POTTERY AND ART FACILITIES SOURCE CONTROL PROGRAM

Metals From Pottery Facilities

Wastewater generated from pottery and art studios may contain significant amounts of pollutants such as heavy metals and toxic organics. The Regional Water Quality Control Plant (RWQCP) is working to reduce the discharge of all of these metals to the sanitary sewer and the storm drain system.

Many materials used in pottery studios contain significant amounts of heavy metals. The pigments added to glazes commonly contain mineral oxides of such metals as chromium, cobalt, copper, iron, manganese, nickel, and vanadium. Glazes are primarily composed of potassium, calcium, magnesium, and aluminum silicates. Clay is a hydrated aluminum silicate. Both clays and glazes have been shown to contain trace levels of heavy metals.

Samples collected from several waste streams at two pottery facilities contained metals of concern including high levels of cadmium, copper, and lead.

Public Involvement

Public meetings were held in 1992 and 1993 to request input from school and community center pottery studios as well as pottery materials suppliers. Mailings and meeting announcements have been sent to these two groups. Information and feedback from these groups was used to develop Best Management Practices (BMPs).

Best Management Practices

The RWQCP evaluated common practices and conducted surveys at two different locations. This information was used to develop BMPs that can be used to reduce the amount of metals that are discharged. The topics covered in the BMPs include:

- sources of metals;
- inventory control;
- waste minimization;
- housekeeping;
- cleanup; and
- disposal practices.

In 1995 the RWQCP developed a brochure that summarizes the BMPs. In 1996, the brochure was distributed to individuals through studios, and suppliers and to schools that use clay in art classes.