Transportation of Hazardous Commodities Throughout a Supply Chain

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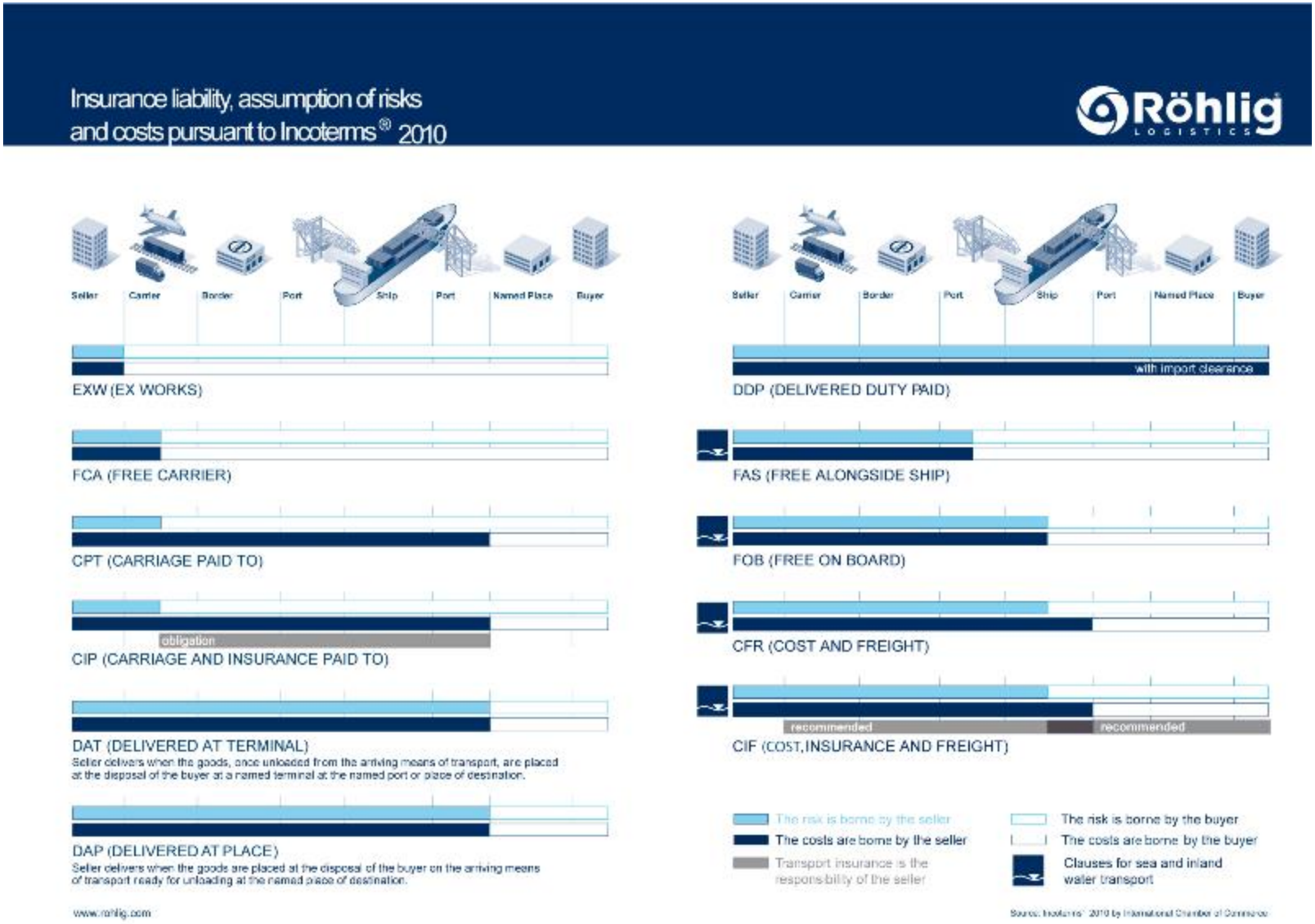
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Port
Ship
Port
Named Place
Buyer
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FCA (FREE CARRIER)
CPT (CARRIAGE PAID TO)
obligation
CIP (CARRIAGE AND INSURANCE PAID TO)
DAT (DELIVERED AT TERMINAL)
Seller delivers when the goods, once unloaded from the arriving means of transport, are placed at the disposal of the buyer at a named terminal at the named port or place of destination.
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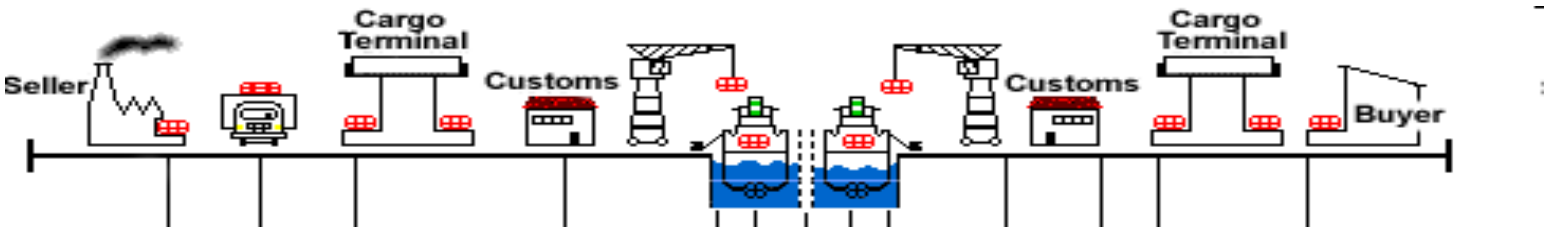
The risk is borne by the seller
The costs are borne by the seller
Transport insurance is the responsibility of the seller
The risk is borne by the buyer
The costs are borne by the buyer
Clauses for sea and inland water transport

Commodity Supply Chain



Scenario No. 1

Vinyl chloride was manufactured in Amsterdam and carried in bulk a aboard a parcel tanker to the Port of New Orleans. When it was off-loaded at the tank terminal in New Orleans, the vinyl chloride gas escaped from an overhead pipeline routed over a road next to the river levee. A bus load of school kids driving down the road next to the tank terminal were exposed to the vinyl chloride before the leak was discovered.

The school children are injured and sued the tank terminal. The tank terminal claims that the release of vinyl chloride was caused by a problem with the cargo and how it was shipped from Amsterdam.

Scenario No. 2

After the school bus incident, the vast majority of the vinyl chloride gas was transferred into the storage tanks at the terminal in New Orleans. The gas cargo was then sold to a plastics plant in Minnesota, and transferred onto a tank barge for a trip on the inland rivers.

The tank barge crew failed to tighten a valve on the barge, and the vinyl chloride cargo escaped and killed three (3) crew members. The crew's survivors sued the barge owner, cargo interests and others alleging they were liable for the wrongful death of their loved ones. The barge owner asserted that the cargo had a defect which forced the tank barge to loosen, and the gas to escape.

Scenario No. 3

A salvage company bought the “snake bit” vinyl chloride cargo left in the barge when it arrived in St. Louis, and transferred it to several tanker trucks. The 18-wheeler tankers went to different plants.

One of the tanker trucks was rear-ended by a drunk driver on I-70 near Topeka, Kansas, causing the vinyl chloride cargo in the truck to explode. The explosion occurred underneath an overpass, and caused a spill and serious property damage to the tanker, other vehicles and I-70. Miraculously, when it arrived in St. Louis, nobody was injured.

The State of Kansas, DOTD, sued the “deep pocket” trucking company for the property damage. Cargo interests were then sued for the environmental clean-up costs and property damage from the explosion of the vinyl chloride cargo (which did not have the proper transit permits for the hazardous cargo).

Incidents involving chemicals and other hazardous substances in transit may bring significant liabilities for cargo owners, manufacturers, shippers and purchasers involved in the supply chain from manufacturer to buyer of the bulk chemicals. In many instances the contractual and legal liabilities associated with the supply chain are not fully understood and environmental insurance coverage to protect against these liabilities is overlooked.

Cargo owners, even if they rely on services of third party maritime and land carriers, are not immune from the liabilities flowing from the transportation of hazardous substances. Manufacturers and/or shippers can be at fault regardless of the reliance on third party carriers due to several legal and contractual liability schemes arising from improper labeling or packaging of cargo. Additionally, we have seen the assertion of strict and several liabilities stemming from recent catastrophic rail accidents. Manufacturers and/or shippers, if at fault for an accident, can face claims asserted by their contract carriers, as insurers, crew, third-party cargo interests, and other third parties impacted by the accident. If an accident causes environmental damage, shippers may also have responsibility for cleanup costs and remedial actions. The value of the destroyed cargo, as well as uncapped and unfunded legal liabilities, results in extremely high stakes for shippers and cargo owners. In this presentation, we will explain the exposures to environmental liabilities for manufacturers, cargo owners, and shippers of hazardous substances in the supply chain.

THE SUPPLY CHAIN FOR TRANSPORTATION AND HAZARDOUS CHEMICALS

Bulk chemicals are essential to industry. These chemicals must travel in the supply chain from their manufacturer to an industrial buyer of these bulk commodities. Key players in the supply chain for bulk chemicals are:

- Manufacturers of the chemical product who sell it;
- Cargo interests, including wholesale buyers, commodity traders, shippers and cargo owners, who have an interest in the cargo in transit;
- Third-Party Logistic Providers who act as middlemen between sellers and buyers of bulk chemical cargo, and arrange for carriage of the cargo along the supply chain;
- Maritime and over-land carriers, e.g., trucks and railroads for the cargo; and
- The consignee of the cargo.

Whether the bulk chemicals are manufactured overseas or on the U. S. Gulf Coast, the cargo travel in a supply chain that includes:

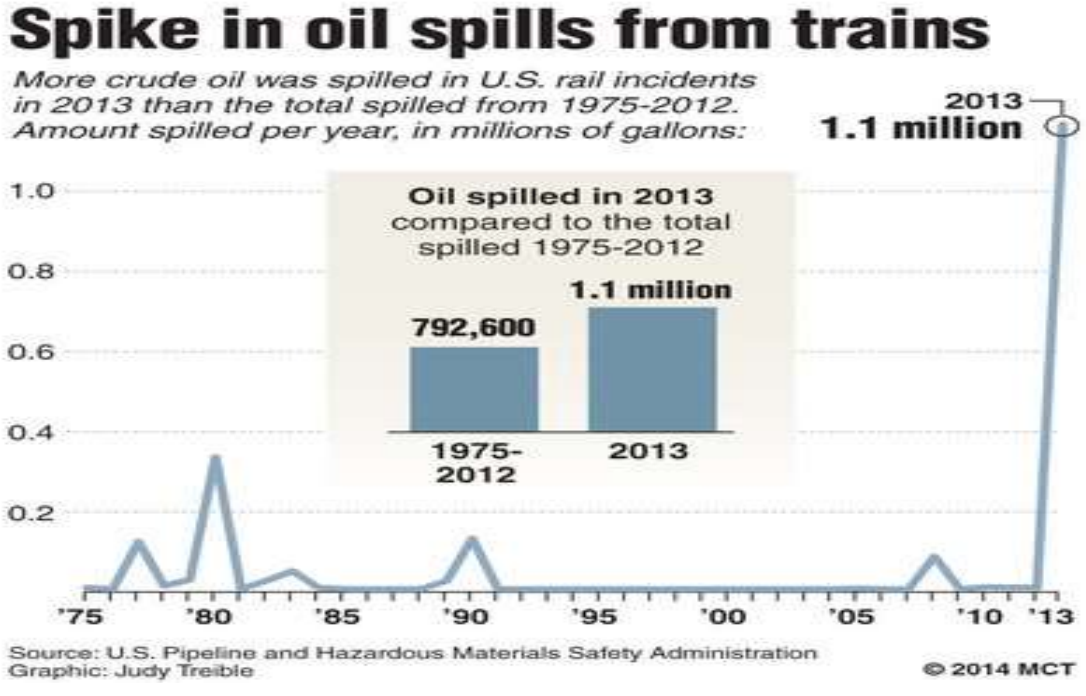
- Transportation of the chemicals from the manufacturer's plan by tanker or barge to
- A terminal or tank farm, and then
- Over land carriage of the bulk chemicals by railroad tanker car or an 18-wheeler for delivery to the buyer of the cargo.

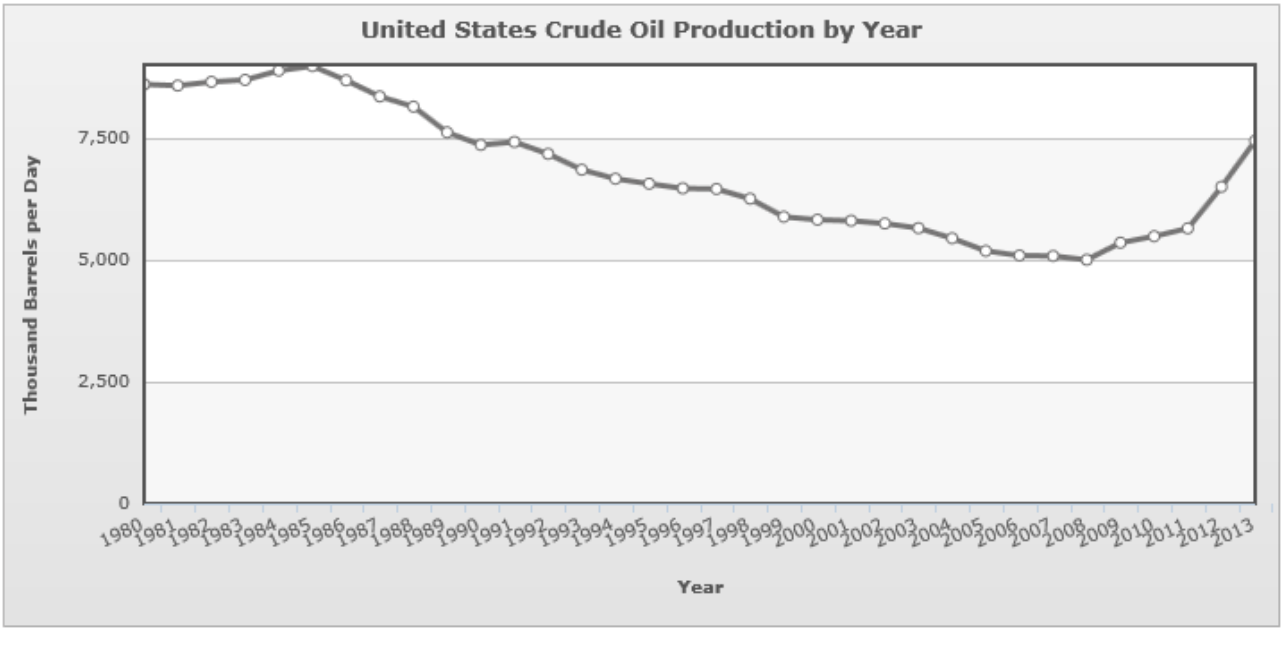
Along the supply chain, a catastrophic loss could occur impacting entire communities and become "breaking news" in the media.

Our presentation concerns the "everyday" environmental risks and liabilities that arise along the supply chain for manufacturers, cargo owners and shippers of bulk chemicals that may not make headlines—but can ruin these parties—if the risk is not assessed and protected.

AN EXAMPLE OF BULK CARGO LIABILITIES IN THE SUPPLY CHAIN:

Bulk chemicals travel much the same type of supply chain as oil. Under most people's radar are the tremendous number of "everyday" oil spill or trains. Furthermore the following chart provides graphical illustration on how much fuel was spilled (in gallons) from 1975 through 2013. On the surface, the graph designer raises concern as to increasing frequency of spills. However, we need to carefully examine the data in order to assess risk. For the period 1980 to present, domestic production of crude was 231mm barrels of oil which equates to 9.7 billion gallons, more of less. During that same period, approximately 1.5mm gallons, more or less. Data suggests there is a 0.02% chance that oil will be spilled during a rail incident.





RISK EXAMPLES

We bring your attention to the increasing shipments of crude oil and what the general public understands the risks to be based upon publicly available information.

On October 13, 2014, NPR published an article titled "Fiery Oil Train Derailments Prompts Call for Less Flammable Oil". (CITE) In this article the authors bring highlight the recent surge of domestic oil production and associated transport risk. This article reads in part: "Once a day, a train carrying crude oil from North Dakota's Bakken oil fields rumbles through Bismarck, N.D., just a stone's throw from a downtown park.

The Bakken fields produce more than 1 million barrels of oil a day, making the state the nation's second-largest oil producer after Texas. But a dearth of pipelines means that most of that oil leaves the state by train — trains that run next to homes and through downtowns.

After several fiery accidents, oil companies are under pressure to make their oil less explosive before loading it onto rail cars. But oil companies say rules requiring those modifications will create more problems than they solve."

A second article, which appeared in the January 13, 2014 edition on www.latimes.com, titled "400,000 gallons of crude spilled in North Dakota train crash" illustrates what can happen with a loss of a bulk chemical in the supply chain:

> …. " About 400,000 gallons of crude oil spilled from 18 rail cars after after a Dec. 30 derailment near Casselton, N.D., the National Transportation Safety Board said in a preliminary investigation report Monday.

An ensuing explosion sent a massive mushroom cloud of fire above the prairie and forced the evacuation of 1,400 residents.

Damage was estimated at $6.1 million, the NTSB said.

The accident occurred when a BNSF Railway grain train derailed on the westbound tracks, obstructing the eastbound tracks less than a minute before the 106-car oil train arrived.

The NTSB's preliminary report shed little new light on what may have caused the grain train to derail. Twenty-one cars on the oil train derailed, including 20 carrying crude and one carrying sand ballast.

Both trains were under the 60 mph speed limit for freights. The oil train was traveling at 43 mph when the crew triggered emergency brakes, and had slowed to 42 mph when it crashed into a car obstructing its track. The grain train was traveling about 28 mph when it derailed."

When a loss occurs as written by the LA Times, the parties at risk must identify and understand the roles and responsibilities of the parties (counterparties). Adjuster must gauge and understand liability arising from legal obligations v contractual obligations. The parties are:

Seller (energy producer) – Seller is a US registered Exploration and Production Company extracting mineral assets from Shale. Seller sells oil in US market. Seller is responsible for product origination and sells oil on an "as is, where is" basis. Seller assumes no responsibility for arranging carriage beyond terminal point. Movement of product beyond terminal point are shipped EXW. **ExWorks (EXW):** the seller fulfills his obligations by having the goods available for the buyer to pick up at his premises or another named place (i.e. factory, warehouse, etc.). Buyer bears all risk and costs starting when he picks up the products at the seller's location until the products are delivered to his location. Seller has no obligation to load the goods or clear them for export. (http://www.export.gov/faq/eg_main_043740.asp)

Wholesale Buyer – Buyer is a US based, privately held company. Buyer purchases goods "as is, where is", assumes responsibility for transport and then blends products to customers specifications. Buyer focuses primarily on domestic US market but is seeking expansion opportunities in select geographies. Buyer arranges carriage using an intermodal (rail and truck) common carrier and frequently engages a third party logistics provider. Since value of goods changes according to market conditions, Buyer employs traders to buy and sell product and those traders seek to capitalize on arbitrage opportunities when possible. Buyer has a "soft" corporate mandate traders sell goods CIF however this rule does not always disseminate down to new traders and this rule is not always enforced. Goods are sold by Buyer CIP. **Carriage and Insurance Paid To (CIP):** seller clears the goods for export and delivers them to the carrier or another person stipulated by the seller at a named place of shipment. Seller is responsible for the transportation costs associated with delivering goods and procuring minimum insurance coverage to the named place of destination. (http://www.export.gov/faq/eg_main_043740.asp)

ALLOCATION OF RISK AMONGT INTERESTED PARTIES

Risk of Third Party Logistics

Providers are responsible for acting as a middle man between willing sellers and willing buyers. Responsible for arranging carriage and affirming transportation is completed in accordance with terms of trade

Risks of Seller

Legal Liability – products (failure to warn viscosity/volatility)

Contractual Liability

Depends on terms of trade

Depends on which party is responsible for loading product (delivered to rail via fully loaded train car or is it piped to rail spur or rail terminal and then attached to train.

Potential for financial responsibility depending upon cause of loss. Other than railroad negligence may revert back to seller, tank car manufacturer and/or logistics provided.

Risk of Buyer

First Party Property Damage cover – marine cargo cover

Third Party

Legal Liability

Contractual liability

Tort Liability – third party bodily injury & property damage

Natural resource damages

CERCLA

RCRA

Crisis Response

EXERPT INFORMATION ON HYPOTHETICAL LOSS SCENARIO

In this loss example, the arranger uses services of a professional railway carrier to transport its products. As a general rule, case law tends to impose liability on the carrier rather than shipper. Yet, as the cause of the accident is related to the improper packaging, the manufacturer's liability may be established based on his negligence in cargo packaging.[1] Additionally, the shipper may find itself in violation of the Hazardous Materials Transportation Act (HMTA)[2] or regulations promulgated thereunder, which set forth detailed requirements regarding the handling, packaging, and conveyance of hazardous materials before and during transportation.

With respect to the environmental liability for cleanup costs, US federal laws and state equivalents lean towards strict liability of enumerated categories of entities, who can be held liable for cleanup costs even where they have not acted intentionally or negligently. This is the case with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)[3], that sets forth a *strict liability regime* for the cleanup of hazardous waste, both on land and navigable waters. While the railway carrier undoubtedly falls into one of categories of potentially responsible parties under CERCLA[4], either as the owner and operator of a facility or person who accepted waste for transportation, the scope of cargo owners' liability as an arranger for disposal under CERCLA for years remained disputed.[5] However, in its recent decision in Burlingtion Northen & Santa Fe Railway Co. et al. v. United States et al, 129 S. Ct. 1870 (U.S. 2009) the Supreme Court emphasized that "arranging" requires an element of intent, and thus, an entity which sells useful product that is disposed of unbeknownst to the seller cannot be held liable under CERCLA as an arranger.

The fact is, the manufacturer's exposure to clean up cost liability exists even though the manufacturer is not strictly liable under CERCLA. The carrier may use third party liability exception to exonerate itself from strict liability under CERCLA, in which case environmental agencies may seek to recover cleanup cost from the shipper based on his negligence.[6] Moreover, even if the carrier bares the costs of cleanup, it may seek to recover such costs partially or fully

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[1] In Indiana Harbor Belt Railroad Co. v. American Cyanamid Co., 916 F2d 1174 (7th Cir. 1990) the court held that a shipper of a hazardous chemical by rail in not strictly liable for the consequences of a spill or other accident to the shipment en route, however, a shipper may be held liable if plaintiff can prove that the shipper acted negligently. The court did not find shipping of acrylonitrile by rail as an ultrahazardous activity that would justify shipper's strict liability under common law, but such possibility has not been explicitly excluded for other hazardous substances posing more serious risk to human life and environment.

[2] The Hazardous Materials Transportation Act (HMTA) of 1994, 49 U.S.C. §§ 5101-5127.

[3] The Comprehensive Environmental Compensation, and Liability Act (CERCLA) of 1980, 42 U.S.C. §9601 et seq.

[4] Categories of potentially responsible parties under CERCLA include: (1) the owner and operator of a vessel or a facility, (2) any person who at the time of disposal of any hazardous substance owned or operated any facility at which such hazardous substances were disposed of, (3) any person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances, and (4) any person who accepts or accepted any hazardous substances for transport to disposal or treatment facilities, incineration vessels or sites selected by such person, from which there is a release, or a threatened release which causes the incurrence of response costs, of a hazardous substance. CERCLA § 107(a), 42 U.S.C. § 9607(a). The term "Facility" under CERCLA includes, among other things, rolling stock and motor vehicles. CERCLA § 101(9), 42 U.S.C. § 9601(22).

[5] One of the categories upon which CERCLA imposes strict liability are "arrangers" of the disposal of hazardous substances. CERCLA § 107(a)(3), 42 U.S.C. § 9607(a)(3). As the disposal under CERCLA is defined broadly and includes spilling (CERCLA § 101(29), 42 U.S.C. § 9601(29); § 1004 of the Solid Waste Disposal Act, 42, U.S.C. § 6903) the question arose whether shipper of hazardous substances who arranged for its transportation in the course of its ordinary business can be held liable as an arranger of its disposal in the case the hazardous substance has been accidentally spilled on route. Initial judicial approach was to read the statute broadly and include shippers as potentially responsible parties (United States v. Aceto Agricultural Chemicals Corp., 872 F.2d 1373 (8th Cir. 1989). This approach has changed largely under the influence of In Indiana Harbor Belt Railroad Co. v. American Cyanamid Co., 916 F2d 1174 (7th Cir. 1990), in which the court held that a shipper of a hazardous chemical by rail in not strictly liable for the consequences of a spill or other accident to the shipment en route, however, a shipper may be held liable if plaintiff can prove that the shipper acted negligently. Although In Indiana Harbor decision was not itself based on the interpretation of CERCLA, it set forth a standard that courts started to follow while interpreting scope of arranger liability under CERCLA. In Amcast Indistries v. Detrex Corp., 2 F3d 246 (7th Cir. 1993) the court emphasized that "to arrange" means to plan and one cannot plan for something to happen accidentally; in Freeman v. Glaxo Welcome Inc., 189 F3d 160 (2d Cir. 1999) distinguished between sale of a useful product and sale of waste.

[6] The third party liability exception is not available when third party's act or omission causing environmental damage occurs in connection with a contractual relationship existing directly or indirectly with the potentially responsible party, but an exception is made to situations where the sole contractual arrangement arises from a published tariff and acceptance for carriage by a common carrier by rail. CERCLA § 107(b), 42 U.S.C. § 9607(b).

from the shipper, as the liability of potentially responsible persons under CERCLA does not bar a cause of action that such person has or would have, by reason of subrogation or otherwise against any person.[7]

Similarly to CERCLA, the Federal Clean Water Act (CWA)[8] which sets forth liability regime for discharges of oil and hazardous substances into or upon the navigable waters of the US and imposes strict liability not on a shipper, but on an owner or operator of a vessel or facility[9] from which oil or a hazardous substance is discharged in violation of the act. In the case that such discharge was caused solely by an act or omission of a third party, the carrier, although not released from its obligation to pay the US Government the actual costs of the cleanup, is entitled by subrogation to recover such costs from such third party.[10] Furthermore, the liabilities of the owner/operator under CWR do not affect any right such owner/operator or US Government might have against any third party whose acts may in any way have caused or contributed to the discharge.[11]

[7] CERCLA § 107(e)(2), 42 U.S.C. § 9607(e)(2).
[8] The Federal Clean Water Act (CWA) of 1972, 33 U.S.C. §§ 1251-1387.
9 Onshore facilities under CWA include, among other things, motor vehicles and rolling stock. CWA § 311(a)(10), 33 U.S.C. § 1321(a)(10).
[10] CWA § 311(g), 33 U.S.C. § 1321(g).
[11] CWA § 311(h), 33 U.S.C. § 1321(h).