

1. Oceana prefers low, aboveground steam lines; however, consult with them on each project for exceptions. All road crossings should be underground.
2. FRP pipe should not be used for steam condensate return lines. Use Schedule 80 black steel pipe.
3. Avoid using steam manholes whenever possible. Use drip tee assemblies to drain condensate from low points. Do not put steam pits inside mechanical rooms.
4. Steam pressure reducing valves should be located inside buildings and should split the total allowed between two valves to allow some backup capability when one valve fails. The sum of the valve capacities should equal 100%. At this time(Nov 91), the Base steam pressure at the plant is 80 psi.
5. Not Used
6. When steam piping and equipment are located in the mechanical room, Oceana prefers to isolate the electrical equipment and controls from the steam by having a separate electrical room.
7. Oceana prefers that mechanical and electrical rooms have exterior doors only. This discourages occupant tampering with equipment.
8. Steam condensate receiver pumps should be electric driven exclusively. In existing steam manholes (or new manholes which cannot be avoided), steam ejector pumps are preferred.
9. All steam equipment vents should discharge to the outside, including the vent from the Ric Wil type pipe casing.
10. Do not put mechanical rooms below grade. Basement rooms flood due to the low elevations.
11. Make equipment accessible and removable in mechanical rooms.
12. Oceana does not want equipment on roofs. Working on roofs damages the roof system and refrigerant deteriorates roof membranes. This extends to mechanical rooms - Oceana prefers not to have penthouse mechanical rooms.
13. Pressure gauges should have sufficient range to include the relief valve setting.
14. Oceana does not want any more installations of cooling towers due to maintenance requirements and health concerns. Use air-cooled equipment.
15. Oceana prefers multiple equipment (for example - using two 100-ton chillers instead of one 200-ton chiller) when possible for large applications. This allows some flexibility if one piece of equipment fails.

16. Oceana prefers not to have centrifugal chillers because:

a. Our maintenance force does not have in-house capability for troubleshooting problems on these machines.

b. These machines are normally water cooled and Oceana is trying to get rid of all cooling towers. (See Item 14)

c. In attempting to go to multiple pieces of equipment, the efficiency of the centrifugal is lessened. (See Item 15)

17. Oceana has had significant problems with maintenance and controls on both multizone and variable air-volume systems (?). Verify with Oceana whether or not this type of system is acceptable on projects where it is proposed.

18. Oceana has had difficulty in maintaining systems with economizer cycles; Oceana prefers not to use economizer cycles. (?)

19. Oceana does not want any HVAC systems with supply plenums.

20. Oceana does not have any preference for types of control systems but they do want the systems kept as simple as possible. Oceana has had good results with direct digital interfacing controls. Controls which have been beneficial are occupied/unoccupied timer, night setback, hot-water reset, and ventilation control.

21. Oceana would like the contracts to be written such that the Contractor provides a listing of the HVAC filters and their sizes. This will be used for our FSC Filter Contract.