

Environmental Risk Overview



Warehouses

Warehouses can face environmental exposures from various operations performed at the facility and from materials stored there, either as raw material or finished goods. Materials that are hazardous can create environmental liability through a containment breach, the improper storage or mixing of incompatible materials, and improper waste disposal. In the event of a fire, warehoused materials can contribute to the fuel load and toxic emissions. Leaks of fuels, oil and other fluids can result from onsite storage tanks, delivery trucks loading and unloading on the premise, and powered equipment used on the site such as forklifts, cranes and emergency generators.

Environmental Exposures May Include

- Heavy-duty trucks that are loading and unloading at warehouse facilities can leak automotive fluids on the property. Pollutants such as heavy metals, solvents, fuels, oil and grease can leach into the soil and contaminate groundwater or can be collected by rainfall, creating contaminated storm water runoff that can pollute storm drains and adjacent sites.
- Warehouses may store hazardous materials as either a raw material or a finished good. Materials are considered hazardous based on their ignitability, reactivity, corrosivity and toxicity. Improper storage, containment breaches or leaks or spills during loading and unloading can result in a release of these materials. Combinations of incompatible chemicals are prone to react violently or produce toxic byproducts/gases when stored together or mixed. A facility that handles more than one hazardous chemical must not only meet the requirements of each independent chemical/chemical class, but also fully understand the relationships between all stored chemicals and classes.
- Some products are flammable and may result in a fire that spreads and releases other contained materials. A hostile fire at the facility could emit toxic fumes and smoke from the materials stored at the facility or due to a mix of materials that occurs as a result of the fire. Firefighting solutions such as water or foam could create contaminated runoff that spreads to nearby storm drains or properties and results in environmental cleanup and tort liability.
- Vehicles and powered equipment, such as forklift trucks and cranes, may be used at a facility. This can involve the storage of fuels, oils, hydraulic fluids and other automotive fluids. Leaks from the vehicles or from storage containers can contaminate soils and groundwater or collect in storm water runoff. Internal combustion engines are powered by either diesel or propane, both of which can emit carbon monoxide. This can be especially hazardous to third-parties in controlled atmosphere rooms, rooms with robust ventilation and enclosed areas, trailers or containers.
- Emergency generators may be diesel-powered and require storage of fuel in aboveground or underground storage tanks. Leaks of fuel, exhaust fumes, tank/piping deterioration and inadequate or no secondary containment can result in a release that contaminates soil and water systems or can enter into the facility.
- Mold could develop from moisture intrusion due to storms and flooding or from leaking water pipes, sprinklers and HVAC systems. Many warehouse buildings are flat roofed where pooled water can be absorbed by the roofing material and seep into sub-roof areas. Mold can also develop within HVAC systems (air handling units, coils and ductwork), or from improper building ventilation or humidity management of climate-controlled storage.
- Warehouses may have hazardous wastes that require special disposal procedures, such as used oil and oil filters, lead-acid batteries, pesticides, and equipment containing mercury like thermostats. The generator of waste is responsible to determine whether it is hazardous and to ensure proper labeling and disposal procedures are followed. Improper disposal could lead to environmental liability and/or legal consequences for violating requirements.
- Washing down equipment, maintenance, storage and repair areas could discharge pollutants into storm water drains. Wastewater needs to be properly contained, collected and disposed of.
- Many warehouses are located in commercial and industrial complexes. Contaminants from neighboring facilities could migrate to the storage property. If that business owner is not properly insured or goes bankrupt, the cost to cleanup the contamination could fall on the warehouse owner for their own property.
- Illicit abandonment is the illegal dumping of pollutants on a property. It can become the burden of the property owner for cleanup and third-party bodily injury or property damage if law enforcement cannot find the originator of the waste.

Environmental Pollution Liability Can Provide Coverage For

- On-site cleanup of new and preexisting pollution conditions
- Off-site cleanup of new and preexisting pollution conditions
- Third-party claims for bodily injury and property damage
- Third-party claims for cleanup
- Both sudden and gradual pollution conditions
- Aboveground and underground storage tanks
- Non-owned disposal sites
- Natural resource damage
- Emergency response costs
- Mold, bacteria, viruses, legionella and more
- Business interruption resulting from pollution conditions
- First and third-party transportation pollution liability
- Civil fines and penalties
- Loading and unloading
- Defense of third-party claims
- Illicit abandonment
- Crisis management

Claims Scenarios & Examples

- A fire occurred in the middle of the night at a warehouse facility. Responders to the fire discovered heavy smoke settling over a nearby residential community. It was determined that various hazardous materials were stored in the warehouse and that vapors from the fire could present a health hazard. Residents were advised to stay in their homes. Hazmat responders set up containment to capture runoff from the fire suppression water and to conduct air monitoring. After the fire was extinguished, testing revealed that contamination was present in the soils beneath and around the warehouse as a result of the contaminated fire suppression water. Further investigation and subsequent cleanup activities were required. Several claims alleging bodily injury due to inhalation of toxic fumes from the fire were also filed by nearby residents. The warehouse owner also incurred additional expenses associated with the defense and settlement. The total costs for citizen suits and remediation topped \$545,000.
- A chemical leak inside a warehouse prompted the closure of a block and investigation by hazmat crews and police. The fire department responded to a call of leaking chemicals at the facility. The chemical was identified as Divinylbenzene, an aromatic chemical used in plastic production. An acrid odor similar to the smell of fuel hung in the air near the building. The Police Chief Inspector said the substance was leeching out of a large tank inside the building. He said there were concerns that the substance could catch fire and cause the tank to explode. The warehouse is located among a number of industrial buildings, but there were a few row homes and a day care nearby. It took up to three days to secure the leak.
- A leaking fuel tank at a warehouse caused a petroleum sheen that temporarily closed a nearby river to boat traffic. The source of the petroleum was traced to a fuel tank in the basement of the warehouse. A fitting failed, allowing sludge to drain into a storm sewer that emptied into the river. The river was closed while the containment boom was being placed by the fire department and members of the county HAZMAT team. Firefighters plugged the leaking tank and the city and Coast Guard worked with private contractors/companies to prevent more petroleum from leaking into the storm sewer and to cleanup up the petroleum that spilled into the river.
- A refrigerated warehouse used various cleaners, degreasers and paints that were washed into the floor drains. These entered the site septic system. Soil and groundwater contamination was discovered on and offsite as a result of the septic tank leach field. Environmental Protection Agency tested site soils and groundwater. In addition, neighbors filed a class action suit for cleanup and a decrease in property value due to the contamination. Total cost for remediation and claims settlement surpassed \$500,000.
- During material handling operations, a forklift operator accidentally pierced a drum of toluene stored in an uncontained area of the warehouse. The toluene first entered a nearby floor drain which was connected to the sanitary sewer and then the municipal treatment plant. The plant's effectiveness was impeded temporarily. Once the toluene was traced back to the warehouse operation, the treatment plant filed a claim for cleanup costs.
- A massive fire destroyed a warehouse, and nearby residents were cautioned to avoid the water run-off in the area. Explosions sent flames into the air, and several neighboring homes and vehicles suffered heavy damage. A spokesman with the city Fire Department said pesticides and a petroleum additive frequently used in diesel got into drainage ditches behind the warehouse. Environmental crews had to vacuum the non-water-soluble additive out of a nearby creek, but the bigger danger lied in the pesticide, which was water soluble and already in the ditches and in the creek. Firefighters warned families to stay away from ditches in the area and to keep pets indoors and away from the water. Residents were also warned to shut-off their A/C units, and if they had water wells in the area, to get them tested.
- A forklift punctured a drum containing a 5 percent solution of dimethyl sulfide in a warehouse, located near a large river. Dimethyl sulfide is a flammable liquid with a notoriously bad odor, which explained some of the emergency calls that came in regarding the possible hazmat situation. About 50 workers had to leave the premises as crews worked to ensure their safety. The County Regional Health Commission responded and told the state's Department of Environmental Protection that the sprinklers turned on, and water from the sprinklers went into a storm drain and into the river.

Final Consideration

Your property can be faced with the cost to defend itself against allegations or legal action from pollution related events, regardless if you are at fault or not. Having the proper insurance coverage in place will help fund the expenses incurred to investigate or defend against a claim or suit and provide you with environmental claims handling expertise.

This environmental risk overview has been developed by Environmental Risk Professionals on behalf of J. Loos & Associates. It is intended to provide the reader with a broad range of potential risks they may encounter and may not reflect all risks associated with their business. To verify available insurance coverage, please consult your insurance representative.

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J. LOOS & ASSOCIATES
Daniel Loos
919-256-6860
daniel.loos@jloosins.com
www.jloosins.com