

## The Warren Centre Review Report 9<sup>th</sup> January 2015

This Legionella review survey was carried out on the 9<sup>th</sup> January 2015; there was seen to be a water systems logbook in place for the centres water systems; this is filed in a cupboard within the manager's office. The responsible persons and deputies names for the centre were seen nominated in writing within section 2 of the logbook; I would recommend that old record sheets within the logbook be archived. The logbook was seen to have been last audited in November 2013; I would recommend the logbook be audited at least on an annual basis. The monitoring records were seen to be up to date as of December 2014. The original risk assessment for this building was not seen filed within the logbook documentation at the time of this review.

There is a cold water storage tank located within the roof void above the nurture room within Shirley Warren Primary School; the cold water storage tank serves the hot water calorifier located within the Warren Centre boiler room. The storage tank is of GRP sectional construction and has integral insulation. The inlet and outlet are opposed therefore there is a good cross flow of water through this tank. There is an open vent pipe work returning to this tank; I would recommend this be re-routed to a drain or tundish.

Internal inspection of the water tank proved there to be some sediment build up on the base of the tank; it is believed the tank was last cleaned and disinfected in November 2011. I would recommend the storage tank be cleaned and disinfected and continued annually if required.

The water temperature of the storage tank at the time of this review was

**Cold Water Storage Tank**

**9.7C This is Satisfactory**

Hot water storage within the Warren Centre is by one Santon hot water calorifier located within the centres boiler room; the calorifier has a capacity of 250 Litres. The calorifier is heated by the LTHW system boilers and also has a single electric element to the base of the vessel; insulation is factory fitted located beneath the outer metal casing. The calorifier has a return system this is fitted with a single return pump; the calorifier also has a de-stratification pump fitted; this was seen to be operational at the time of this review. The calorifier is fitted with a drain valve I would recommend this be purged to drain on a regular basis.

At the time of this review the calorifier storage and return temperatures were found to be low; records indicate that the hot water storage and return temperatures are normally satisfactory. It was seen in the logbook documentation that the hot water flow temperatures have been low and fault sheets 3511 and 3521 have been raised reporting this in November and December 2014. I would recommend that the return pump be investigated for correct operation as it is taking longer than the recommended one minute to achieve 50.0c at the outlets or to the TMVs.

**At the time of this review the hot water storage and return temperatures were:**

<b>Calorifier Flow</b>	<b>55.0°C</b>	<b>This is Not Satisfactory.</b>
<b>Calorifier Return</b>	<b>46.0°C</b>	<b>This is Not Satisfactory.</b>

**Hot water should be stored at a minimum of 60.0°C at all times and the return should be maintained at 50.0°C or more at all times.**

There was seen to be a deadleg pipe work within the Warren Centre this was noticed in the following area:

- There was seen to be a small deadleg on the hot water return pipe work within the plant room. See drawing No.1.

TMV blender valves where fitted should be serviced and maintained to manufacturer's recommendations; this was seen to be last carried out in August 2014 and recorded in the logbook documentation.

Any infrequently used outlets within the Warren Centre should flushed on a weekly basis and recorded when carried out; no records were seen for any flushing of water outlets.

There is no insulation fitted on the pipe work within the ceiling voids within the centre; I would recommend this is insulated to help prevent heat gain / loss.

Ensure all tap outlets are kept clean and free from scale build up to maintain a good flow of water through the systems.

		<b>Remedial / Recommendations</b>	<b>Priority</b>
<b>The Warren Centre</b>		Investigate hot water system and return pump for correct operation and flow at outlets.	<b>5</b>
		Ensure hot water calorifier storage temperature maintains 60.0c or more at all times.	<b>5</b>
		Ensure the hot water return system maintains 50.0c or more at all times.	<b>5</b>
		Remove any deadleg pipe work.	<b>5</b>
		Flush all infrequently used outlets weekly and record when carried out.	<b>3</b>
		Clean and disinfect cold water storage tank and continue on an annual basis if required.	<b>3</b>
		Re-route open vent pipe work from the water storage tank to a drain or tundish.	<b>3</b>
		Insulate water pipe work within the ceiling voids o help prevent heat gain / loss.	<b>3</b>
		Maintain and service TMV (blender valves) as per manufacturer's recommendations.	<b>3</b>
		Audit logbook at least on an annual basis; consider archiving old log sheets which are filed in the logbook documentation.	<b>3</b>

1 = Insignificant risk.

2 = Controlled risk.

3 = Risk is controlled, but deteriorating conditions could increase risk.

4 = Potential hazards identified, but uncertain about risk.

5 = Risk Uncontrolled.