Environmental Compliance Division Building Requirements

Carwash Required	**PAMC 16.09.106(f)** Residential buildings with 25 or more units provide a covered carwash area for vehicle washing by residents. The carwash area is required to drain to an oil/water separator with a minimum capacity of 100 gallons, and to the sanitary sewer.
Cleaning Area	**PAMC 16.09.032b(16)** Food service facilities shall have a sink or other area for cleaning floor mats, containers, and equipment, which is connected to a grease interceptor and the sanitary sewer.
Condensate from HVAC	**PAMC 16.09.032(b)(8)** Condensate lines shall not be connected or allowed to drain to the storm drain system. Condensate will be drained to the sanitary sewer system.
Construction Dewatering in area of known contamination	**PAMC 16.09.117, 16.09.110(h)** If the project is located in an area of known groundwater contamination with Volatile Organic Compounds (VOCs) then the plans must include the following procedure for construction dewatering: Prior to discharge of any water from construction dewatering, the water shall be tested for volatile organic compounds (VOCs) using EPA Method 601/602. The analytical results of the VOC testing shall be transmitted to the Regional Water Quality Control Plant (RWQCP). If the concentration of any VOC exceeds 5 ug/L (5 ppb), the water may not be discharged to the storm drain system and an Exceptional Discharge Permit for discharge to the sanitary sewer must be obtained from the RWQCP prior to discharge. If the VOC concentrations exceed the toxic organics discharge limits contained in the Palo Alto Municipal Code, a treatment system for removal of VOCs will also be required prior to discharge to the sanitary sewer. Additionally, any water discharged to the storm drain system must be free of sediment.

Cooling Tower Requirements	**PAMC 16.09.115** Substances containing copper in excess of 2.0 mg/L, tributyl tin in excess of 0.1 mg/L, or chromium in excess of 2.0 mg/L may not be added to cooling systems in Palo Alto. These concentrations apply to the substances prior to dilution with cooling system water. A flow meter shall be installed to measure the volume of blowdown water from the new cooling tower. Cooling systems discharging greater than 2,000 gallons per day are required to meet a copper discharge limit of 0.25 milligrams per liter. Prior to draining an existing closed chilled loop water, the water in each of the existing loops shall be tested for copper, lead, nickel, and zinc. Test results shall be submitted to the Regional Water Quality Control Plant. Treatment of the chilled loop water prior to draining may be required if the pollutant concentrations exceed discharge limitations contained in the PAMC. <u>Recommendation:</u> If thermometers will be installed on the chilled water supply and return piping. Non-mercury thermometers should be used for this application.
Copper Architectural	**PAMC 16.09.160(b)** Copper roofing materials. On and after January 1, 2003, copper metal roofing, copper granule containing asphalt shingles and copper gutters shall not be permitted for use on any residential, commercial or industrial building for which a building permit is required. Copper flashing for use under tiles or slates and small copper ornaments are exempt from this prohibition. Replacement roofing and gutters on historic structures are exempt, provided that the roofing material used shall be prepatinated at the factory. For the purposes of this exemption, the definition of "historic" shall be limited to structures designated as Category 1 or Category 2 buildings in the current edition of the Palo Alto Historical and Architectural Resources Report and Inventory. <u>Suggestion</u>: Zinc, and Lead (terne plating) roofing material should also be avoided.
Copper Drain Lines	**PAMC 16.09.032(b)(9)** Copper, copper alloys, lead and lead alloys, including brass, shall not be used in the sewer lines, connectors, or seals coming in contact with sewage, except for sink traps and associated connecting pipes. The plans must specify that copper piping will not be used for wastewater plumbing.

Dental Facilities	**PAMC 16.09.112** Dental facilities that remove or place amalgam fillings shall install amalgam traps on all equipment that might carry amalgam waste to the sanitary sewer. The installation of an ISO 11143 certified separator with 95% removal efficiency is required for new facilities. A separator is required for all facilities by March 2005.
Discharge Permit Required	**PAMC 16.09.030** Industrial dischargers must submit an application for an industrial waste discharge permit no later than sixty days in advance of commencing discharge.
Dumpster – new and remodeled buildings	**PAMC 16.09.106(e)** New dumpster areas shall be covered. The area shall be designed to prevent water run-on to the area and run-off from the area.
Floor Drains and Floor Sinks	**PAMC 16.09.032(b)(1)** Floor drains to the sanitary sewer system may not be placed in areas where hazardous materials, hazardous wastes, industrial wastes, or industrial process water will be stored unless secondary containment is provided for all materials. Any floor drains present in lab areas where chemicals will be present shall be plugged, or all materials shall be kept in secondary containment. Floor sinks shall be raised or equipped with a raised lip to prevent spills from entering the sewer system.
Food Service Dumpsters	**PAMC 16.09.032b(16)** After January 1, 1996, new buildings constructed to house food service facilities shall include a covered area for a dumpster. The area shall be designed to prevent water run-on to the area and runoff from the area. Drains that are installed beneath dumpsters serving food service facilities, shall be connected to a grease removal device.
Garbage Disposal	**PAMC 16.09.103(e)** The installation of a garbage grinder at any food service facility is prohibited after January 1, 2003. The kitchen cannot utilize a garbage grinder for food waste disposal to the sanitary sewer.
Grease Interceptor	**PAMC Section 16.09.103(a)** A grease interceptor shall be installed with a minimum capacity of 750 gallons. The grease interceptor must be sized in accordance with Appendix H of the Uniform Plumbing Code. The sizing calculation must be submitted with the plans.

Lips on Sinks	**PAMC 16.09.032(b)(13)** Laboratory sinks be equipped with a raised lip to prevent spills from entering the sewer system. The bench and cup sink detail drawings must show that lips will be provided around the sinks.
Oil Water Separators	**PAMC 16.09.110(f)** Vehicle Service Facilities, machine shops, metal fabrication facilities and similar facilities shall install oil-water separators if any discharge from facility processes (as opposed to bathrooms) to the sanitary sewer will occur.
Sampling port with meters required	**PAMC 16.09.095(a)** For most industries a sampling manhole will be provided for the industrial waste plumbing system in accordance with City of Palo Alto requirements. The industrial waste sampling location must include a system for continuous pH and continuous flow measurement. pH monitoring information must be continuously recorded by means of a paper or electronic chart recorder. A flow monitoring panel must be provided outside the building in the vicinity of the sampling location. The flow monitoring panel must display real-time flow in gallons per minute and total flow in gallons. It is recommended that an equalization tank be installed directly upstream of the sampling location to aid in compliance with the City of Palo Alto's pH discharge limits. The sampling location must be either a manhole or Christy-type box allowing visual inspection of the waste stream as well as sampling access. The building plans must include detailed plans for the sampling location, including the pH and flow monitoring equipment.
Sampling port with future metering capabilities	**PAMC 16.09.095(a)** For smaller industries plans must include a single sampling port located outside of the building. The sampling port must be designed such that continuous pH and flow monitoring can be installed at a future date. It is recommended that a Christy-type box with a flume be utilized. Conduit must be installed from the sampling port to the building to allow future electrical and data wiring for pH and flow monitoring equipment.

Segregated Waste lines	**PAMC 16.09.060 and 16.09.160** A segregated plumbing system must be provided throughout the building to separate industrial wastewater (*laboratory wastewater*, *x-ray processing wastewater*, *equipment cleaning wastewater*, , *etc.*) from domestic wastewater (food service wastewater, restroom wastewater). An outside manhole or access box must be provided on the industrial wastewater plumbing system prior to combination with any domestic wastewater to allow sampling of the industrial wastewater for pollutants. The industrial wastewater plumbing system must be equipped with continuous pH and flow monitoring equipment that displays real time pH and flow, and that records pH and total flow over time. An outside manhole must also be provided on the combined industrial and domestic wastewater sewer line prior to its combining with any other wastewater sources.
Swimming Pools	**PAMC 16.09.032(15)** Swimming pool discharge drains shall not be connected directly to the storm drain system or to the sewer system. When draining is necessary, a hose or other temporary system shall be directed into a sewer (not storm drain system) clean out. A sewer clean out shall be installed in a readily accessible area.
Underground parking garage drains	**PAMC 16.09.032(B)(17)** Drain plumbing for the underground parking garage must be connected to an oil/water separator with a minimum capacity of 100 gallons, and to the sanitary sewer system