

Environmental Risk Overview



Breweries & Distilleries

Breweries and distilleries of all sizes, from craft to regional to large, can face extensive environmental exposure from alcoholic beverage production, storage, transportation, disposal and facility maintenance. Onsite storage of raw materials, produced product, fuels and cleaning chemicals can result in a containment breach or spill. Many materials are also highly flammable and create exposure for hostile fire or explosion. Alcoholic beverage production produces large quantities of wastewater that can contain high levels of contaminants. Improper storage, treatment and disposal can lead to environmental cleanup and natural resource damage. Facilities can be subject to environmental regulations and may require permits such as for wastewater, storm water and air emissions.

Environmental Exposures May Include

- Alcoholic beverage production generates large quantities of wastewater during production, as well as cleaning facilities, tanks, barrels, transfer lines and equipment. The wastewater can have a low pH, dark color, and contain high levels of organic and inorganic matter, sugars, sulfates, heavy metals, acids, ash, carbon and nutrients such as nitrogen, phosphorus and potassium. Improper collection, containment, treatment and disposal, or spills or leaks of wastewater during storage, onsite treatment or transportation to a disposal site can result in environmental liability. Wastewater that discharges into surface waters, such as rivers, lakes and streams, can cause algae blooms and harm aquatic life and other natural resources. Wastewater that leaches into soil and groundwater can impact soil alkalinity, crops, farm animals and people living in surrounding areas. Wastewater discharge and disposal may be regulated on both a state and federal level.
- Storage tanks, barrels and drums can be used during the production process, and to store raw material, finished product, additives and corrosive chemicals for cleaning equipment and tap lines. Fuels may also be stored for diesel generators used with energy back-up systems. Leaks or spills or a malfunction of equipment, pumps, valves and pipes, can cause a release of contents to leach into the ground or enter floor drains and contaminate waterways.
- Stored contents may be flammable or pose explosive hazards and result in a fire that spreads and releases contained materials. A hostile fire at the facility could emit toxic fumes and smoke from stored materials or due to a mix of materials that occurs as a result of the fire. Firefighting solutions could create contaminated runoff that spreads to nearby storm drains, surface waters or properties and results in environmental cleanup and tort liability.
- Refrigeration systems and chillers may use chemicals, such as ammonia, hydrofluorocarbons (HFCs) or chlorofluorocarbons (CFCs). Improperly operated, inspected or maintained systems can result in an accidental hazardous release of these chemicals. Refrigerants could also be released during the service, repair, maintenance or disposal of units. Exposure to workers, visitors and third parties, may result in death or other respiratory illnesses.
- Air pollutants can be released from grain receiving, grain handling and drying equipment, fuel burning equipment or during the fermentation process. Facilities may be required to obtain an air emissions permit and subject to environmental regulatory action.
- Legionella is a bacterium that causes a form of potentially fatal pneumonia. Legionella can thrive in water containing systems like air conditioning systems or water heating and cooling systems. Adequate warm temperatures and inadequate chlorination may result in legionella growth and airborne dispersal. Exposure of third parties to legionella can result in Legionnaire's disease, Pontiac fever or severe complications of existing respiratory diseases.
- Mold growth can result from moisture and wastewater releases into building materials and subsurfaces due to leaks, overflows and blocked drains or pipes in appliances, equipment, tanks or plumbing systems. Mold growth within the facility can also occur due to improper humidity controls or moisture intrusion from storm water. It can lead to cleanup and environmental tort liability.
- Raw materials, by-products or waste products stored outdoors can be exposed to weather elements and contaminate storm water runoff. Improper storage or storm water controls could allow contaminated runoff to impact surrounding soils and nearby properties or discharge into storm drains. Facilities may be required to obtain a storm water permit and be subject to state regulations.
- During transportation or loading and unloading, an accident or container breach could cause a leak or spill of raw material or finished product and result in environmental clean-up liability. Transportation exposures may be from the insured operating their own vehicles or through contingent liability through those they hire.
- Wastes can contain hazardous materials or materials that require special disposal. Improperly segregated and disposed-of wastes can result in regulatory fines or lead to cleanup and environmental tort liability. This can include spent fluorescent bulbs, batteries, mercury-containing devices (such as thermostats), caustic cleaners, disinfectants and wastewaters.

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
- Business interruption resulting from pollution conditions
- First and third-party transportation pollution liability
- Mold, bacteria, viruses, legionella and more
- Loading and unloading
- Defense of third-party claims
- Civil fines and penalties
- Natural resource damage

Claims Scenarios & Examples

- A brewing company was ordered to pay close to \$10 million to settle charges claiming they violated the federal Clean Water Act through excessive discharge of pollutants. This included \$7 million to upgrade their breweries, set up an environmental management system, hire an outside auditor and improve training, plus \$2.8 million in civil penalties. Violation charges of the Clean Water Act included the brewery's discharge of industrial waste that goes to municipal treatment facilities that violated its pretreatment permit requirements. These violations posed a threat to a nearby river that provides drinking water to about 1.5 million people.
- Sewer officials put the owners of a brewery on notice that it was in violation and would be fined after a town consultant reported test results that indicate high levels of metals and other contaminants discharging into the town's system from the business. The city Water & Sewer Commission Administrator's notice identified that effluent flow and values for metals — specifically lead, copper, aluminum and zinc — as well as biochemical oxygen demand, total suspended solids, ammonia, nitrogen, phosphorus, nitrate and nitrite exceeded the values submitted by the brewery's engineers during the planning phase for the business's opening.
- A distillery was the source of a legionnaire's outbreak that killed one worker in a neighboring business and sickened dozens more. The legionella was suspected to be from a cooling tower at the facility. The distillery was served a notice for failure to devise and implement an appropriate biocide control program in its towers. The distillery had to shut down operations during the investigation.
- The collapse of a whiskey storage warehouse sent about 120,000 gallons of spirits gushing into retention ponds. The state Energy and Environment Cabinet spokesman said the distillery would be cited for failing to report the spill of whiskey in a timely manner and for polluting waters. Whiskey flowed into a nearby stream and river, killing hundreds of fish. State environmental officials fined the parent company of the distillery up to \$25,000 per day after alcohol was discovered to be contaminating the bodies of water.
- More than 1,000 gallons of tequila spilled into the sewer system after a worker tried to unload it from a truck into an already full storage tank at a distillery. The tequila overflowed at a rate of 100 gallons per minute, resulting in 1,500 to 1,800 gallons entering the city sewer system. Fire and sewer officials were called because of the flammability of the 80-proof liquor.
- Residents sued whiskey distilleries claiming they were releasing too much ethanol, causing a black fungus, so-called whiskey fungus, to grow that covers rooftops, shingles, siding, awnings, cars and even ceiling rafters and won't go away. One resident claimed as he built an addition on his home, he noticed a black substance growing on pretty much everything, and no amount of power-washing did the trick. "This is a permanent condition. This is not something that you can clean or sandblast off," said the resident. Residents contacted the Metro Air Pollution Control District, who performed testing and confirmed it was baudoinia, a fungus which only grows in the presence of ethanol. As whiskey ages, ethanol is released naturally. The lawsuit claimed the distilleries allowed too much ethanol to escape, allowing the whiskey fungus to grow. Attorneys noted that this is a property issue with diminution in value to the homes and automobiles in the area. The lawsuit requested that the liquor companies better control the ethanol and pay compensation for what was called permanent property damage.
- A container holding fermented mash overturned releasing approximately 120,000 gallons of would-be bourbon onto the ground at a distillery. One of the legs of a 55,000-gallon tank, called a beer well, gave way and overturned the tank. The tank stored fermented mash that is eventually distilled during the bourbon production process. When it fell, the tank hit and punctured three other fermenting tanks that held a collective total of 106,000 gallons. The 120,000 gallons believed to have spilled went into a secondary containment. About 10,000 gallons escaped into a storm drain, which leads to a tributary. A contractor onsite collected water samples and used a vacuum truck to suck up the liquids. Two people were also injured in the accident.
- A massive fire, caused by a lighting strike, at a distillery warehouse caused contaminated runoff to enter a nearby river where it killed thousands of fish. The runoff was a combination of alcohol and firefighting chemicals. The distillery company faced fines for the contamination.
- A brewery was evacuated, and one person was injured from an explosion that was the result of a small ammonia leak in a tank. Some ammonia did escape into the atmosphere, but was quickly mitigated by emergency crews responding to the incident. This was the second ammonia leak at the brewery that necessitated an evacuation. Some of the hazards of anhydrous ammonia are the fact that it is flammable and corrosive to skin, lungs and eyes.

Final Consideration

Your business 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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