

# **Procedure for the pre-operational checks of SSME Normanby Hall railway site apparatus & equipment.**

**Proc. No O / 006 Start & Stop the demineralised water supply system to the track for operational use.**



**The water demineralisation unit must only be operated by authorised members.**

**This procedure should be carried out by a member when operating, testing, or preparing a steam locomotive for operation that requires demineralised water.**

**Note: This procedure does not override or preclude measures that shall be conducted as specified in any other SSME Normanby Hall railway procedures concerned with the operation or maintenance of the railway.**

**Where a single locomotive or train is being operated, safe operating procedures will always be the responsibility of driver, for the site, locomotive, rolling stock and track system.**

## **Demineralised water System Description**

The system comprises of a small reverse osmosis demineralisation unit that feeds one of two one tonne (907 litre) storage tanks. These tanks supply water via tank isolation valves to two electric pumps mounted on the wall, at ground level to the left of the tanks. When the system is in service the first pump will run continuously and the second pump will cut in and out as required, to maintain the required system conditions. There is a local water discharge point above and to the left side of the wall mounted pumps and the isolating valve to the distribution system is on the left side of the pumps at pump level. A small heater is positioned under the demineralisation filter unit to prevent frost damage in cold weather.

### **Distribution System**

Outside the workshop the manhole located in the slabbed area contains an isolation valve, this valve isolates the complete distribution system. In the track area the manhole between the bendy beam and the electrical marshalling panel contains two isolation valves, one isolates the water feed to the steaming bay and the other valve isolates the water feed to the station. Isolation valves in these manholes are normally left in the open position.

### **At the steaming bay**

There is an isolating valve on the first roof support post that feeds the 3 water discharge points under the covered area and the single outlet on the far side of the hydraulic transporter track.

### **At the station**

The isolation valve on the corner upright, at the childrens playground end of the station, feeds the first discharge point, which has no local isolating valve. The second isolation valve after this outlet on the hall side of the station, feeds the next three discharge points down the length of the station. All these supply points require hoses with isolating valves fitting before water is admitted to the second part of the system.

## Putting the demineralised water distribution system in service

Verify the steaming bay discharge points & the 1<sup>st</sup> isolation valve at the station are closed.

**BEFORE STARTING THE DEMIN WATER SYSTEM VERIFY THERE ARE NO DISCHARGE POINTS OPEN AT THE STATION OR STEAMING BAY.**

**THIS WILL QUICKLY EMPTY WATER FROM THE STORAGE SYSTEM**

**In the workshop – (Only operate the RED handled valves).**

Verify the local discharge to flexible hose valve is shut.

1. Open only **ONE** of the tank discharge valves, (normally use the top tank).
2. Open the valve to the distribution system.
3. Start the pumps by switching on the socket, located above the pumps, marked pumps

## Shutting down the demineralised water distribution system.

**Inside SSME clubhouse or hut:**

1. Turn off the pumps.
2. Close the tank isolation valves.
3. Close distribution system isolation valve.

**At the station:**

1. Check that the isolation valves at the station are closed,

**At the steaming bay**

1. Isolating valves are located at the 1st roof post which feeds the 4 water discharge points under the covered area and a single outlet on the far side of the hydraulic transporter track.

**Note:** During the winter the water system will be drained down and unavailable for use.

Notification the system is drained will be displayed in the clubhouse and notified to members. If the water system is used after winter draining prior authorisation from the Track Superintendent should be given and the member using the system shall completely re-drain the system after use.

**To drain the demoralised water distribution system:**

1. Switch off the pumps.
2. Close all tank isolating valves.
3. Close the distribution valves by the pumps.
4. Open the 2 station isolating valves, the system should vent to break vacuum through the open-ended connection points.
5. Open the steaming bay isolating valve and each local isolating valve to each bay to allow the system to drain down through these valves.
6. Leave the isolating valves open and make an entry on the hut chalk board stating the system is drained.