

Industrial Works Construction Application Standards



This guideline has been prepared to outline the content requirements for applications to construct an industrial facility which discharges wastewater under The Environmental Management and Protection Act, 2002 and The Water Regulations, 2002.

It addresses the application information for industrial activities as identified in Section 7(1) of the regulations.

The Environmental Management and Protection Act, 2002 defines an industrial works as “any works for the collection, containment, storage, transmission, treatment or disposal of industrial wastes.” This includes all industrial works excluding those works exempted under Section 6(3) of The Water Regulations, 2002. At this time, this standard is only intended to address industrial effluent works which discharge wastewater to the environment.

Those seeking approval to construct industrial effluent works, other than works which discharge wastewater to the environment, should contact an Environmental Protection Branch office to determine application and information requirements specific to their facility.

How is an application approved?

Applications must be complete before the review process can begin. A complete application will expedite the approval process and ensure a quick turnaround from application submission to approval issuance. For certain projects, the opportunity for public input, by way of a public notice, must be provided.

In some cases, the approvals are contingent on first conducting an environmental impact assessment or project proposal coordinated by the Environmental Assessment Branch of Saskatchewan Ministry of Environment.

Information should be in a concise form and logical order. Drawings and plans must conform to good engineering practices. The information and material is to be prepared pursuant to The Engineering and Geoscience Professions Act and its regulations and, as such, requires sign-off by a Professional Engineer.

When is an application required?

An application is required for a new plant or facility or for a change to an existing approval. An amendment to an existing approval is required for any change to the activity governed by the current operating permit, any change to the construction, operation and reclamation of the plant and any addition or changes to the machinery, equipment or process. Certain exemptions from approval for minor changes to operation, reclamation plans, short-term tests and temporary modifications and changes not resulting in releases to the environment will be granted. If in doubt, the applicant is advised to contact an Environmental Protection Branch office.



Information Submissions for Approval Process

1-Contact Information:

- 1.1 Corporately registered company name.
- 1.2 Mailing address of head office.
- 1.3 Mailing address of applicable plant or regional office.
- 1.4 Phone and fax numbers, including e-mail.
- 1.5 Name(s) of contact(s) for this application.
- 1.6 Signature of owner/operator or agent responsible to the corporation.

2-Location:

- 2.1 Legal land description (i.e. meridian - range - township - section - legal subdivision).
- 2.2 Relation to nearest town, city or village.
- 2.3 Location of private residences and existing and proposed developments within 1 km of the site.
- 2.4 Geographical description (topographic map) including relation to nearby watercourses, groundwater resources, surficial geology, hydraulic gradients, baseline groundwater quality and flood plains.

3-Capacity (stated design, nominal):

- 3.1 Material processing capacity, by-product processing capacity, finished capacity.
- 3.2 Other appropriate capacity product capacity measurements relevant to the treatment system.
- 3.3 Design capacities of pumps, reservoirs and storage tanks associated with the treatment system.
- 3.4 Sizes and types of piping and other appurtenances.

4-Size:

- 4.1 Size of the affected area, leased area and/or plant site (e.g. hectares).
- 4.2 Physical dimensions of the plant site including a plant site map (i.e. plot plan).
- 4.3 Number of employees working at the facility.

5-Process:

- 5.1 Describe any treatment process, design calculations and normal operation for wastewater systems.
- 5.2 Describe the general purpose of the process, raw materials, products and by-products (e.g. chemical manufacturing plant, brine pond, waste storage facility).
- 5.3 Describe the major unit operations (e.g. cooling towers, steam boilers).
- 5.4 Describe the duration of the project, construction commencement date, completion date and commissioning dates of unit(s), production facilities and environmental protection and control systems/procedures. Include an estimated project cost, number of employees during the construction and operational phases as well as costs of environmental protection and control systems.
- 5.5 Provide scale diagrams of the plant, plant site and the surrounding area including:
 - (a) topography of the area;
 - (b) property boundaries and land use of the area;
 - (c) the location of the plant site;
 - (d) location and types of all buildings;
 - (e) exact location and name of all equipment used in manufacturing, processing or storage and other units;
 - (f) liquid effluent outfall sources and sampling/monitoring equipment for wastewater;
 - (g) exact location and name of all equipment used in control, treatment and disposal of wastes;
 - (h) location of all sewer lines and force mains; and
 - (i) industrial runoff drainage information and other storm water systems including any storm water treatment systems or storm water management plans.
- 5.6 For industrial wastewater discharges streams identify:
 - (a) the release substance volume(s) generated per unit time;
 - (b) concentration of substance(s) and physical or biological characteristics of the substance(s);
 - (c) discharge rate per unit time as well as per unit of production;
 - (d) whether the discharge or emission is continuous or intermittent and the frequency (if intermittent); and
 - (e) receiving environment quality baseline information.

- 5.7 Identify any component streams that contribute to those streams identified in 5.6 above.
- 5.8 Describe any cooling system to be used [e.g. once-through; air (closed-loop); circulating, etc.]. Include flow rates, intake and discharge temperatures (EC) and blow-down rate.
 - (a) Identify any additives (i.e. corrosion inhibitors, biocides) and the frequency of application.
 - (b) Calculate concentration in the final discharge effluent stream.
- 5.9 Describe all raw water treatment processes, chemicals used, amounts and quality of wastes to be disposed of and the frequency of disposal.
- 5.10 For sanitary wastes, describe the facilities treatment system (if any) and disposal method. Include:
 - (a) number of people on the system(s);
 - (b) volume discharged per unit time; and
 - (c) final disposal of sludge (if any) and location.
- 5.11 Describe major environmental control operations including size and location of any ponds, pond contents, pond liners, landfills or other waste management facilities (i.e. sludge ponds), discharge details, engineering drawings for these structures (industrial runoff control, deep well disposal, etc.). As-built plans and liner details for ponds, landfills and other waste management facilities will also be required.
- 5.12 Describe any waste management plans and pollution prevention plans being utilized during the construction and operation of the facility.

Where do I send my application and who can I contact for more information?

Applicants and those seeking further information regarding the Ministry of Environment's construction and operating permits for industrial effluent should contact one of the offices listed below:

Industrial, Potash, Coal and Spills Unit
102-112 Research Drive
Saskatoon, SK S7K 2H6
Telephone: (306) 933-6542
Fax: (306) 933-8442

Industrial, Uranium and Hardrock Mining Unit
102-112 Research Drive
Saskatoon, SK S7K 2H6
Telephone: (306) 933-7063
Fax: (306) 933-5773