1 General Requirements

1.1 When called for in the program, specify acid resistant materials from lab sinks and other drains to the riser or other point of significant dilution. In general this is a very limited run of acid resistant pipe.

Note: The procedure for campus is either to capture or, if unable to capture, to neutralize all liquid material prior to disposal. REM monitors this carefully; hence there should be no need for any APW. To be safe we run APW from the sink to the main where the waste stream is diluted.

1.2 All other waste pipe in the building can be of standard material.

2 Buried

2.1 When buried, acid waste and vent piping will be polypropylene drainage pipe with electrofusion joints.

2.2 When the reasonably anticipated waste water temperature is above the manufacturer's listed temperature range for polypropylene pipe, buried, acid waste and vent piping will be stainless steel pipe and fittings with welded joints.

3 Above Grade

3.1 Provide mechanical joint polypropylene.

Note: The best pipe for APW was Duriron, but it is no longer available. Glass is an excellent material but also expensive and hard to work on, especially for future renovations. We have had poor performance on fusion weld plastic (heat welding where the pipe is melted together) the weld failure rate is too high and our shops do not have the equipment for repairs. The next option seems to be solvent weld CPVC but CPVC has significant problems. The manufacturers' literature states that the chemical resistance data applies only to individual chemicals; CPVC has problems with mixed chemicals. Similarly, it has problems with surfactants, which are found in most soap. Thirdly, CPVC must be regularly flushed. Thus, the material of choice, the easiest to install, repair and renovate is mechanical joint polypropylene.