



**IOWA DNR: NPDES FORM 2 FOR INDUSTRIAL FACILITIES
FACILITIES THAT DO NOT DISCHARGE PROCESS WASTEWATER**

Permit Number _____ Facility Name _____

This form must be completed for each outfall that discharges non-process wastewater.

1. Outfall Details

Outfall Number _____ Description of Discharge _____

Receiving Stream and Route of Flow _____

Latitude: Degrees _____ Minutes _____ Seconds _____

Longitude: Degrees _____ Minutes _____ Seconds _____

2. Chemical Additives

If you add any chemicals that are likely to be present in the discharge, please complete the following table. Additives may include boiler water treatments, cooling tower treatments, water treatment products, etc. You must include a copy of the safety data sheet (SDS).

Manufacturer	Product Name	Estimated Discharge Concentration	LC50* (mg/L or ppm)	SDS Included?
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>

*This is the LC50 for the most sensitive warm-water fish or plankton.

Attach additional sheets if necessary.

3. Flow Information

Describe the days per week and hours per day the discharge occurs at this outfall. Describe any seasonal variation in volume or characteristics of the discharge.

4. Treatment System

Briefly describe any wastewater treatment system(s) currently used or planned to be used at this outfall.

5. Other Information (Optional)

Use the space below to expand on your answers to any of the above questions, or to bring to the attention of the reviewer any other information you feel should be considered in establishing permit conditions. Attach additional sheets if necessary.



6. Type of Waste

Check the box(es) indicating the general type(s) of waste.

- Sanitary Waste
 Noncontact Cooling Water
 Boiler Blowdown
 Other

7. Effluent Characteristics

Existing Sources must provide measurements for the pollutants and parameters listed in the left-hand column below. Samples must have been collected in the past 12 months. New Sources must provide estimates for the pollutants and parameters listed in the left-hand column below.

Pollutant	Concentration			Mass			Number of Measurements in Past 12 Months	Source of Estimate (if new discharge)	Certified Lab Number	Reporting Level ML/MDL
	Average	Maximum	Units	Average	Maximum	Units				
Biochemical Oxygen Demand (BOD ₅)										
Total Suspended Solids (TSS)										
Ammonia (as N)										
Oil and Grease										
Chemical Oxygen Demand (COD)										
Total Organic Carbon (TOC)										
Chloride										
Sulfate										
Iron ¹										
Total Residual Chlorine (TRC) ²										
Escherichia coli (E. Coli) ³										

¹ Iron is only required if the facility's source water is groundwater.

² TRC is only required if the facility chlorinates or otherwise expects TRC to be present.

³ *E. coli* is only required if the discharge contains sanitary waste.

Parameter	Minimum Daily Value	Average Value	Maximum Daily Value	Number of Measurements in Past 12 Months	Source of Estimate (if new discharge)
Discharge Flow (MGD)					
pH (standard units)					
Temperature (Summer Maximum) (°F)					
Temperature (Winter Maximum) (°F)					



FORM 2 INSTRUCTIONS
DO NOT SUBMIT – FOR APPLICANT USE ONLY

Fill out one copy of Form 2 for each outfall that does not discharge process wastewater.

1. Outfall Details

Outfall Number: List an outfall number. If this is a new or previously unpermitted facility, begin numbering each discharge point consecutively beginning with 001.

Description of Discharge: Provide a brief description of the sources of water discharged. For example, "non-contact cooling water from air compressors", "water used to cool tips of spot welders".

Receiving Stream: Identify the receiving stream and describe the route of flow from the point of discharge until the water reaches a named stream. For example, "drain tile to unnamed creek to the Des Moines River."

2. Chemical Additives

If you add any chemicals or products to your water that are likely to be present in the discharge, list each additive and its manufacturer. Provide an estimated discharge concentration for each additive. You must attach a safety data sheet (SDS) to this form for each additive.

LC₅₀ is an ecotoxicology term. It is the concentration of a chemical that is expected to kill 50% of a test population. Values for LC₅₀ can usually be found in the "Ecological Information" section of an SDS. List the lowest LC₅₀ for a freshwater fish or plankton species in the table.

3. Flow Information

If the discharge is continuous, enter "continuous" or "24/7". Otherwise, describe the duration and frequency of the discharges. For example, a water treatment plant may discharge filter backwash for 30 minutes a day, 3 days a week. Or a controlled discharge lagoon may discharge for 10 days, twice a year.

4. Treatment System(s)

Describe any wastewater treatment system(s) used or proposed.

5. Other Information (optional)

Provide any other information you feel the reviewer should consider in establishing permit limitations or expand upon any of the information provided elsewhere on the form. Attach additional sheets as necessary.

6. Type of Waste

Check the box(es) that best describe the source(s) of water to be discharged (e.g., sanitary waste, boiler blowdown, noncontact cooling water). If you check the box for "other," provide further explanation under Item 5.

7. Effluent Characteristics

You may need to sample and test for pollutants that are not in your current permit.

Existing Dischargers: You must report the concentration and total mass for BOD₅, TSS, ammonia (as N), oil and grease, COD, TOC, chloride, and sulfate. *E. coli*, iron, and/or TRC are also required of certain dischargers (see below). Concentrations must be reported in mg/L (milligrams per liter) and mass in lb/day (pounds per day). If you have reason to believe that one or more of the required pollutants is not in your discharge, you may request a waiver by contacting the department prior to submitting your application.

Flow/pH/Temperature: You must report discharge flow (in million gallons per day, or MGD), minimum and maximum pH values, and maximum summer and winter temperatures (in degrees Fahrenheit)

E. Coli: If the discharge contains sanitary waste, you must report a value for *E. coli*; the unit is #org/100 mL (number of organisms per 100 milliliters). If the discharge does not contain sanitary waste, do not test for *E. coli*.

Iron: Iron analysis is only required if you use groundwater.



TRC: Total residual chlorine (TRC) is only required if you use water from a public water supply or if you add any form of chlorine (chlorine gas, hypochlorite, bleach, etc.)

Age of Samples: Samples for reported data must have been collected within the past 365 days.

Number of Samples: If you have more than one representative sample, you must include all results when determining average and maximum values. If you have only one sample, you do not need to complete the "Average Daily Value" column.

Sampling: Samples for oil and grease, TRC, *E. coli*, and pH must be collected using grab samples. BOD₅, TSS, ammonia, COD, TOC, chloride, and sulfate must be collected using 24-hour composite samples. If you believe your discharge does not vary significantly throughout the day, please contact the department. Samples must be representative of your current operation and collected during dry weather when the discharge is not influenced by stormwater runoff.

Analysis: TRC, pH, and temperature must be measured on-site within 15 minutes of collection. All other pollutants must be analyzed by a laboratory certified in Iowa to perform the analysis. All analysis must be done in accordance with EPA-approved methods listed in 40 CFR Part 136.

Intake Water: If you believe a pollutant to be present solely as a result of its presence in your intake water, state this information in Item 6 of this form.

Mass Calculation: The formula for mass of a pollutant discharged is: Concentration * Flow * 8.34 = Mass. (Concentration in mg/L, flow in MGD, mass in lbs/day) Use the flow from the day on which the sample was taken.

Non-Detects: If a pollutant is not detected in the sample, put a less-than sign (<) in the Maximum Daily Value – Concentration column. Put the detection or reporting level in the last column. Do not calculate a mass. For example, if the lab reports "<0.10 mg/L", for ammonia (as N), you would place "<" in the Concentration column and "0.10" in the Reporting/Detection Level column.

Reporting Levels: Provide the method detection limit (MDL), minimum level (ML), or other designated method endpoint reflecting the precision of the analytical method used. Because the endpoint of the method has also been reported along with the test results, the permit writer will be able to determine if the data are in the "non-detect" or "below quantitation" range.

New Dischargers: You are required to provide an estimate of the maximum daily and average daily values for each of the listed pollutants. Estimates may be based on actual data from pilot plants, estimates from engineering studies, data from similar plants, best professional estimates, or other sources. You must state the basis for your estimates using the following codes:

1. Pilot plant data
2. Engineering study
3. Data from similar plant
4. Best professional judgment
5. Other (Specify on form or on separate sheet)