



INSTRUCTIONS FOR WATER TREATMENT FACILITIES APPLYING FOR AN NPDES PERMIT

These instructions are to clarify which NPDES Permit Application Forms are to be filled out for Water Treatment Facilities that discharge wastewater to a surface water. Wastewater is any water that does not go to the distribution system. Instructions specific to water treatment plant discharges on completing the appropriate forms are on the following pages.

1. Existing Water Treatment Plants which discharge but do not have an NPDES permit or are applying for renewal of their current NPDES permit must submit all of the following:

- **Industrial NPDES application Forms 1, 3, 5**
- Supplement – Sulfate and Chloride
- Application fee invoice
- \$85 application fee

Note: when filling out Form 3, the raw water supply analysis and the analytes being removed are a good place to start when determining which pollutants may or may not be present in the facility's wastewater discharge (not drinking water sent to distribution).

Chemical analysis for the parameters believed to be present in the waste stream as well as Sulfate and Chloride must be performed and the results submitted in the application.

2. New Water Treatment Plants, new proposed discharge from existing facilities which did not previously have a discharge, or existing facilities that have not discharged in the past but want a permit to discharge in the future must submit the following:

- **Industrial NPDES application Forms 1, 4, 5**
- Supplement – Sulfate and Chloride
- Application fee invoice
- \$85 application fee

Note: when filling out Form 4, the raw water supply analysis or pilot study raw water analysis is a good place to start when determining which pollutants may or may not be present in the facility's wastewater discharge (not drinking water sent to distribution).

Estimates for all parameters believed to be present in the waste stream including Sulfate and Chloride must be included in the application.

If applicants have questions regarding where to obtain the forms or on correctly filling out the forms, refer to: <http://www.iowadnr.gov/InsideDNR/RegulatoryWater/NPDESWastewaterPermitting/NPDESForms/NPDESApplicationForms.aspx> (each form has instructions at the end of the document). If you have additional questions, please contact Wendy Hieb, NPDES Section, at 515-725-8405 or wendy.hieb@dnr.iowa.gov.



Please read the instructions included with each application form. These supplemental instructions provide further direction specific to water treatment plant discharges.

FORM 1 – SUPPLEMENTAL INSTRUCTIONS SPECIFIC TO WATER TREATMENT PLANTS

Form 1, Page 1:

Facility Information - Enter the name and full physical address of the facility for which the permit is being requested (e.g. 925 1st Ave.).

Permits and Licenses - If a permit has been applied for but has not yet been issued, enter “Applied For” and the date the application was submitted.

Form 1, Page 2:

SIC Codes –The SIC Code for “Water Supply” is 4941. If other SIC Codes apply, list, in descending order of significance, the four digit standard industrial classification (SIC) codes which best describe the facility in terms of the principal products or services you produce or provide. Specify each classification in words. SIC code numbers and descriptions can be found in the "Standard Industrial Classification Manual" available from the National Technical Information Service, 5285 Port Royal Rd, Springfield, VA. 22161, Order No. PB 87-100012. SIC codes can also be found at <http://www.osha.gov/pls/imis/sicsearch.html>.

Nature of Business – Provide a description of the water treatment processes employed by the plant and treatment of process wastewater including what chemicals are added in the treatment process, where such chemical additions occur, and processes that contribute to the discharge. In addition, indicate the date the discharge commenced.

Form 1, Page 3: On this page, you must develop a water balance for the facility.

Raw Water Source - List the source(s) and volume(s) of raw water withdrawn by the treatment plant.

Water Usage Within Plant - Show the average daily water use for major plant processes. Under “Process Water”, list treated water (water sent to distribution). Under “Other”, list wastewater resulting from filter backwash, clarifier blowdown, RO concentrate/ reject, regeneration waste, etc. The total water usage must equal the total of all raw water sources.

Water Losses - List all discharges or losses of water except direct discharges for which application is being made. The sum of water losses plus direct discharges must equal the total of raw water sources.

Line Diagram - The line drawing should show generally the route taken by water in your facility from intake to discharge. Show all operations contributing wastewater, including process and production areas, cooling water and locations of chemical addition. You may group similar operations into a single unit. The water balance should show average flows and show all significant losses of water to products, atmosphere, and discharge. You should use actual measurements whenever available; otherwise use your best estimate. If water from the treatment process is used to backwash filters, clean/rinse membranes, or is used in flushing lines, etc. provide the point in the treatment process from which the water comes (e.g. raw water, prior to disinfection, etc.)



FORM 3 – SUPPLEMENTAL INSTRUCTIONS SPECIFIC TO WATER TREATMENT PLANTS WITH AN EXISTING DISCHARGE OF PROCESS WASTEWATER

Form 3, Page 2:

Item III - List all pollutants from Table 2 which are present in the raw water source or are added or created during treatment which you have reason to believe may be present in the discharge. List all chemicals used in the water treatment process and provide the MSDS sheets for each chemical.

Item V-A, B, and C - These items require you to collect and report data for the wastewater discharged from the water treatment process; NOT the finished drinking water for distribution.

Form 3, Pages 3-10:

PART V-A - Part V-A must be completed by all applicants for all outfalls. However, at your request, the Director may waive the requirements to test for one or more of these pollutants, upon a determination that available information is adequate to support issuance of the permit with less stringent reporting requirements for these pollutants. For continuous discharges, use composite samples for all pollutants in this Part, except for pH and temperature where grab samples are acceptable. Grab samples should be used in the cases of short intermittent discharges.

PART V-B & C - All pollutants being removed from the raw source water as part of the treatment process must be marked "Believed Present" and results of at least one analysis for that pollutant of the wastewater discharge must be provided. "Chlorine, Total Residual" must be tested if chlorinated water is discharged either directly or indirectly (e.g. chlorinated water used to backwash filters). For all other parameters, if data from the most recent raw water source screening shows that a pollutant is present in the source water, "Believed Present" must be marked and results of at least one analysis of the wastewater discharge for that pollutant must be provided. Include results even if treatment is not provided to remove these pollutants from the finished drinking water.

Figure 1

Line Drawing Examples

