Environmental Risk Overview

Drilling/Blasting (Non-Environmental)

Contractors performing drilling and blasting operations can face environmental exposures from work performed, equipment and materials used and from disturbing sources at a site. At a job site, the disturbance of pre-existing contamination in soil or striking of underground utilities, sewer lines or unknown storage tanks could result in environmental cleanup and tort liability. Earthwork disturbs silt and sediment, and improper management and erosion control can result in contaminated runoff that can cause damage to drainage systems, water quality and aquatic systems. Materials used such as heavy equipment, drilling fluids and explosives can have a leak, spill or release that enters soil, groundwater and surface waters. Air pollutants and toxic gases can also result from the use of explosives or from the cutting or blasting of material, such as concrete and clays.

Environmental Exposures May Include

- Pre-existing contamination, whether known or unknown, may be present in site soils, and/or building structure materials. Disturbance could spread contamination to previously uncontaminated soil and groundwater or to adjacent properties. The transportation and disposal of any excavated material and contaminated soil could also create environmental liability .

- Heavy equipment and mobile refueling tanks may be brought to and stored on the job site. Much of the construction equipment used is powered by diesel fuel, requiring petroleum-based hydraulic fluids and lubricants. Release of fuels, lubricant oils and chemicals resulting from accidental spills, leaks or vandalism can discharge pollutants into the soil and groundwater, or collect in storm water runoff and discharge into water systems.

- Most earthwork activities in construction require silt/sediment and erosion control. This is largely due to regrading, fill placement, excavation, drilling, stockpiling of material, and other activities that disturb the surface cover and exposes bare soils. Silt and sediment are fine grained soil particles that are readily carried in surface runoff. Improper erosion control or handling of sediment-laden water can lead to surface runoff that can impair the functionality of storm water drainage systems and catch basins, severely damage water quality and can threaten aquatic systems and drinking water sources.

- Failure to properly locate underground utilities such as gas lines, water and sewage pipes, or unknown hazards, such as abandoned storage tanks and septic tanks, could result in striking a line or causing an accidental puncture. This could cause a subsequent release of fuel oil, chemicals, toxic gases or sewage.

- Air pollutants and toxic gases can be generated from blasting operations, heavy equipment trafficking across a site, trenching or drilling under dry soil conditions and jackhammering concrete or pavement cover. Hazardous air emissions can migrate off site with wind currents and pose inhalation exposures to third-parties.

- Drilling fluids may contain various additives to help cool and lubricate drills, aide in the flotation of drill cuttings, seal porous layers of the drilling area and more. These compounds can be toxic, especially to aquatic systems and other natural resources. Drilling fluids could contaminate and/or cross-contaminate ground water and aquifer materials. A containment breach or spill could also occur during storage and transportation of additives, base fluids and premixed fluids. Releases can migrate, or be carried off site by storm water runoff, and impact adjacent properties, storm water drains and nearby surface waters. Disposal of spent drilling fluids could result in a migration of liquid waste from the disposal site.

- Any work done with concrete, cement, mortars and numerous types of clay can release disease-causing, respirable crystalline silica. Releases may occur through grinding, cutting, or blasting, and can also occur during transport and handling. Any dry emissions generate potential inhalation exposures because airborne particles stay suspended and concentrate in the absence of wind or dilution mechanisms, or will travel off-site with wind currents. Off-site aerial drift can settle out in surface soil and adjacent structures and expose third-parties. Once inhaled, it accumulates in the lungs, and causes scarring and formation of nodules and can cause illness such as silicosis, which is permanent and irreversible.

- Equipment washout and decontamination water can contain toxic materials and be caustic and corrosive. Improper washouts from cleaning mobile equipment, pumps, hoses and drill rods can leach into soil and groundwater or can run off site and into storm drains that discharge to surface waters and result in significant damage to natural resources and aquatic life.

- “Explosive residue” may be left in the form of unexploded material after completion of blasting operations. The explosive residue can contain hazardous materials, such as nitrate and fuel oil, which can enter groundwater and surface water, such as ponds and wetlands, through gravity flow and washing of the aggregate and can harm natural resources.

Contractors Pollution Liability Can Provide Coverage For

- Contracting operations done “by or on behalf of” the insured
- Contracting operations performed at a job site
- Third-party claims for bodily injury and property damage
- Third-party claims for cleanup
- Defense of third-party claims
- First-party emergency response costs
- Sudden and accidental coverage for owned/leased locations
- Mold, legionella, bacteria and fungi
- Silt and sedimentation
- First and third-party transportation pollution liability
- Loading and unloading
- Natural resource damage
- Crisis/publicity management
- Lead and asbestos
- Non-owned disposal sites

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Claims Scenarios & Examples

- A subsurface drilling contractor caused a release of raw sewage into both soil and groundwater after failing to identify a sewer line before drilling. The cleanup entailed the excavation of several tons of impacted soil and caused a number of near-by businesses to be temporarily shut down when their basements filled with sewage. The breach caused several claims from businesses for the interruption and for cleanup costs.

- A drilling contractor failed to follow an engineer's instruction and drilled beyond the required depth, hitting and damaging a large sewer pipe. Emergency remediation costs from the sewage overflow and contamination to natural resources are ongoing.

- A drilling company using a directional borer to lay fiber-optic cable, punctured a 12-inch water main twice. After the city water services crew arrived to repair the breaks, the drilling contractor continued to use the borer to lay a bundle of two-inch plastic conduits. After hitting the main twice, the drilling crew proceeded to bore through an elbow on the main. Water dislodged a concrete reinforcement block on the elbow, leading to a geyser in front of several retail stores who are suing for economic damage. The city is suing the contractor for environmental damages as the mud and sediment flowed into the city sanitary water system.

- A construction crew was drilling through the sidewalk to install an anchor for a utility pole and struck what emergency responders were told was a small, low-pressure gas pipeline. Initially there was no cause for major alarm. As it was supposed to do, the pipeline was making a noise as it vented, and readings taken near the dig site showed little to no gas. However, one person was standing about ten feet away from the hole when a massive explosion knocked him off his feet. The blast killed four people, injured 12 others and destroyed six buildings.

- An environmental lawsuit was filed against a driller by a handful of residents whose wells and drinking water were allegedly contaminated, affecting their health and the value of their properties. More than a dozen affected residents sued the drilling company. The lawsuit sought payment for environmental cleanup, medical monitoring and damages.

- A contractor was transferring drilling fluid/mud into a tank when a spill occurred that breached the containment area. The property owner presented a cleanup claim to the contractor who initiated a claim with their general liability insurer. The insurer denied the claim referring to the policy pollution exclusion.

- While drilling for foundation piers on a vacant site the contractor unknowing drilled through contaminated soil and pierced an aquifer contaminating groundwater leading to nearby residential wells. The contractor discovered one of their bores was contaminated with perchlorates and was notified by the EPA when residences began feeling ill from drinking water.

- Twenty-eight families filed a lawsuit against a stone company alleging that the entire neighborhood experienced problems with their wells, including muddy, turbid water and, in some cases, no water at all, as a result of the quarry where the company did its blasting. The case went to trial, and the company contended that well problems were not new to the area, and some of the wells were more than 40 years old. One of the plaintiffs claimed they were left with no water for days and a huge puddle of mud surrounding their well cover. Once water was running from the well again, initial tests showed it had coliform bacteria and E coli, forcing them to use bottled water for drinking and cooking. After the lawsuit, the company agreed to a settlement, paying $1 million to set up a fund to provide an alternative water source to the area.

Final Consideration

As a contractor you can be faced with the cost to defend yourself 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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