



Department

# Industrial Wastewater Control Program and Industrial User Discharge Permits for the Beer Brewing Industry



## **U.S. Code of Federal Regulations (CFR)**

**40 CFR Part 403 establishes the General Pretreatment Regulations for Existing and New Sources of Pollution. The regulations require that any Publicly Owned Treatment Works (POTW's) (or combination operated by the same authority) that have a total design flow > 5 million gallons per day and receive pollutants which pass through or interfere with POTW operation or are subject to Pretreatment Standards are required to develop and operate a Pretreatment Program.**



## **Industrial Wastewater Control Program (IWCP)**

**The IWCP operates the pretreatment program for all areas within the city and the surrounding Participating Agencies through agreements.**

**Our objective:**

- **Protect the environment**
- **Prevent introduction of pollutants into POTW that will cause interference and/or pass-through**
- **Prevent introduction of pollutants into POTW that will cause interference with the use or disposal of municipal sludge**
- **Protect sewer collection system and the POTWs**
- **Protect worker health & safety**



## **Publicly Owned Treatment Works**

**The City of San Diego operates three wastewater treatment plants and the biosolids center which processes the sludge generated from the wastewater treatment process.**

**Point Loma provides advanced primary treatment.**

**North City and South Bay provide tertiary treatment and water reclamation.**

**North City will begin operations to provide potable water for re-use through the Pure Water Program in the near future.**



# City of San Diego Municipal Code

## Chapter 6: Public Works and Property, Public Improvement, and Assessment Proceedings

### Article 4: Sewers

#### Division 5: Industrial Wastewater

##### §64.0500 Waste Disposal – Permit Required

**All entities desiring to discharge industrial waste to the sewer collection system that may interfere with its operation and maintenance or POTWs are required to apply for a permit with the IWCP. Pursuant to this section, the IWCP identified breweries as industrial users that require an industrial user discharge permit. Wastewater generated from the brewery operations have pollutants that can cause POTW operation interference.**

# Brewery wastewater characteristics

Brewery wastewater is primarily generated from cleaning and sanitizing of equipment and floor wash down. This wastewater has varying pH, high chemical oxygen demand, and potentially biocide contamination. The floor wash down can contribute solids such as grains, spent yeast, packaging materials into many of the floor troughs located in the cellars and brewhouse areas. These types of contaminants, if discharged to sewer, can cause interference with the secondary treatment process and the solid materials can cause clogging in the collection system resulting in backups and, in the worst case scenario, sewer spills.

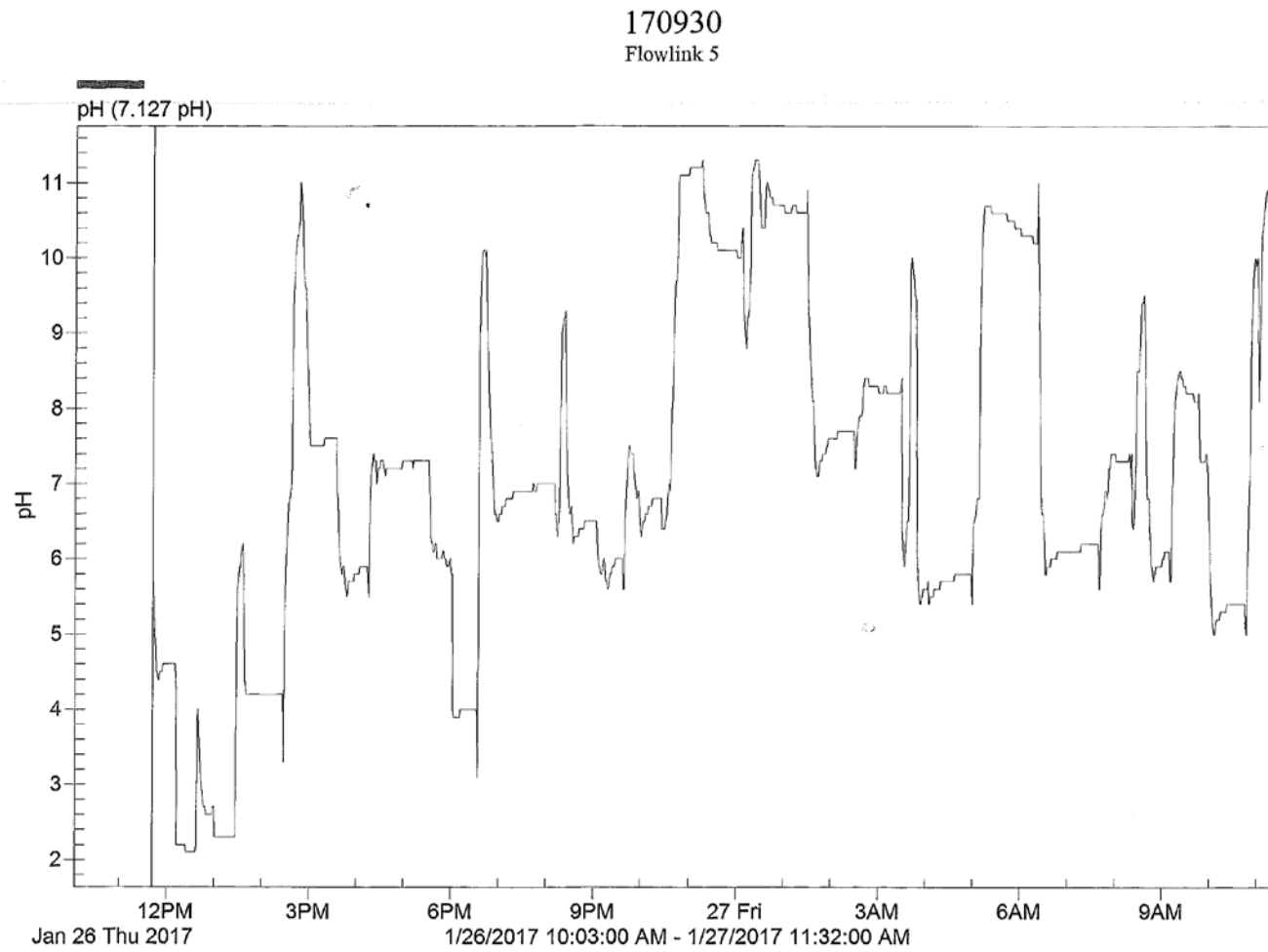
# Discharge Prohibitions

**Corrosives**: Any matter which will cause corrosive structural damage to structures, equipment, or other physical facilities of the wastewater system, but in no case discharges with pH lower than 5.0.

**High pH**: Any matter with a pH equal to or greater than 12.5 standard units.

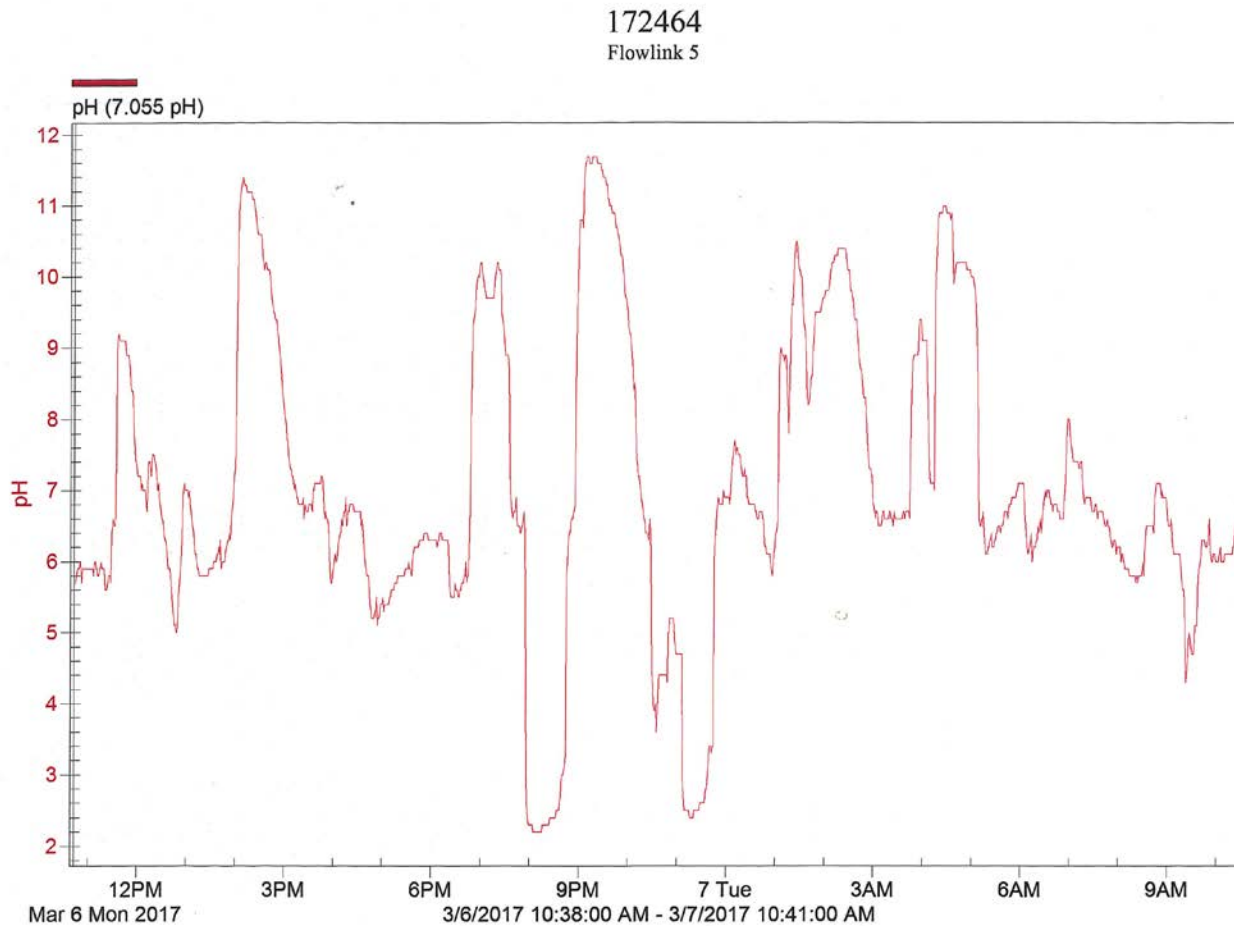
**Interference**: Any pollutant, including oxygen demanding pollutants (COD, BOD, etc.), released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the POTW.

# 24 hour (minute intervals) sampling results for pH





# 24 hour (minute intervals) sampling results for pH



## 24 hour composite sampling results for COD

- COD results in mg/L

1) 4,400

2) 10,100

3) 8,210

4) 13,000

- COD results in mg/L

1) 53,600

2) 43,600

3) 29,600

4) 10,100



# Permitting Process

Application

Inspection

Permit Drafting

Establishment of Program and Self-Monitoring Requirements

Establishment of Point of Compliance for Collection of Representative Samples

Permit Issuance



# Industry Self-Monitoring and Reporting

Current general sampling requirements for the brewing industry:

- COD, TSS, and TDS
- pH

## Self-Monitoring Reporting

- Monthly flow reporting or batch volumes
- pH calibration and measurements log sheet

# Industrial Waste Lab Sampling

The IWCP lab will also perform random sampling that will require the installation of a functional sample point where representative samples of the wastewater being discharged can be collected.





# Questions and Contact Information

## IWCP Offices

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## Main Contact

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