



Third Successful Sprinkler Activation at Studley Green

Julian Parsons

Group Manager

Service Delivery (Protection)

Successful Sprinkler Activation

Premises address: 20 Kingswood Chase, Studley Green, Trowbridge

Date: 6th January 2011

Time of call: 1838 hours 46 seconds

Background

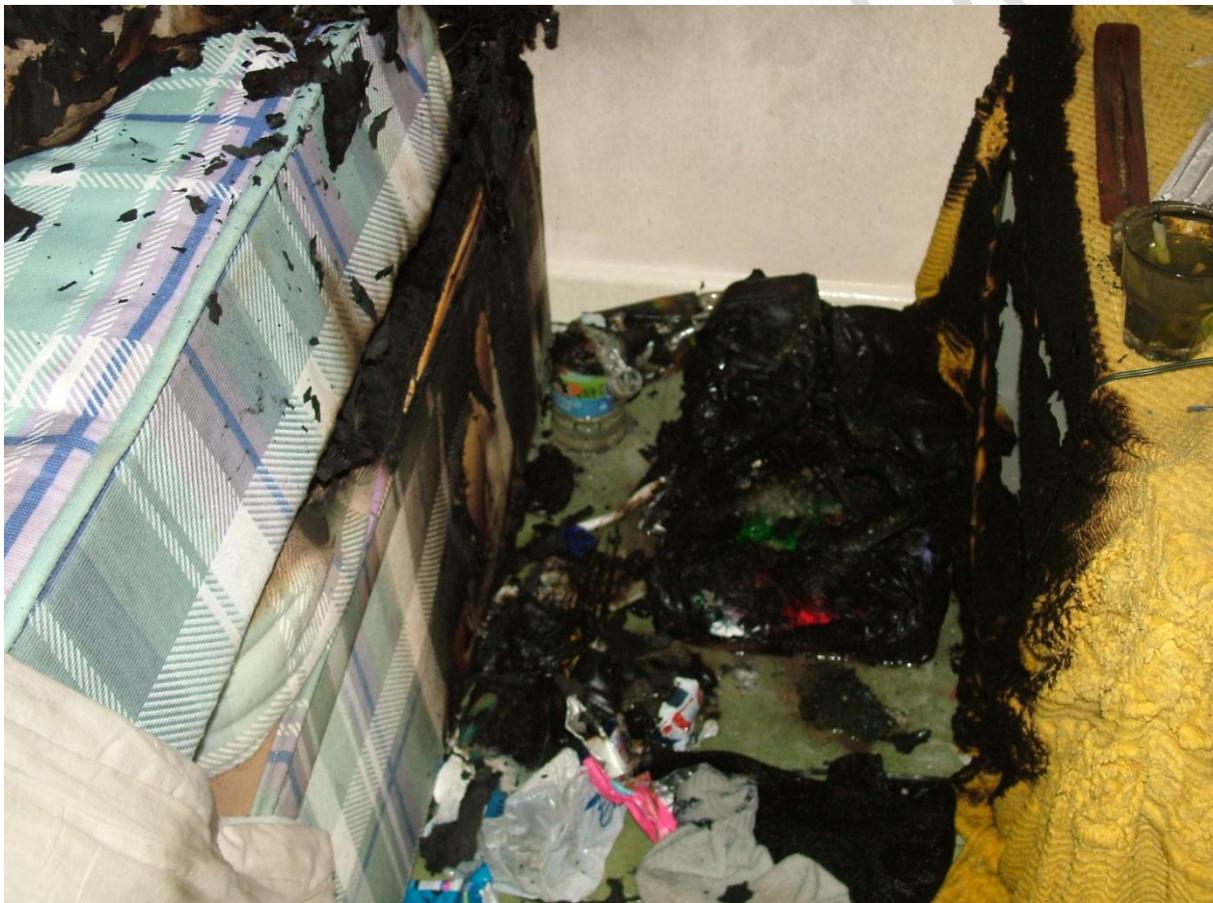
In 1999 a decision was made by West Wiltshire Housing Association (now Selwood Housing Association) to install residential sprinklers in over 200 new social housing properties to be built in the Studley Green area of Trowbridge Wiltshire. This project was undertaken in partnership with Wiltshire Fire & Rescue Service (Wiltshire FRS), the water undertakers, the building contractors and the Residential Sprinkler Association. This resulted in 204 units being fitted with residential sprinklers. In the 11 years since the project was commenced there have been 3 successful activations of sprinkler systems due to fires.

The first being in 2004 where a fire in an outside shed spread through the UPVC rear door into the kitchen. The sprinkler system activated and prevented the fire spreading any further. Damage was confined to water damage and the requirement to replace a rear door. The occupants had to leave the premises for just one day.

The second activation was in 2008 where a fire the living room of a flat started in the settee. The two occupants were sleeping in the room next door and were completely oblivious to the fire. The sprinkler system operated and controlled the fire. A neighbour heard the system activated and raised the alarm. The two occupants managed to escape the fire safely. The activation of the sprinkler system in all likelihood saved the two occupants as they had disconnected the smoke alarm system and were completely unaware that there was a fire in their flat. In all likelihood the fire would have developed and they would have become overcome by smoke. There was light, smoke and water damage to the property and the occupiers did not have to leave.

The third successful activation of the sprinkler system at Studley Green was on 6th January 2010. This occurred in a semi detached property in Kingswood Chase, Studley Green. The fire started prior to 1830 hours in an upstairs bedroom. The two occupiers were downstairs and they were alerted to the presence of the fire as they heard the activation of the sprinkler system and described it as a loud popping noise. They were both able to leave the property safely and summoned the Fire Service on a mobile telephone. The attending crew committed two breathing apparatus wearers

who were able to ascertain that the fire had been extinguished by the sprinkler system. The sprinkler system was then turned off by the attending crew. The premises were subsequently ventilated naturally and an aquavac was also used to clear the water. The fire had been limited to a small area of the bedroom of less than one metre square and items damaged included bedding and small electrical appliances. An investigation of the fire was unable to ascertain the exact cause. There was some light smoke damage just to the bedroom and some water damage to the bedroom floor and also to the ground floor directly below the bedroom. Due to the water damage the occupiers left the building for one night and stayed in a Bed & Breakfast. Selwood Housing commissioned work to check the electrics, reinstate the sprinkler system and dehumidify the property. No structural repairs were required. The occupiers returned to the premises the following day after the checks had been carried out.



Conclusion

Once again the presence of sprinklers at Studley Green have shown what benefit these systems can provide in the way of life safety and property protection and also the environment. If left to develop this fire would have caused severe damage to the bedroom and possibly up into the roof area. The resulting structural damage would have caused many thousands of pounds to repair and resulted in the family being

re-housed for some considerable time. In fact due to the presence of a functioning sprinkler system minimal expenditure was incurred in putting the property back to normal and the inconvenience to the occupiers was minimised. Also due to the presence of the sprinkler system the effect on the environment was also minimised in that there was a dramatic reduction in the amount of water used for fire fighting purposes and also carbon emissions would have been reduced dramatically.

Research in by FM Global⁽¹⁾ has indicated that fires controlled by sprinkler systems have over a 97.8% reduction in emission damage to the environment. This incident would suggest that those estimates are quite correct in that the resulting fire was extremely small compared to what an uncontrolled fire had the potential to develop into.

⁽¹⁾ Environmental Impact of Automatic fire Sprinklers. FM Global. Christopher J Wieczorek, Benjamin Ditch, Robert B Gill Jr.

For Internal Use Only