15060S01- MECHANICAL MATERIALS AND METHODS

1. PIPES AND PIPE FITTINGS

1. No plastic pipe is to be used inside any building or structure unless justified and written approval is received from University's Project Manager in charge of the project. The project program may authorize the use of plastic pipe.

2. Pipe joints shall use a joint material selected to minimize the potential for contamination. For example, to minimize lead contamination in copper tubing select 95/5 tin/antimony solder.

3. Use dielectric coupling when dissimilar metals are joined and dielectric isolation at any point where dissimilar metals are in contact. (bronze is not considered a dielectric)

4. Provide fire stopping pipe sleeves to permit the conduit and insulation to pass through partitions. In floors, sleeves are to extend one (1) inch above the floor.

5. Pressure piping, critical piping and, where practical, other piping are to be in chases or other accessible clear space.

6. Isolate and insulate piping as required to minimize objectionable noise and vibration.

7. Piping is not to be run across floors, provide funnels and beveled pipe ends at floor drains and an air gap where cross connection to potable water is possible. Do not allow flow onto paved surfaces which may create a slip hazard.

8. No pressure piping is to be placed below slab or in an unconditioned space unless protection is provided.

9. Locate piping so as to not obstruct openings.

10. Consider water softening in hard water areas if required.

11. Use metal saddles to protect pipe supported by rollers.

12. Provide chrome escutcheons, held tight to the wall, where piping passes through visible walls.

13. Interior gas piping is to be black steel, welded in inaccessible spaces. Provide a master gas shut-off valve in laboratories near the exit (preferred) or at the instructors desk.

14. Provide chains or extensions to operate overhead valves from floor level.

2. WATER SYSTEM CLEANING

1. This standard applies to all water, steam, and condensate systems.

2. Provide flushing and drain connections for complete flushing and drainage of the entire system.

3. Remove strainers, open all valves and continuously flush the system with clean domestic water until all foreign matter is removed.

4. Fill and vent the system, adding one pound trisodium phosphate for each fifty gallons of water. Circulate this solution for four hours, then drain and flush the system with clean domestic water.

5. Replace the strainers and fill the system with clean water, circulate for one hour and test for alkalinity. If the system pH is below 7, add trisodium phosphate until the pH reads 7-8.

6. Fill the system using water or steam from the permanent system.