



St. Joseph, Missouri - Water Protection Division Industrial Pretreatment Facility Review And Approval Requirements



1. Regulatory Information

The City of St. Joseph's Water Protection Division (Water Protection) is responsible for managing the Industrial Pretreatment Program (IPP) required by Federal Regulation 40 CFR 403 and St. Joseph City Code, Chapter 29. The IPP regulates facilities whose operations result in discharges of industrial wastes to the City's wastewater treatment plant.

2. Industrial Pretreatment Program Applicability Criteria

Facilities subject to Federal Pretreatment regulations are defined as "Significant Industrial Users" (SIU) in accordance with 40 CFR 403.3(v). A facility is considered as being a SIU upon meeting at least one of the following criteria:

- 2.1. Facility operations are subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR chapter I, subchapter N.
- 2.2. Facility operations result in discharges of 25,000 gallons or more of process wastewater per day to the sewer collection system excluding domestic sewage, noncontact cooling and boiler blowdown wastewater.
- 2.3. Facility operations result in discharges which make up 5 percent or more of the average dry weather hydraulic or organic capacity of wastewater treatment plant.
- 2.4. Facility is designated as such by the City on the basis that it has a reasonable potential for adversely affecting the Publicly Owned Treatment Works' (POTW) operation or for violating any pretreatment standard or requirement.

When a new facility or an expansion or substantial change at an existing unpermitted facility is being planned, Water Protection must make a determination if the facility is to be included in the IPP. As early in the planning stages as possible, the facility must submit a completed Industrial Wastewater Survey Questionnaire. Water Protection will provide a written determination of IPP applicability within fifteen (15) business days of receipt of a complete questionnaire. If Water Protection determines that the facility will be included in the IPP, the process of submitting a permit application, engineering plans, and a facility engineering report must be initiated.

It is important to note that Water Protection's review and approval of proposed facilities followed by issuance of a Wastewater Discharge Permit may take several months from the time of receipt of a complete submission. Facilities should start the process early enough that it does not cause delays.

3. Plan Review and Permit Application Requirements

Facilities that have received an IPP applicability determination from Water Protection or existing permitted facilities that will be expanding or substantially altering wastewater discharge characteristics must submit a complete IPP permit application package which consists of the elements listed below. Upon receipt of a complete application package, Water Protection will make a preliminary determination of whether or not a permit can be issued as requested within fifteen (15) business days. A preliminary determination will not necessarily include full plan approval for construction. To allow appropriate time for a full engineering review, Water Protection may take up to forty-five (45) calendar days to approve construction. Upon notification of the need for further



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information or submittals, the forty-five day review period will be paused until all requested items have been received. Construction of wastewater treatment facilities must not begin until written approval has been received.

3.1. Industrial Wastewater Discharge Permit Application Form

3.2. Engineering Plans (signed and sealed by a registered Professional Engineer) to include:

3.2.1. Site plan (at an appropriate scale) showing:

- All property boundaries and building structure(s).
- Location of pervious/impervious areas, stormwater management structures (catch basins, exfiltration trenches, etc), and stormwater collection systems (surface and piped points of interconnection).
- Location and sizing of sanitary sewer features including collection lines, point(s) of connection, manholes and cleanouts.
- Location of potable water line(s) and meter(s).
- Location of on-site water supply/production wells and groundwater monitoring wells.
- Location of above/underground tanks, secondary containment structures and other relevant items not shown on floor plan(s).

3.2.2. Floor plan(s) (at an appropriate scale) showing:

- Location of all process areas (e.g., production, manufacturing, assembly lines, etc) and non-process areas (e.g., bathrooms, offices, cafeterias, etc).
- Location of all equipment, plumbing fixtures (e.g., sinks, toilets, etc), flow meters, pumps and any proposed treatment system(s).
- Location and sizing of all proposed storage and process tanks.
- Location and sizing of sanitary collection system serving all process, non-process areas and treatment system(s).
- Location of proposed industrial wastewater effluent sampling point(s).
- Location of all materials and waste storage areas and indicate size of containers to be stored in each area.
- Location of secondary containment areas and other proposed containment measures.

3.2.3. Process and Instrumentation (P&I) diagram(s) to include:

- Identification of all process equipment to include name, size/capacity and description of proposed use.
- Interconnections of all proposed process equipment and treatment systems. -
Direction of flow for all process and treatment system piping.
- Identification of all meters, flow control valves, pH monitoring systems and industrial wastewater sampling points.

3.2.4. Isometric diagram(s) of proposed water distribution and sanitary sewer collection system(s)



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3.2.5. Details of proposed equipment to include:

- Details of sampling points.
- Schedule/Legend of process/storage tanks, treatment system(s) and relevant equipment.
- Details of secondary containment areas/structures. Cross section detail(s) shall be included.
- Stormwater management plan for containment areas receiving stormwater.

Note: When preparing Engineering Plans for upgrades or modifications to existing permitted pretreatment systems, not all of the information in Section 3.2. may be required. Applicants must consult with Water Protection prior to submission if they wish to exclude portions of the Engineering Plan for existing permitted facilities.

3.3. Wastewater Treatment Facility Engineering Report (signed and sealed by a registered Professional Engineer)

A comprehensive report describing the scope of proposed operations that includes design basis and data, and other pertinent information necessary to give an accurate understanding of the work to be undertaken. This report may be submitted in advance of the Section 3.2 Engineering Plans for an initial review and discussion; however, the application will not be considered complete until all Section 3 elements have been submitted and deemed “complete” by Water Protection. At a minimum, the report must include:

- 3.3.1. Description of on-site manufacturing processes (if applicable) and scope of operations to be permitted.
- 3.3.2. Description of final products, materials used and wastes generated for all process area(s).
- 3.3.3. Analysis of all industrial wastewater streams to include anticipated values of all chemical, physical and/or biological characteristics.
- 3.3.4. Technical justification of all proposed treatment system(s) in order to meet applicable Federal and City of St. Joseph, MO sewer discharge standards.
- 3.3.5. Maximum rated capacity(ies) of any proposed treatment system must also be identified.
- 3.3.6. Specifications and relevant manufacturer catalog data for all proposed equipment.
- 3.3.7. Characterization of wastes generated on-site and description of disposal practices.
- 3.3.8. Daily Water Balance (DWB) for all sources of wastewater (i.e., regulated and non regulated wastestreams) which will be discharged to the sanitary sewer collection system. Said DWB must include basis of all calculations, approximations and/or assumptions and must reflect the proposed daily maximum discharge of industrial wastewater (in gallons per day).
- 3.3.9. Safety Data Sheet(s) of all raw materials to be stored on site.

4. Plans Submittal Location

St. Joseph Water Protection
Attention: Industrial Pretreatment Program
3500 State Route 759
St. Joseph, MO 64504
Phone: (816) 271-4693



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5. Statement of Work Completed

A signed and sealed Statement of Work Completed by the engineer of record must be submitted upon completion of construction of all Water Protection approved engineering features and prior to the commencement of operations. The Statement of Work Completed must certify that the facility was constructed according to the plans approved by Water Protection. If deviations from the Water Protection approved plans were made they must be indicated and as-built plans accounting for all deviations must be submitted along with the Statement of Work Completed. All documents must be forwarded to address in section 4 above. For more information contact the Industrial Pretreatment Program at (816) 271-4693.

6. Final Inspection Requirements

A final inspection must be coordinated with Water Protection's IPP staff upon complying with the Statement of Work Completed submittal requirements. Please contact IPP staff at (816) 271-4693 for scheduling information.

7. Operating Permit Issuance Procedures

Once Water Protection has given approval of a complete application package as detailed in Section 3, IPP staff will write a Draft Wastewater Discharge Permit. The Draft Wastewater Discharge Permit will be provided to the applicant for review and comment as soon as possible but at least thirty (30) days prior to the anticipated construction completion date. Issuance of an IPP Wastewater Discharge Permit is contingent upon completion of the following (in chronological order):

- 7.1. Submit all documentation outlined in Section 3 comprising a complete application package and obtain Water Protection approval of the same.
- 7.2. Statement of Work Completed and relevant as-built plans.
- 7.3. Final inspection and any outstanding permitting documents (evaluated on a case-by case basis).