

LOSS CONTROL BULLETIN | ENVIRONMENTAL & POLLUTION LIABILITY INSURANCE

# HVAC contractors and pollution liability claims





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As specialists in services and equipment related to heating systems, residential heating, ventilation and air conditioning (HVAC) contractors install and maintain a wide variety of appliances, these appliances can be fueled by propane, natural gas, electricity or oil. Contractors who install or maintain oil appliances, such as furnaces, oil storage tanks, hot water tanks, boilers and other types of space heaters, must adhere to specific guidelines and codes within their jurisdiction. When heating oil leaks into the environment, defence costs and cleanup costs following an environmental loss can be financially devastating to a company, as contamination can occur anywhere and from a number of different sources. These costs are trending upwards along with the expanding standard of care set forth by our society and legislators.

When a pollution incident occurs, HVAC contractors servicing residential oil appliances may find themselves drawn into litigation where the question arises: which party should ultimately bear the cost of remediation in the event of a loss? What makes an HVAC contractor particularly vulnerable to such litigation is that they typically attend the client's site annually for servicing of an oil heating system. This makes them unique because the company that previously installed the system might only attend once during installation. Similarly, the manufacturer may face even less exposure if they sold the system many years prior. Historically, attempts to recoup environmental damages from the installer or manufacturer have rarely been successful.

Ultimately, HVAC contractors owe a high standard of care to their clients when providing these services. The standard of care may differ depending on the province or territory where operations are performed, and the guidelines set forth by the prescribed codes and standards in effect with the governing body. Similarly, there are numerous municipal, provincial and federal environmental laws and regulations regarding reporting, cleanup and responsibility; meaning that there are vast differences in how these matters are handled depending on the location of the contamination.

## **Causes of contamination**

#### 1.Human error

In our experience, the most common cause of loss for HVAC contractors is human error. Quite often we experience claims resulting from improper installation of the oil filter gasket or improper installation of the oil filter canister after the filter has been changed.

#### **Claims examples**

- 1. An HVAC contractor arrived at the client's home to perform typical annual maintenance of the heating system, which involved replacing an oil filter cartridge and installing a new gasket on the filter canister. The oil tank was positioned on the floor of the basement of the single family dwelling, with the filter positioned on the floor connecting the tank to the furnace. Unfortunately, the contractor omitted to remove the old gasket, and as a result, the two gaskets on the canister failed to provide an adequate seal. Three days following the maintenance visit, the homeowner called the contractor to report a leak. The insured contractor attended the scene to shut off the oil supply valve and unplug the sump pump; however, the escaped fuel had already travelled along the surface of the concrete floor towards a drain and sump pit. In addition, the heating fuel also migrated beneath the floor slab through cracks and spread quickly via the groundwater. A strong fuel odour was evident outside the home, and it was subsequently confirmed that the oil from the sump pit had been pumped to a municipal ditch resulting in heating oil flowing over 100 yards away from the residence. The cost of remediation totaled almost \$200.000.
- 2. An HVAC contractor specializing in the installation and maintenance of HVAC systems in residential homes, including servicing of oilheated furnaces connected to oil tanks, installed a new fuel oil filter cartridge as part of a service call. The insured contractor changed the filter and left a bag over the part while tending to other maintenance. After finishing, the filter was checked and there were no signs of a leak. The next day, the contractor received a call from the homeowner claiming an oil leak from the filter had caused damage to the property. It also appeared the escaped fuel had migrated through cracks in the floor slab and outwards via the groundwater, resulting in damage to surrounding properties. The cause of the loss was due to the gasket not being seated properly in the filter, which prevented the filter from properly sealing when it was re-assembled by the contractor. Remediation of the site included full excavation, removal and rebuild of the foundation, moving of the house and re-locating it on the new foundation, with cleanup costs totaling in excess of \$600,000.





#### 2.Corrosion

Increasingly, we're seeing steel heating oil tank failures caused by corrosion within the tank resulting in small holes that can penetrate through the steel.

The painted exterior typically hides these small pinholes; however, the paint will eventually 'blister' when the heating oil escapes through the small holes and becomes trapped between the steel and exterior layer of paint.

Steel corrodes more rapidly when exposed to water; therefore, the key to preventing fuel tank corrosion is to ensure there is no water within the tank. Water can enter a tank from various sources:

- Condensation within the tank, especially in outdoor tanks
- Damaged gauges, caps, or piping joints
- The fuel delivery truck during filling
- Rust on the interior of a tank, combined with any existing water and settled solids, can result in the formation of sludge at the bottom of the tank. If heating oil is transferred from an old heating system to a new heating system, water and sludge brought forth with the heating oil may compromise the new equipment

To prevent or stop corrosion, maintenance must include annual checks and removal of water within the tank. The annual maintenance form should indicate the contractor checked for the presence of water, and if detected, also confirm the water was removed as quickly as possible. HVAC contractors should carefully look for signs of water-induced corrosion by checking the oil filter canister for rust or rusty sludge accumulation, and for exterior tanks, by using a specialized water detection paste at the end of a dipstick to identify if water exists at the bottom of the tank. Specialized instrumentation is also available for ultrasonic measurement of tank wall thickness that may detect pitting and corrosion through wall thickness variations of the tank bottom; however, this procedure is not widely used or accepted within the various codes and regulations currently in force. These are suggestions only; HVAC contractors are advised to consult their relevant codes and guidelines.



#### 3.Impact and snow load

Tanks and piping are exposed to their environment. Inside, pipes can be damaged by impact with doors, contents or other human activity. Outside, tanks and pipes need to be placed in locations where they are less likely to be impacted by snow, ice, rain falling from a roof or an eavestrough, vehicle impact, or having snow pushed onto or against them. Environmental elements such as fluctuating temperatures, humidity and ventilation—both inside and outside—can reduce the life expectancy of a heating system.

## **Costs of contamination remediation**

If remediation is required, extensive costs may be incurred at each step of the process:

- Assessing the extent of contamination
- Developing a remediation plan compliant with environmental law
- Monitoring the site cleanup

These costs are often difficult to predict and can be influenced by numerous factors:

- Volume of contaminant
- Proximity to ground- or surface water
- Soil or ground conditions
- Land use
- Subsurface structures
- Number of impacted neighbouring properties
- Value and use of the buildings

It is important that contamination is assessed quickly and by qualified experts in order to mitigate and control losses effectively.





## Loss prevention

Loss prevention is vital to avoid devastating environmental accidents, and the contractor plays a key role in providing effective risk management to reduce the likelihood of a loss. HVAC contractors are vulnerable if their work involves installation and maintenance of oil heating systems or oil appliances, as they often provide annual servicing.

When deficiencies exist, a standardized warning that forms part of the contractor's invoice is an important risk management tool. This document should outline a defined scope of services, warnings and recommendations, and limitations of the work provided. In addition to providing a warning, it's equally important to send a written follow-up to the client subsequent to the service visit that includes the possible consequences of failing to follow any of the recommendations.

## Take-aways

Adhering to code requirements and maintaining proactive risk management can help HVAC contractors to prevent environmental losses, and may also be beneficial to the contractor if an action is brought against them. A standardized warning and recommendation form provided to customers immediately following servicing can be considered by some courts as objective evidence of the contractor's due diligence which can contribute to the contractor's defence in a law suit.

To reference our archive of loss prevention materials, claims examples and detailed product information, please go to our website <u>victorinsurance.ca</u>.

### Visit us at <u>victorinsurance.ca/environmental</u> to learn more.

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