

# Environmental Risk Overview



## Scrap Metal Recyclers

Scrap metal recyclers face a variety of environmental exposures from the type and source of metals accepted, the processes conducted, the equipment used for recycling, and the storage and stockpiling of material. Pollution conditions can include hazardous air emissions, soil and ground water contamination and polluted storm water runoff and can result in environmental liability for cleanup, natural resource damage and third-party bodily injury and property damage. Hazards can be inherent within the metals or come from the material brought in for recycling, such as automotive fluids in vehicles or mercury in batteries. Additional exposures can come from equipment and chemicals used and stored at the facility.

## Environmental Exposures May Include

- Scrap metal may contain a variety of metal constituents including aluminum, titanium, lead, mercury, copper, chromium, cadmium, iron, nickel, arsenic and beryllium. Chemical contaminants may be present on the metal from its manufactured design such as bisphenols, phthalates and other polymer coatings and epoxies. As scrap metal does not arrive clean, contaminants like solvent degreasers, lubricants, pesticides and lead paint may be present.
- Outdoor stockpiles of scrap can undergo weathering and release hazardous compounds with storm water. If storm water runoff is not properly controlled, contained and pre-treated prior to discharge into sanitary or storm drainage systems, it can pollute soil and groundwater or discharge directly into surface waters, which can impact human health and aquatic systems.
- Processes such as cleaning, plasma and torch cutting, baling, compaction, crushing, hydraulic shearing or shredding produce small particulates, shavings and fumes. When metals are ground, blasted, roasted or melted, toxic fumes or metal dusts are produced and distributed in the air which present both explosion and inhalation hazards. High temperatures from melting metal, organic material and chlorine can produce dioxins that attach to dust particles and can be ingested through the nose, mouth or skin. Dioxins are chemicals that have been linked to a skin condition called 'chloracne' and other human health hazards, including cancer.
- Fire hazard from metal cutting processes is of particular concern when working on materials that have combustible or explosive components such as motor vehicles with plastics and fuel tanks. Gas cutting torches also involve storage of flammable and explosive gases onsite. Gas tanks must be inspected, tested and appropriately labeled during storage and prior to movement and use.
- A hazardous release can occur when a site combines its waste streams. The mixing of metal shavings, equipment cleaning rags and waste process fluids may result in a pyrochemical reaction known as a thermite reaction.
- Materials brought for recycling contain hazardous substances such as vehicles, which carry brake and transmission fluids, oil, fuel and antifreeze; appliances like refrigerators and HVAC systems which contain chlorofluorocarbons (CFCs) and ammonia; light ballasts and transformers that contain PCBs; or batteries and thermostats which contain mercury. Contaminants not removed prior to processing, or leaks from broken devices during storage can result in the release of toxic and hazardous material which can leach into soil and groundwater, contaminate storm water runoff or cause hazardous air emissions.
- Chemical processes used to clean and remove contaminants from scrap metal or to extract metals from a batch of scrap may include high-temperature chlorination, electrorefining, plating, leaching, chemical separation and dissolution. These processes can produce hazardous emissions containing metal fumes and vapors, organic vapors, and acid gases as well as combustion hazards.
- Petroleum based products may leak from equipment and vehicles used at pick-up sites, in transit between pickup and drop-off points or docked on the yard. Conveyor belts, combustion engines and other production equipment may leak lubricants, oils and/or fuels. Product may also spill or leak from stock supplies. This includes diesel fuels, hydraulic fluids and coolants. Releases can contaminate soil and storm water runoff and contribute to fire hazards.
- Metals brought to the facility could be radioactive. Radioactive metal scrap may come from military applications, such as depleted uranium, discarded medical equipment, building or storage material from nuclear power plants or trace amounts of radioactive material, like Americium (Am-241) found in smoke detectors.
- Contaminant removal done at the recycling facility can subject the facility to hazardous waste generator requirements. The facility is responsible for hazardous waste management of toxic materials, which includes the proper containment, labeling, storage and disposal of hazardous waste.

## Environmental Pollution Liability Can Provide Coverage For

- Integrated GL/Site Pollution, options to include XS, Auto and WC may be available
- Monoline Site Pollution Liability
- Third-party claims for bodily injury, property damage
- First-party and third-party cleanup
- Defense of third-party claims
- Emergency response costs
- Natural resource damage
- Products pollution liability
- First and third-party transportation pollution liability
- Conversion endorsement (only available with GL Package)
- Crisis/reputation management
- Civil fines and penalties
- Off-site services pollution liability
- Business interruption expenses
- Non-owned disposal sites
- Loading and unloading

## Claims Scenarios & Examples

- A company that operates three scrap metal recycling sites paid \$50,000 for alleged violations of multiple environmental programs, including the Clean Water Act. According to the notice, the sites failed to prevent liquids from leaking onto the ground and flowing offsite in violation of both the Clean Water Act and the Resource Conservation and Recovery Act hazardous waste rules. In addition to the water and hazardous waste violations, the facilities allegedly mismanaged refrigerants found in motor vehicle air conditioning (MVAC) systems.
- An employee of a large metal recycler punctured a drum containing a hazardous chemical while loading metal from a pile onto a conveyor with a grapple. The chemical leak created a toxic plume that spread over the yard and into neighboring businesses, requiring evacuations. Claims were brought by adjacent businesses for business interruption. Employees of the adjacent businesses and invitees at the insured's location filed bodily injury and property damage claims. In addition, regulators issued a directive for a cleanup of the area contaminated by the liquid. During the excavation of the soil, additional contamination was found, resulting in a larger site investigation and subsequent remediation.
- An environmental group sued a metal recycling facility it accused of polluting local waterways. According to the suit, the scrap metal recycling yard had been discharging storm water runoff into the town's municipal storm drain system and into the largest tributary of a lake. It was claimed that the runoff contained levels of aluminum, copper, iron and zinc that exceed what's allowed by the Environmental Protection Agency under the facility's storm water permit. In excessive amounts, those metals are harmful to aquatic life and may also be hazardous to human life if they enter the water supply. The lawsuit claimed heavy machinery and processing equipment kept at the facility had leaked oil, diesel fuel and other contaminants, which were washed into local waterways during storms. The group sought a court order to stop the company from releasing pollutants into nearby water sources, restore the allegedly damaged water bodies and pay civil penalties.
- A tenant of a property owner complained of dust conditions in their flex office/warehouse suite from a nearby metal recycling operation in an adjacent flex space. The tenant took dust samplings which revealed the dust contained heavy metals- arsenic, cadmium, chromium and lead. The building owner was forced to hire an environmental contractor and independent air monitoring consultants to investigate and remediate the dust which increased the tenant improvement costs by \$100,000.
- The Department of Toxic Substances Control (DTSC) and County District Attorney's Office jointly announced a \$2.9 million settlement with a metal recycler. The settlement agreement resolved a complaint that the metal recycler violated hazardous waste and air pollution laws. An explosion occurred at one of the company's facilities, which destroyed its air pollution control system. The facility, which shreds automobiles, household appliances and other metals, continued to operate for about 120 days without a fully functioning air pollution control system in place. An estimated 4.4 tons of material was released into the air. The complaint also charged that the shredder residue was illegally transported by unregistered hazardous waste haulers; the hazardous waste was illegally stored onsite beyond the time permitted, the company failed to comply with employee training obligations, and they illegally disposed of hazardous waste at various landfills.
- A metal recycling property contaminated with PCBs and other pollutants was issued a violation by The Division of Water Resources Regional Office. An adjacent land owner complained that contaminated water was being discharged from the site onto his property. When city inspectors visited the site, they saw that the company was pumping accumulated water "visibly contaminated with petroleum products and sediment" onto an adjacent property. Samples collected by Department of Environment and Natural Resources (DENR) at four locations on the property contained "extremely high concentrations of lead, cadmium, mercury, PCBs, nickel, copper and zinc," according to the violation notice. DENR staff visited the property and saw water, which was later found to be contaminated, was discharging through an underground drain. The runoff flowed from the property through a pipe and into an outlet that discharged into a tributary and stream- surface water that was publicly accessible.
- One Hundred Eighty-Nine reports filed with a city's emergency help line for complaints ranging from red smoke, yellow smoke, explosions, fire and a child having trouble breathing led city air authorities to discover air pollution from metal recyclers and car crushers. The smoke came from cutting metal with torches and from fire when vehicle gas tanks weren't drained properly. The explosions occurred when propane tanks were fed into the maw of the crushers. Subsequent testing outside five city metal recycling operations found dangerous levels of hexavalent chromium. "People were complaining about smoke, and it turns out there were carcinogenic metals," said an environmental statistician at a local university. "And we found them only around these facilities, not in other areas we tested, not even other industrial areas of the city."

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