

## **Southampton Civic Centre North Block Review Report 4<sup>th</sup> June 2018**

This Legionella review survey was carried out on the 4<sup>th</sup> June 2018; there was seen to be a water systems logbook in place for the North Block water systems; the logbook is filed in a dedicated locker within the main boiler room area. The logbook was seen to be in a good order; the duty holder and responsible persons were seen nominated in writing within section 2 of the logbook documentation; the logbook does not appear to have been audited since June 2014; it is recommended that logbooks be audited at least on an annual basis; the monitoring records were seen to be up to date as of June 2018. The logbook documentation has now become very large with records dating back to 2010; I would again recommend that the older sheets be archived to enable better access to the logbook. The original risk assessment for the North Block did not appear to be the full assessment filed in the logbook documentation; I would recommend the whole assessment be located and filed in the logbook.

Sentinel outlets and TMVs are being monitored on a monthly basis and recorded within the logbook documentation; hot water calorifier flow and return temperatures are being monitored and recorded. There were no records seen in the logbook for the cleaning and descaling of the two showerheads that are located within the police area; it should be ensured that both showerheads are cleaned and descaled at least on a quarterly basis and recorded when carried out.

Fault sheets are still being raised almost on a monthly basis relating to the elevated cold-water temperature within the library office kitchen No.27; it was also found to be elevated at 21.8°C at the time of this 2018 review; this should be addressed and ensure the outlet gets regular use and a good turn over of water through it.

Hot water within the North Block is supplied by a plate heat exchanger located within the main boiler house. The hot water from the plate heat exchanger is then stored within a 500 litre plus buffer vessel which is also fitted with two electric elements used as back up heating if required. The plate heat exchanger is heated from the LTHW system that is supplied from the geothermal system; at the time of this 2018 review the plate heat exchanger had a good insulated jacket to prevent heat loss. The calorifier system is supplied directly from the mains water service via a pressure reducer; there is an electromagnetic water softener that the water passes through to reduce the build up of scale within the system.

The calorifier hot water system is fitted with one circulating pump and one hot water return pump; the hot water return temperature was found to be slightly low at the time of this 2018 review at 47.0°C which is not satisfactory. Records seen in the logbook documentation indicate the storage and return temperatures are normally satisfactory; a fault sheet No.6340 has recently been submitted requesting the calorifier temperature be reduced to 60.0°C; it was also reported that the pressure relief valve was dripping water which was still the case at the time of this review.

The North Block calorifier hot water flow and return temperature at the time of this 2018 review were:

<b>North Block Calorifier Flow</b>	<b>60.0°C This is Satisfactory</b>
<b>North Block Calorifier Return</b>	<b>47.0°C This is Not Satisfactory</b>

**Hot water should be stored at 60.0°C or more and the return must maintain 50.0°C or more at all times.**

Local water heaters have been installed in some areas within North Block it is recommended in the ACoP L8 and HSG 274 part 2 that water heaters with no greater than 15 litres capacity should operate at 50.0°C - 60.0°C; random water temperatures taken at the time of this 2018 review from water heaters proved some water heaters to be below 50.0°C. The water heater fitted in the toilet area 437 was seen to be set at only 55.0°C; if greater than 15 litres then it should store hot water at 60.0°C; I would recommend adjustment to water heaters.

The hot water flow at the outlets in the gent's toilet room 504 was found to be very low; this prevent the hot water reaching the TMV at 50.0°C and should be investigated.

There is a reverse osmosis unit located at height within the boiler room serving the steam humidifier located adjacent to it; it should be ensured that the inline filters and membranes are serviced / changed as recommended by the manufacturers. I would recommend that if for any reason the humidifier is not being used for prolonged periods that the system be drained of all water to prevent stagnation occurring.

Some deadleg pipe work was still seen in place at the time of this 2018 review.

Deadleg pipe work was still seen in the following areas:

- The water cooler has been removed from the kitchen area in room 319; the deadleg pipe work was still seen in place.
- The water cooler has been removed from the ground floor kitchen area room 453; the deadleg pipe work was still seen in place.
- The water cooler has been removed from the first-floor kitchen area in room 507; the deadleg pipe work was still seen in place.
- The hot water boiler has been removed from the kitchen area in room 506; the deadleg pipe work was still seen in place.
- The possible deadleg pipe work in the ladies' toilet in room 516; the possible deadleg pipe work was still seen in place.
- Possible deadleg pipe work where the hot water has been capped off beneath the wash basin in the second-floor toilet 240A; the deadleg pipe work was still seen in place.

Ensure all TMVs are being serviced and maintained to the manufacturer's recommendations; no records were seen to indicate this is being carried out at the time of this 2016 review.

Ensure the two showerheads in the police area are cleaned and descaled at least on a quarterly basis and recorded when carried out.

		<b>Remedial / Recommendations</b>	<b>Priority</b>
<b>Civic Centre North Block</b>		Locate the complete original risk assessment for the north Block and file in the logbook documentation.	5
		Remove the deadleg pipe work in North Block	5
		Ensure the hot water calorifier return system maintains 50.0°C or more at all times as was found to be low at the time of this 2018 review.	5
		Investigate library office kitchen No.27 for continual elevated cold-water temperatures; ensure all long pipe runs are well insulated; flush on a regular basis if not being used.	5
		Ensure all local water heaters with a capacity of no greater than fifteen litres operate at 50.0°C – 60.0°C.	5
		Ensure local water heaters with a capacity greater than fifteen litres operate at 60.0°C or more.	5
		The hot water flow at the outlets in the gent's toilet room 504 was found to be very low; this prevent the hot water reaching the TMV at 50.0°C and should be investigated.	5
		Clean and descale both showerheads in the new police area at least on a quarterly basis or at the rate of fouling and record in logbook when carried out.	3
		Continue monthly Legionella control monitoring in the North Block and record findings.	3
		Purge hot water calorifier buffer vessel to drain at least on an annual basis; record when carried out.	3
		Service and maintain all TMVs to manufacturer's recommendations.	3
		Carry out Legionella water sampling if temperature monitoring falls outside the recommended parameters.	3
		Maintain and service R/O unit in the main boiler room in accordance with the manufacturer's recommendations.	3
		Clean and descale tap outlets on a regular basis to help prevent scale build up.	3
		Flush any infrequently used outlets weekly and record when carried out in the water systems logbook.	3
		Audit logbook documentation at least on an annual basis; remove old record sheets from logbook and archive to enable better access in logbook.	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.