Saunas

Saunas are found in a wide range of hotel and leisure premises. Typically, they're made of timber and contain a thermostatically controlled electric sauna heater, capable of reaching temperatures of up to 95°C.

Major fires have been attributed to saunas along with the subsequent risk to life, property, and business interruption.

Saunas – the main hazards

Because saunas are usually made of treated timber, they can present additional fire risks. As can maintenance and inspections by unqualified people. What's more, combustible materials left by users and flammable spirits or essences in the form of essential oils on hot stones or the heater unit can present additional hazards.

The main causes of sauna fire

Poor Housekeeping is often behind the causes of fire in saunas.
This can lead to a range of risks that include:

- **Combustible materials left near the heater e.g. robes or towels.**
- **Heaters left 'on' and unattended for long periods.**
- **Failing to turn off power to the sauna when not in use.**
- **Thermostat failure**
- **Inadequate maintenance and inspection regimes.**
- **Customers over-riding thermostat controls.**
- **Heating elements too close to combustible structure.**
- **Overheating caused by the wrong or too few stones, or packing too tightly.**
- **Operating at too high a temperature for prolonged periods, resulting in drying out of internal timber linings leading to pyrolysis and ignition.**
- **Using excessive water or incorrect water (e.g. chlorinated pool water) on the heater stones, leading to thermal shock of heating elements.**
- **Using neat essence or scented oils on heater stones.**
- **General wear or abuse.**
- **Heaters or thermostats – not installed according to manufacturers' instructions.**
- **Electrical wiring unsuitable for use in high temperatures.**
- **Combustible materials (newspapers etc.) falling onto wall-mounted heaters.**

Managing risk

Inspect the sauna at the start and end of use each day, ensuring it's clear of combustible items, benches are clear of the heating unit, and electrics are visually safe, with no evidence of tampering. Other ways to manage risk include:

- **Regular checks (signed, timed and dated) every hour or 30 minutes during the day.**
- **The sauna should be included in the Fire Risk Assessment and the Fire Action Plan at the premises and staff trained in the use and hazards associated with the sauna and made aware of emergency procedures.**
- **Installation and maintenance should be carried out in accordance with manufacturer's instructions. Service periods of 6/12 months depending on usage.**
- **Provide an external or remote on/off switch within a secure safety cover.**
- **If wall mounted heaters are installed below seating banks, a sloping shelf should be installed above each heater.**

Other ways to minimise risk

- **Install or extend an automatic fire alarm system, providing remote signalling to an approved alarm receiving centre (ARC), where timers switch the heater off out of hours.**
- **Protect the sauna, using a high-pressure water mist system.**
- **Ensure the premises, room or enclosure where the sauna is located can provide 60 minutes fire resistance.**

Other useful information

- **Fire Prevention Association (RC 50 Fire Safety in the control and use of saunas)**
- **BAFSA – British Automatic Fire Sprinkler Association**
- **Burgoynes**