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# Waste Discharge Permit Application

City of Saskatoon Wastewater System  
Sewer Use Bylaw No. 5115



*City of*  
**Saskatoon**

Environmental & Corporate Initiatives

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This is an application for a **Waste Discharge Permit** under the City of Saskatoon  
Wastewater System Sewer Use Bylaw No. 5115

### **GENERAL INSTRUCTIONS**

- Provide all required information and attachments.
- If you do not have an answer for the requested information, indicate so and explain why.
- Indicate 'n/a' if a section does not apply to your application.
- Use additional pages, as required.
- Send the completed application form, and attachments to the following address:

City of Saskatoon  
Corporate Performance  
Environmental and Corporate Initiative Division  
4<sup>th</sup> Floor – 202 4th Avenue North  
Saskatoon, Saskatchewan  
S7K 0J5

Telephone: (306) 975-2487  
Facsimile: (306) 975-2660

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### **ENCLOSURES:**

- COSWWS Sewer Use Bylaw No. 5115
- .

**SECTION A: BUSINESS NAME AND ADDRESS**

|  |  |
|--|--|
| APPLICANT BUSINESS NAME (Registered Company Name):                                       | INCORPORATION NUMBER:  |
| SITE ADDRESS:<br>_____<br>(Street)<br>_____<br>(City/Province)<br>_____<br>(Postal Code) | BUSINESS MAILING ADDRESS:<br>_____<br>(Street)<br>_____<br>(City/Province)<br>_____<br>(Postal Code) |

CONTACT PERSON REGARDING THIS APPLICATION:

|                           |                           |
|---------------------------|---------------------------|
| _____<br>(Name)           | _____<br>(Name)           |
| _____<br>(Company Name)   | _____<br>(Company Name)   |
| _____<br>(Street Address) | _____<br>(Street Address) |
| _____<br>(City/Province)  | _____<br>(City/Province)  |

**SECTION B: PROCESS DESCRIPTION**

Summarize the manufacturing processes that are conducted at your facility, including the raw materials used and products produced.

|   |
|---|
| .....<br>.....<br>.....<br>.....<br>.....<br>.....<br>.....<br>.....<br>.....<br>.....<br><p style="text-align: right;">(Use additional pages if necessary)</p> |
|---|

**SECTION C: OEP RATING PERIOD**

Specify the typical operating period for your operation (when process wastewater is discharged to the sanitary sewer):

| Hours/Day | Days/Week | Weeks/Year |
|-----------|-----------|------------|
|           |           |            |

Specify the typical number of hours of discharge of process wastewater discharge to the sanitary sewer during the following shifts:

| 08:00 to 16:00 | 16:00 to 24:00 | 0:00 to 08:00 |
|----------------|----------------|---------------|
|                |                |               |

If your operation is seasonal, estimate the average number of days of process wastewater discharge to the sanitary sewer per season:

| Spring | Summer | Fall | Winter |
|--------|--------|------|--------|
|        |        |      |        |

**SECTION D: WASTEWATER SOURCES**

Describe all sources of non-domestic wastewater discharged to the sanitary sewer, including process wastewater, plant wash water, cooling water, boiler blow down, contaminated storm waste, etc. Indicate whether the discharge is batch or continuous. Estimate the daily volume of wastewater generated. Identify each source on the Schematic Flow Diagram and Site Layout (Attachments A and B).

| Source # | Wastewater Source Description  | Continuous or Batch? | Daily Volume (m <sup>3</sup> ) |
|----------|--|----------------------|--------------------------------|
| 1        | <i>Example: Three product cooking kettles – sauces are prepared in the kettles and then transferred to filling line for packaging. Wastewater is generated from cleaning of kettles twice per day.</i> | Batch                | 25                             |
|          |  |                      |                                |
|          |  |                      |                                |
|          |  |                      |                                |
|          |  |                      |                                |

(Use additional pages if necessary)



**SECTION F: SAMPLE POINT LOCATION**

A sampling point must be designated for each process wastewater connection to the sanitary sewer system. It is essential that the sampling location does not include any domestic waste. The sampling point must be downstream of the final treatment process and complete mixing must have occurred. Identify the sample point location(s) in the Site Layout (Attachment B).

Please describe the proposed sampling point(s) below. Include an explanation of how samples collected at these locations will be representative of the wastewater discharged to sanitary sewer.

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(Use additional pages if necessary)

**SECTION G: SPILL PREVENTION AND CONTAINMENT**

Summarize the provisions taken to prevent spills from entering the sanitary sewer system:

.....

.....

.....

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.....

.....

(Use additional pages if necessary)

**SECTION H: WASTEWATER CLASSIFICATION AND QUALITY**

Use the check boxes to indicate whether any of the following types of wastes are discharged to sanitary sewer.

| <b>PROHIBITED WASTES, STORM WASTE OR COOLING WASTE</b> | Yes<br>(X) | No<br>(X) |
|--|------------|-----------|
| STORM WASTE  |            |           |
| COOLING WASTE  |            |           |
| FLAMMABLE OR EXPLOSIVE WASTE                           |            |           |
| WASTE CAPABLE OF CAUSING INTERFERENCE OR OBSTRUCTION   |            |           |
| ODOROUS WASTE  |            |           |
| HIGH TEMPERATURE WASTE (>65°C)                         |            |           |
| CORROSIVE WASTE  |            |           |
| PATHOGENIC WASTE                                       |            |           |

Use the check boxes to indicate whether any of the following types of wastes are discharged to sanitary sewer. When present, please provide estimates of the concentration of each contaminant before and after treatment. Provide actual data wherever possible.

| <b>RESTRICTED WASTES</b><br>Units expressed as mg/L, except as noted.                          | Yes<br>(X) | No<br>(X) | Before Treatment<br>(Maximum<br>Concentration or<br>Range) | After Treatment<br>(Maximum<br>Concentration or<br>Range) |
|--|------------|-----------|--|---|
| FOOD WASTE (>0.5 cm in any dimension)  |            |           |  |   |
| RADIOACTIVE WASTE (radioactivity limitations established by the Atomic Energy Board of Canada) |            |           |  |   |
| pH WASTE (pH units)  |            |           |  |   |
| TOTAL SUSPENDED SOLIDS   |            |           |  |   |
| BIOCHEMICAL OXYGEN DEMAND  |            |           |  |   |
| TOTAL OIL AND GREASE   |            |           |  |   |
| OIL AND GREASE (Hydrocarbons)  |            |           |  |   |
| <b>SPECIFIED WASTE (Expressed as Total Concentrations)</b>                                     |            |           |  |   |
| Aluminum   |            |           |  |   |
| Arsenic  |            |           |  |   |
| Boron  |            |           |  |   |
| Cadmium  |            |           |  |   |
| Chromium   |            |           |  |   |
| Cobalt   |            |           |  |   |
| Copper   |            |           |  |   |
| Iron   |            |           |  |   |
| Lead   |            |           |  |   |
| Manganese  |            |           |  |   |
| Mercury  |            |           |  |   |
| Molybdenum   |            |           |  |   |
| Nickel   |            |           |  |   |
| Silver   |            |           |  |   |
| Zinc   |            |           |  |   |
| Cyanide  |            |           |  |   |
| Phenols  |            |           |  |   |
| Chlorinated Phenols  |            |           |  |   |
| Sulphate   |            |           |  |   |
| Sulphide   |            |           |  |   |



**SECTION H: WASTEWATER CLASSIFICATION AND QUALITY-CON'T**

| <b>OTHER WASTE</b><br>Units expressed as mg/L, except as noted. | Yes<br>(X) | No<br>(X) | Before Treatment<br>(Maximum<br>Concentration or<br>Range) | After Treatment<br>(Maximum<br>Concentration or<br>Rage) |
|---|------------|-----------|--|--|
| Conductivity  |            |           |  |  |
| Chemical Oxygen Demand  |            |           |  |  |
| Dissolved Organic Halogen                                       |            |           |  |  |
| Formaldehyde  |            |           |  |  |
| Ammonia   |            |           |  |  |
| Styrene   |            |           |  |  |
| Total Benzene/Ethylbenze/Toluene/Xylenes                        |            |           |  |  |
| • Benzene   |            |           |  |  |
| • Ethylbenzene  |            |           |  |  |
| • Toluene   |            |           |  |  |
| • Xylenes   |            |           |  |  |
| Total Polynuclear Aromatic Hydrocarbons                         |            |           |  |  |
| Total Polychlorinated Biphenyls                                 |            |           |  |  |
| Carbon Tetrachloride  |            |           |  |  |
| Trichloroethylene   |            |           |  |  |
| Tetrachloroethylene   |            |           |  |  |
| Vinyl Chloride  |            |           |  |  |

| <b>SPECIAL WASTES</b>   | Yes<br>(X) | No<br>(X) |
|---|------------|-----------|
| Does your wastewater discharge contain Special Waste, <u>prior</u> to treatment?  |            |           |
| Does your wastewater discharge contain Special Waste, <u>following</u> treatment? |            |           |

If Yes to either of the above, please provide supporting information and analytical data. Include MSDS (Material Safety Data Sheets) where applicable.

**SECTION I: FLOW INFORMATION**

**1. Requested Discharge Flow Rates**

The following process flow information is required to complete both Municipal sewer line and COSWWS trunk sewer line hydraulic loading capacity evaluations.

Total Plant Site Area: \_\_\_\_\_ acres; or \_\_\_\_\_ m<sup>2</sup>

Maximum Daily Discharge Rate: \_\_\_\_\_ m<sup>3</sup>/day

Maximum Instantaneous Peak Flow Rate: \_\_\_\_\_ litres/second

Maximum Discharge Duration: \_\_\_\_\_ hours/day \_\_\_\_\_ days/week \_\_\_\_\_ weeks/year

|  |
|--|
| <b>SECTION I: FLOW INFORMATION – CON'T</b> |
|--|

**2. Maximum Possible Discharge Flow Rates**

In some cases, your discharge to sanitary sewer may exceed your process requirements (for example, a situation where a spare pump is operated at the same time as the main pump). Specify the maximum possible discharge rates, even if you never intend to discharge at these rates.

Maximum Possible Daily Discharge Rate: \_\_\_\_\_ m<sup>3</sup>/day

Maximum Possible Instantaneous Peak Flow Rate: \_\_\_\_\_ litres/second

**3. Discharge Flow Rate Estimation Methods**

Indicate the method(s) used to estimate the discharge flow rates. Provide the additional information required for the method(s) used.

| (X) | Method                    | Additional Information Required   |
|-----|---------------------------|---|
|     | Water Meter Usage Records | Provide details of your flow estimation calculation.<br><i>e.g. (incoming water meter usage value) minus (water incorporated into product) minus (domestic waste consumption – 0.1 m<sup>3</sup> / day / person) = daily discharge volume</i> |
|     | Discharge Pump Capacity   | Provide all supporting calculations, including pipe diameters and slopes, assumptions, etc.   |
|     | Discharge Pipe Capacity   | Provide all supporting calculations, including pipe diameters and slopes, assumptions, etc.   |
|     | Flow Measurement          | Describe the flow monitoring/recording equipment used.<br>Provide specifications, if available.   |

|  |
|--|
| <b>SECTION I: FLOW INFORMATION CONTINUED</b> |
|--|

**4. Discharge Flow Rate Profile**

Provide a graphic representation of a 24-hour profile of the instantaneous flow rate from your operation on both average and high discharge days, as per the following example:

**SECTION J: REQUESTED PERMIT TERM**

Please indicate in the appropriate box below the length of time that you will require a Waste Discharge Permit.

|                  |            |                |            |
|------------------|------------|----------------|------------|
|                  | <b>(X)</b> |                | <b>(X)</b> |
| Less than 7 days |            | 181 - 270 days |            |
| 7 - 30 days      |            | 271 - 365 days |            |
| 31 - 90 days     |            |                |            |
| 91 - 180 days    |            |                |            |

**SECTION K: REQUIRED ATTACHMENTS**

**Attachment A: Schematic Flow Diagram**

The schematic flow diagram should be a simple line drawing illustrating production/process steps at you facility, with particular emphasis on the processes that generate wastewater and their associated pretreatment systems. Your diagram should include:

- each plant process that generates wastewater (number each waste source);
- additional schematics of each wastewater pretreatment process;
- sewer discharge points for each waste stream.

**Attachment B: Site Layout**

The site layout locates each activity and process in a geographical setting. The site layout, at minimum, should include:

- building outlines;
- property lines;
- north arrow;
- process water flow lines
- wastewater flow lines
- wastewater drainage/collection systems;
- locations of any continuous monitoring equipment (pH, conductivity, flow meters, etc.);
- sample point location(s);
- discharge points to sewer.

*Both of the attachments should be no smaller than 8.5 x 11 inches and no larger than 11 x 17 inches. For examples of Attachments A & B, please refer to Pages 11 and 12 of this application.*

**SECTION L: DECLARATION**

This application form must be signed by an officer of your company or a duly authorized agent.

|   |                       |
|---|-----------------------|
| <b>I declare that the information given on this form is correct and accurate to the best of my Knowledge.</b> |                       |
| .....<br><i>Name (please print)</i>   | .....<br><i>Title</i> |
| .....<br><i>Signature</i>   | .....<br><i>Date</i>  |

If you elect to appoint an agent, please complete the following:

|   |                                  |
|---|----------------------------------|
| <b>I hereby authorize the following representative to deal with all aspects of the subject application.</b> |                                  |
| .....<br><i>Name (please print)</i>   | .....<br><i>Title</i>            |
| .....<br><i>Affiliation</i>   | .....<br><i>Telephone Number</i> |

**ATTACHMENT A: EXAMPLE OF SCHEMATIC FLOW DIAGRAM**

**ATTACHMENT B: EXAMPLE OF SITE LAYOUT**