

# ILLINOIS COMMERCE COMMISSION



## 2013 ANNUAL REPORT ON ACCIDENTS/INCIDENTS Involving Hazardous Materials on Railroads in Illinois



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## **1. INTRODUCTION**

This report has been prepared by the staff of the Illinois Commerce Commission's Railroad Safety Section in accordance with the provisions of 625 ILCS 5/18c-1204. The law directs the Illinois Commerce Commission (ICC) 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 of origin of the hazardous material involved in each accident.*"

Additionally, this report contains the following related information:

- Details regarding events where hazardous material was involved but no release occurred;
- An overview of Commission activities relative to the transportation of hazardous materials by rail within the State;
- Review of the transportation of nuclear and radioactive materials by rail within the State.

## **2. BACKGROUND**

Illinois is a key hub in the nation's transportation system. With a railroad network of approximately 7,400 miles, Illinois' rail system is the country's second largest. The Chicago and St. Louis terminal switching districts are the two key points of interchange between eastern, western, northern, and southern rail systems and handle over 40,000 rail cars on a typical weekday.

According to the Association of American Railroads (AAR), in 2011, approximately eight percent of all rail traffic involves the movement of hazardous materials<sup>(1)</sup>. In 2011 (latest year for which data is available), railroads in Illinois handled 490.4 million tons of total freight and 11.427 million carloads of freight which is first in the nation for carloads carried and third for total rail tonnage handled<sup>(2)</sup>. Of this total, railroads in Illinois handled approximately 38.741 million tons of hazardous materials.

The U.S. Department of Transportation (USDOT) classifies approximately 3,500 substances as hazardous<sup>(3)</sup>. Many of these substances, ranging from mild irritants to poisonous and radioactive materials, are routinely transported by rail through populous regions of the country and can have the potential to severely impact the environment and public health, if inadvertently released into the environment. Individual shipments can range in quantity from packages as small as a pint that may be carried inside a highway trailer or container on a flat car, to as much as 42,000 liquid gallons carried in a tank car.

[<sup>1,2,3</sup>Note: See page 10 for References]

Under federal law (49 CFR Part 212) individual states are authorized to participate in the Railroad Hazardous Material Inspection Program administered by the USDOT. The program is under the supervision of the Federal Railroad Administration (FRA). FRA certifies state inspectors so that they may have the same legal and administrative authority as federal inspectors in assuring the safe transport of hazardous material through inspection and investigation. The ICC has two full-time federally certified inspector positions responsible for all of Illinois.

ICC Hazardous Material (HM) inspectors focus the majority of their effort in the field conducting inspections at railroad yards and the industrial facilities of shippers and consignees of hazardous materials. The inspectors are also responsible for maintaining inspection data, responding to complaints from rail employees and the public, and for providing information concerning the transport of hazardous material within Illinois to other state, regional and local agencies.

In 2013, ICC HM inspectors inspected 11,005 rail cars. Since 1981, when ICC HM inspectors found violations in 12 percent of all inspections, compliance has improved to the point that inspectors found violations in only 1.9 percent of all inspections in 2013.

The large increase in compliance observed since 1981, is due in part to ICC-initiated conferences with rail carriers and shippers to educate and inform them of the complex and continually evolving regulations. The educational meetings and informational sessions are followed up with inspections by ICC staff to insure that the lessons learned from the education and information sessions, have been implemented by the shipper or rail carrier in their day-to-day activities.

### **3. ILLINOIS COMMERCE COMMISSION HAZARDOUS MATERIALS SAFETY PROGRAM**

The ICC's Hazardous Materials Safety Program is comprised of four main components:

- Inspection of railroad equipment and shipper/consignee facilities;
- The provision of technical assistance to shippers/consignees and rail carriers;
- The inspection and escort of nuclear materials; and
- Education and outreach activities to shippers/consignees, rail carriers, emergency responders and the general public.

### **3.1 Inspection of Rail Equipment and Shipper/Consignee Facilities**

Four types of inspections are made by ICC HM inspectors: stationary railroad equipment such as tank cars at a yard or plant; railroad equipment in transit in the consist of a through or yard train known as a “roll-by” inspection; analysis of shipping papers and related documentation; and inspection of facilities that either ship or receive hazardous commodities.

#### **3.1.1 Railroad Equipment**

Hazardous material equipment inspections are performed on a stationary hazardous material rail car. Normally, this type of inspection occurs within a railroad yard or at the loading or unloading terminal within a shipper’s facility. The inspection assures that the cars are affixed with the required placards identifying the hazardous commodities being transported. Attachment 1 provides examples of the various placards and the information they provide, which is of critical importance to emergency response personnel. ICC HM inspectors verify that the rail car’s markings, stenciling, tank and valve test dates, and mechanical safety features, are in compliance with federal regulations.

#### **3.1.2 Roll-By**

A roll-by inspection involves monitoring an entire train while in motion. The location of loaded hazardous material cars, as well as those cars that have been unloaded, but that still contain residue of the commodity transported, are observed in relation to the locomotives, occupied cabooses, other hazardous material cars, and certain other types of cargo cars. Specific types of hazardous material cars are required to be spotted at particular locations within a train. Should ICC HM inspectors determine that cars are not correctly located within the train’s consist, the inspector may require the rail carrier to stop the train and order the cars to be correctly placed.

Proper placement of hazardous material cars within a train’s consist is of great importance to the train crew who could be severely injured if a derailment were to occur. For example, hazardous material cars containing liquefied petroleum gas (LPG), as well as other highly flammable commodities, may not be positioned next to the locomotive.

#### **3.1.3 Documentation**

Documentation inspections involve examining waybills and bills of lading to verify that the documents were completed correctly. Such inspections normally occur at the office of the shipper or consignee, or at the yard office of the rail carrier. The bill of lading is a document providing a description of the type and quantity of commodities being transported. Attachment 5 provides a sample bill of lading.

The bill of lading must include a 24-hour emergency response telephone number clearly visible, in order to facilitate the appropriate response by emergency providers in case of an accident or derailment. Inspectors examine the bill of lading to verify that the correct shipping name, hazard class, 4-digit commodity identification number, and weight are all present and correctly stated.

Emergency responders rely on the provision of this shipping information in the case of a spill or other type of incident concerning the shipment. Depending upon the particular substance being transported; incorrect or incomplete information, can result in injury or death to responders, rail employees and the public in the event of a derailment that could cause an inadvertent release.

#### 3.1.4 Shipping Facilities

Shipping facility inspections are conducted at privately owned facilities. The purpose of the inspection is to assure that the requirements of Title 49 of the United States Code of Federal Regulations (CFR) are being complied with. All federal regulations (Title 49 of the CFR) must be complied with in order to permit the continued ability of the shipper or consignee to receive or ship hazardous materials.

### **3.2 Technical Assistance Program to Shippers, Consignees and Emergency Responders**

ICC HM inspectors respond to railroad related collisions/incidents involving hazardous material. The Commission's role is to provide technical assistance to emergency response personnel. The assistance provided is that of determining if the documentation and information provided by the rail carrier or shipper to the emergency responder, is correct and adequate to permit the responder to safely handle the incident. ICC HM inspectors will also advise the emergency response team as to proper mitigation and clean up procedures and requirements. ICC HM inspectors assist in investigation of the incident in order to identify the cause, as well as any violations that may have contributed either directly, or indirectly in causing the incident. ICC HM inspectors are on-call 24-hours a day to respond to any incident.

### **3.3 Escort of Nuclear Material in Illinois**

The movement of nuclear material in or through the State of Illinois by rail occurs infrequently. The current protocol for the shipment of nuclear material requires that the train be stopped and inspected prior to entering Illinois. Nuclear material shipments are escorted by ICC HM inspectors, as well as ICC track inspectors who verify that the rail line to be traveled is in suitable condition.

Radioactive material is probably the most controversial and least understood class of hazardous material being transported by rail in Illinois today. To date, there have been no incidents involving the transport of radioactive material; however, widespread concern on the part of the public due to safety and security issues, warrant the careful planning and inspection of all radioactive shipments traveling over the Illinois rail network.

### 3.4 Education and Outreach Activities

According to 625 ILCS 5/18c-7404, ICC inspectors offer training for local law enforcement and emergency response personnel. The training is intended to acquaint participants with railroad car marking and placarding requirements and emergency response manuals and guide books. Fire departments are provided with instruction and training concerning tank car structure and damage assessment. ICC HM inspectors also make presentations on the interpretation and application of federal and state hazardous materials regulations to railroad company personnel. Since 1990, over 100 educational or training presentations on hazardous material safety have been made to over 2,000 persons affiliated with a variety of emergency planning and response teams.

## 4. ILLINOIS COMMERCE COMMISSION HAZARDOUS MATERIAL SAFETY PROGRAM ACTIVITY IN 2013

Summary of Inspections Conducted by ICC HM Inspectors: 2004 through 2013. (Source: FRA)

Year	Inspections	Units Inspected	Defects Identified	Defects per Unit
2004	218	13,899	445	0.032
2005	240	14,551	492	0.034
2006	274	16,978	698	0.041
2007	259	16,828	470	0.028
2008	282	17,177	360	0.021
2009	255	16,011	293	0.018
2010	249	15,743	269	0.017
2011	259	15,779	257	0.016
2012	264	16,720	215	0.013
2013	148	11,005	208	0.019
<b>Total</b>	<b>2,872</b>	<b>164,332</b>	<b>3,955</b>	<b>0.024</b>

## 5. SUMMARY

The nature of catastrophic incidents that can occur from hazardous material incidents is cause for prudent exercise of state and federal regulations and the necessity of having staff to assure compliance with all applicable regulations. ICC inspectors routinely discover minor violations and defects, and occasionally major violations or defects that if not corrected, could lead to serious incidents likely to result in loss of life and extensive damage to property.

## 6. DATA DESCRIBING ACCIDENTS AND/OR INCIDENTS IN ILLINOIS IN 2013

Specific data required by 625 ILCS 5/18c-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 material. The report shall include the location, substance involved, quantity 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 remainder of this report provides three tables and a number of attachments.

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

**Table B** shows railroad derailments where hazardous material was being transported in the train and the railroad equipment derailed; however, there was no release of any hazardous material.

**Table C** shows hazardous material releases from railroad equipment where no derailment was involved.

Summary of Hazardous Material Related Incidents: 2004 – 2013.

Type of Incident	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
A. Hazardous Materials Physically Involved in Derailment and Hazardous Materials Release Occurred	16	11	6	7	7	5	3	8	4	5
B. Hazardous Materials Physically Involved in Derailment Where No Hazardous Materials Release Occurred	4	8	12	10	4	5	20	10	13	23
C. Hazardous Materials Released From Rail Cars Where No Derailment Occurred	57	53	95	81	65	25	80	60	74	82
<b>Total</b>	<b>77</b>	<b>72</b>	<b>113</b>	<b>98</b>	<b>76</b>	<b>35</b>	<b>103</b>	<b>78</b>	<b>91</b>	<b>110</b>

Information for Tables A, B and C was obtained from reports filed by the railroad with the Commission, as well as from the USDOT's Research and Innovative Technology Administration.

Three categories of information contained in this report not specifically required by law have been added to make the report more useful. The first category is "Amount Released." This distinction is important in order to differentiate the "Amount Involved" required by the General Assembly, from the more significant quantity of "Amount Released." The "Amount Involved" is simply the quantity of commodity that was being transported; the "Amount Released" into the environment by accident is far more critical.

The second category added is the "Type of Equipment" involved. The final additional category is the date of the incident. In the tables, the railroad companies are identified by their FRA reporting marks; for example NS is the Norfolk Southern Railway. A listing of the complete names is provided in Table D.

Table A. Hazardous Materials Physically Involved in a Derailment and a Hazardous Materials Release Occurred.

City	County	Railroad Involved	Substance Involved	Point of Origin	Suspected Reason for Incident	Amount Involved	Amount Released	Type of Equipment	Date
East St. Louis	St. Clair	UP	Diesel Fuel	East St. Louis, IL	Derailment	3,000 gals.	15 gals.	Locomotive	1/1/2013
Melrose Park	Cook	UP	Diesel Fuel	New ark, CA	Derailment	1,000 gals.	800 gals.	Trailer	2/3/2013
Riverdale	Cook	CSX	Diesel Fuel	Riverdale, IL	Derailment punctured fuel tank	3,450 gals.	600 gals.	Locomotive	7/22/2013
East St. Louis	St. Clair	UP	Diesel Fuel	East St. Louis, IL	Locomotives ran over derail	1,000 gals.	50 gals.	Locomotive	10/18/2013
Aurora	DuPage	BNSF	Diesel Fuel	Aurora, IL	Derailment punctured fuel tank	2,000 gals.	300 gals.	Locomotive	12/30/2013

Table B. Hazardous Materials Physically Involved in a Derailment Where No Hazardous Materials Release Occurred.

City	County	Railroad Involved	Substance Involved	Point of Origin	Suspected Reason for Incident	Amount Involved	Amount Released	Type of Equipment	Date
Dolton	Cook	UP	Diesel Fuel	Dolton, IL	Rail rolled underneath locomotives	Unknown	None	Locomotive	1/21/2013
Elk Grove Village	DuPage	UP	Diesel Fuel	Proviso, IL	Rail rolled underneath locomotive	Unknown	None	Locomotive	3/4/2013
Northlake	Cook	UP	Petroleum Oil	Canada	Derailment	Load	None	Tank Car	3/30/2013
Chicago	Cook	UP	Diesel Fuel	Chicago, IL	Side swipe of locomotive	1,000 gals.	None	Locomotive	4/11/2013
Riverdale	Cook	CSX	Diesel Fuel	Riverdale, IL	Side swipe of locomotive	2,000 gals.	None	Locomotive	4/28/2013
Chicago Heights	Cook	UP	Sulfuric Acid	Geismar, LA	Wide gauge	43,689 gals.	None	Tank Car	5/21/2013
Northlake	Cook	UP	Sulfuric Acid	Canada	Track failure	71,500 gals.	None	Tank Car	5/23/2013
Dolton	Cook	UP	Diesel Fuel	Dolton, IL	Wide Gauge	2,000 gals.	None	Locomotive	6/6/2013
Decatur	Macon	NS	Propylene Oxide	Port Neches, TX	Reverse movement over previously run through switch	170,430 lbs.	None	Tank Car	6/21/2013
Dolton	Cook	UP	Diesel Fuel	Dolton, IL	Unknown	2,000 gals.	None	Locomotive	6/26/2013
Northlake	Cook	UP	Diesel Fuel	Northlake, IL	Unknown	1,000 gals.	None	Locomotive	7/14/2013
Elmhurst	DuPage	UP	Asphalt	Roseport, MN	Unknown	48,902 gals.	None	Tank Car	8/5/2013
East St. Louis	St. Clair	KCS	Sodium Carbonate Peroxyhydrate	Columbus, MS	Unknown	Residue	None	Tank Car	8/9/2013
Maquon	Knox	BNSF	Diesel Fuel	Galesburg, IL	Joint bolts missing causing track to buckle	5,300 gals.	None	Locomotive	8/26/2013
Bellwood	Cook	UP	Diesel Fuel	Bellwood, IL	Unknown	1,000 gals.	None	Locomotive	9/6/2013
			Flammable Liquid, N.O.S.	Corunna, ONT		32,000 gals.			
Smithboro	Bond	CSX	Molten Sulfur	Lee Creek, NC	Broken rail	Residue	None	Tank Car	10/21/2013
			Petroleum Crude Oil	Reybold, DE		Residue			
Chicago	Cook	UP	Diesel Fuel	Chicago, IL	Unknown	1,000 gals.	None	Locomotive	10/29/2013
Sterling	Whiteside	UP	Diesel Fuel	Sterling, IL	Unknown	1,000 gals.	None	Locomotive	10/30/2013
Elmhurst	DuPage	UP	Diesel Fuel	Elmhurst, IL	Unknown	1,500 gals.	None	Locomotive	11/8/2013
Dolton	Cook	UP	Diesel Fuel	Dolton, IL	Locomotive ran over derail	1,500 gals.	None	Locomotive	11/14/2013
Dupo	St. Clair	UP	Diesel Fuel	Dupo, IL	Human error	1,200 gals.	None	Locomotive	12/6/2013
Northlake	Cook	UP	Diesel Fuel	Northlake, IL	Unknown	1,000 gals.	None	Locomotive	12/10/2013
Mount Vernon	Jefferson	UP	Diesel Fuel	Salem, IL	Wide gauge	1,500 gals.	None	Locomotive	12/16/2013

Table C. Hazardous Materials Released From Rail Cars Where No Derailment Occurred.

City	County	Railroad Involved	Substance Involved	Point of Origin	Suspected Reason for Incident	Amount Involved	Amount Released	Type of Equipment	Date
Riverdale	Cook	IHB	Diesel Fuel	Riverdale, IL	Fuel tank was punctured by scrap concrete on the track	1,000 gals.	400 gals.	Locomotive	1/5/2013
Northlake	Cook	UP	Diesel Fuel	Owings Mills, MD	Fuel gauge leaked	300 gals.	5 gals.	Container	1/12/2013
Chicago	Cook	NS	Diesel Fuel	Chicago, IL	Broken fuel line	3,000 gals.	5 gals.	Locomotive	1/13/2013
Northlake	Cook	UP	Alcohols, N.O.S.	Chesapeake, VA	Vacuum relief valve failed	32,875 gals.	1 pint	Tank Car	1/14/2013
Joliet	Will	CN	Hydrocarbons, Liquids, N.O.S.	Morris, IL	Sample line valve open	34,119 gals.	1 gal.	Tank Car	1/23/2013
Northlake	Cook	UP	Diesel Fuel	Northlake, IL	Suction pipe on fuel line froze and broke	2,700 gals.	100 gals.	Locomotive	1/24/2013
Northlake	Cook	UP	Diesel Fuel	Northlake, IL	Malfunction on fuel tank	4,000 gals.	2,000 gals.	Locomotive	2/3/2013
Chicago	Cook	BNSF	Diesel Fuel	Charlotte, NC	Broken fuel line	250 gals.	25 gals.	Container	2/11/2013
Roxana	Madison	NS	Liquefied Petroleum Gas	Roxana, IL	Loose valve on top of car	33,540 gals.	5 gals.	Tank Car	2/11/2013
Joliet	Will	CN	Acetic Acid, Glacial	Joliet, IL	All manway bolts loose	20,925 gals.	1 gal.	Tank Car	2/12/2013
South Holland	Cook	UP	Diesel Fuel	South Holland, IL	Retention tank overflowed	1,000 gals.	385 gals.	Locomotive	2/14/2013
Danville	Vermilion	CSX	Diesel Fuel	Danville, IL	Equipment failure	4,000 gals.	2 gals.	Locomotive	2/19/2013
Brooklyn	St. Clair	NS	Diesel Fuel	Brooklyn, IL	Broken fuel line	4,000 gals.	5 gals.	Locomotive	2/20/2013
Galesburg	Knox	BNSF	Diesel Fuel	Galesburg, IL	Hump retarder failed to slow tank car	26,359 gals.	100 gals.	Tank Car	2/27/2013
East St. Louis	St. Clair	UP	Hydrochloric Acid	Eldon, TX	Hard coupling	19,000 gals.	1 pint	Tank Car	3/9/2013
Bedford Park	Cook	CSX	Diesel Fuel	Bedford Park, IL	Mechanical failure inside engine compartment	4,850 gals.	10 gals.	Locomotive	3/14/2013
Chicago	Cook	CN	Methyl Acrylate, Stabilized	Argo, IL	Vapor valve loose	29,506 gals.	½ gal.	Tank Car	3/19/2013
Northlake	Cook	UP	Molten Sulfur	Fayette, IN	Valves not secured	Load	Minimal	Tank Car	3/20/2013
Northlake	Cook	UP	Diesel Fuel	Unknown	Equipment legs buckled	Load	3 gals.	Container	3/27/2013
Decatur	Macon	NS	Diesel Fuel	Decatur, IL	Overfill of locomotive fuel tank	3,200 gals.	5 gals.	Locomotive	4/17/2013
Bedford Park	Cook	CSX	Diesel Fuel	Bedford Park, IL	Fuel line defective	200 gals.	20 gals.	Container	4/29/2013
Bedford Park	Cook	CSX	Environmentally Hazardous Substance, Liquid, N.O.S.	Newark, NJ	Loose plug	55 gals.	1 gal.	Trailer	5/1/2013
Riverdale	Cook	IHB	Toxic Liquid, Corrosive, Inorganic, N.O.S.	East Chicago, IN	Vapor valve loose	26,470 gals.	1 gal.	Tank Car	5/9/2013
Harvey	Cook	CN	Chlorobenzotrifluorides	Canada	Drum was punctured	55 gals.	25 gals.	Container	5/14/2013
East St. Louis	St. Clair	KCS	Diesel Fuel	East St. Louis, IL	An employee failed to close a valve which overflowed fuel tank	2,000 gals.	2,000 gals.	Locomotive	5/15/2013
Bedford Park	Cook	CSX	Organometallic Substance, Liquid, Water Reactive, Flammable	Bedford Park, IL	Drum was punctured	55 gals.	2 gals.	Container	5/15/2013
Northlake	Cook	UP	Diesel Fuel	Scottsdale, AZ	Mechanical malfunction	200 gals.	1 ounce	Trailer	5/17/2013
Galesburg	Knox	BNSF	Diesel Fuel	Hillsdale, IL	Automatic hump retarder failed to slow car due to foreign material on wheels	500 gals.	250 gals.	Box Car	5/17/2013
Grimsby	Jackson	UP	Diesel Fuel	Chester, IL	Mechanical failure	3,000 gals.	2,000 gals.	Locomotive	6/12/2013
Northlake	Cook	UP	Diesel Fuel	Scottsdale, AZ	Mechanical failure	300 gals.	5 gals.	Container	6/15/2013
Chicago	Cook	CN	Alcohols, N.O.S.	Shell Rock, IA	Manway not secured	30,230 gals.	5 gals.	Tank Car	6/19/2013

City	County	Railroad Involved	Substance Involved	Point of Origin	Suspected Reason for Incident	Amount Involved	Amount Released	Type of Equipment	Date
Hodgkins	Cook	BNSF	Amines, Liquid, Corrosive, N.O.S.	Commerce, CA	Forklift gouged drum	55 gals.	50 gals.	Container	6/22/2013
Chicago	Cook	UP	Diesel Fuel	Unknown	Mechanical failure	250 gals.	10 gals.	Container	6/22/2013
Venice	Madison	TRRA	Alcoholic Beverages	Atchison, KS	Top manway cover gasket was out of place	30,108 gals.	Minimal	Tank Car	6/24/2013
Bedford Park	Cook	CSX	Diesel Fuel	Elizabeth, NJ	Broken fuel line	150 gals.	5 gals.	Trailer	6/28/2013
Decatur	Macon	NS	Diesel Fuel	Decatur, IL	Engine went over a derail and became off level causing fuel to spill from the tank	3,500 gals.	5 gals.	Locomotive	7/5/2013
Chicago	Cook	NS	Diesel Fuel	Unknown	Yard crane ruptured the tank	60 gals.	20 gals.	Trailer	7/9/2013
Chicago	Cook	NS	Diesel Fuel	Chicago, IL	Ruptured fuel line	100 gals.	15 gals.	Trailer	7/10/2013
Franklin Park	DuPage	CP	Diesel Fuel	Rosemont, IL	Fuel line leaked from vibration	50 gals.	10 gals.	Container	7/11/2013
East St. Louis	St. Clair	UP	Diesel Fuel	East St. Louis, IL	Fuel side glass loose	1,000 gals.	½ gal.	Locomotive	7/15/2013
Burnham	Cook	IHB	Petroleum Distillates, N.O.S.	Port Arthur, TX	Manway gasket defective	24,015 gals.	10 gals.	Tank Car	7/18/2013
East Hazel Crest	Cook	CN	Styrene Monomer	Channelview, TX	Overfilled and leaked out manway	23,515 gals.	20 gals.	Tank Car	7/18/2013
Granite City	Madison	NS	Diesel Fuel	Granite City, IL	Overfilled	4,500 gals.	20 gals.	Locomotive	7/19/2013
Marseilles	LaSalle	CSX	Diesel Fuel	Marseille, IL	Broken fuel line	2,200 gals.	100 gals.	Locomotive	7/19/2013
East Hazel Crest	Cook	CN	Anhydrous Ammonia	Canada	Loose closures	4,538 gcf.	.067 gcf.	Tank Car	7/25/2013
Riverdale	Cook	CSX	Diesel Fuel	Riverdale, IL	Crack in fuel line	3,450 gals.	70 gals.	Locomotive	7/25/2013
East Hazel Crest	Cook	CN	Ethyl Methyl Ketone	Cleveland, OH	Inadequate blocking and bracing lead to crushed drums	2 – 55 gal. drums	2 gals.	Container	7/26/2013
Northlake	Cook	UP	Amyl Methyl Ketone	Butler, WI	Bottom outlet valve was less than tool tight	Load	Vapor	Tank Car	8/9/2013
Chicago	Cook	NS	Diesel Fuel	Louisville, KY	Truck driver backed into it	100 gals.	50 gals.	Trailer	8/10/2013
Davis Junction	Ogle	CP	Argon	Edmonton, AB	Safety relief device malfunctioned	60,000 gals.	Minimal	Tank Car	8/11/2013
Riverdale	Cook	CSX	Alcohols, N.O.S.	Houston, TX	O-rings and seals defective	30,101 gals.	1 pint	Tank Car	8/14/2013
Chicago	Cook	CSX	Diesel Fuel	Worcester, MA	Legs collapsed damaging unit	100 gals.	20 gals.	Trailer	8/19/2013
Joliet	Will	CN	Acetic Acid, Glacial	La Porte, TX	Manway not secured	20,990 gals.	1 pint	Tank Car	8/22/2013
Danville	Vermilion	CSX	Diesel Fuel	Danville, IL	Release occurred due to failed injector	4,890 gals.	100 gals.	Locomotive	8/25/2013
Chicago	Cook	UP	Amines, Liquid, Corrosive, N.O.S.	Los Angeles, CA	Insufficient blocking and bracing	275 gals.	5 gals.	Container	8/26/2013
Wheaton	DuPage	UP	Diesel Fuel	Wheaton, IL	Mechanical malfunction of fuel retention tank	3,000 gals.	5 gals.	Locomotive	8/27/2013
Madison	Madison	TRRA	Isopropanol Alcohol	Corunna, ON	Car overloaded at point of origin	25,616 gals.	½ gal.	Tank Car	8/27/2013
Centreville	St. Clair	UP	Diesel Fuel	East St. Louis, IL	Unknown	5,000 gals.	1 gal.	Locomotive	8/28/2013
Decatur	Macon	NS	Diesel Fuel	Decatur, IL	Broken fuel line	3,500 gals.	1 cup	Locomotive	8/29/2013
Centreville	St. Clair	UP	Diesel Fuel	East St. Louis, IL	Occurred during defueling operations	2,000 gals.	100 gals.	Locomotive	9/1/2013
Savanna	Carroll	CP	Ethanol	Cedar Rapids, IA	Loose valve on top of car	186,550 lbs.	10 gals.	Tank Car	9/3/2013
Granite City	Madison	NS	Diesel Fuel	Granite City, IL	Faulty filter on a fuel line	4,000 gals.	10 gals.	Locomotive	9/15/2013
Chicago	Cook	CSX	Diesel Fuel	Bedford Park, IL	Legs collapsed due to driver error	100 gals.	30 gals.	Trailer	9/17/2013
Granite City	Madison	NS	Diesel Fuel	Granite City, IL	Unknown	4,000 gals.	2 gals.	Locomotive	9/18/2013
East St. Louis	St. Clair	ALS	Chlorine	Dupo, IL	Flange loose	Residue	Vapor	Tank Car	9/23/2013
Brighton	Jersey	UP	Diesel Fuel	Wood River, IL	Broken site glass	2,000 gals.	5 gals.	Locomotive	9/27/2013
East St. Louis	St. Clair	UP	Diesel Fuel	East St. Louis, IL	Site glass on locomotive was broken	3,000 gals.	75 gals.	Locomotive	9/29/2013

City	County	Railroad Involved	Substance Involved	Point of Origin	Suspected Reason for Incident	Amount Involved	Amount Released	Type of Equipment	Date
East St. Louis	St. Clair	ALS	Hydrochloric Acid	Baytown, TX	Hard coupling of tank car caused surged out pressure relief device	25662 gals.	1 pint	Tank Car	10/2/2013
East St. Louis	St. Clair	UP	Sulfuric Acid	Baytown, TX	Pressure relief device malfunctioned	202,800 lbs.	½ gal.	Tank Car	10/3/2013
Riverdale	Cook	CSX	Diesel Fuel	Kinnewick, WA	Mechanical failure on the refrigeration unit	250 gals.	10 gals.	Box Car	10/11/2013
Woodburn	Cook	NS	Flammable Liquids, Toxic, N.O.S.	Paulding, OH	Improper preparation for transportation	Load	1 gal.	Tank Car	10/14/2013
Bedford Park	Cook	CSX	Diesel Fuel	Elizabeth, NJ	Fuel strainer cracked	100 gals.	10 gals.	Container	10/18/2013
Decatur	Macon	CN	Anhydrous Ammonia	Decatur, IL	Loose plug	Residue	Vapor	Tank Car	11/6/2013
Joliet	Will	UP	Disinfectant, Liquid, Corrosive, N.O.S.	Joliet, IL	Unsecured manway	8,000 gals.	10 gals.	Portable Tank	11/8/2013
Riverdale	Cook	CSX	Diesel Fuel	Seattle, WA	Fuel line fitting was leaking	400 gals.	10 gals.	Trailer	11/11/2013
Riverdale	Cook	CSX	Diesel Fuel	Riverdale, IL	Mechanical failure	4,000 gals.	10 gals.	Locomotive	11/14/2013
Bensenville	DuPage	CP	Petroleum Crude Oil	New Town, ND	Loose manway swing bolts	Load	1 gal.	Tank Car	11/18/2013
Franklin Park	DuPage	CP	Diesel Fuel	Rosemont, IL	Loose fuel filter and defective fuel line	100 gals.	75 gals.	Box Car	11/19/2013
Joliet	Will	CN	Hydrocarbons, Liquid, N.O.S.	Alberta, Canada	Improper preparation for transportation	Residue	½ gal.	Tank Car	11/26/2013
Riverdale	Cook	CSX	Diesel Fuel	Notus, ID	Fuel line defective	400 gals.	5 gals.	Box Car	11/30/2013
Washington Park	St. Clair	CSX	Diesel Fuel	Washington Park, IL	Mechanical failure on the fuel line	4,585 gals.	100 gals.	Locomotive	12/18/2013
Decatur	Macon	NS	Diesel Fuel	Decatur, IL	Equipment failure	5,000 gals.	5 gals.	Locomotive	12/30/2013

Table D. Railroad Companies Cited in the Preceding Tables.

ALS Alton and Southern Railway  
BNSF BNSF Railway Company  
CN Canadian National Railway Company  
CP Canadian Pacific Railway  
CSX CSX Transportation, Inc.  
IHB Indiana Harbor Belt Railway  
KCS Kansas City Southern Railway Company  
NS Norfolk Southern Railway Company  
TRRA Terminal Railway Association of St. Louis  
UP Union Pacific Railroad Company

## 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

## References.

1. Association of American Railroads; Bureau of Explosives. *Annual Report of Hazardous materials Transported by Rail: 2012*. Washington, D.C., August 2013.
2. Association of American Railroads. *State Rankings*. Washington, D.C., February 2012.
3. Pipeline and Hazardous Materials Safety Administration. *2008 Emergency Response Guidebook*. U.S. Department of Transportation, Washington, D.C., Revised 2/2009.

## RECOGNIZING AND IDENTIFYING HAZARDOUS MATERIALS

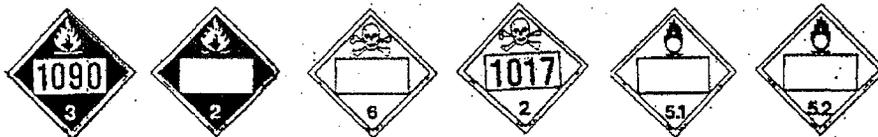
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### PLACARD AND LABEL NOTES

Placards are diamond shaped — 10¾ 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

Attachment 2  
Page 1 of 2

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\* \*  
\*\*\*\*\*

RTMX 21065

T/C

#123456

03 06 01

St. Louis

MO.

1212 St. Louis, MO.  
12 S. Street  
John Doe Inc.

John Doe Inc.  
Chicago, IL.

1/TC

Residue: Last Contained  
Acetone, 3, UN 1090, II, RQ (Acetone)

STCC 4908105

CHEMTREC EMERGENCY CONTACT 1-800-424-9300

SAMPLE WAYBILL

Attachment 2  
Page 2 of 2

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\*\*\*\*\*

GAPX 6075

T/C

#123457

03 06 01

St. Louis

MO.

1212 St. Louis, MO.  
12 S. Street  
John Doe Inc.

John Doe Inc.  
Chicago, IL.

i/TC

Phenol, Molten, 6.1, UN 2312, II, RQ (Phenol)

20,000 GAL.

STCC 4921220

CHEMTREC EMERGENCY CONTACT 1-800-424-9300

SAMPLE CONSIST

ATTACHMENT 3

TRAIN/JOB	CONDUCTOR	NAME	CATAGORY—SECONDARY MANIFEST	TYPE—THRU
ENGINE - IDENT	HORSEPOWER	LENGTH	WEIGHT	STATUS
6142	3000	69	200E	
1001	3000	74	200E	
ENG 1005	3000	74	200E	
TOTAL	9000 HP	217 FEET	600 TONS	

TRAIN/JOB	SEQ	EQMNT	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	BJOX	110	LC4T	131	CORN	7MT018			214H	MEMPHIS TN	
						NOTIFY SHIPPER IF DELAYED				IF BAD ORDERED NOTIFY SHIPPER	
4	CRDX	7227	LC4T	131	CORN	7MT018			214H	MEMPHIS TN	
						NOTIFY SHIPPER IF DELAYED				IF BAD ORDERED NOTIFY SHIPPER	
5	RTMX	21065	ET29	35			12ZA003 CR			CHICAGO IL	
						R50 SPEED RESTRICTED CAR					

1/TK

\*\*\*\*\*  
\*  
\*\*\*\*\*

RESIDUE: LAST CONTAINED

ACETONE

3

EMERGENCY CONTACT:  
1-800-424-9300

UN 1090

II

RQ (ACETONE)  
HAZMAT STCC = 4908105

6 GAPX 6075 LT19 38 POIS B 12ZA003 00 BRC CHICAGO IL  
R50 SPEED RESTRICTED CAR

1/TC

\*\*\*\*\*  
\*  
\*\*\*\*\*

PHENOL, MOLTEN

6.1

UN 2312

EMERGENCY CONTACT:  
1-800-424-9300

II

RQ (PHENOL)  
HAZMAT STCC = 4921220

EMERGENCY RESPONSE INFORMATION

**POTENTIAL HAZARDS**

**FIRE OR EXPLOSION**

- **HIGHLY FLAMMABLE:** Will be easily ignited by heat, sparks or flames.
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
- Vapor explosion hazard indoors, outdoors or in sewers.
- Those substances designated with a "P" may polymerize explosively when heated or involved in a fire.
- Runoff to sewer may create fire or explosion hazard.
- Containers may explode when heated.
- Many liquids are lighter than water.

**HEALTH**

- Inhalation or contact with material may irritate or burn skin and eyes.
- Fire may produce irritating, corrosive and/or toxic gases.
- Vapors may cause dizziness or suffocation.
- Runoff from fire control may cause pollution.

**PUBLIC SAFETY**

- **CALL** Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the **inside back cover**.
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate closed spaces before entering.

**PROTECTIVE CLOTHING**

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

**EVACUATION**

**Large Spill**

- Consider initial downwind evacuation for at least 300 meters (1000 feet).

**Fire**

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

## EMERGENCY RESPONSE

### FIRE

**CAUTION:** All these products have a very low flash point; Use of water spray when fighting fire may be inefficient.

#### Small Fires

- Dry chemical, CO<sub>2</sub>, water spray or alcohol-resistant foam.

#### Large Fires

- Water spray, fog or alcohol-resistant foam.
- Use water spray or fog; do not use straight streams.
- Move containers from fire area if you can do it without risk.

#### Fire Involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.
- For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

### SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be grounded.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- A vapor suppressing foam may be used to reduce vapors.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- Use clean non-sparking tools to collect absorbed material.

#### Large Spills

- Dike far ahead of liquid spill for later disposal.
- Water spray may reduce vapor; but may not prevent ignition in closed spaces.

### FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Wash skin with soap and water.
- Keep victim warm and quiet.
- Ensure that medical personnel are aware of the material(s) involved; and take precautions to protect themselves.

### POTENTIAL HAZARDS

#### TOXICITY

- TOXIC; inhalation, ingestion, or skin contact with material may cause severe injury or death.
- Contact with molten substance may cause severe burns to skin and eyes.
- Avoid any skin contact.
- Effects of contact or inhalation may be delayed.
- Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution.

#### FIRE OR EXPLOSION

- Combustible material: may burn but does not ignite readily.
- When heated, vapors may form explosive mixtures with air: indoors, outdoors, and sewers explosion hazards.
- Those substances designated with a "P" may polymerize explosively when heated or involved in a fire.
- Contact with metals may evolve flammable hydrogen gas.
- Containers may explode when heated.
- Runoff may pollute waterways.
- Substance may be transported in a molten form.

### PUBLIC SAFETY

- CALL Emergency Response Telephone Number on Shipping Paper first. If Shipping Paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Isolate spill or leak area immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.
- Keep out of low areas.
- Ventilate enclosed areas.

#### PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations.

#### EVACUATION

##### Spill

- See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

##### Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

## EMERGENCY RESPONSE

### FIRE

#### Small Fires

- Dry chemical, CO<sub>2</sub> or water spray.

#### Large Fires

- Dry chemical, CO<sub>2</sub>, alcohol-resistant foam or water spray.
- Move containers from fire area if you can do it without risk.
- Dike fire control water for later disposal; do not scatter the material.

#### Fire Involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Do not get water inside containers.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

### SPILL/ROPSACK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Stop leak if you can do it without risk.
- Prevent entry into waterways, sewers, basements or confined areas.
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- DO NOT GET WATER INSIDE CONTAINERS.

### FIRST AID

- Move victim to fresh air. • Call 911 or emergency medical service.
- Apply artificial respiration if victim is not breathing.
- Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- For minor skin contact, avoid spreading material on unaffected skin.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

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

Attachment 5  
Page 1 of 2

RECEIVED, subject to the conditions and liability thereon in effect on the date of the issue by the carrier of the property described in the Original Bill of Lading.									
CUST. NUMBER	S.D. NUMBER	CAR OR TRAILER INITIAL AND NUMBER	DATE SHIPPED	MC DD EE	ROUTE CODE	SHIP. PLT.			
5	7	RTMX 21065	8		5	1	<p>The property described below, in apparent good order, except as noted hereon and condition of the face of packages unknown, received, assigned, and delivered as indicated below, which said carrier (the vessel herein being understood throughout this contract as meaning any person or corporation in possession of the property under the contract agreed to carry to the usual place of destination, if on its route, otherwise to deliver to another carrier on the route to said destination.</p> <p>If it is mutually agreed, as to each carrier of all or any of said property and at any position at said route to destination, and as to each party interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Domestic Bill of Lading and to (1) the Official, Seaman, Women and other Freight Classifications in effect on the date hereof, if this is a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.</p> <p>Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, including those on the back hereof, set forth in the classification or 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 assigns.</p>		
NET WEIGHT	GROSS WEIGHT	NO. OF UNIT	UNIT CODE	PROD. CODE	PROD. PLT.				
8	8	4	3	3	2				
CONSIGNEE John Doe, Inc.			DESTINATION Chicago, IL		STATE OF Cook		COUNTY OF		
FROM Permanent Postoffice Address of Shipper John Doe, Inc. St. Louis, MO			AY						
ROUTE ABC Railroad			DELIVERING CARRIER ABC		AGENT ABC		PER		
NO. PKGS.	DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS					WEIGHT (Sub. to Cert.)	RATE		
1 T/C	Residue: Last Contained Acetone 3 UN 1090 II RQ ( Acetone ) EMERGENCY CONTACT 1-800-424-9300 HAZ MAT STCC = 4908105					Residue			
This shipment is correctly described: <b>CORRECT WEIGHT IS</b> LBS. subject to verification by the Eastern, Southern or Western Weighing and Inspection Bureau, whichever applicable, 18943 John Doe, Inc. SHIPPER									
PURCHASE ORDER NO.			SEAL NUMBERS			THE TOTAL WEIGHT OF THE PALLETS USED ON THE SHIPMENT IS SHOWN ABOVE.			TRANSPORTATION FREE PER ABOVE
						THIS CAR LEASED TO: John Doe, Inc.			LIGHT-TARE WEIGHT IS
IF CHARGES ARE TO BE PREPAID, WRITE OR STAMP HERE "TO BE PREPAID"			Subject to section 7 of conditions of applicable bill of lading, if this shipment is to be delivered to the consignee without recourse on the consignee, 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.		
Prepaid			SIGNATURE OF CONSIGNOR				PER		

PLANT COPY

\*\*\*\*\*  
 \* STRAIGHT BILL OF LADING - SHORT FORM - Original - Not Negotiable Attachment 5  
 \* Page 2 of 2  
 \*\*\*\*\*

RECEIVED, subject to the conditions and lawful load limits in effect on the date of the receipt by the carrier of the property described in the Original Bill of Lading.									
CUST. NUMBER 3	S.D. NUMBER 7	CAR OR TRAILER INITIAL AND NUMBER 15	DATE SHIPPED 8	MC DO DD EE	ROUTE CODE 6	SHP. PLY. 1	the property described herein, in apparent good order, except as noted hereon and condition of contents of packages unknown, marked, consigned, and destined as indicated below, which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract agrees to carry to its usual place of destination.		
NET WEIGHT 8		GROSS WEIGHT 8	NO. OF UNIT 4	UNIT CODE 3	PROD. CODE 3	PROD. PLY. 2	try at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination.		
CONSIGNEE John Doe, Inc.							DESTINATION Chicago, IL	STATE OF Cook	COUNTY OF Cook
FROM Permanent Postoffice Address of Shipper John Doe, Inc. St. Louis, MO							AT		
ROUTE ABC Railroad				DELIVERING CARRIER ABC	AGENT ABC				
NO. PKGS.	DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS					WEIGHT (Sub. to Corr.)	RATE		
1 T/C	Phenol, Molten 6.1 UN 2312 II RQ ( Phenol )  EMERGENCY CONTACT 1-800-424-9300  HAZ MAT STCC = 4921220					20,000 Gals.			
This shipment is correctly described: CORRECT WEIGHT IS LBS. subject to verification by the Eastern, Southern or Western Weighing and Inspection Bureau, whichever applicable, 18943			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 this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement: The carrier shall not make delivery of this shipment without payment of freight and of other lawful charges.			SHIPPER John Doe, Inc. PER			
SIGNATURE OF CONSIGNOR									

PLANT COPY