



MERC Mobile Test Platform (MTP)



General Description

MERC offers land-based testing on a MTP that allows BWMSs to be evaluated in Baltimore Harbor, Maryland (salinity 5 - 12 PSU) and/or Norfolk, Virginia (salinity 18 - 22 PSU) with one system installation. The MTP is capable of full IMO G8/G9 and US ETV Protocol testing. Specific details are provided in the MERC QAPP (MERC, 2013) but key features of the MTP include:

- MTP Length – 155 ft; width – 50 ft; draft – 2 ft (empty test tanks) and 5 ft (full test tanks);
- BWMS Space - room for one 20ft containerized BWMS (2 containers if stacked) or as a stand-alone, weatherized unit;
- Ballast water connections – 8 in. steel piping for vendor intake and output;
- Pumps and piping – One 12 in. intake system splits between two 8 in. (20.3 cm) piping systems using two 60 hp centrifugal pumps;
- Power - Three power connections (plugs provided) for BWMS: (1) 100 Amps, 480V, 60 Hz, 3-phase; (2) 50 Amps, 480V, 60 Hz, 3-phase; (3) 30 Amps, 120V, 60 Hz, single-phase;
- Flow rates – Minimum of 100 m³/hr and maximum of 310 m³/hr for each pump;
- Pump discharge pressure – up to 50 psi;
- Air compressor available - 120V, 12 amps, up to 150 psi regulated pressure;
- Testing tanks – Two with capacity 310 m³ each;
- Municipal freshwater – up to 60-75 psi available for testing and sanitation;
- Working space – five onboard office, laboratory, sampling and storage containers, plus, additional space minutes away;
- Monitoring and controls – Integrated monitoring and control system for remote control of variable speed drives flow rates and pressure, plus data logging of valve positions, tank levels/volume, flow rate, pressure, sampling system operations, treatment system status, water quality parameters, etc.;
- Capacity to amend uptake challenge water to meet ETV/IMO challenge conditions;
- High quality in-line and/or in-tank sampling;
- Facility sanitation before and between test cycles;
- Capacity to test BWMSs that operate on uptake, discharge, in-tank or combinations thereof; and
- WET testing and chemical analyses.

For More Technical Information

- Visit www.maritime-enviro.org
- Contact George Smith, MERC Facility Operations Manager, at smithgeo@si.edu