

HARD FACILITIES MANAGEMENT

PLANNED PREVENTATIVE MAINTENANCE TASK SHEET

SYSTEM: **Domestic Hot & Cold Water**INSTRUCTION REFERENCE: **PPM-120-MG-010912**SUB SYSTEM: **Thermostatic Mixing Valves**FREQUENCY: **6M**PPM TITLE: **Thermostatic Mixing Valves Inspection and Test 6 MONTHLY****Asset Code:**

(Bar code number if available)

Description:

(ie. Equipment type, serving, etc..)

Location:

(description or room number)

Background information

Complete the relevant task's detailed below as applicable to the frequency indicated above.

Where indicated, record on this sheet, measurements and conditions as instructed.

On completion of the task instructions, sign and date the record in the space provided.

Once completed return this record sheet to the project office.

Pipework and fittings shall be fastened securely to their intended point of anchorage.

There shall be no drips or leaks of water from pipework, taps, valves and/or fittings.

There records should show the date and details of the inspections and the measurements, and must include the name of the person undertaking the survey. Details of any noncompliance revealed by the survey and remedial actions taken should also be recorded.

Other reference information:

HGN Safe Hot Water

Before undertaking this PPM task

Contact the user before undertaking any work to establish any access restrictions and or specific local risks that should be considered.

Read risk assessment as referenced at the bottom of this instruction set. If there are unusual conditions or the risks have changed, stop work and discuss with your supervisor.

This PPM is applicable to both TMV's on sinks, bidets, basis as well as in showers.

This PPM includes a comparison of the blended temperature with the last PPM. If a TMV continues to drift i.e. is within allowable limits, but changes significantly (more than 1 deg C) every time it is tested. The TMV must be replaced.

All public/patient areas should be blended to safe temperatures and these should be tested. If an outlet is found which is not blended inform the General Manager.

Notify Ward / Department manager of disruptions to bathroom facilities prior to commencement of work.

Task Instructions:

1. Refer to the asset schedule of TMV's for the location or building you are working in.
2. Obtain a thermometer to enable the tests to be undertaken. Record type of thermometer used as follows.
Bar code asset number: _____
Calibration date: _____
3. Obtain a copy of the previous TMV test results for the area to be tested. This is required for comparative purposes.

For each TMV listed in the asset list carry out the following tasks;

4. Locate Thermostatic Mixing Valves from plans, checklists and identify labels above outlets.
5. Erect "OUT OF ORDER" sign at entrance to bathroom or above Wash Hand Basin (WHB) sanitary fitting.

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6. Operate a hot water tap within department that is not controlled with a TMV to ensure at least 55°C is attainable within one minute of running.
7. Record on check sheet the time taken to reach 55°C and temperature at one minute of water running.
8. If the temperature is not attained, do not carry out any other checks until correct operation of the DHWS plant is verified.
9. For Each TMV in the department as indicated on checklist, schedule and floor plans, carry out the following;
10. Place a surface temperature monitoring device on the hot and cold supply pipework upstream of the mixing valve and place an immersion temperature monitoring device in the mixed flow of the outlet.
11. Select the hot setting on the outlet, open the outlet wide and record the initial temperatures of both the mixed outlet water and the hot and cold supply pipework.
12. Continue running the outlet for a period of one minute and then record both temperatures of the mixed outlet and the hot supply pipework.
13. The hot water temperature observed on the supply pipework should be at least 55 deg C.
14. All mixed flow hot water outlets from each TMV should reach the following set point temperatures after a 1-minute draw off period:
 - a) Bath 41°C to 44°C
 - b) Shower 39°C to 41°C
 - c) Wash Hand Basin 39°C to 41°C
 - d) Bidet 36°C to 38°C
15. Continue running the outlet for a period of one further minute and then record the temperature of the cold supply pipework.
16. If the cold water temperature is >20 deg C after 2 minutes, then continue to run the outlet and record the time taken to achieve 20 deg C.
17. If the mixed water temp has changed significantly from the previous test results i.e. more than 1 °C, record the change on the check sheet and check that all in line or integral check valves or other antisiphonage devices are in good working order and that all isolating valves are fully open.
18. If the final mixed temp is greater than the acceptance values given above, and/or the max temperature exceeds the value from the previous test results by more than 2° C the valve should be replaced.
19. With the immersion probe still located in the mixed outlet water, isolate cold water to TMV and check that TMV "fails safe" works.
20. The TMV's fail safe mechanism should operate immediately and shut off the water under all conditions of high water temperature. During the shut off, the maximum temperature recorded by the immersion probe should not exceed the following limits. If these are exceeded, replace the TMV;
 - a) Bath 46°C
 - b) Shower 43°C
 - c) Wash Hand Basin 43°C
 - d) Bidet 40°C
21. TMV's that do not pass the above tests are to be replaced with a new TMV or a rebuilt unit that has been tested and labelled, and thus certified "Safe to Use".
22. If the TMV is to be replaced, this should be accomplished under a reactive job card. Following replacement the newly installed TMV is to be tested for temperature and fail safe and the results of testing recorded.

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23.

If a TMV cannot be replaced or repaired immediately, it MUST NOT be left in an UNSAFE CONDITION under any circumstances. The TMV is to be isolated and a warning sign placed and clearly displayed at the sanitary ware outlet.

24. In addition inform the Ward Manager that the TMV is unsafe to use until further notice.

25. If during testing in accordance with this PPM, the mixed water temp of any TMV has changed significantly from the previous test results i.e. more than 1 °C and less than 2 °C, or if the TMV was replaced, an adhoc maintenance task must be raised, quoting the specific asset number of the TMV, to carry out a repeat test within a period of 3 months from the date of this test.

26. Record the action taken above on the check list.

27. Inspect the outlet and comment if scale build up is evident. If evident raise a reactive job card for Soft FM to descale the outlet.

28. Inspect the feeds to the outlet, comment if EPMD flexible hoses are used and if so ensure they are not twisted, kinked or damaged.

29. If you think the room and outlets is under used or sporadically used (i.e. are being used for storage) comment so that flushing regime can be implemented.

30. If chlorine dioxide dosing is used on site, measure the Chlorine Dioxide reserve in the outlet flow.

31. Remove "OUT OF ORDER" sign and inform Ward / Department Manager of satisfactory completion. If TMV's have failed and could not be replaced, inform the ward manager that they have been isolated and cannot be used.

Note any comments below**PPM Close out**

Is any remedial work required? YES/NO (delete as appropriate)

If remedial work is required, summarise this below and raise an reactive jobcard with the helpdesk.

Reactive jobcard number _____

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Sign Off

Tradesman Name: _____

Start Date: _____

Signature: _____

Start Time: _____

Date: _____

Finish Time: _____

Tradesman Name: _____

Signature: _____

Date: _____

Risk Assessment: **RA/120/01/0912**

COSHH Assessment: **CA/120/01/0912**

Guide Time [minutes per asset]: **15**

