

# risk alert



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## Boiler rooms do not double as storage rooms

You often hear homeowners make the complaint, “we like the house, there just isn’t enough closet space.” The same can be said for many houses of worship, schools and fellowship halls.

Over the years, religious organizations accumulate a great deal of items. Boxes of files, paper supplies, holiday decorations, costumes, sets for the children’s play, half-empty paint cans, solvents and cleaning supplies – and the list goes on. Having the items available is great, but many organizations fail to take the proper precautions when storing these items. A leading mistake being made is using the boiler room or furnace room as a storage area for these combustible materials.



Over a recent period, dozens of Church Mutual customers have experienced fires caused by flammable and combustible materials stored too close to boilers, furnaces, water heaters and other mechanical equipment. The outcome of these fires ranges from minor damage costing several thousands of dollars to destruction of a worship center.

### Heat + Fuel + Oxygen = Fire

There are three components needed for a fire to start – a source of ignition, fuel and oxygen. A typical fire in a boiler room or furnace room is ignited by the open flame or the hot surface of the boiler. The fuel consists of the paper or boxes of other combustible material being stored in the room. When the correct mixture of the three components is achieved, a fire is inevitable.

Another risk for boiler rooms and furnace rooms is spontaneous combustion of material. This occurs when combustible material in contact with air generates enough heat to ignite. The most common example of this is an oily rag thrown in a pail. Because the pail prohibits moving air from reaching the rag, the combination of the chemicals and the rag create combustion. The same rag hung on a clothesline would not ignite because the moving air would prevent heat buildup.

### What should your boiler or furnace room look like?

Boiler rooms and furnace rooms are designed with excess space to allow for easier installation and maintenance of the equipment as well as the proper airflow and ventilation needed. Because of this excess space, many organizations succumb to temptation to build shelves for storage in these rooms or worse, just stack items next to the equipment.

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In addition to the fire hazard, the ability to maintain a boiler when the room is cluttered with various items is difficult. Routine visual examinations of the equipment is almost impossible, and when service is needed, the room must be cleaned just to allow access.

Your boiler room or furnace room should:

- Contain no flammable or combustible materials, such as paper, cardboard, paint or other solvents
- Be equipped with a self-closing fire-rated door
- Be equipped with smoke and fire detectors
- Be finished with fire-resistant walls and ceilings
- Contain a CO<sub>2</sub> or dry chemical fire extinguisher
- Be well ventilated to reduce vapor concentrations
- Remain dry
- Be accessible to firefighters

These are the same features found in a storage room. The only difference is the ignition source is removed from the storage room.

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and look in the Safety Resources section.**