



Industrial Pretreatment Program

What is the industrial pretreatment program?

The Clean Water Act established a regulatory program to address indirect discharges from industries to publicly owned treatment works (POTWs) through the National Pretreatment Program. The program requires some industrial and commercial dischargers, called significant industrial users, to obtain permits to discharge wastewater to a POTW.

Why is the program important?

POTWs are not designed to treat most toxic or non-conventional pollutants that are present in industrial wastewater. The facility needs to be protected from pollutants which may

- Impact the collection system.
- **Pass through** or interfere with treatment processes.
- Endanger the health of workers or the public.
- Contaminate the beneficial use of the sewage sludge (biosolids).
- Have harmful effects on the water quality of the receiving water.

Certain industrial discharge practices can interfere with the operation of POTWs, leading to the discharge of untreated or inadequately treated wastewater into rivers, lakes or other waters of the state. A discharge that causes an **interference** causes a violation the POTW's discharge permit. Some pollutants are not treated by **biological** processes; and the pollutants leave the treatment plant untreated. This **pass through** of pollutants affects receiving water and might cause fish kills or other harmful effects.

What is an industrial user?

Industrial users are a source of indirect discharge which contains non-domestic wastewater. Although wastewater is not limited to residential sources, domestic wastewater is from sources similar to residential inputs such as sinks, toilets and showers. Other sources of wastewater are considered industrial due to the source, constituents in the water and/or waste strength. Common industrial users can include restaurants (high strength, fats, oils, grease), commercial car washes, stores or businesses with materials not from toilets and hand washing that are sent to the sanitary sewer.

What is a significant industrial user?

Not all industrial users are significant industrial users. Colorado Regulation 63 (pretreatment regulations) defines a significant industrial user as all industrial users subject to pretreatment standards in federal regulations and any other industrial user that

- Discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater) This may include drinking water plants.
- Contributes a process **wastestream** which makes up five percent or more of the average dry weather hydraulic or organic capacity of the treatment plant.
- Is designated as an SIU on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement.

Definitions

Interference

Discharge that causes disruption of a facility's process, operations, sludge processes, use or disposal.

Pass through

When pollutants are not removed by regular methods during a facility's process and are discharged into protected waters.

Biological

Bacteria and other living organisms that are used to remove organic substances from the wastewater.

Wastestream

The complete flow of waste from the industrial origination to the final disposal or discharge.



Not all industrial users are significant industrial users. Some commercial facilities might be a significant industrial user, depending on the specific type of activity occurring at the facility. For example, a restaurant is an industrial user, but is probably not a significant industrial user.



Who permits significant industrial users?

POTWs with EPA-approved pretreatment programs can issue permits to SIUs. SIUs that discharge to POTWs without EPA-approved pretreatment programs should contact the division for further information.

Who can authorize discharges from industrial users?

The POTW should evaluate the industrial users in its service area, determine the significance of the industrial wastewater discharge, and control the discharge to the POTW if necessary. POTWs should check their Colorado discharge permits before authorizing any industrial discharge.

Pretreatment control includes conditioning the industrial wastewater discharge to minimize the impact of the pollutant loadings on the POTW by instituting permit conditions, best management practices, pollution prevention, treatment, etc. It may also include eliminating the impact of the pollutant loadings on the POTW by denying an industrial wastewater discharge. POTWs cannot accept discharges that may cause **pass through** or **interference** at the plant or that violate the general or specific prohibitions of the pretreatment regulations:

General prohibition

- A user may not introduce into a POTW any pollutant(s) which cause **pass through** or **interference**. These general prohibitions and the specific prohibitions apply to each user introducing pollutants into a POTW whether or not the user is subject to other national pretreatment standards or any national, state, or local pretreatment requirements.

Specific prohibitions

In addition, the following pollutants cannot be introduced into a POTW

- Pollutants which create a fire or explosion hazard in the POTW, including, but not limited to, **wastestreams** with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21.
- Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, unless the works is specifically designed to accommodate such discharges.
- Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in **interference**.
- Any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a discharge at a flow rate and/or pollutant concentration which will cause **interference** with the POTW.
- Heat in amounts which will inhibit **biological** activity in the POTW resulting in **interference**, but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 40 °C (104 °F) unless the approval authority, upon request of the POTW, approves alternate temperature limits.
- Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause **interference** or **pass through**.
- Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems.
- Any trucked or hauled pollutants, except at discharge points designated by the POTW.

For More Information

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Online resources

- www.colorado.gov/cdphe/wq-pretreatment
- www.epa.gov/npdcs/national-pretreatment-program