Report

Dear Members of the Illinois General Assembly:

The attached report by the staff of the Illinois Commerce Commission is hereby submitted to the General Assembly in response to 625 Illinois Compiled Statutes, 18c-1204. Section 18c-1204 which directs the Commission to "prepare and distribute to the General Assembly... a report on railway accidents in Illinois which involve hazardous materials."

As required by Illinois law, this report includes the location, substance involved, amounts involved, and the suspected reason for each accident which occurred in Illinois during calendar year 1999. The report also provides the rail line and point or origin of the hazardous material involved in each accident.

Additionally, the report contains the following related information:

- Details regarding events where hazardous material was involved but no release occurred;
- An overview of ICC activities relative to the transportation of hazardous materials by rail within the State; and,
- A history of the railroad hazardous materials program.

Sincerely,

A handwritten signature in cursive script that reads "Richard L. Mathias".

Richard L. Mathias
Chairman

**ILLINOIS COMMERCE COMMISSION'S
1999 ANNUAL REPORT
ON ACCIDENTS/INCIDENTS
INVOLVING HAZARDOUS MATERIALS ON
RAILROADS IN ILLINOIS**

**Prepared by:
Transportation Division
Railroad Safety Section**

**Illinois Commerce Commission
527 East Capitol Avenue
Springfield, Illinois 62701**

FORWARD

The following report by the staff of the Illinois Commerce Commission I prepared in accordance with the provisions of 625 ILCS 5/18c-1204, which directs the Commission to "prepare and distribute to the General Assembly... a report on railway accidents in Illinois which involve hazardous materials." The law also provides that the report shall include the location, substance involved, amounts involved, and the suspected reason for each accident, as well as the rail line and point or origin of the hazardous material involved in each accident."

Additionally, the report contains the following related information:

- Details regarding events where hazardous material was involved but no release occurred;
- An overview of ICC activities relative to the transportation of hazardous materials by rail within the State; and,
- A history of the railroad hazardous materials program.

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BACKGROUND

Illinois is a key hub in the nation's transportation system. With nearly 8,000 miles of railroad track, Illinois' rail system is the country's second largest, with the Chicago and East St. Louis terminals being two of the country's busiest. Approximately three million tons of hazardous materials move by rail through Illinois per year, representing 9 to 11 percent of the total Illinois freight traffic, and making Illinois the second ranked state in the nation in origination, and third in termination, of hazardous materials shipments

There are approximately 3,500 materials identified as hazardous by the U. S. Department of Transportation ranging from mild irritants to poisonous and radioactive materials. The Association of American Railroads' Bureau of Explosives has identified approximately 125 hazardous materials which comprise 88 percent of railroad hazardous materials shipments (see Attachment 6 for a listing of hazardous materials commonly transported by rail in the United States and the hazard class of that commodity). Shipments range from packages as small as pint containers within trailers on flat cars to as large as 42,000 gallon tank cars.

In 1999, 15,102 hazardous materials rail cars were inspected in Illinois, up from 10,673 in 1998. Violations of hazardous materials regulations found by Commission inspectors decreased from 12 percent of 47,714 cars inspected in 1981 to 4.2 percent in 1999. This reduction is due in large part to Commission initiated conferences with rail carriers and shippers to apprise them of the complex and evolving regulations and ICC follow-up inspections to assure compliance.

LEGISLATIVE HISTORY

On August 2, 1978, the Illinois Hazardous Materials Railroad Transportation Act (IHMRTA) was signed into law. This legislation was enacted after major railroad incidents involving hazardous materials occurred in Crescent City, Decatur, and East St. Louis. The Illinois Commercial Transportation Law (ICTL), which became effective January 1, 1986, recodified existing transportation regulations, including the IHMRTA, into one statute. The ICTL was amended effective January 1, 1988, to give the Commission jurisdiction over that portion of private facilities used in preparation for, or in receipt of, shipments of hazardous materials by railroad. On January 1, 1993, the Illinois Compiled Statutes superseded the Illinois Revised Statutes. This changed the legislative citation of the Illinois Commercial Transportation Law from 95 Illinois Revised Statutes 18c-7404 to 625 ILCS 5/18c-7404. Section 18c-7404 (a) (i) provides that:

- (a) Powers of the Commission. The Commission is authorized to regulate the transportation of hazardous materials by rail carrier by:
 - (i) Adopting by reference the hazardous materials regulations of the Office of Hazardous Materials Transportation and the Federal Railroad Administration of the United States Department of Transportation, as amended.

Pursuant to this legislation, the Commission has adopted, by reference, and periodically updated applicable portions of rail transportation regulations contained in the Code of Federal Regulations, Title 49, Parts 100-185, the most recent being its 92 Illinois Administrative Code 1605, effective January 1, 1990.

This annual report on railroad hazardous materials transportation is mandated by 625 Illinois Compiled Statutes 5/18c-1204 (3) Additional Functions. The first report was published by the Commission in April of 1990.

HAZARDOUS MATERIALS INSPECTION ACTIVITIES

As a result of the IHMRTA and an initial appropriation by the General Assembly, in 1978, the Commission established a railroad hazardous materials program which was continued under the ICTL. The program has four main components: (1) inspection, (2) technical assistance, (3) escort of nuclear materials (none are currently being shipped by rail), and (4) education.

Inspections

The four categories of inspections are as follows:

Railroad Equipment

Hazardous materials equipment inspections are performed on a stationary hazardous material rail car normally in a railroad yard or on a shipping facility's loading and unloading tracks. This is to ensure proper placarding (placards provide recognition information in a number of ways - see Attachment 1 for examples of placards and information they provide, particularly to emergency response personnel), marking, stencilling, tank and valve test dates, and mechanical safety features. When all of the above conform with 92 Illinois Administrative Code 1605, the rail car is in compliance with federal and state regulations.

Roll-By

A roll-by inspection involves monitoring an entire moving train. The location of loaded hazardous materials cars and those which have been unloaded but still contain a residue of a hazardous material is observed in relation to engines, occupied cabooses, other hazardous materials cars, and certain other types of cars and their lading, which could damage a hazardous materials car. If cars are improperly placed in the train, Commission inspectors stop the train and order proper placement.

Inspectors meet with train crews at departure and arrival terminals to see that they have the required copies of train consists and car movement waybills. A "consist" lists the location of each car in the train and indicates the location of a hazardous materials car to ensure that the car is properly placed within the train (see Attachment 3 for a sample consist). A "waybill" is a document listing goods and shipping instructions (see Attachment 2 for sample waybill). Both federal and state regulations require emergency response information to be present on a waybill, or on a waybill in conjunction with an emergency response book, or on a material safety data sheet in conjunction with a train consist (for a sample of a data sheet, see Attachment 4). In the event of an incident, this information provides valuable assistance to emergency response personnel.

Roll-by field inspection data, including location, date, railroad, line ID, number of cars, and identification numbers for hazardous materials cars, is entered into a Commission computer. Hazardous materials flow statistics then may be generated for any specific time period, location, railroad, or rail line.

Documentation

Documentation inspections are conducted at rail freight offices and private shipping facilities. This involves checking for the proper preparation of shipping documents including waybills and bills of lading. A bill of lading is a document listing goods for shipment (see Attachment 5 for a typical bill of lading). A twenty-four hour emergency response telephone number must be on the shipping paper following the description of the hazardous material or on the waybill in a clearly visible location. Inspectors check for the proper shipping name, hazard class, 4-digit identification number, and weight. Hazardous materials regulations require all of the above. This is critical in the event of a mishap involving hazardous materials cars. Emergency response personnel can then get necessary and accurate information from the waybill to prepare an appropriate response to the incident.

Shipping Facilities

Shipping facilities inspections are conducted at privately owned facilities. The purpose of these inspections is to ensure that loading and unloading operations are being safely performed, that rail cars are safe, and that all hazardous materials regulations are met prior to such cars being released to rail carriers for shipment.

Inspectors also meet with shippers' personnel to discuss the regulations and check bills of lading. Inspectors met with 17 major shippers in 1999.

Technical Assistance

Commission inspectors also respond to rail related collisions/incidents involving hazardous materials. The Commission's role is to provide technical assistance to the emergency response personnel. Inspectors provide assistance by determining whether the product information provided by the rail carrier or shipper to the emergency response personnel is proper and adequate, by advising as to spill mitigation and clean-up techniques, by assisting in the identification of the cause of the event, and by checking for violations of hazardous materials regulations. Commission inspectors are available to respond to railroad hazardous materials incidents at any time of the day or night.

The Commission is one of eleven state agencies with a primary role in hazardous materials incident response. With this responsibility, it is a member of the State Hazardous Materials Emergency Response Team which assembles at major incidents to coordinate response. The Commission is the only state agency with direct jurisdiction over railroads.

Under Title III of the Superfund Amendments and Reauthorization Act (SARA), statistical information on hazardous materials flow is available on request to county-wide emergency planning districts and to local fire departments and emergency response agencies. Information has been provided to 19 local fire departments and emergency response agencies since 1990.

Escort of Nuclear Material

The movement of nuclear material, in or through the state of Illinois by rail, occurs with minimal frequency. The last such series of rail movements took place in April 1990. Acting pursuant to Volume X of the ILLINOIS PLAN FOR RADIOLOGICAL ACCIDENTS, Commission railroad hazardous materials inspectors stopped trains hauling spent nuclear fuel from Nebraska and Minnesota and Three Mile Island nuclear waste at or near the Illinois border and, along with Illinois Department of Nuclear Safety personnel, inspected

and examined the shipments to see that they met hazardous materials and radioactive materials regulations. They then escorted the trains as they moved through, or terminated in Illinois. Illinois Commerce Commission track inspectors, certified by the Federal Railroad Administration, also made a track inspection ahead of the train movements. These materials were transported in special trains which handled only two or three cask cars per shipment and traveled at a maximum speed of 35 miles per hour. These trains were also provided with an armed escort by the shipper.

The Commission anticipates more of this type of rail movement in the future as spent fuel is moved to a national repository.

Radioactive material is probably the most controversial and misunderstood class of hazardous materials being transported by railroad. Although there has never been a transportation accident during which radioactive material was released, widespread concern remains regarding its safe transportation and thus careful planning and inspection are essential to building and maintaining public confidence.

Education

As provided by statute, Commission inspectors offer training for local enforcement and emergency response agencies. This training is designed to acquaint participants with rail car marking and placarding requirements and emergency response guide books. Another program is presented to fire departments concerning tank car structure and damage assessment. Commission inspectors also make presentations on the interpretation and application of the federal and state hazardous materials regulations to railroad company personnel. Since 1990, seventy presentations on hazardous materials have been made to approximately 1,570 persons affiliated with a variety of emergency planning and response teams.

The Illinois Emergency Management Agency provides hazardous materials training and certification that emergency response personnel must have. This, along with the increased availability of private organizations and universities offering hazardous materials training and certification, has resulted in fewer requests for presentations by our hazardous materials inspectors.

Advisory Board Participation (Accident Response Planning)

The Railroad Safety Program Administrator of the Commission's Transportation Division is a member of the Illinois Hazardous Materials Advisory Board. The Board was

instrumental in setting minimum standards for hazardous materials response training, incident notification and evaluation, and emergency planning under 430 ILCS 50/4 of the Illinois Compiled Statutes. In recent years, the Illinois Emergency Management Agency has taken over some of the Illinois Hazardous Material Advisory Board's duties.

Commission Inspection Program and Personnel

During 1999, each inspector spent approximately 80% of the work year at various railroad sites and industrial locations around the state, checking for compliance with hazardous materials regulations. Each major railroad yard and interchange point was monitored seven to eight times per year. Railroad shippers also were monitored on a regular basis. The remaining non-field time was spent in the following areas: responding to buyer and seller inquiries under the Illinois Responsible Property Transfer Act of 1988, pertaining to spilled hazardous materials along railroad property, responding to inquiries and complaints from the public, shippers and railroads dealing with hazardous materials; and responding to The Illinois State Geological Survey (IDNR) requests for information about railroad hazardous materials spills. The last item is necessary for environmental site assessments, which are prepared for the Illinois Department of Transportation. This information is used to evaluate the possible presence of hazardous materials on property to be acquired for road improvements. The remaining time was spent in training, entering hazardous materials inspection data into computers and other office activity.

The two inspectors who performed the work documented in this report have over 36 years of hazardous materials and railroad experience combined. Their regulatory enforcement and emergency response training has been ongoing since joining the staff. Since the inception of the program, Commission inspectors have received training at the Transportation Safety Institute in Oklahoma City, Oklahoma; the Colorado Training Institute in Denver, Colorado; the Fire Service Institute at the University of Illinois in Champaign; the Federal Railroad Administration Hazardous Materials training in Kansas City, Missouri; the Federal Railroad Administration's Orientation Course in Washington, D.C.; the Advanced Hazardous Materials Regulations Course in Atlanta, Georgia; the International Maritime Dangerous Goods Course in Seattle, Washington; the Advanced Hazardous Materials Course in Denver, Colorado; the Tank Car Course in Longview, Texas; and the Radar and Tank Car Course in Valparaiso, Indiana.

During 1999, both inspectors attended a Hazardous Waste Response Course in Las Vegas. One inspector attended a Transportation of Dangerous Goods course provided by the Federal Railroad Administration; High Level Radioactive Waste Courses in Indianapolis and Kansas City; Testing of High Level Radioactive Shipping Casks Course in Las Vegas; and Chemical Emergency Preparedness and Prevention Conference in Washington, D.C.

DATA REGARDING ACCIDENTS DURING 1999 REQUIRED BY LAW

Specific information required by 625 Illinois Compiled Statutes 18c-1204 is shown in tabular form on the following pages. The applicable Section states: "The staff shall prepare and distribute to the General Assembly, in April of each year, a report on railway accidents in Illinois which involve hazardous materials. The report shall include the location, substance involved, amounts involved, and the suspected reason for each accident. The report shall also reveal the rail line and point of origin of the hazardous material involved in each accident."

The report is divided into three categories.

Table A shows railroad derailments where hazardous materials were being transported in the derailed railroad equipment and a hazardous material release occurred.

Table B shows railroad derailments where hazardous materials were being transported in the train and railroad equipment derailed, but no hazardous material was released.

Table C shows hazardous material releases from railroad equipment where no derailment occurred.

The location column in Tables A, B, and C indicates the county where the accident/incident occurred and the nearest identifiable location. Information for all three tables was obtained from reports to the Commission from Illinois railroads and from the United States Department of Transportation, Research and Special Programs Administration.

Three categories of information not specifically requested by the General Assembly have been added to make the report more useful. The first category is "Amount Released". This is important since the category "Amount Involved", cited in the statute, could easily be confused with the category of "Amount Released". Amount Involved is how much was being transported. Amount Released is how much was actually released to the environment. The second added category is the type of railroad equipment involved since it was felt that this information would be useful in interpreting the report. The third category, added to help identify the specific incident, is the date of the incident

In the tables, railroad companies are designated by their initials. A listing of the

complete names of each company follows Tables A, B, and C.

STATE AND FEDERAL PARTICIPATION PROGRAM

Under federal law 49 CFR, Part 212, which became effective July 24, 1992, individual states are authorized to participate in the Railroad Hazardous Materials Inspection Program. This program is under the supervision of the FRA and allows state inspectors the same authority as federal inspectors in safety inspections and investigations, with respect to the transportation of hazardous materials, under the Federal Hazardous Materials Transportation Uniform Safety Act of 1990.

In order to participate in the Federal Railroad Administration Hazardous Materials inspection program, the state has to annually enter into a federal-state participation agreement. If such an agreement is not entered into, the state will be preempted from rail hazardous materials enforcement activity.

Since 1993 the Commission's Hazardous Materials Inspectors have been utilizing federal report forms as called for under Federal Railroad Safety Program State Participation Agreement. Inspectors also continue to use the state inspection report forms since federal forms do not require all the data necessary to prepare this report and respond to public inquiries and complaints concerning hazardous materials transportation. However, any violations found upon which the inspectors recommend action be taken must be handled through the Federal Railroad Administration under the federal-state agreement.

Under the Federal Railroad Administration program, continuing federal training for the hazardous materials inspectors is also provided at Federal Railroad Administration's cost.

QUALIFICATIONS FOR A HAZARDOUS MATERIALS INSPECTOR

Minimum qualifications for hazardous materials inspectors are established at CFR 49, §212.227 as follows:

- (a) The hazardous materials inspector is required, at a minimum, to be able to conduct independent inspections to determine compliance with all pertinent sections of the Federal hazardous materials regulations (49 CFR parts 171 through 174, 179 and 180), to make reports of those inspections and findings, and

to recommend the institution of enforcement actions when appropriate to promote compliance.

(b) The hazardous materials inspector is required, at a minimum, to have at least two years of recent experience in developing, administering, or performing managerial functions related to compliance with the hazardous materials regulations; four years of recent experience in performing functions related to compliance with the hazardous materials regulations; or a bachelor's degree in a related technical specialization. Successful completion of the apprentice training program may be substituted for this requirement.

(c) The hazardous materials inspector shall demonstrate the following specific qualifications:

(1) A comprehensive knowledge of the transportation and operating procedures employed in the railroad, shipping, or manufacturing industries associated with the transportation of hazardous materials;

(2) Knowledge and ability to understand and detect deviations from the Department of Transportation's Hazardous Materials Regulations, including Federal requirements and industry standards for the manufacturing of bulk packaging used in the transportation of hazardous materials by railroad;

(3) Knowledge of the physical and chemical properties and chemical hazards associated with hazardous materials that are transported by railroad;

(4) Knowledge of the proper remedial actions required to bring railroad, shipper, and/or manufacturing facilities into compliance with the Federal regulations; and

(5) Knowledge of the proper remedial actions required when a hazardous materials transportation accident or incident occurs.

To be certified, an inspector must spend time in the field with a Federal Railroad Administration Hazardous Materials Specialist and pass a written examination on the Hazardous Materials Regulations.

TABLE A

Hazardous Materials Physically Involved In Derailment And Hazardous Materials Release Occurred

Location	Railroad Involved	Substance Involved	Point of Origin	Suspected Reason for Incident	Amounts Involved	Amounts Released	Type of Equip.	Date
Rossville Vermilion	KBSR	Diesel Fuel	Unknown	Ice and Snow	3,000 Gals.	700-800 Gals.	E	1/14/99
Momence Kankakee	UP	Diesel Fuel	Villa Grove, IL	East bound CR struck south bound UP	16,000 Gals.	11,700 Gals.	E	3/23/99
Chicago Cook	UP	Flammable Liquid, NOS	Chicago, IL	Top inlet cover had not been secured correctly	30,000 Gals.	< 1 Gal.	T	3/24/99
Chicago Cook	UP	Diesel Fuel	Yard	Faulty Switch	4,000 Gals.	150 Gals.	E	5/6/99
Chicago Cook	BNSF	Diesel Fuel	Yard	Faulty Switch	4,000 Gals.	2,500 Gals.	E	6/28/99
Summit Cook	WC	Diesel Fuel	Yard	ran over derail and punctured tank	3,000 Gals.	400 Gals.	E	7/24/99
Colchester McDonough	BNSF	Ethyl Methyl Ketone	Chicago, IL	Broken rail	30,182 Gals.	< 1 Gal.	T	8/14/99
Doran Rock Island	BNSF	Diesel Fuel	Yard	wide gauge	4,000 Gals.	1,500 Gals.	E	12/11/99

T = Tank E = Engine CH = Covered Hopper R = Refrigerated Car COFC = Container on Flat Car

TABLE B

Hazardous Materials Physically Involved In Derailment Where No Hazardous Materials Release Occurred

Location	Railroad Involved	Substance Involved	Point of Origin	Suspected Reason for Incident	Amounts Involved	Amounts Released	Type of Equip.	Date
Tuscola Douglas	IC	Denatured Alcohol	Decatur, IL	Broken Rail	33,300 gals.	0	T	1/10/99
Lorenzo Will	BNSF	Liquid Petroleum Gas	Lorenzo, IL	Unknown	33,687 gals.	0	T	2/3/99
Chicago Cook	UP	Perfumery Products aerosols	Apiny New Jersey	Snow packed switch	33,000 gals.	0	T	2/25/99
Decatur Macon	UP	Denatured Alcohol	Jacksonville Florida	Faulty Switch	33,100 gals.	0	T	05/10/99
Chicago Cook	CSX	Chlorine	Niagara Falls New York	Human Error	33,000 gals.	0	T	10/11/99
Dolton Cook	UP	Butadienes	Channel View Texas	Broken Rail	33,100 gals.	0	T	10/24/99
Dolton Cook	UP	Dibyclopentadiene	Channel View Texas	Broken Rail	33,000 gals.	0	T	10/24/99
Belvidere Boone	UP	Anhydrous Ammonia	Lima Ohio	Broken Rail	30,000 Gals.	0	T	11/15/99

T = Tank TOFC = Trailer on Flat Car

TABLE C

Hazardous Materials Released From Rail Cars Where No Derailment Occurred

Location	Railroad Involved	Substance Involved	Point of Origin	Suspected Reason for Incident	Amounts Involved	Amounts Released	Type of Equip.	Date
Decatur Macon	CSX	Diesel Fuel	Yard	Ice & snow	3,600 gals.	500 gals.	E	1/3/99
Chenoa McLean	UP	Diesel Fuel	unknown	Struck ice and punctured fuel tank	3,000 gals.	50 - 100 gals.	E	1/13/99
Danville Vermilion	CSX	Methanol	Pace, FL	Leaking around tank shell flange	30,106 gals.	10 gals.	T	1/17/99
Proviso Cook	UP	Flammable Liquid NOS	Cleveland, OH	Blocking & bracing	1,900 gals.	5 gals.	T	1/22/99
Homewood Cook	IC	Sodium Hydroxide Solution	Lemont, IL	Switching	15,895 gals	2 gals.	T	1/27/99
Homewood Cook	IC	Ammonia, Anhydrous	Melvin, IL	Loose packing nut on slip tube	35,603 gals.	Vapor	T	1/30/99
Homewood Cook	IC	N-Propanol	Charleston, WV.	Break in tank weld near stub sill on the A end	30,193 gals.	5 gals.	T	1/30/99
Paris Edgar	CR	Sulfuric Acid	Danville, IL	Ruptured frangible disk	136,000 lbs.	Unknown	T	2/9/99
E. St.. Louis St. Clair	UP	Phosphoric Acid	Geismer, LA	Mis-aligned gasket on manway cover	14,704 gals.	1 gal.	T	2/14/99
Venice Madison	TRRA	Diesel Fuel	unknown	Broken fuel line	3,000 gals.	100 gals.	E	2/22/99
Chicago Cook	BNSF	Diesel Fuel	unknown	Small hole in tank	1,000 gals.	50 gals	E	2/27/99
Chicago Cook	UP	Diesel Fuel	unknown	Puncture in tank caused by crossing plank	5,000 gals.	30-40 gals.	E	3/1/99

N.O.S. = Not Otherwise Specified T = Tank E = Engine TOFC = Trailer on Flat Car COFC = Container on Flat Car PT = Portable Tank
CH = Covered Hopper

Location	Railroad Involved	Substance Involved	Point of Origin	Suspected Reason for Incident	Amounts Involved	Amounts Released	Type of Equip.	Date
Bluffs Scott	NS	Lube Oil	unknown	Overflow pipe to sump leaking	395 gals.	1 gal.	E	3/1/99
Riverdale Cook	CSX	Methyl Isobutyl Ketone	Wilmington, NC	Bottom outlet valve was not fully closed	31,300	1 gal.	T	3/5/99
Decatur Macon	NS	Iron sulfate	Quincy, IL	Hopper door improperly secured	194,000 lbs.	20 lbs.	CH	3/14/99
Bourbonnais Kankakee	IC	Hazardous Waste, NOS	Bourbonnais, IL	Crossing accident	198,000 lbs.	10,000 lbs.	CH	3-15-99
Franklin Park Cook	CP	Denatured Alcohol	Aurora, NE	Top valve left open	187,800 lbs.	15 gals.	T	3-15-99
Hodgkins Cook	BNSF	Resin Solution	Sacramento, CA	Blocking & bracing	5 gals.	1 gal.	TOFC	3-17-99
Kankakee Kankakee	CR	Hydrochloric Acid	Dover, OH	Ruptured frangible disk	200,000 lbs.	< 1 lbs.	T	3-19-99
Riverdale Cook	CSX	Flammable Liquids, NOS	Ft. Frances, Ontario	Bottom outlet valve was loose	20,692 gals.	1 gal.	T	3-23-99
Galesburg Knox	BNSF	Environmentally Hazardous, Solid, NOS	Sauget, IL	Unevenly filled	200,000 lbs.	2 lbs.	CH	3-30-99
Hennepin Putnum	CR	Hydrochloric Acid	Dover, OH.	Ruptured frangible disk	20,611 gals.	Vapors	T	4-02-99
E. St. Louis St. Clair	UP	Petroleum Distillates, NOS	Galena Park, TX	Loose plugs on manway cover	23,579 gals.	Vapors	T	4-09-99
Litchfield Montgomery	BNSF	Diesel Fuel	unknown	Internal fuel line fatigue, crack	3,000 gals.	80 gals.	E	4-16-99
Utica LaSalle	CSX	Magnesium Hydroxide	unknown	Defective valve on railcar	200,000 lbs.	200,000 lbs.	CH	5-04-99
Aurora Kane	BNSF	Diesel Fuel	unknown	Broken fuel filter	3,000 gals.	60 gals.	E	5-07-99

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CH = Covered Hopper

Location	Railroad Involved	Substance Involved	Point of Origin	Suspected Reason for Incident	Amounts Involved	Amounts Released	Type of Equip.	Date
Willow Springs Cook/DuPage	BNSF	Potassium Hydroxide	Stockton, CA	Bad blocking & bracing	110 gals.	75 gals.	COFC	5-06-99
Bensonville Cook	CP	Diesel Fuel	unknown	Leaking valve	4,000 gals.	2 gals.	E	5-10-99
Kankakee Kankakee	CR	Hydrochloric Acid	Dover, OH	Ruptured frangible disk	20,615 gals.	< 1 gal.	T	5-19-99
East St. Louis St. Clair	UP	Acrylates, Inhibited	Chicago, IL	Loose bolts on manway cover	27,912 gals.	Vapor	T	5/23/99
Bement Piatt	NS	Hazardous Waste Solid, NOS	Armored, AR	Hopper door improperly secured	200,000 lbs.	50 lbs.	CH	5-26-99
Champaign Champaign	IC	Hydrogen Sulfide Liquified	Moss Point, MS	Loose bolts on vapor valve flange	21,681 gals.	Vapor	T	5-27-99
Chicago Cook	CSX	Ethylene, Refrigerant Gas	Claymont, DE	Time-sensitive product	33,000 gals	50 lbs.	T	6/17/99
Seneca La Salle	CSX	Ethylene, Refrigerant Gas	Claymont, DE	Time-sensitive product	34,150 gals.	10 lbs.	T	6/18/99
Decatur Macon	NS	Ammonia, Anhydrous	Woodstock, TN	Loose bolts on manway cover	33,696 gals.	Vapors	T	6-25-99
Franklin Park Cook	CP	Xylene & Toluene	unknown	Bottom outlet cap loose	144,000 lbs.	15 gals.	T	6-26-99
Galesburg Knox	BNSF	Hydrogen Sulfide	Billings, MT	Loose bolts on the manway cover	141,000 lbs.	Vapor	T	7-12-99
Decatur Macon	NS	Environmentally Hazardous Substance, Solid, NOS	Quincy, IL	Partially open bottom slide hopper door	194,000 lbs.	25 lbs.	CH	7-15-99
Eola DuPage	BNSF	Diesel Fuel	unknown	Human error	3,000 gals.	3,000 gals.	E	7-25-99
Willow Springs Cook	BNSF	Hydrochloric Acid	unknown	Leaked through the scrubber	30,000 gals.	300 gals.	E	7-27-99

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CH = Covered Hopper

Location	Railroad Involved	Substance Involved	Point of Origin	Suspected Reason for Incident	Amounts Involved	Amounts Released	Type of Equip.	Date
Dolton Cook	UP	Phosphoric Acid	Hammond, IN	Loose bolts on the outlet valve	30,100 gals.	100 gals.	T	7-28-99
Bensonville Cook	CP	Diesel Fuel	unknown	Spilled fuel while fueling	3,000 gals.	50 gals.	E	8/17/99
Chicago Heights Cook	UP	Argon Refrigerated Liquid	Bayport, TX	Failed safety relief valve	16,520 gals	vapor	T	8/3/99
Eola DuPage	BNSF	Hazardous Waste, Solid NOS	St Paul, MN	Liner failed	35,000 lbs.	2 quarts	COFC	8/4/99
Cicero Cook	IC	Anhydrous Ammonia	East Dubuque, IL	Liquid ejection valve open	15,970 lbs.	Vapor	T	8/22/99
Hampshire Kane	IC	Diesel Fuel	Hampshire, IL	Car hit engine at crossing	4,900 gals	2,500 gals	E	8/23/99
Cicero Cook	BNSF	Diesel Fuel	unknown	Unknown	3,000 gals	30 gals	E	8/24/99
Kankakee Kankakee	NS	Hydrochloric Acid	Chicago, IL	Incorrect safety valve	20,568 gals.	< 1 gals	T	9/2/99
Kankakee Kankakee	NS	Hydrochloric Acid	Dover, OH	Frangible disk ruptured	20,640 gals	< 1 gal	T	9/7/99
Kankakee Kankakee	NS	Hydrochloric acid	Dover, OH	Ruptured frangible disk	20,578 gals.	< 1 gal.	T	9/14/99
Vernon Hills Lake	WC	Hydraulic Oil	unknown	Hydraulic line failed	100 gals.	60-100 gals.	E	10/5/99
Danville Vermilion	CSX	Diesel Fuel	unknown	Overfilling tank	3,000 gals.	200 gals	E	10/12/99
Chicago Cook	IC	Diesel Fuel	unknown	Vandalism	4,000 gals.	1,000 gals.	E	10/12/99

N.O.S. = Not Otherwise Specified T = Tank E = Engine TOFC = Trailer on Flat Car COFC = Container on Flat Car PT = Portable Tank
CH = Covered Hopper

Location	Railroad Involved	Substance Involved	Point of Origin	Suspected Reason for Incident	Amounts Involved	Amounts Released	Type of Equip.	Date
Chicago Cook	BNSF	Flammable Liquid, NOS	Jacksonville, FL	Drum bung hole cracked	500 gals	15 gals.	COFC	10/17/99
Kankakee Kankakee	NS	Hydrochloric Acid	Dover, OH	Ruptured frangible disk	20,507 gals.	Vapor	T	10/24/99
Polo Ogle	BNSF	Diesel Fuel	unknown	Vandalism	2,500 gals.	7 gals.	E	10/30/99
Joliet Will	BNSF	Esters, NOS	Houston, TX	Loose bolts on manway gasket	26,628 gals	1 quart	T	11/04/99
Illioopolis Sangamon	NS	Ammonia Anhydrous	Donaldson, LA	Liquid injection valve flange bolts were loose	33,558 gals.	Vapor	T	11/11/99
Galesburg Knox	BNSF	Anhydrous Ammonia	Camp Point, IL	Packing nut loose on valve	34,069 gals.	Vapor	T	11/12/99
Chicago Cook	NS	Terpene Hydrocarbons, NOS	Jersey City, NJ	Improper blocking and bracing	20 gals..	< 1 gal	COFC	11/14/99
East St. Louis St. Clair	UP	Methacrylic Acid	St. Louis, MO	Bad valve	30,300 gals.	< 1 cup	T	11/15/99
Franklin Park Cook	CP	Diesel Fuel	unknown	Punctured tank in collision with truck	100 gals.	50 gals.	E	11/18/99
Chicago Cook	NS	Lube Oil	unknown	Shifting load	260 gals.	1 gal.	COFC	11/18/99
Meredosia Scott	NS	Ethylene Refrigerated	Daymont, DE	Overloaded	34,150 gals.	Vapor	T	11/29/99
Riverdale Cook	IHB	Diesel Fuel	unknown	Hit a coupler	1,000 gals.	800 gals.	E	12/16/99
Bensenville DuPage	CP	Diesel Fuel	unknown	Collision with parked railcar	3,000 gals.	50-100 gals	E	12/29/99

N.O.S. = Not Otherwise Specified T = Tank E = Engine TOFC = Trailer on Flat Car COFC = Container on Flat Car PT = Portable Tank
CH = Covered Hopper

RAILROAD COMPANIES CITED IN THE PRECEDING TABLES

BNSF	The Burlington Northern and Santa Fe Railway Company
CP	Canadian Pacific
CR	Consolidated Rail Corporation
CSX	CSX Transportation, Inc.
EJE	Elgin, Joliet & Eastern Railway Co.
IC	Illinois Central Railroad Company
IHB	Indiana Harbor Belt Railroad Co.
KBSR	Kankakee, Beaverville and Southern Railroad Company
NS	Norfolk Southern Railway Company
TRRA	Terminal Railroad Association of St. Louis
UP	Union Pacific Railroad Company
WC	Wisconsin Central Railroad

LIST OF ATTACHMENTS

- Attachment 1: Recognizing and Identifying Hazardous Materials
- Attachment 2: Sample Waybill
- Attachment 3: Sample Consist
- Attachment 4: Emergency Response Information
- Attachment 5: Sample Bill of Lading
- Attachment 6: Top 125 Hazardous Commodity Movements by Tank Car Origination

RECOGNIZING AND IDENTIFYING HAZARDOUS MATERIALS

PLACARD AND LABEL NOTES

Placards are diamond shaped — 10 3/4 inches square. The placard provides recognition information in a number of ways:

1. the colored background;
2. the symbol at the top;
3. The United Nations hazard class number at the bottom; and
4. the hazard class wording or the identification number in the center.

a. Color:

- orange indicates explosive;
- red indicates flammable;
- green indicates nonflammable;
- yellow indicates oxidizing material;
- white indicates poisonous material;
- white with vertical red stripes indicates flammable solid;
- yellow over white indicates radioactive material; and
- white over black indicates corrosive material.

b. Symbols:

- the bursting ball symbol indicates explosive;
- the flame symbol indicates flammable;
- the slash W (W) indicates dangerous when wet;
- the skull and crossbones indicates poisonous material;
- the circle with the flame indicates oxidizing material;
- the cylinder indicates nonflammable gas;
- the propeller indicates radioactive;
- the test tube/hand/metal symbol indicates corrosive; and
- the word Empty indicates that the product has been removed, but a harmful residue may still be present.

c. United Nations Hazard Class Numbers:

- 1 — Explosives
- 2 — Gases
- 3 — Flammable Liquids
- 4 — Flammable Solids
- 5 — Oxidizing Substances
- 6 — Poisonous and Infectious Substances
- 7 — Radioactive Substances
- 8 — Corrosive Substances
- 9 — Miscellaneous Dangerous Substances

d. Hazard Class or Identification Number

Below are some examples of placards.



Sample Waybill

* *

RTMX 21065

T/C

#123456

04 01 94

ST. LOUIS

MO.

1212 ST. LOUIS, MO.
12 S. STREET
JOHN DOE INC.

JOHN DOE INC.
CHICAGO, ILLINOIS

STCC 4908105

1/TC

RESIDUE: Last Contained

Residue

Acetone, 3, UN 1090, RQ

CHEMTRC EMERGRNCY CONTACT 1-800-424-9300

Sample Waybill

* *

GAPX 6075 T/C

#123457

04 01 94

ST. LOUIS

MO.

1212 ST. LOUIS, MO.
12 S. STREET
JOHN DOE INC.

JOHN DOE INC.
CHICAGO, ILLINOIS

STCC 4921220

1/TC

PHENOL

20,000
GAL.

6.1, UN 1671, RQ

CHEMTRC EMERGRNCY CONTACT 1-800-424-9300

TRAIN/JOB CONDUCTOR

NAME-- CATEGORY--T-SECONDARY MANIFEST TYPE--THRU

ENGINE-IDENT	HORSEPOWER	LENGTH	WEIGHT	STATUS
6142	3000	69	200E	
2010	2000	60	200E	
6030	3000	68	200E	
ENG 1453	1200	44	200E	
TOTAL	9200 HP	241 FEET	800 TONS	

TRAIN/JOB---

SEQ EQUIPMNT ID KND GWT COMDTY DESTN ZTS/CARR NXBLK CITY/STATE CONSIGNEE

BLOCK--

1 BJOX 278 LC4T 131 CORN 7MT018 214H MEMPHIS TN
 NOTIFY SHIPPER IF DELAYED IF BAD-ORDERED NOTIFY SHIPPER

2 BJOX 109 LC4T 131 CORN 7MT018 214H MEMPHIS TN
 NOTIFY SHIPPER IF DELAYED IF BAD-ORDERED NOTIFY SHIPPER

3 CRDX 7227 LC4T 131 CORN 7MT018 214H MEMPHIS TN
 NOTIFY SHIPPER IF DELAYED IF BAD-ORDERED NOTIFY SHIPPER

4 RTMX 21055 ET29 35 12ZA003 CR NITRO WV NATION
 R50 SPEED RESTRICTED CAR

1/TK
 RESIDUE: LAST CONTAINED
 ACETONE
 FLAMMABLE LIQUID
 UN1000
 RQ (ACETONE)

HAZMAT STCC = 4908105

EMERGENCY CONTACT:
1-800-424-9330

5 JAPX 6275 LT19 35 POIS B 12ZA003 CR ARC FORPARR IL
 R50 SPEED RESTRICTED CAR

1/TC
 PHENOL
 POISON B
 UN1671
 R4 (PHENOL)

HAZMAT STCC = 4921220

EMERGENCY CONTACT:
1-800-424-9330

POTENTIAL HAZARDS**FIRE OR EXPLOSION**

Flammable/combustible material; may be ignited by heat, sparks or flames.
Vapors may travel to a source of ignition and flash back.
Container may explode in heat of fire.
Vapor explosion hazard indoors, outdoors or in sewers.
Runoff to sewer may create fire or explosion hazard.

HEALTH HAZARDS

May be poisonous if inhaled or absorbed through skin.
Vapors may cause dizziness or suffocation.
Contact may irritate or burn skin and eyes.
Fire may produce irritating or poisonous gases.
Runoff from fire control or dilution water may give off poisonous gases and cause water pollution.

EMERGENCY ACTION

Keep unnecessary people away; isolate hazard area and deny entry.
Stay upwind; keep out of low areas.
Positive pressure self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide limited protection.
Isolate for 1/2 mile in all directions if tank, rail car or tank truck is involved in fire.
CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, CALL CHEMTREC AT 1-800-424-9300.
If water pollution occurs, notify the appropriate authorities.

FIRE

Small Fires: Dry chemical, CO₂, water spray or alcohol-resistant foam.
Do not use dry chemical extinguishers to control fires involving nitromethane or nitroethane.
Large Fires: Water spray, fog or alcohol-resistant foam.
Move container from fire area if you can do it without risk.
Apply cooling water to sides of containers that are exposed to flames until well after fire is out. Stay away from ends of tanks.
For massive fire in cargo area, use unmanned hose holder or monitor nozzles; if this is impossible, withdraw from area and let fire burn.
Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire.

SPILL OR LEAK

Shut off ignition sources; no flares, smoking or flames in hazard area.
Stop leak if you can do it without risk.
Water spray may reduce vapor; but it may not prevent ignition in closed spaces.
Small Spills: Take up with sand or other noncombustible absorbent material and place into containers for later disposal.
Large Spills: Dike far ahead of liquid spill for later disposal.

FIRST AID

Move victim to fresh air and call emergency medical care; if not breathing, give artificial respiration; if breathing is difficult, give oxygen.
In case of contact with material, immediately flush eyes with running water for at least 15 minutes. Wash skin with soap and water.
Remove and isolate contaminated clothing and shoes at the site.

POTENTIAL HAZARDS**HEALTH HAZARDS**

Poisonous; may be fatal if inhaled, swallowed or absorbed through skin.
Contact may cause burns to skin and eyes.
Runoff from fire control or dilution water may give off poisonous gases and cause water pollution.
Fire may produce irritating or poisonous gases.

FIRE OR EXPLOSION

Some of these materials may burn, but none of them ignites readily.
Container may explode violently in heat of fire.
Material may be transported in a molten form.

EMERGENCY ACTION

Keep unnecessary people away; isolate hazard area and deny entry.
Stay upwind, out of low areas, and ventilate closed spaces before entering.
Positive pressure self-contained breathing apparatus (SCBA) and chemical protective clothing which is specifically recommended by the shipper or manufacturer may be worn. It may provide little or no thermal protection.
Structural firefighters' protective clothing is not effective for these materials.
See the Table of Initial Isolation and Protective Action Distances. If you find the ID Number and the name of the material there, begin protective action.
Remove and isolate contaminated clothing at the site.
CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, CALL CHEMTREC AT 1-800-424-9300.

FIRE

Small Fires: Dry chemical, water spray or regular foam.
Large Fires: Water spray, fog or regular foam.
Move container from fire area if you can do it without risk.
Fight fire from maximum distance. Stay away from ends of tanks.
Dike fire control water for later disposal; do not scatter the material.

SPILL OR LEAK

Do not touch or walk through spilled material; stop leak if you can do it without risk.
Fully-encapsulating, vapor-protective clothing should be worn for spills and leaks with no fire.
Use water spray to reduce vapors.

Small Spills: Take up with sand or other noncombustible absorbent material and place into containers for later disposal.

Small Dry Spills: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.

Large Spills: Dike far ahead of liquid spill for later disposal.

FIRST AID

Move victim to fresh air and call emergency medical care; if not breathing, give artificial respiration; if breathing is difficult, give oxygen.
In case of contact with material, immediately flush skin or eyes with running water for at least 15 minutes.
Speed in removing material from skin is of extreme importance.
Removal of solidified molten material from skin requires medical assistance.
Remove and isolate contaminated clothing and shoes at the site.
Keep victim quiet and maintain normal body temperature.
Effects may be delayed; keep victim under observation.

STRAIGHT BILL OF LADING — SHORT FORM — Original — Not Negotiable

* * *

Company

RECEIVED subject to the conditions and exceptions thereon in effect on the date of the receipt by the carrier of the property described in the Original Bill of Lading									
CUST. NUMBER 5	SD NUMBER 7	CAR OR TRAILER INITIAL AND NUMBER 15 RTMX 21065			DATE SHIPPED 8	MC OO OO EE	ROUTE CODE 5	SHIP (RT) 1	

The property described hereon, in package form or otherwise, is in accordance with the description of contents of packages, manifests, labels, tags, and other documents attached hereto, which are subject to the terms and conditions of the Uniform Common Carrier Bill of Lading and Form (1) in Official, Standard, Western and Marine Practice Compendium in effect on the date hereof, if this is a non-hazardous shipment, or (2) in the applicable carrier classification or tariff if this is a hazardous shipment.

It is hereby agreed, as to each carrier of all or any of said property and as to any portion of said property, that every carrier shall be subject to all the terms and conditions of the Uniform Common Carrier Bill of Lading and Form (1) in Official, Standard, Western and Marine Practice Compendium in effect on the date hereof, if this is a non-hazardous shipment, or (2) in the applicable carrier classification or tariff if this is a hazardous shipment.

Shipped carrier certifies that he is familiar with all the terms and conditions of the said bill of lading, including those on the back thereof, and that on the classification of tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his agents.

NET WEIGHT 8	GROSS WEIGHT 8	NO. OF UNIT 4	UNIT CODE 3	PROD CODE 3	PROD PLT. 2
-----------------	-------------------	------------------	----------------	----------------	----------------

CONSIGNEE John Doe Inc.	DESTINATION Chicago, IL	STATE OF IL	COUNTY OF Cook
----------------------------	----------------------------	----------------	-------------------

FROM John Doe Inc. Permanent Postoffice Address of Shipper St. Louis, MO.	AT
---	----

ROUTE ABC Railroad	DELIVERING CARRIER ABC	AGENT ABC PER
-----------------------	---------------------------	---------------------

NO. PKGS.	DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS	WEIGHT (Sub. to Corr.)	RATE
1 T/C	RESIDUE: Last Contained Acetone Flammable Liquid UN 1090 RQ (Acetone) HAZ MAT STCC = 4908105 CHEMTREC EMERGENCY CONTACT 1-800-424-9300	Residue	

This shipment is correctly described:
CORRECT WEIGHT IS subject to verification by the Eastern, Southern or Western Weighing and Inspection Bureau, whichever applicable. 18943

John Doe Inc. SHIPPER

THE TOTAL WEIGHT OF THE PALLETS USED ON THE SHIPMENT IS SHOWN ABOVE.

TRANSPORTATION FREE PER ABOVE

PURCHASE ORDER NO. SEAL NUMBERS THIS CAR LEASED TO. LIGHT TARE WEIGHT IS

John Doe Inc.

IF CHARGES ARE TO BE PREPAID, WRITE OR STAMP HERE "TO BE PREPAID"

Prepaid

SHIPPER John Doe Inc. PER

SIGNATURE OF CONSIGNEE

*

Company

RECEIVED subject to the conditions and terms hereof in effect on the date of the issue of the bill of lading by the carrier at the place specified in the Original Bill of Lading

CUST. NUMBER 5	S.D. NUMBER 7	CAR OR TRAILER INITIAL AND NUMBER 15	DATE SHIPPED 8	MC DOOR CODE EE	ROUTE CODE 5	SHIP. PLT. 1
		GAPX 6075 LT				
NET WEIGHT 8	GROSS WEIGHT 8	NO. OF UNIT 4	UNIT CODE 3	PROD. CODE 3	PROD. PLT. 2	

The property described below, in apparent good order, shall be moved hereunto and consigned to carriers of packages, manifests, marked, consigned, and delivered as indicated below, which said carrier (the) were carrier being authorized throughout the contract to transfer any portion or portions in possession of the property under the contract to carry to its usual place of destination.

It is hereby agreed, as to each carrier of all or any of said property over all or any portion of said route or destination, and as to each party interested in all or any of said property, that every expense to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Official, Standard, Western and Illinois Freight Classification in effect on the date hereof, if this is a full-carrier shipment, or (2) in the applicable inter-carrier classification of tariff if this is a motor carrier shipment.

Shipper hereby certifies that he is transfer over all the terms and conditions of the said bill of lading, including those on the back thereof, set forth in the classification of tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his agents.

CONSIGNEE John Doe Inc.	DESTINATION Chicago, IL	STATE OF IL	COUNTY OF Cook
----------------------------	----------------------------	----------------	-------------------

FROM John Doe Inc. Permanent Postoffice Address of Shipper St. Louis, MO	AT
---	----

ROUTE ABC Railroad	DELIVERING CARRIER ABC	AGENT ABC PER
-----------------------	---------------------------	---------------------

NO. PKGS.	DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS	WEIGHT (Sub. to Corr.)	RATE
1 T/C	Phenol Poison B UN 1671 RQ (Phenol) HAZ MAT STCC = 4921220 CHEMTREC EMERGENCY CONTACT 1-800-424-9300	20,000 Gal.	

This shipment is correctly described: CORRECT WEIGHT IS subject to verification by the Eastern, Southern or Western Weighing and Inspection Bureau, whichever applicable. 18943 John Doe Inc. SHIPPER	THE TOTAL WEIGHT OF THE PALLETS USED ON THE SHIPMENT IS SHOWN ABOVE.	TRANSPORTATION FREE PER ABOVE
--	--	-------------------------------

PURCHASE ORDER NO.	SEAL NUMBERS	THIS CAR LEASED TO: John Doe Inc.	LIGHT TARE WEIGHT IS
--------------------	--------------	--------------------------------------	----------------------

IF CHARGES ARE TO BE PREPAID, WRITE OR STAMP HERE "TO BE PREPAID" Prepaid	Subject to section 7 of conditions of applicable bill of lading, if the shipment is to be delivered to the consignee without payment on the consignment, the consignee shall sign the following statement: The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.	SHIPPER John Doe Inc. PER
--	---	---------------------------------

SIGNATURE OF CONSIGNEE

TOP 125 HAZARDOUS COMMODITY MOVEMENTS
BY TANK CAR ORIGINATION

RANK	COMMODITY NAME	**HAZ CLASS
1	Petroleum Gases, Liquefied	CG
2	Sodium Hydroxide Solution	C
3	Sulfuric Acid	C
4	Ammonia, Anhydrous, Liquefied	CG
5	Chlorine	CG
6	Sulfur, Molten	ORM
7	Elevated Temperature Liquid, N.O.S.	ORM
8	Methanol	FL
9	Vinyl Chloride, Inhibited	CG
10	Phosphoric Acid	C
11	Sulfur, Molten	FS
12	Fuel Oil	FL
13	Styrene Monomer, Inhibited	FL
14	Elevated Temperature Material	ORM
15	Hydrochloric Acid, Solution	C
16	Carbon Dioxide, Refrigerated Liquid	CG
17	Gasoline	FL
18	Propane	CG
19	Fuel Oil	CL
20	Denatured Alcohol	FL
21	Phenol, Molten	P
22	Butadienes, Inhibited	CG
23	Gasoline	FL
24	Diesel Fuel	CL
25	Ethylene Oxide	CG
26	Petroleum Gases, Liquefied	CG
27	Vinyl Acetate, Inhibited	FL
28	Methyl Tert Butylether	FL
29	Fuel, Aviation, Turbine Engine	FL
30	Propylene Oxide	FL
31	Fuel Oil, No. 2	FL
32	Propane	CG
33	Petroleum Crude Oil	FL

RANK	COMMODITY NAME	**HAZ CLASS
34	Methyl Methacrylate Monomer, Inhibited	FL
35	Sulfuric Acid, Spent	C
36	Isobutane	CG
37	Butane	CG
38	Xylenes	FL
39	Cyclohexane	FL
40	Acetic Acid, Glacial	C
41	Environ. Hazardous Substances, Liquid	ORM
42	Environ. Hazardous Substances, Liquid	ORM
43	Propylene	CG
44	Acrylonitrile, Inhibited	FL
45	Phosphoric Acid	C
46	Vinyl Chloride	CG
47	Potassium Hydroxide, Solution	C
48	LPG (Propylene, Not Odorized)	CG
49	Other Regulated Substances, Liquid	ORM
50	Ethanol	FL
51	Propylene	CG
52	Hydrogen Peroxide, Stabilized	O
53	Ethylene Dichloride	FL
54	Benzene	FL
55	Petroleum Distillates, N.O.S.	FL
56	Butylacrylate	FL
57	Hexamethylenediamine, Solid	C
58	Acrylic Acid, Inhibited	C
59	Elevated Temperature Liquid, N.O.S.	ORM
60	Sulfur Dioxide, Liquefied	CG
61	Environ. Hazardous Substances, Liquid	ORM
62	Toluene Diisocyanate	P
63	Toluene	FL
64	Other Regulated Substances, Liquid	ORM
65	Butane	CG
66	Acetone	FL
67	Other Regulated Substances, Liquid	ORM
68	Sodium Chlorate, Aqueous Solution	O

RANK	COMMODITY NAME	**HAZ CLASS
69	Compounds, Cleaning Liquid	FL
70	Formaldehyde Solutions	C
71	Hydrogen Fluoride, Anhydrous	C
72	Petroleum Distillates, N.O.S.	CL
73	Phosphorus, White, Dry	FS
74	Isopropanol	FL
75	Waste Flammable Liquids	FL
76	Ferrous Chloride, Solution	C
77	Methanol	FL
78	Other Regulated Substances, Liquid	ORM
79	Combustible Liquid, N.O.S.	CL
80	Elevated Temperature Material, Liq N.O.S.	ORM
81	Isobutane	CG
82	Pentanes	FL
83	Flammable Liquids, N.O.S.	FL
84	Ferric Chloride, Solution.	C
85	Acetic Anhydride	C
86	Elevated Temperature Liquid, N.O.S.	ORM
87	Sulfuric Acid, Fuming	C
88	Acetaldehyde	FL
89	Butanols	FL
90	Elevated Temperature Liquid, N.O.S.	ORM
91	Butylene	CG
92	Nitric Acid	C
93	Ammonium Nitrate, Liquid	O
94	Alcoholic Beverages	FL
95	Methyl Chloride	CG
96	Hexamethylenediamine, Solution	C
97	Petroleum Distillates, N.O.S.	CL
98	LPG(Isobutane), Not Odorized	CG
99	Dinitrotoluenes	P
100	1-Hexene	FL
101	Xylenes	FL
102	Elevated Temperature Liquid, N.O.S.	ORM
103	Flammable Liquids, N.O.S.	FL

RANK	COMMODITY NAME	**HAZ CLASS
104	Ethyl Acrylate Inhibited	FL
105	Isobutylene	CG
106	Propane	CG
107	Hexanes	FL
108	Maleic Anhydride	C
109	Alcohols, N.O.S.	CL
110	Ethyl Acetate	FL
111	Fuel, Aviation, Turbine Engine	CL
112	Flammable Liquids, N.O.S.	FL
113	Ethyl Methyl Ketone	FL
114	Argon Refrigerated Liquid	CG
115	Carbon Disulfide	FL
116	Petroleum Gases, Liquefied	CG
117	Elevated Temperature Liquid, N.O.S.	ORM
118	Hydrogen Chloride, Refrigerated Liquid	CG
119	Corrosive Liquid, Basic, Inorganic, N.O.S.	C
120	Sodium Hydrosulfide, Solution	C
121	Elevated Temperature Mat., Liq., N.O.S.	ORM
122	Isoprene, Inhibited	FL
123	Fuel Oil	CL
124	Fluorosilicic Acid	C
125	Petroleum Distillates, N.O.S.	FL

**CG - Compressed Gas
 FL - Flammable Liquid
 FS - Flammable Solid
 CL - Combustible Liquid
 O - Oxidizer
 P - Poison
 C - Corrosive
 ORM - Other Regulated Material