

Selecting optimal sprinklers for aged care

In response to the 2011 Quakers Hill nursing home fire, the NSW Government passed new laws requiring all residential aged care facilities without sprinklers to retrofit systems that comply with the state's Fire Sprinkler Standard. But would your facility be better off installing a more robust system to protect both people *and* property?

By Lester Lai, National Risk Surveying Manager



The death of 11 residents in the Quakers Hill nursing home fire in November 2011 prompted the NSW Government to rethink the minimum fire protection requirements for residential aged care facilities. A re-enactment of the disaster in late 2012 showed most beds would have gone virtually untouched by flames and smoke had a sprinkler system been installed at the facility.

While sprinklers have been a compulsory requirement for all new aged-care facilities in NSW since 2002, an audit of the state's facilities conducted in early 2012 revealed that less than a third had sprinkler systems. The NSW Government set an absolute deadline of 1 March 2016 for aged care facilities without sprinklers to install them, and other states are likely to follow suit if the move is successful.

There are some important considerations that should be taken into account when choosing a new sprinkler system, including the building's construction, occupancy and fire load.

Installing a system that complies with the minimum Fire Sprinkler Standard¹ and/or the Building Code of Australia may be sufficient to save lives but have limited effectiveness in saving property.

There are many different types of automatic sprinkler systems. The most appropriate system for a warehouse is very different to a residential block or a cold storage facility.

1. NSW Government – Planning & Infrastructure: Fire Sprinkler Standard, Refer to http://www.planning.nsw.gov.au/Portals/0/Fire_Sprinkler_Standard.pdf

Many aged care facilities opt for residential sprinkler systems. Used primarily for life/safety purposes, these systems are considerably cheaper than sprinklers that offer asset/property protection.

Residential sprinklers are not designed to contain or suppress a fire. A residential sprinkler system will buy you around 20 to 30 minutes in which to evacuate your premises safely in the event of a fire. Once this time period has elapsed, the sprinkler system would likely fail to contain the fire resulting in a large property loss.

Even if the fire brigade were to promptly attend the site, their first priority on arrival will be to save lives. Given the limited mobility of many aged care residents, quite some time could elapse and considerable property damage could occur before the fire fighters focus in earnest on battling the fire.

If your aged care facility is built from non-combustible materials, such as bricks or concrete blocks, the contents and fixtures can often still be highly combustible (e.g. mattresses, carpets, furniture, false ceilings etc.). For example, a recent fire in a carpet factory in Melbourne's Dandenong South last September took 35 fire crews days to bring under control.

When choosing a new system the thing to remember is that not all sprinklers are created equal. Ideally, your aged care facility sprinkler system should incorporate asset/property protection criteria that take into account your site's occupancy and combustible fire load.

Some automatic sprinkler systems are designed for specific building constructions. For example, many commercial cold storage facilities are built from Expanded Polystyrene Sandwich (EPS) panels that are highly combustible and require sprinkler systems that can withstand extreme fire loads.

The optimal asset/protection requirements for a warehouse will be very different to a café, cold storage facility or residential aged care facility.

The primary purpose of the NSW Government's Fire Sprinkler Standard is to save lives. And while it can cost more to install a more robust sprinkler system, there are also numerous benefits including a reduced likelihood of severe property damage in the event of a fire and improved insurability.

What's more, a well-maintained sprinkler system will last between 40 and 50 years – so it can be a very worthwhile, long-term investment.

Lumley Insurance's Risk Surveying team provides a value-add service for clients to assist them in choosing the most appropriate type of system for their needs. While the team doesn't recommend specific contractors, our surveyors can review your sprinkler system's design before you commit to the expenditure and help to avoid many potential issues.

I recently met a new Lumley client who had installed a sprinkler system a few years ago at considerable expense. The problem with his million-dollar system is that it wasn't up to scratch for his property's requirements, so it had limited risk-reduction benefits.

Given the size of the investment, it pays to get it right.

This article has been published by Lumley Insurance as general information only and is not a comprehensive account. For full details of the insurance products offered by Lumley Insurance, please read the relevant Policy Wordings available from www.lumley.com.au.