Boiler Safety Review

Boiler malfunctions can result in claims amounting to millions of dollars, not to mention the risk of injury to anyone nearby when the incident occurs. When heating systems are not properly maintained, failure of the system can result in fire, explosion, frozen pipes, water damage or worse.

Basic maintenance and a qualified service provider help to ensure uninterrupted service and safety as well as overall efficiency of your system. To keep your systems operating smoothly and safely, consider the following tips.

Inspections and Preventative Maintenance

- Develop a regular inspection and maintenance program for all buildings. Annual heating system maintenance can be performed by a local service firm that can also respond to emergencies.

- Assign weekly inspection duties to a competent person. Maintain a written record of each inspection and maintenance visit by keeping a log. The log should be maintained in the maintenance office or in an area that is not in the vicinity of the boiler. If there is an explosion, the log will most likely be destroyed if it is near the boiler.

- Make sure that furnaces are equipped with an emergency shutoff switch that is located in an accessible area. Ensure that the switch is accessible and well marked for emergency use.

Weekly Inspections

- Check the boiler or furnace room for cleanliness. Remove unnecessary combustibles and maintain a 36 in. clearance between heating appliances and any combustibles. Ensure that equipment is unobstructed.

- Check the boiler or furnace room for water leaks and excessive fuel odors. Observe proper firing, if possible.

- Verify that pressures and temperatures are within allowable limits.

- Ensure that the water level gauge is clean and visible at all times to allow the water level to be easily read.

- Check for smooth operation and lubrication of all mechanical components such as fans and pumps.

- Check the fuel oil storage tank; schedule delivery, if necessary.

Monthly Inspections

- Manually test boiler low-water cutoff.

- Manually test safety relief valve.

Annual Inspections

- Test all safety and pressure relief valves.

- Test all combustion safety controls (e.g., safety shutoff valves, fuel-air interlocks, and flame failure devices).

- Clean the firesides and flue to prevent soot accumulation.
Building Maintenance Checklist

Inspecting buildings and grounds on a regular basis is important to making sure they are ready for the challenges of each changing season. Prior to the onset of winter weather, it is a good idea to be sure that the buildings and grounds within your parish are ready for the arrival of extreme temperatures, snow and ice. Checking boilers and heating systems, pipes and plumbing, drains, roofs, exterior lighting and sidewalks, steps and parking lots is critical to the safety of staff, parishioners and visitors.

✔ **Boiler and Heating Systems**
Enlist a qualified boiler inspector to inspect your facility’s boiler and heating system. Corrosion, pressure and faulty parts are frequent culprits of fires and explosions. Ask the inspector to show your maintenance staff what to look for between their visits. Knowing how to look for leaks, building pressure and reading gauges can prevent a tragic accident or costly repair from occurring.

In addition, make sure the boiler room is clear of unnecessary items and clean. Many times, this area becomes a convenient storage location. Remove flammable materials from the room and lock them in a safe cabinet elsewhere. Take out any clutter that may have accumulated over time. Do not stack boxes, mops, equipment or anything else on top of or lean against the boiler.

✔ **Pipes and Plumbing**
Another area to inspect and protect is pipes and plumbing. If there are areas within your facility that allow the water pipes to be exposed to freezing temperatures, the pipes should be insulated. Not only will this help to prevent pipes from bursting, but will also save money on the facility’s water and gas bill.

✔ **Drains**
Regular inspection and cleaning of exterior stairwell drains to basements should be conducted to lower the risk of flooding. In addition, where possible, make sure that downspout extensions are long enough so that they drain water away from the building. In addition, internal floor drains should be periodically rodded and inspected with cameras as necessary.

✔ **Roof Inspection**
Inspect flat roofs of buildings as well as gutters, downspouts and flashing in the late fall and early spring of each year, or as needed, in order to lower the possibility of water damage. For roofs that are pitched, consider having an outside roofing contractor periodically complete this same task. Water damage from faulty roofs, blocked gutters or downspouts and flashing which has pulled away from the building is one of the largest areas of losses to parishes and should be proactively addressed. In addition, roof drains on flat roofs should be routinely cleaned of leaves and other debris. Standing water on flat roofs leads to eventual roof leaks.

✔ **Exterior Lighting**
Inspect, repair and/or replace exterior lighting on a regular basis. Exterior lighting is the first and often most effective means of defense against theft, vandalism, and slip, trip and fall accidents.

✔ **Outdoor Slips, Trips and Falls**
All sidewalks, handrails, steps and parking lots should be inspected on a regular basis. All noted hazards should be addressed to help ensure the prevention of slips, trips and falls. It is especially important to review the parish’s winter snow and ice removal plan. Off-hour activity times should also be addressed. The identification and correction of any pot holes present in parking lots is especially important.
Kitchen Safety: Using Cooking Oil Safely

At a recent Catholic parish fundraiser event, a volunteer was working in the kitchen cooking food for the attendees. The event was going well and everyone was enjoying the meal. As part of the cleanup process, the volunteer poured hot cooking oil into a glass jar. The jar exploded, spraying hot oil and glass all over the kitchen, seriously burning the volunteer. The volunteer suffered second degree burns to the feet and is enduring a long recovery.

Why did something like this happen? Perhaps the volunteer was in a hurry to clean up, maybe the volunteer had done this before without anything dangerous happening, or the volunteer was not properly trained on how to safely handle and dispose of cooking oil.

Preparation and Planning are the Main Ingredients in Kitchen Safety

Preparation and planning are the main ingredients for working safely in the kitchen, especially during special events, regardless of how many times these activities have been done in the past.

Before any event that requires the handling and cooking of food, designate a person to be in charge of operations within the kitchen. This person must have a working knowledge of safe kitchen operations and needs to be able to strike a balance between not only working in the kitchen but also supervising and observing the activities of food service staff/volunteers. Know the capabilities and shortcomings of the individuals working in the kitchen and be sure to place them in tasks they know how to do.

When pre-planning the event with staff and volunteers, identify problematic areas and properly address these areas with solutions that everyone understands. Another recommended practice is to provide staff/volunteers with a kitchen-related safety talk prior to the event. Keep in mind that the risk of injury in the kitchen is heightened when activities are at their busiest.

Cooking Oil Safety Tips

When using cooking oil to prepare food, follow these safety tips:

- Know the correct temperature of the food you are cooking and heat the oil accordingly. **Do not overheat cooking oil—it could cause a fire.**

- Keep a Dry Powder Fire Extinguisher rated for Class “B” fires on hand and ready for an emergency.

- **Do not use hot-oil turkey fryers.** These are extremely dangerous and should not be utilized. Choose electric oil-free turkey fryers instead. These fryers are available at outdoor sporting goods stores.

- **Use non-glass containers for storage of used cooking oil.** If possible, let cooking oil cool overnight before storing. If this is not possible, wait until the hot oil cools. Do not jeopardize the safety of those in the kitchen by trying to place hot oil in a storage container.

- Use a cooking thermometer to check oil temperature to ensure oil has cooled if you are unsure of the temperature.

- When cooking with hot oil, do not use tables or carts without locking castors or wheels.

- Have a plan to call 9-1-1 if a fire or serious injury occurs. Do not attempt to transport injured persons by a privately owned vehicle. This only delays treatment and puts everyone at risk in the event of an automobile accident.

- Ensure that cooks are dressed appropriately and utilize applicable personal protective equipment, such as: wearing closed-toed shoes, aprons, gloves and using utensils designed to safely handle hot foods. Workers handling hot oils should have gauntlet-style gloves to protect against hot splashing burns.

- Minimize the number of workers in and around the cooking area.

Information excerpted from the Gallagher MP bulletin produced by Arthur J. Gallagher Risk Management Services, Inc., Boca Raton, FL.
Disassemble and clean low water cutoff.

Analyze combustion burner efficiency.

Check steam traps for proper functioning.

Before Cold Weather Arrives and During Cold Spells

- Check windows, doors, and skylights to ensure they close securely to maintain building heat. Repair cracked or broken windows and doors—especially if near water pipes.

- Prevent water lines from freezing up by insulating any pipes that are exposed to freezing temperatures.

- Set thermostats to maintain a temperature of at least 45° F. Post instructional signs at all thermostats.

- Place thermometers in colder areas such as under sinks where water pipes are located and where building heat may not reach. Monitor temperatures to ensure they don’t drop below 40° F in these areas.

- Verify that boiler fuel oil supplies are sufficient; schedule a delivery or arrange for automatic deliveries.

- Visit the building on very cold days and nights, if the building is unoccupied that day. Failure of a heating system during unattended periods often goes undetected.

Loss of Electrical Power

- In the event that power is lost for an extended period of time, monitor temperatures and open faucets or drain water pipes to prevent freezing. Never use unapproved heaters or open flames or torches to thaw frozen pipes.

Regulatory Compliance

- Verify that boiler operating, fuel storage or other required certificates are current and properly posted.