



# Risk Management

Work Safe. Be Safe.

## Boiler Hazards

### Helpful tips for reducing your risk of boiler accidents

Boilers accidents can be avoided with proper care and maintenance. Reduce your risk of a boiler accident by understanding the common hazards.

#### Common Boiler Hazards

The most common boiler hazards that lead to accidents are low water levels, excessive pressure or a failure to purge combustible gases from the firebox before ignition. These hazards can cause serious boiler accidents like explosions or fire.

Low water levels in a boiler are caused by improperly functioning low water cutoffs. Water levels that are too low can cause the boiler to buckle or deform, melt down or even explode—all of which can generate severe damage to the boiler and/or to the building.

Excessive pressure in a boiler can also lead to explosions. This occurs when pressure is allowed to build in the boiler. Boiler explosions are very dangerous and can completely destroy buildings.

Fuel-related accidents, like fires and explosions, are also common and occur when combustible gases are not purged from the firebox. Leaking fuel valves can also cause this kind of accident.

#### Boiler Accident Prevention

Routine maintenance can generally be done by the boiler operator to avoid these devastating accidents. But there are circumstances when a trained professional is needed. These include:

- Leaking safety and/or safety relief valves
- Contaminated feed water
- Steam leaks (in steam boilers)
- High stack temperatures (exceeding 350° F)
- Insufficient heat for the building
- Condensation dripping down the stack or out of the front of the boiler
- Constant resetting of controllers and safety devices

Ongoing routine maintenance and inspection is the best way to prevent a boiler accident. Use a checklist when inspecting a boiler to ensure you're inspecting it thoroughly.

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