Ghosts of Construction Past: The Haunting Task of Addressing Environmental Hazards On Site

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THE HAUNTING TASK OF ADDRESSING ENVIRONMENTAL HAZARDS ON SITE

Most construction projects involve some level of risk involving hazardous substances. Contractors not only have to worry about the liability and damages for substances they bring onto a site, such as paints, sealants, lubricant oils, and asphalt cement, but also the potential for hidden contaminants which may already be present on a project site. There is potential that those contaminants may be released into the environment due to the work performed -- a redevelopment could disturb materials containing asbestos, sandblasting a bridge could release dust containing lead paint into the air, or site excavation could disturb contaminated soils.

Most construction projects involving demolition or redevelopment of a previously used property will include the removal or remediation of some kind of contaminated or hazardous materials. How significant that remediation will be depends on the age of the building, as well as what the building and surrounding property were used for. Older industrial sites which have storage tanks that may have leaked raise obvious risks, but even commercial buildings can have significant risk for environmental hazards which need to be accounted for during the planning and execution of the demolition and redevelopment project.

A recent Canadian example involves the demolition of the former headquarters of Agriculture Canada in Ottawa, Ontario. The building was demolished and as part of that
process the two basement levels were filled with the concrete rubble from the 11 story building, which was eventually covered with clay and soil and planted on.

In advance of the demolition, appropriate steps were taken to remove everything from the building to prevent any environmental contamination issues so that the rubble contained only the crushed concrete. However, those preventative steps did not take into account the contamination that could be caused by the chemical residue left in the broken up concrete from the dynamite used in the demolition process. In fact, it was discovered a few years later that the chemical residue remaining in the concrete that filled-in the basement was hazardous and had leached into the ground water, the surrounding soils and the storm-sewer system which emptied into nearby water sources. Steps had to be taken to isolate the storm sewers and the contaminated silt close to the water sources. And, as the government wanted to build a new hospital on the site, clean-up was required. The cost to remove the concrete rubble and remediate the surrounding groundwater was estimated to be at least $11 million, plus the cost to remove the contaminated soils around the building site. One can only imagine that this resulted in a much greater cost than would have been incurred if the concrete rubble had been removed when the building was initially demolished and the excavation with filled-in with a different material.

This example illustrates that even robust planning of a demolition project can result in unexpected consequences. And when that happens and there are environmental issues involved, the repercussions can be significant. Best practices for these types of projects include advance consideration of and planning for all foreseeable contingencies,
but also planning for those unexpected situations with proper contractual allocation of risk and insurance coverage.

**Pre-Construction Investigations and Planning**

Prior to a construction project, the owner should perform an evaluation of the site to identify any hazardous materials or other potential sources of risk. Ideally, this would include a review of previous uses of the property, a review of historical aerial photographs to identify potential areas of contamination, and a review to determine the existence of any previous environmental regulatory concerns. If the site was used for industrial or commercial activities that may have generated hazardous substances, the owner may consider testing the soil and groundwater prior to commencing any construction activities.

The types of hazards that exist on any project site will vary depending on a variety of factors such as the age and previous use of the building, the age of any equipment on site, or whether there were underground storage tanks on site. The owner will generally provide a hazard assessment, usually prepared by a third party, which sets out the known or assumed hazards or hazardous substances on the project. If this is not provided, depending on the nature of the work, it is a good practice to have one done to assess the property, including the structure from slab to roof. This is critical to understand in advance the hazards which will be encountered during the project. This information is important to determine the price of the work, but also to ensure proper safe practices are in place such as the use of appropriate PPE and having a plan for hazardous materials containment.
For certain types of projects it is even more important that proper information is available before the start of the work – such as with the demolition of petrochemical or pharmaceutical sites. Demolition and excavation work can be unpredictable, especially if the information provided to the contractor is outdated or missing information. Where information is not available, such as below grade, it is prudent to limit the scope of services until that information becomes known through initial excavation.

To avoid taking on additional, unwanted liability, it is important that a contractor not proceed without clear direction from the owner. In most cases, the owner should make decisions on the removal of contaminated materials, and what it does not want to disturb. For remediation, a contractor needs to have a clear understanding of the limits of removal or the areas to be addressed. Remediation of hazardous materials is expensive, so how owners want to address hazardous materials on their property may depend on their current or future plans for what to do with the lands. For example, if an owner expects to own the property on a long term basis, for economic reasons the owner may decide to only remove what is known or what is necessary at that time. If the owner is not being directed to do the clean-up by a regulatory body, they may choose to only address what is impacting the project and leave the remainder for a later time.

Once the expected project conditions are known and delineated, the contractor is able to make a proper work plan which includes steps to be taken when known hazardous substances are encountered and also a plan for steps to be taken when unexpected conditions are discovered. Immediate stoppage of the work and notice to the owner are good practices to employ, which then allows the owner to obtain professional advice on how to move forward.
Minimizing Risk through Contract

Generally, construction contracts include specific obligations for both the owner and the contractor with regard to hazardous substances and materials. It is common for owners to retain liability for hazardous materials which exist on the project site and for contractors to be responsible for hazardous materials that it, its subcontractors or suppliers bring onto the site and for any release of hazardous substances which occurs during the contractor’s operations.

Often the owner is responsible for providing the contractor with information regarding the known hazardous substances and materials on site. Contracts will vary on the extent to which the contractor may rely on the information provided by the owner and whether the reports or drawings are provided for information only, or are part of the contract documents. It is important that the allocation of risk associated with information provided by the owner be understood, so that the contractor may make an informed decision about any further investigations it should perform prior commencing the work.

Where an owner has accepted responsibility for hazardous substances in the contract, the contract may set out the steps to be taken when hazardous materials are encountered. Generally, the contractor is required to stop the work and give notice to the owner or consultant, so that appropriate corrective steps can be taken. Work in that area will not resume until the hazardous materials are properly addressed, although the contractor may be required to continue work in a different area of the project if it is safe to do so. If the contractor does not stop work when hazardous materials are encountered as required by the contract, the contractor could be at risk in the event of any bodily injury.
or a release of the hazardous materials into the environment caused by the contractor's continued operations.

Depending on the nature of the services being provided under a contract, an owner may require that the contractor assume some of the responsibility and liability for hazardous substances. For example, in a contract for the remediation of a known contaminated site which involves the transportation of the hazardous materials to a disposal site, the owner may require the contractor to assume liability for the hazardous materials after they leave the owner’s property. In such a case, for example, the contractor would be liable for any release of the contaminated material during transportation to the disposal site.

Therefore, it is critical that a contractor understand and assess the risks prior to entering into a contract, in order to determine whether it is in a position to accept such risks and potential liability. This includes the liability as set out in the contract, but also includes fully understanding the entirety of the scope of work. The scope of work needs to be clearly set out so that the parties know what is included in the contract price and risk allocation. If the owner is pushing more risk on contractor, or if there is uncertainty as to the extent of what the potential risk is, this can be factored into the contract price and should be considered in the context of potential insurance to be obtained. Or, the contractor may elect not to participate on a project where an owner is insisting on contractual terms which require the contractor to accept an unreasonable amount of liability relating to issues that are not within its control.
Contractual indemnity clauses should set out the conditions under which the parties agree to indemnify each other for liability related to hazardous substances. Generally, a contractor will be expected to indemnify an owner in respect of any claims or damages arising out of or relating to the release of hazardous substances caused by the contractor or anyone for whom it is responsible.

**Minimizing Risk through Insurance**

As always, it is important to be familiar with and comply with the insurance requirements set out in the construction or services contract. That includes providing additional insured coverage for all required parties, for the various types of required coverages and for the time periods stipulated. It is common for construction contracts to include exceptions to any contractual liability caps, which exceptions may include the failure to comply with the insurance sections of the contract. Similarly, express exceptions to contractual limitations of liability may include liability for environmental contamination and liability to third parties. Any of these types of exceptions may arise in situations where construction involves working with hazardous substances.

Commercial general liability (CGL) insurance is the standard insurance carried by most contractors to protect them from third-party claims for bodily injury or property damage. This type of coverage provides fairly comprehensive coverage for commercial operations. However, CGL policies can have potentially significant gaps or limitations when it comes to coverage for environmental or pollution claims or for working with hazardous substances. Standard insurance products may include limited coverage for
environmental losses, but it may not be sufficient to fully address the potential liability that could be faced if things go wrong on a project. Furthermore, most CGL policies exclude claims for asbestos and mould.

CGL policies may cover compensatory damages which are awarded in relation to actual injury or economic loss. But compensatory damages generally will not include fines, whether ordered by court or a regulatory body. Fines are fairly common place when environmental liability is triggered.

The reality is that CGL policies were not designed to address the complex and long term nature of environmental exposures. Contamination may not be discovered for years, after the property has changed ownership multiple times. Along with standard commercial liability insurance, contractor companies should also consider whether they need to carry other liability coverage such as for demolition, pollution control, additional insured riders, completed operations coverage and contract wording compliance liability insurance.

If pollution or environmental contamination is a real risk for an owner due to the nature of its project, or for a contractor due to its type of business or the circumstances of a particular project, it is best to get advice regarding the types of appropriate insurance coverage that are available. Coverage may be blanket or project-specific, or may be obtained to cover pollution conditions resulting from completed operations. Some pollution liability policies provide coverage for asbestos and mould, or that may be available as an additional coverage option. Some pollution policies provide coverage for sudden as well as gradual pollution conditions. Other policies have coverage for third
party bodily injury, third party property damage and third party environmental damage caused by pollution conditions resulting from a contractor’s operations, as well as protection against claims alleging improper supervision of subcontractors which results in pollution conditions. And some policies may provide coverage for investigating, settling or defending pollution claims, or pollution related fines.

An insurance professional is in the best position to identify the risks involved in a particular industry or project and to give recommendations regarding appropriate coverages.

**Liability for a Release of Hazardous Substances**

Despite the best intentions and careful planning, the unexpected does happen on construction project. A contractor whose operations results in the release of contaminants or hazardous materials into the environment has significant potential liability – regulatory liability in the form of fines and the costs for clean-up, liability for damages arising from bodily injury or property damage, and liability for damages for breach of contract. The owner faces similar exposure, but if the release of the contamination was caused by the contractors work, the contractor may be liable to indemnify the owner for any costs or damages it incurs.

The following are some examples of Canadian projects where the unexpected occurred and the costs to the parties involved were significant:

- In 2007, a deep excavation job resulted in a Kinder Morgan 24-inch pipeline being struck and punctured, causing the release of more than 250,000 litres of
crude oil into a residential neighborhood. Kinder Morgan spent over $15 million in remediation costs and millions more in personal property damage to the residents that were impacted. They also pled guilty, along with the contractor and engineering company involved, to introducing waste into the environment causing pollution under the *Environment Management Act*. The three companies were fined $550,000.

- A general contractor was fined under the provincial *Fisheries Act* when its drilling subcontractor struck and ruptured a watermain during the construction of a new aquatic centre. Twelve million litres of chlorinated water were discharged into a nearby river which was a diverse natural fish habitat. After the incident, the chlorine content in the water was found to be 3900 times greater than allowed. The contractor was ordered to pay $285,000 which included a fine of $15,000 plus a payment of $270,000 to the Environmental Damages Fund, to be used for the conservation and protection of fish habitats in Alberta.

- A contractor struck a high-pressure water main pipe with a track-hoe during a water main replacement project, releasing almost 90,000 litres of chlorinated drinking water into the excavation site and into a nearby river. A week later, on the same project, a second water main pipe was struck which resulted in a second release of chlorinated water into the same river. The investigation which followed determined that that levels of chlorination in the river were lethal to fish. The contractor was charged under the *Fisheries Act* and was ordered
to pay $185,000, including a fine of $5000 and a payment of $180,000 to the Environmental Damages Fund.

Each of these examples involves work that is performed by contractors on a daily basis. While pre-construction investigations and thorough planning are imperative for any construction project, unexpected conditions may still be encountered and incidents may occur which result in the release of hazardous substances into the environment. Therefore, it is important, where possible, to limit liability through the appropriate allocation of risk in the contract and to consider the options for insurance coverage for the risks specific to the project or the scope of work being performed.