

Sea City Museum Review Report 23rd April 2018

This Legionella review survey was carried out on the 23rd April 2018; there was seen to be a water systems logbook in place for the museums water systems; the logbook is filed in the staff office area; the 2012 risk assessment was seen filed in section 9 of the logbook documentation at the time of this 2018 review. The responsible persons and deputy's names for the museum have now been recorded in section 2 of the logbook documentation. The logbook has still not been audited since February 2013; I would again recommend this is carried out at least on an annual basis; the buildings monitoring records were seen to be up to date as of April 2018.

At the time of this 2018 review some outlets on the first floor of the building had elevated cold water temperatures recorded; these were found in the accessible toilet, the toilet by learning deck 3 and the cleaners room; this has also been highlighted on fault sheets submitted to Southampton City Council. I was informed that flushing of water outlets is being carried out by the cleaners but records seen indicate it has not been carried out since January this is assumed 2018; I would recommend these outlets be flushed at least twice weekly and recorded when carried out.

There are TMVs located within the museum toilets and learning deck areas; no records were seen at the time of this 2018 review to indicate these have been serviced and maintained. I would again recommend that all TMVs be serviced and maintained as recommended by the manufacturers or at least on an annual basis as this building is opened to the general public.

Cold water storage within the Sea City Museum is by one GRP sectional constructed tank located within the plant room area; the storage tank has integral insulation fitted. The storage tank has a good fitting lid; there is also a screened vent located within the top of the tank; the overflow and overflow warning pipe work are fitted with insect screens to prevent the ingress of contaminants.

The inlet and outlet of the storage tank are opposed therefore there is a good cross flow of water through the tank. This storage tank serves all cold-water outlets within the building via a three-pump booster set; it should be ensured that the booster pumps are sequenced to alternate to prevent deadleg areas. At the time of this 2018 review internal inspection proved the tank to have slight sediment on the base of the tank; the storage tank was last cleaned and disinfected in February 2017 and is therefore overdue to be cleaned and disinfected.

Water Storage Tank 16.2°C This is Satisfactory.

Hot water storage within the Sea City Museum is by one calorifier located within the boiler room area; the calorifier has factory fitted insulation located beneath the outer casing; the calorifier is heated by a plate heat exchanger that is located adjacent to the calorifier. The calorifier is fitted with a return system; this has a single circulating / return pump. Temperature gauges were seen fitted to the flow and return pipe work to aid with monitoring; at the time of this 2018 review the flow and return temperatures were found to be satisfactory; records seen within the logbook documentation indicate temperatures are normally good.

There was seen to be leaking pipe work in the boiler room area; this appeared to be leaking on the hot water flow pipe work; I was informed that this has been reported to Southampton City Council. I would recommend this leaking pipe work be investigated and repaired at the earliest opportunity.

Calorifier Flow 60.0°C This is Satisfactory

Calorifier Return 58.0°C This is Satisfactory

ACoP L8 recommends hot water should be stored at no less than 60.0°C. Hot water should achieve 50.0°C at the outlet or TMV within one minute

The deadleg pipe work highlighted in the previous review was still seen in place; although highlighted as deadleg pipe work these will probably not be removed due to being impracticable; these were still noticed in the following areas:

- The long pipe run to the hot water calorifier expansion vessel acts as deadleg pipe work; I would recommend if possible this be flushed through on a monthly basis.
- There is a small deadleg on the booster set distribution pipe work; again, remove or flush through on a regular basis.

Ensure the reverse osmosis unit located within the internal plant room is serviced and maintained to provide good quality water for the two humidifiers; this will help prevent scale build up within them.

If the two Hygro Matik humidifiers are not used for a prolonged period of time the systems be drained of all water to prevent possible stagnation occurring. The systems should be cleaned and disinfected including condensate trays as recommended by the manufacturer if drained before bringing back into service.

TMV (blender valves) should be serviced and maintained to manufacturer's recommendations.

Ensure all infrequently used outlets within the building are flushed through at least weekly; if elevated cold-water temperatures are being recorded ensure these outlets are flushed at least on a twice weekly basis and record when carried out.

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

		Remedial / Recommendations	Priority
Sea City Museum		Flush all areas where elevated cold-water temperatures are recorded at least on a twice weekly basis and record we carried out.	5
		Investigate and repair leaking hot water flow pipe work in the boiler room area at the earliest opportunity.	5
		Where practicable remove deadleg pipe work or flush through on a regular basis.	5
		Continue to clean and disinfect cold water storage tank annually if required.	3
		Ensure booster set pumps are set to sequence to prevent deadleg areas on the pipe work.	3
		Purge hot water calorifier to drain at least on an annual basis and record when carried out.	3
		Ensure both humidifiers and reverse osmosis unit are serviced and maintained as part of a regular maintenance schedule.	3
		Ensure all tap outlets and tap inserts are kept clean and free from scale build up to maintain a good flow of water through the systems.	3
		Air conditioning / handling units should be serviced and maintained as part of a maintenance schedule; traps and condense trays should be cleaned and disinfected.	3
		Maintain and service all TMVs (Blender Valves) as per manufacturer's recommendations.	3
		Audit logbook at least on an annual basis.	3

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.