1 O&M Considerations for MERs

1.1 To the extent possible, all mechanical equipment should be located within the Mechanical Equipment Room (MER).

1.2 Equipment must be located so as to allow room for servicing and maintenance, including room to pull HVAC coils and heat exchanger tube bundles.

1.2.1 Adjoining pieces of equipment need to be separated by a minimum of 36”.

1.3 Large motors, pumps, etc. shall have provisions for lifting hoists integral to the room construction.

Note: The need for a hoist is especially true for any submersed equipment, i.e. sump pumps.

1.4 Water Softener brine tank(s) must be located to allow salt to be delivered to the tank by pallet jack with an unobstructed path from MER entrance to brine tank.

1.4.1 Salt placed in the brine must be lifted no higher than 46” from the standing surface.

2 MER Design Considerations

2.1 MER must be accessible by a standard stair or elevator. Ship’s ladders and steep stairs are NOT acceptable.

2.2 MER is to be well lit with lamps located in such a manner that equipment may be serviced without requiring addition portable lighting.

2.3 MER should not be adjacent to classrooms or offices if possible.

2.4 MER is to be thermally, vibrationally, and acoustically isolated from occupied areas.

2.4.1 MER walls should be of 6” sand filled concrete block, double wythes of 4” concrete block, or, if of other construction, designed to meet STC 60.

2.5 MER doors should meet STC 45.

2.6 Provide space to store two changes of air filters, lubricants, etc.

2.7 Provide thermostatic and CO monitor controlled ventilation.

2.8 Provide separate concrete housekeeping pads under each mechanical equipment item.

2.9 Floor drains are required for each cooling coil.

Note: Do not let cooling coils drain condensate across MER floor. When there is condensate drain piping that is not buried or running along the floor it must be insulated. Condensate is usually very cold and runs all summer and the pipes will sweat.

2.10 Oil or petroleum storage containers with a capacity of 55 gallons or greater, will have secondary containment.

2.10.1 Containment will have a capacity of 110% of the largest single container

2.10.2 Containment will have a means for manual drainage of secondary containment areas.

2.11 MER above the lowest floor shall be curbed or have condensation/drip pans under all equipment.

2.12 All floor penetrations must be sleeved. MER floor sleeves to be a minimum of 6” diameter extend 4” above the floor and have a water tight material (that may have to be fire stopping as well) to create a water tight compartment system.