

CHAPTER D-14 REG 2

*The Department of the Environment Act*  
Clauses 13(h) to (n)

Order in Council 581/82, dated March 30, 1982.

(Filed April 1, 1982)

ORDER

His Honour the Lieutenant Governor in Council, on the recommendation of the Minister of the Environment, pursuant to clauses 13(h) to (n) of *The Department of the Environment Act*, makes *The Mineral Industry Pollution Prevention Regulations* in accordance with the attached Schedule.

SCHEDULE

- 1 These regulations may be cited as *The Mineral Industry Pollution Prevention Regulations*. Title
- 2 In these regulations: Interpretation
- (a) "applicant" means a person who applies for a ministerial approval; "applicant"
  - (b) "Crown" means Her Majesty in right of Saskatchewan; "Crown"
  - (c) "decant structure" means a facility within a waste disposal basin that separates liquid wastes from solid wastes; "decant structure"
  - (d) "designate" means a person designated by the minister pursuant to section 17; "designate"
  - (e) "embankment" means a structure composed of earth or other material used to impound industrial wastes and includes dykes, dams and their foundations; "embankment"
  - (f) "industrial wastes" means solid, liquid and gaseous wastes resulting from any process or activity in a mine or plant; "industrial wastes"
  - (g) "mine" includes: "mine"
    - (i) an opening or excavation in or working of the ground for the purpose of searching for, winning, opening up, proving or storing underground any mineral or mineral-bearing substance;
    - (ii) wells for the purpose of pressure maintenance, water disposal or injection or dewatering; and
    - (iii) all ways, works, engines, machinery, plant, buildings, furnaces, roast yards and premises below or above ground belonging to or used in connection with the operations carried on, in or about the operation of mining or about a mine;

- "mining" (h) "mining" includes:
- (i) a mode or method of working whereby the soil, earth or any mineral may be disturbed, removed, carted, carried, washed, sifted, roasted, smelted, refined, crushed or dealt with by another, similar process for the purpose of obtaining a mineral whether the mineral was previously disturbed or not;
  - (ii) the boring or drilling for a mineral; and
  - (iii) the working of the ground for the purpose of underground storage of a mineral;
- "minerals" (i) "minerals" means all non-living substances formed by the processes of nature that occur on or from under the surface of the ground, irrespective of their chemical or physical state, but does not include naturally-occurring surface water, agricultural soil or sand or gravel that belongs to the owner of the surface of the land, other than the Crown, under *The Sand and Gravel Act*;
- "ministerial approval" (j) "ministerial approval" means a ministerial approval issued pursuant to section 7;
- "particulate matter" (k) "particulate matter" means solid matter that is so finely divided that it is capable of becoming wind-blown or being suspended in air;
- "plant" (l) "plant" means a mill, refinery or other facility for the processing, treatment or recovery of minerals or mineral products;
- "treatment" (m) "treatment" means the removal from industrial wastes of a substantial portion of the constituents causing pollution by sedimentation, precipitation, flotation, dissolution, oxidation, reduction or any combination of those processes, with or without the use of chemicals, air or mechanical devices;
- "waste disposal basin" (n) "waste disposal basin" means a natural or artificial enclosure in which industrial wastes are deposited or contained.
- Non-application of regulations **3** These regulations do not apply to activities directly connected with the oil and gas industry or the uranium mining industry.
- Requirement of ministerial approval **4** No person shall cause or allow industrial wastes to be discharged unless he obtains a ministerial approval.
- Application **5(1)** An applicant shall apply for a ministerial approval in the manner prescribed by the minister and shall file his application with the department.

(2) An applicant shall include in an application filed pursuant to this section:

- (a) a description and plans of his mine or plant, with particular reference to the systems designed for the treatment, detention, storage and discharge of industrial wastes;
- (b) an estimate of the quantity and the quality of industrial wastes that he proposes to discharge;
- (c) a description of the environment into which the industrial wastes may be discharged; and
- (d) any other information that the minister may require.

(3) Where an applicant proposes to discharge particulate matter into the atmosphere, he shall include in his application, in addition to the matters prescribed in subsection (2):

- (a) a description and a statement of the quantity of ore to be treated;
- (b) a flow diagram of the mine or plant showing each point where particulate matter may be discharged and an estimate of the quantity discharged from each point and the total quantity discharged;
- (c) plans showing the location and estimated efficiency of the systems designed to control the discharge of particulate matter;
- (d) an estimate of the size distribution of the particulate matter proposed to be discharged; and
- (e) a description of the sampling equipment and the procedures intended to be used:
  - (i) to measure the quantity, quality and size distribution of particulate matter discharged; and
  - (ii) to determine the fallout pattern of the particulate matter discharged.

(4) Where the minister considers it to be necessary, an applicant described in subsection (3) shall file appropriate drawings and engineering reports to supplement his application.

(5) For the purposes of clause (2)(c), the description of the environment into which the industrial wastes may be discharged is required to include:

- (a) an analysis of the range of meteorological conditions that may be expected in the vicinity of the mine or plant;
- (b) the direction, frequency and intensity of winds that may be expected in the vicinity of the mine or plant;
- (c) the likelihood of temperature inversions and other relevant meteorological phenomena occurring in the vicinity of the mine or plant; and

(d) the aspects of the geological and hydrological environments in the vicinity of the mine or plant that are relevant to the prevention or control of pollution, including:

(i) the areal variations of the permeability of the stratigraphic units existing between the surface of the ground and the base of the glacial drift or another point approved in writing by the minister;

(ii) the direction and rate of ground water flow through the subsurface as defined by fluid potential gradients; and

(iii) an analysis of the flow regime, water level variations and water quality of any ground water or surface water into which industrial wastes may be discharged.

(6) No applicant shall knowingly file an application containing material that is not in accordance with generally accepted engineering practice.

Minister  
may waive  
requirements

6 Where the minister considers it appropriate, he may waive or postpone any of the requirements of subsections 5(1) to (5).

Ministerial  
approvals

7 Where the minister receives an application and any supplemental material required pursuant to section 5 he shall:

(a) issue a ministerial approval, subject to any terms and conditions that he considers appropriate; or

(b) refuse to issue a ministerial approval;

and shall notify the applicant of his decision.

Notice of  
change in  
discharge,  
etc.

8 Every person to whom a ministerial approval is issued shall immediately notify the minister or his designate of:

(a) any construction, alteration or malfunction of any component of a mine or plant that significantly alters the quantity or quality of the industrial wastes discharged pursuant to the ministerial approval;

(b) any failure or malfunction of any pollution control equipment required by the ministerial approval; or

(c) any failure to comply with any term or condition contained in the ministerial approval.

Waste disposal basin  
requirements

9(1) No person shall construct or operate a waste disposal basin except in accordance with generally accepted engineering practice.

(2) Notwithstanding the generality of subsection (1), a waste disposal basin is deemed not to be constructed or operated in accordance with generally accepted engineering practice where:

- (a) it is located on a site that:
    - (i) is not controlled by the person who operates it;
    - (ii) is located in the channel of a permanent watercourse, unless the watercourse is permanently diverted or the minister has approved the location in writing; or
    - (iii) does not contain diversion channels for protection against surface water runoff; or
  - (b) its embankments do not have adequate strength, stability or permeability characteristics.
- (3) Notwithstanding the generality of subsections (1) and (2), a waste disposal basin for a potash mine or potash plant is deemed not to be constructed or operated in accordance with generally accepted engineering practice where:
- (a) it is located and constructed in a manner that does not minimize the seepage of industrial wastes from the waste disposal basin;
  - (b) it does not provide a means of measuring:
    - (i) the lateral and vertical permeability of the strata beneath and adjacent to the waste disposal basin; and
    - (ii) the lateral and vertical hydraulic gradients that may cause seepage or migration of industrial waste from the waste disposal basin; or
  - (c) it does not control the lateral and vertical migration of industrial waste from the waste disposal basin.

10 No person shall operate a mine or plant unless the site on which the mine or plant is located contains a drainage system that can adequately control pollution caused by seepage and surface water runoff from the site.

Prohibition  
on operation  
of mine or  
plant

11(1) Every person who causes or allows liquid industrial wastes to be discharged into water shall immediately sample and analyze the industrial wastes discharged and the receiving water and provide the minister or his designate with the results of the analyses.

Analysis of  
liquid indus-  
trial waste  
required

(2) Where discharges described in subsection (1) are recurring or continuous, the person who causes or allows the discharges shall:

- (a) sample and analyze the industrial wastes discharged and the receiving water at intervals of sufficient frequency to determine the total quantity of industrial wastes being discharged and the effects of the discharges on the environment; and
- (b) provide the minister or his designate with the results of the analyses made pursuant to clause (a).

Disposal of  
liquid indus-  
trial wastes

12(1) Subject to subsection (2) and to *The Oil and Gas Conservation Act* and the regulations made under that Act, liquid industrial wastes may be disposed of by injecting them into a subsurface horizon.

(2) No person shall inject liquid industrial wastes into a subsurface horizon unless:

- (a) they are injected into permeable sedimentary strata;
- (b) they do not cause pollution of the subsurface environment outside of the sedimentary strata or portion of the sedimentary strata intended to receive them; and
- (c) he obtains the written approval of the Minister of Mineral Resources.

Abandon-  
ment of  
mine or  
plant

13(1) No person who owns or operates a mine or plant shall abandon the mine or plant until he has:

- (a) provided for the stabilization of industrial wastes contained on the mine or plant site in order to minimize and control pollution caused by the industrial wastes;
- (b) reclaimed the area disturbed by the operation of the mine or plant; and
- (c) obtained the written approval of the minister.

(2) The minister may place any terms and conditions that he considers appropriate in an approval issued pursuant to clause (1)(c).

Compliance  
with approv-  
al required

14 No person to whom a ministerial approval is issued or to whom an approval is issued pursuant to clause 13(1)(c) shall fail to comply with a term or condition contained in the ministerial approval or the approval.

Ministerial  
approval no  
defence in  
itself

15 In an action for damages caused by a discharge authorized under a ministerial approval, the fact that a ministerial approval was issued to a person does not in itself afford a defence to that person.

Amendment,  
cancellation  
of approvals

16(1) Where the minister considers it appropriate, he may:

- (a) amend, suspend or cancel a ministerial approval; or
- (b) amend or cancel an approval issued pursuant to *The Pollution Prevention Regulations for the Mineral Industry, 1970*.

(2) For the purposes of section 4, a ministerial approval that is suspended pursuant to this section is, for the period of the suspension, deemed not to have been issued.

APRIL 8, 1982

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17 The minister may designate any employee of the department to perform any of the duties imposed and exercise any of the powers conferred upon the minister by these regulations. Designate

18 These regulations come into force on March 31, 1982. Coming into  
force

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