

## INSTRUCTIONS FOR SCHEDULE N - WASTE CHARACTERISTICS

This schedule must be submitted to show raw waste characteristics, effluent quality, and upstream and downstream quality of the receiving waters, sludge characteristics and other wastewater characteristics as required for the various schedules.

1. The name of the project must be the same as that indicated in WPC-PS-1.
2. Flow data
  - 2.1 Indicate existing, if applicable, and proposed or present design average flow.
  - 2.2 Indicate existing, if applicable, or proposed or present design maximum flow depending on the schedule originating the request.
  - 2.3 The information submitted to the Agency for temperature must be sufficient to prove that violations of the temperature portion, 203(i) of the Illinois Pollution Control Board Regulations Chapter 3 will not occur.

In the case of discharges from power plants, a graphical description of the discharge plume must be provided to the Agency which describes the various isotherm regimes in the plume and defines the boundaries of the discharge plume in relation to the receiving stream.

The definition of mixing zone is given in Rule 201(a) of the Illinois Pollution Control Board's Regulations. Make sure you are using the latest Illinois Pollution Control Board's interpretation of this definition - mixing zone.

- 2.6 The flow rate in the receiving stream at the time of stream sampling must be indicated.
3. Chemical Characteristics: The applicant must prove that the facility if permitted, will not cause violations of the Environmental Protection Act or of Regulations adopted by the Board pursuant to the Act. If the characteristics are not applicable so indicate with the letters NTF (not tested for).

For existing facility, the type of sample (grab, composite) and the number of samples taken should be indicated on Schedule N. The sampling points should be indicated on an appropriately labeled process flow sketch for raw wastewater and treated effluent. The process flow sketch should show all wastewater influent points to the treatment works before ultimate discharge.

Please review the following comments prior to proceeding.

- 3.1 The characteristics must show the average concentration of the particular waste parameter in the design year except when the schedule is being submitted to depict the current conditions.
- 3.2 For existing domestic waste treatment works, as a minimum the influent and effluent analyses should include ammonia nitrogen, fecal coliform, (effluent only), nitrite and nitrate nitrogen, pH, phosphorous as p, suspended solids, total dissolved solids and biochemical oxygen demand (5 day).
- 3.3 The influent and effluent should be analyzed for chemical parameters appropriate to reflect industrial discharges into the sewer system tributary to the treatment works. Guidelines for such additional analyses are contained in Table 1, which may also be used by industrial discharges as minimum required analysis guidelines.
- 3.4 The effluent parameter concentrations shown must reflect the average and maximum concentrations of the treatment works or discharge effluent.
- 3.5 An analysis must be performed on the influent and effluent, if it is existing, for each parameter shown on Table 1 for the appropriate industry.
- 3.6 If the proper industrial category is not provided on Table 1, the consulting engineer should write the Illinois Environmental Protection Agency requesting a letter with a statement of the required parameters or use the parameters for a similar category on Table 1.

- 3.7 If background concentration, Rule 401(b), is considered by the applicant to be a factor in the allowable contaminants being discharged, submit an analysis of the water supply showing the concentration of the applicable parameters.
- 3.8 If any constituent level in any discharge or effluent exceeds the water quality standard then analyses must be performed for that parameter upstream and downstream in the receiving stream. The flow rate in the receiving stream at the time of stream sampling must be specified.
- 3.9 For proposed facilities approximations should be made and analysis performed in accordance with these items and Table 1.
- 3.10 The analysis must be performed in accordance with the Standard Methods for the Examination of Water and Wastewater, 13th edition or with the most current later edition or with other generally accepted procedures approved by the Agency. The methods indicated in Table A of the U.S. Environmental Protection Agency National Pollutant Discharge Elimination System Application Form Standard Form Instructions will be considered acceptable to the agency unless noted otherwise in subsequent changes to these instruction forms.
- 3.11 Upstream and downstream analyses will not be required for pretreatment facilities. However, if current data is not available regarding receiving treatment works effluent quality, additional data may be requested.
- 3.12 Upstream and downstream analyses will not be required if the minimum, 7-day, 10-year low flow of the stream is zero (0) c.f.s. The effluent quality must meet water quality standards.

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 1/2, Section 1039. Disclosure of this information is required under that section. Failure to do so may prevent this form from being processed and could result in your application being denied.

**For IEPA Use:**

LOG #

DATE RECEIVED:

**ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
DIVISION OF WATER POLLUTION CONTROL  
PERMIT SECTION  
Springfield, Illinois 62794-9276**

**SCHEDULE N WASTE CHARACTERISTICS**

1. Name of Project \_\_\_\_\_

2. <u>FLOW DATA</u>	<u>EXISTING</u>	<u>PROPOSED-DESIGN</u>
2.1 Average Flow (gpd)	_____	_____
2.2 Maximum Daily Flow (gpd)	_____	_____

2.3 TEMPERATURE

<u>Time of Year</u>	<u>Avg. Intake Temp. F</u>	<u>Avg. Effluent Temp. F</u>	<u>Max. Intake Temp F.</u>	<u>Max. Effluent Temp F.</u>	<u>Max. Temp. Outside Mixing Zone F</u>
SUMMER	_____	_____	_____	_____	_____
WINTER	_____	_____	_____	_____	_____

2.4 Minimum 7-day, 10-year flow: \_\_\_\_\_ cfs \_\_\_\_\_ MGD.  
 2.5 Dilution Ratio: \_\_\_\_\_ ; \_\_\_\_\_  
 2.6 Stream flow rate at time of sampling \_\_\_\_\_ cfs \_\_\_\_\_ MGD.

3. CHEMICAL CONSTITUENT Existing Permitted Conditions \_\_\_\_\_ ; Existing conditions \_\_\_\_\_ ; Proposed Permitted Conditions \_\_\_\_\_

Type of sample: grab (time of collection \_\_\_\_\_); composite (Number of samples per day \_\_\_\_\_)  
 (see instructions for analyses required)

CONSTITUENT	RAW WASTE (mg/l)	TREATED EFFLUENT Avg. (mg/l) Max.	UPSTREAM (mg/l)	DOWNSTREAM SAMPLES (mg/l)
Ammonia Nitrogen (as N)				
Arsenic (total)				
Barium				
Boron				
BOD <sub>5</sub>				
Cadmium				
Carbon Chloroform Extract				
Chloride				
Chromium (total hexavalent)				
Chromium (total trivalent)				

CONSTITUENT	RAW WASTE (mg/l)	TREATED EFFLUENT Avg. (mg/l) Max.	UPSTREAM (mg/l)	DOWNSTREAM SAMPLES (mg/l)
Copper				
Cyanide (total)				
Cyanide (readily released @ 150° F & pH 4.5)				
Dissolved Oxygen				
Fecal Coliform				
Fluoride				
Hardness (as Ca CO <sub>3</sub> )				
Iron (total)				
Lead				
Manganese				
MBAS				
Mercury				
Nickel				
Nitrates (as N)				
Oil & Grease (hexane solubles or equivalent)				
Organic Nitrogen (as N)				
pH				
Phenols				
Phosphorous (as P)				
Radioactivity				
Selenium				
Silver				
Sulfate				
Suspended Solids				
Total Dissolved Solids				
Zinc				
Others				