



Hazardous Materials Spill

General

One of the greatest threats to Pennsylvanians is the production, storage, use, and transportation of hazardous materials. The release of these materials from a facility is less dangerous than their release during transport. Hazardous materials include flammable liquids, solids, gases, combustible liquids, explosives, blasting agents, radioactive materials, oxidizing materials, corrosive materials, poisons, refrigerated liquids, hazardous waste/substances, and other regulated materials. The City of Philadelphia and the Delaware Valley Region, which is about 150 miles southeast of Snyder County, comprise one of the leading industrial trade complexes in the nation. Hazardous materials, such as chemicals, fuels, etc. are frequently transported through Snyder County. The transporters of hazardous materials, however, must have response plans in place in the event of an accident.

Any facility in Pennsylvania that uses, manufactures, or stores hazardous materials must comply with Title III of the Superfund Amendments and Reauthorization Act (SARA). This is also known as the Emergency Planning and Community Right-to-Know Act (EPCRA). They must also comply with the reporting requirements, as amended, in Pennsylvania's Hazardous Materials Emergency Planning and Response Act (1990-165). Information about the chemicals that are being manufactured or processed in facilities can be found in the U.S. Environmental Agency's Toxic Release Inventory database.

History

The National Response Center lists 25 hazardous materials (HAZMAT) incident reports for Snyder County. Of those, there were 19 separate incidents, one of which resulted in a waterway closing, and one which resulted in the closing of U.S. Route 522.

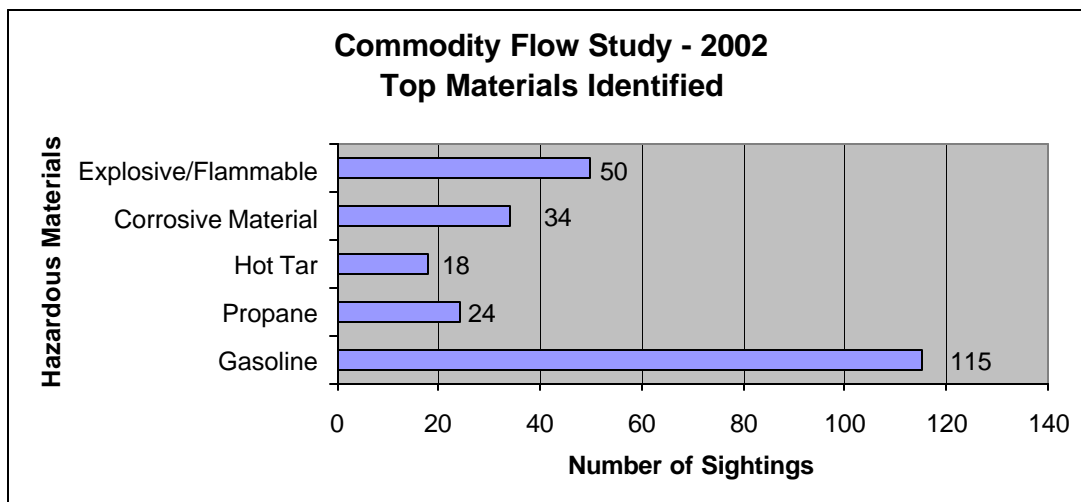
The Commonwealth experienced 1,000 hazardous materials spills in 2003, primarily on highways. According to the U.S. Bureau of Transportation Statistics, of the 1,115 spills in Pennsylvania in 2000, 1,065 happened on highways. These spills cost the Commonwealth approximately \$2.5 million in clean-up expenses. The following table lists the HAZMAT incidents in Snyder County, as recorded by The National Response Center.



Snyder County HAZMAT Incidents				
Incident Number	Date	Location	Substance	Closure Type
43373	10/12/90	U.S. Route 11/15, Hummels Wharf	Hydraulic Oil	None
43380	10/12/90	Old Trail Road, Hummels Wharf	Hydraulic Oil	None
74711	6/6/91	South end of Beavertown	Waste Oil/Lubricants	None
266894	10/24/94	10 E. Park Road, Hummels Wharf	Unknown	None
320019	1/14/96	Spring St. and Center Ave., Beaver Springs	Unknown Oil	None
422274	1/31/98	108 E. Market Street, Beavertown	Oil Fuel	None
454700	9/10/98	Old Trail General, Shamokin Dam	Sulfuric Acid	None
478393	3/28/99	Old Trail General, Shamokin Dam	Unknown Oil	None
486986	6/10/99	U.S. Route 11/15, Selinsgrove	Nitric Acid	Waterway
497755	9/7/99	1 Second St., Kreamer	Unknown	None
560034	3/19/01	Chapman Township	Unknown	None
585651	11/10/01	S.R. 522, Selinsgrove	Ethylene Glycol	Road
625801	10/11/02	Old Susquehanna Trail, Shamokin Dam	Unknown	None
627721	10/30/02	301 Old Trail Road, Hummels Wharf	Hydraulic Oil	None
631003	12/6/02	Route 104, Mt. Pleasant Mills	Oil and Gas	None
700363	9/22/03	Old Trail Road, Shamokin Dam	Sodium Hydroxide	None
719987	4/26/04	8th Ave. and U.S. Route 11/15, Shamokin Dam	Motor Oil	None
720023	4/27/04	S.R. 522, Beavertown	Propane	Road
726625	6/29/04	S.R. 522, Beaver Springs	Refrigerant Gas	None

Source: The National Response Center

The chart below from the Snyder County 2002 Commodity Flow Study, illustrates hazardous materials most often identified throughout the Commodity Flow study.



Source: Snyder County Commodity Flow Study (2000)



Vulnerability

A hazardous materials spill can be the result of human carelessness, an intentional act, or a natural hazard. Human carelessness occurs predominantly during the manufacturing, transporting, or storage of materials. Intentional acts would be considered either a terrorist act, criminal act, or act of vandalism. A hazardous materials spill can be a secondary effect of a natural hazard (e.g., flooding, earthquake, or severe weather). In Snyder County, U.S. Route 11/15 is the route most often traveled by vehicles transporting hazardous materials, according to the *2002 Commodity Flow Study*. However, hazardous materials were also transported on S.R.s 104 and 35, and U.S. Route 522.

According to the Superfund Amendments and Reauthorization Act (SARA), facilities that store hazardous chemicals must disclose the types, amounts, and exact locations of the chemicals stored in their facilities to the public. (See Snyder County SARA facilities that follows)



Snyder County Hazard Mitigation Plan

Appendix C - Hazard Profile

Snyder County SARA Facilities					
NAME	CITY	CHEMICAL NAME	NAME	CITY	CHEMICAL NAME
MOHAWK FLUSH DOORS INC.	NORTHUMBERLAND	CERTAIN GLYCOL ETHER	SUNOCO INC. R&M NORTHUMBERLAND TERMINAL	NORTHUMBERLAND	BENZENE
"DONSCO, INC. BUILDING #8"	BELLEVILLE	MANGANESE	SUNOCO INC. R&M NORTHUMBERLAND TERMINAL	NORTHUMBERLAND	CUMENE
"DONSCO, INC. BUILDING #8"	BELLEVILLE	COPPER	SUNOCO INC. R&M NORTHUMBERLAND TERMINAL	NORTHUMBERLAND	NAPHTHALENE
NEW HOLLAND N.A. INC.	BELLEVILLE	ETHYLENE GLYCOL	SUNOCO INC. R&M NORTHUMBERLAND TERMINAL	NORTHUMBERLAND	TOLUENE
NEW HOLLAND N.A. INC.	BELLEVILLE	XYLENE (MIXED ISOMER	SUNOCO INC. R&M NORTHUMBERLAND TERMINAL	NORTHUMBERLAND	XYLENE (MIXED ISOMER
NEW HOLLAND N.A. INC.	BELLEVILLE	MANGANESE	SUNOCO INC. R&M NORTHUMBERLAND TERMINAL	NORTHUMBERLAND	ETHYLBENZENE
STANDARD STEEL	BURNHAM	ZINC (FUME OR DUST)	SUNOCO INC. R&M NORTHUMBERLAND TERMINAL	NORTHUMBERLAND	N-HEXANE
STANDARD STEEL	BURNHAM	NICKEL COMPOUNDS	SUNOCO INC. R&M NORTHUMBERLAND TERMINAL	NORTHUMBERLAND	CYCLOHEXANE
STANDARD STEEL	BURNHAM	CHROMIUM COMPOUNDS	WATSONTOWN BRICK CO.	WATSONTOWN	HYDROGEN FLUORIDE
STANDARD STEEL	BURNHAM	MANGANESE COMPOUNDS	WATSONTOWN BRICK CO.	WATSONTOWN	BARIUM COMPOUNDS
FLEETWOOD HOMES OF PENNSYLVANIA INC. 22	ELIZABETHTOWN	DIISOCYANATES	WATSONTOWN BRICK CO.	WATSONTOWN	HYDROCHLORIC ACID
OVERHEAD DOOR CORP. - PENNSYLVANIA	LEWISTOWN	METHYL ISOBUTYL KETO	ANTHRACITE INDS. INC.	SUNBURY	PROPYLENE
OVERHEAD DOOR CORP. - PENNSYLVANIA	LEWISTOWN	DIISOCYANATES	FOSTER WHEELER MT. CARMEL INC.	MARION HEIGHTS	ANTIMONY COMPOUNDS
EMPIRE KOSHER POULTRY INC.	MIFFLINTOWN	CHLORODIFLUOROMETHAN	FOSTER WHEELER MT. CARMEL INC.	MARION HEIGHTS	BARIUM COMPOUNDS
EMPIRE KOSHER POULTRY INC.	MIFFLINTOWN	CHLORINE	FOSTER WHEELER MT. CARMEL INC.	MARION HEIGHTS	CHROMIUM COMPOUNDS
FCI/BERG ELECTRONICS INC.	MOUNT UNION	NICKEL	FOSTER WHEELER MT. CARMEL INC.	MARION HEIGHTS	COPPER COMPOUNDS
FCI/BERG ELECTRONICS INC.	MOUNT UNION	SULFURIC ACID	FOSTER WHEELER MT. CARMEL INC.	MARION HEIGHTS	HYDROGEN FLUORIDE
FCI/BERG ELECTRONICS INC.	MOUNT UNION	COPPER	FOSTER WHEELER MT. CARMEL INC.	MARION HEIGHTS	MANGANESE COMPOUNDS
FLUID CONTAINMENT INC.	MOUNT UNION	STYRENE	SUNOCO INC. R&M NORTHUMBERLAND TERMINAL	NORTHUMBERLAND	1,2,4-TRIMETHYLBENZ
FLUID CONTAINMENT INC.	MOUNT UNION	DIMETHYL PHTHALATE	FLEETWOOD MOTOR HOMES OF PENNSYLVANIA IN	PAXINOS	METHYL ETHYL KETONE
TRIANGLE PACIFIC CORP.	THOMPSONTOWN	XYLENE (MIXED ISOMER	FLEETWOOD MOTOR HOMES OF PENNSYLVANIA IN	PAXINOS	TOLUENE
TRIANGLE PACIFIC CORP.	THOMPSONTOWN	N-BUTYL ALCOHOL	FLEETWOOD MOTOR HOMES OF PENNSYLVANIA IN	PAXINOS	XYLENE (MIXED ISOMER
TRIANGLE PACIFIC CORP.	THOMPSONTOWN	METHANOL	FLEETWOOD MOTOR HOMES OF PENNSYLVANIA IN	PAXINOS	METHYL TERT-BUTYL ET
TRIANGLE PACIFIC CORP.	THOMPSONTOWN	TOLUENE	MERCK & CO. INC. CHEROKEE SITE	RIVERSIDE	ABAMECTIN
TRENWYTH IND. INC.	EMIGSVILLE	TOLUENE	MERCK & CO. INC. CHEROKEE SITE	RIVERSIDE	ACETONITRILE
TRENWYTH IND. INC.	EMIGSVILLE	METHYL ACRYLATE	MERCK & CO. INC. CHEROKEE SITE	RIVERSIDE	N,N-DIMETHYLFORMAMI
TRENWYTH IND. INC.	EMIGSVILLE	STYRENE	MERCK & CO. INC. CHEROKEE SITE	RIVERSIDE	ETHYLENE GLYCOL
DOUCETTE INDUSTRIES INC.	YORK	COPPER	MERCK & CO. INC. CHEROKEE SITE	RIVERSIDE	N-HEXANE
MANLEY VALVE	YORK	CHROMIUM COMPOUNDS	MERCK & CO. INC. CHEROKEE SITE	RIVERSIDE	DICHLOROMETHANE
MANLEY VALVE	YORK	MANGANESE COMPOUNDS	MERCK & CO. INC. CHEROKEE SITE	RIVERSIDE	METHYL ETHYL KETONE
MANLEY VALVE	YORK	NICKEL COMPOUNDS	MERCK & CO. INC. CHEROKEE SITE	RIVERSIDE	METHANOL
H. WARSHOW & SONS INC.	MILTON	CHROMIUM COMPOUNDS	MERCK & CO. INC. CHEROKEE SITE	RIVERSIDE	NITRATE COMPOUNDS
FOSTER WHEELER MT. CARMEL INC.	MARION HEIGHTS	HYDROCHLORIC ACID	MERCK & CO. INC. CHEROKEE SITE	RIVERSIDE	SODIUM AZIDE
WOOD-MODE INC.	KREAMER	XYLENE (MIXED ISOMER	MERCK & CO. INC. CHEROKEE SITE	RIVERSIDE	TRIETHYLAMINE
WOOD-MODE INC.	KREAMER	TOLUENE	MERCK & CO. INC. CHEROKEE SITE	RIVERSIDE	TOLUENE
WOOD-MODE INC.	KREAMER	METHANOL	MERCK & CO. INC. CHEROKEE SITE	RIVERSIDE	ZINC COMPOUNDS
WOOD-MODE INC.	KREAMER	METHYL ETHYL KETONE	KERRICO CORP.	SELINGSGROVE	STYRENE
WOOD-MODE INC.	KREAMER	1,2,4-TRIMETHYLBENZ	MONTOUR OIL-SHAMOKIN	MONTOURSVILLE	BENZENE



NAME	CITY	CHEMICAL NAME	NAME	CITY	CHEMICAL NAME
WOOD-MODE INC.	KREAMER	ETHYLBENZENE	MONTOUR OIL-SHAMOKIN	MONTOURSVILLE	CUMENE
YORKTOWNE INC.	MIFFLINBURG	METHANOL	MONTOUR OIL-SHAMOKIN	MONTOURSVILLE	TOLUENE
YORKTOWNE INC.	MIFFLINBURG	XYLENE (MIXED ISOMER)	MONTOUR OIL-SHAMOKIN	MONTOURSVILLE	XYLENE (MIXED ISOMER)
ACF INDS. INC.	MILTON	METHYL ETHYL KETONE	MONTOUR OIL-SHAMOKIN	MONTOURSVILLE	ETHYLBENZENE
ACF INDS. INC.	MILTON	XYLENE (MIXED ISOMER)	SUNBURY GENERATION L.L.C.	SHAMOKIN DAM	BARIUM COMPOUNDS
ACF INDS. INC.	MILTON	MANGANESE	SUNBURY GENERATION L.L.C.	SHAMOKIN DAM	HYDROCHLORIC ACID
ACF INDS. INC.	MILTON	CHROMIUM	SUNBURY GENERATION L.L.C.	SHAMOKIN DAM	CHROMIUM COMPOUNDS
ACF INDS. INC.	MILTON	NICKEL	SUNBURY GENERATION L.L.C.	SHAMOKIN DAM	COPPER COMPOUNDS
MILTON STEEL INC.	MILTON	XYLENE (MIXED ISOMER)	SUNBURY GENERATION L.L.C.	SHAMOKIN DAM	HYDROGEN FLUORIDE
MILTON STEEL INC.	MILTON	1,2,4-TRIMETHYLBENZ	SUNBURY GENERATION L.L.C.	SHAMOKIN DAM	MANGANESE COMPOUNDS
MILTON STEEL INC.	MILTON	MANGANESE	SUNBURY GENERATION L.L.C.	SHAMOKIN DAM	NICKEL COMPOUNDS
ARCOS ALLOYS DIV. OF HOSKINS MFG. CO.	MOUNT CARMEL	COPPER	SUNBURY GENERATION L.L.C.	SHAMOKIN DAM	ZINC COMPOUNDS
ARCOS ALLOYS DIV. OF HOSKINS MFG. CO.	MOUNT CARMEL	CHROMIUM	SUNBURY GENERATION L.L.C.	SHAMOKIN DAM	SULFURIC ACID
ARCOS ALLOYS DIV. OF HOSKINS MFG. CO.	MOUNT CARMEL	NICKEL	SUNBURY GENERATION L.L.C.	SHAMOKIN DAM	CHLORINE
ARCOS ALLOYS DIV. OF HOSKINS MFG. CO.	MOUNT CARMEL	MANGANESE	WINFIELD AGWAY FEED MILL	WINFIELD	ZINC COMPOUNDS
ARCOS ALLOYS DIV. OF HOSKINS MFG. CO.	MOUNT CARMEL	TETRACHLOROETHYLENE	WHEELABRATOR FRACKVILLE ENERGY CO. INC.	FRACKVILLE	BARIUM COMPOUNDS
KOCH MATERIALS CO.	NORTHUMBERLAND	1,2,4-TRIMETHYLBENZ	WHEELABRATOR FRACKVILLE ENERGY CO. INC.	FRACKVILLE	COPPER COMPOUNDS
KOCH MATERIALS CO.	NORTHUMBERLAND	ETHYLBENZENE	WHEELABRATOR FRACKVILLE ENERGY CO. INC.	FRACKVILLE	ANTIMONY COMPOUNDS
KEYSTONE FORGING	NORTHUMBERLAND	NICKEL	WHEELABRATOR FRACKVILLE ENERGY CO. INC.	FRACKVILLE	MANGANESE COMPOUNDS
KEYSTONE FORGING	NORTHUMBERLAND	CHROMIUM	WHEELABRATOR FRACKVILLE ENERGY CO. INC.	FRACKVILLE	CHROMIUM COMPOUNDS
RESILITE SPORTS PRODS. INC.	NORTHUMBERLAND	METHYL ETHYL KETONE	WHEELABRATOR FRACKVILLE ENERGY CO. INC.	FRACKVILLE	NICKEL COMPOUNDS
RESILITE SPORTS PRODS. INC.	NORTHUMBERLAND	METHYL ISOBUTYL KETO	WHEELABRATOR FRACKVILLE ENERGY CO. INC.	FRACKVILLE	ZINC COMPOUNDS
SUNOCO INC. R&M NORTHUMBERLAND TERMINAL	NORTHUMBERLAND	METHYL TERT-BUTYL ET			

Source: Snyder County Planning Department



Crucial factors in a hazardous materials spill include location, weather conditions, and response. The location of a spill is key for several reasons, the material could spill in a highly populated area, leak into a waterway, or be spilled in some other area that would cause other secondary effects. Those who are closest to the spill are at the greatest risk, but some hazardous materials can travel great distances. Weather conditions play a large role, with even mild breezes carrying hazardous gases and fumes long distances. Air temperature is also a determining factor of how far the material will travel by air. Contaminated waterways and rainfall can have a negative impact on the scope of the spill. Finally, the response to the incident can determine the extent of the damage. If the closest response team is miles from the incident, the material may have time to spread into the ground and waterways, or into the air. However, these factors depend on the type of material released.

Probability

Hazardous material spills occur annually. Minor spills are more common than larger spills, however, both can and do occur.

Maximum Threat

The maximum threat of a hazardous materials spill is along the major transportation corridors and at chemical storage facilities. Such roadways include S.R.s 104 and 35, as well as U.S. Routes 522 and 11/15. Chemical storage facilities can be seen in the SARA facilities chart on the previous page. If a spill occurs, its impact can be measured on the environmental, economic, and societal factors. The maximum threat would be a hazardous materials spill in a populated area that may result in loss of life and will impact both the environment and the economy.

Secondary Effects

If the materials spilled are flammable, both urban and rural fires can occur.