Disclaimer:

This draft is intended to facilitate dialogue concerning its contents. Note that it will not become law unless it is added through an amendment to the Technical Standards publication. The content, structure, form and wording of the draft are subject to change, including change as a result of review, editing and correction by the Ministry of the Environment and Climate Change.

Mining Sites – Industry Standard

Preamble

- This technical standard is an industry standard as defined in section 1 of O. Reg. 419/05.
- With respect to facilities, this industry standard applies to every facility that is part of a class identified by one or more of the following NAICS codes: 212232 (Nickel-copper ore mining) and 212233 (Copper-zinc mining). This industry standard does not apply to a facility described by NAICS code 331410 (Non-ferrous metal (except aluminum) smelting and refining).
- With respect to contaminants, this industry standard applies to contaminants listed in Appendix 8-A (All Contaminants).
- Each source of contaminant associated with NAICS codes 212232 and 212233 that discharges a contaminant mentioned in the above bullet has been considered in development of this industry standard. As such, a person that meets the criteria set out in subsection 42 (1) or subsection 44 (1) of O. Reg. 419/05 is, in general, exempt from Part II of the Regulation in respect of the facility and contaminant(s) for which it is registered. In other words, there is no need to model, in a facility's Emission Summary and Dispersion Modelling report, discharges of a registered contaminant from any source of contaminant associated with NAICS codes 212232 and 212233. (For more information, please see the Introduction to the Technical Standards Publication.)
- In accordance with subsection 38 (3) of O. Reg. 419/05, compliance with this industry standard, in accordance with subsection 42 (5) or subsection 44 (3), may reduce the regulatory burden applicable to facilities in this class.
- This standard contains requirements that relate to sources of contaminant associated with the following:

- Storage of mining material
- Material handling and processing
- Mills
- Tailings
- Return air rises
- Open pit mines
- Roads

- For this industry standard, with respect to nickel and nickel compounds, the publication of this industry standard indicates that the following criteria of paragraph 3 of subsection 38 (1) of O. Reg. 419/05 are met:

  (a) with respect to at least two facilities located in Ontario to which this standard applies, it is not economically feasible to comply with section 20 of O. Reg. 419/05,

  (b) compliance, in accordance with subsection 42 (5) of O. Reg. 419/05, with this standard,

  (i) is technically and economically feasible with respect to at least one facility located in Ontario to which this industry standard applies,

  (ii) will permit efforts that would otherwise be made to comply with section 19 or 20 of O. Reg. 419/05 to be put to better use to protect the natural environment, having regard to clause (a), and

  (iii) including this industry standard in the “Technical Standards to Manage Air Pollution” is more efficient than having the Director consider separate requests under section 32 of O. Reg. 419/05 to set site-specific standards for the contaminant that would otherwise apply to facilities in the class.

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PART I – GENERAL

Definitions

1. (1) For the purposes of this industry standard,

"Act" means the *Environmental Protection Act*;

"air pollution control device" means equipment used to remove a contaminant from a gaseous stream;

"backfill" means material used to fill voids created by mining excavation;

"baghouse" means an air pollution control device that uses a fabric bag or cartridge filter to remove a contaminant from a gaseous stream;

"Best Practices Procedure" means the collection of records required to be made and maintained under section 46 of this industry standard;

"cold weather day" means any day between November 1 and April 30 of the following year, inclusive, and any other day on which a mean hourly air temperature at the mining facility is predicted to be less than 0 degrees Celsius;

"concentrate" means valuable material extracted from ore;

"conveyor" means equipment, other than a vehicle, used to transport material from one piece of equipment or location to another piece of equipment or location;

"District Manager" means the District Manager of the local district office of the Ministry, where the mining facility is located;

"existing mining facility" means a mining facility for which,

(a) the construction began before July 1, 2016, or

(b) an application for an environmental compliance approval in respect of all or part of the facility was made before July 1, 2016;

"facility" means all plants, structures, equipment, apparatuses, mechanisms or things, including surfaces and storage piles, that function as an integrated operation on a site and for which a registered person has ownership, management or control;

"fine mining material" means mining material that is predominantly less than two inches in diameter;

"high risk road segment" means all or part of a road identified in accordance with subsection 17 (1) and includes the adjacent shoulders;

"Inspection and Maintenance Summary Table" means the table prepared and maintained in accordance with section 31;

"licensed engineering practitioner" means a person who holds a licence, limited licence or temporary licence under the *Professional Engineers Act*;

"Managed Originating Sources Table" means the table prepared and maintained in accordance with section 34;

"management method" means the use of one or more procedures, equipment, things or techniques to prevent, minimize or reduce the discharge of a registered contaminant from an originating source;

"mining facility" means a facility that is primarily engaged in mining, beneficiating or otherwise preparing nickel or nickel-copper ore and other activities described by NAICS code 212232 (Nickel-copper ore mining) or 212233 (Copper-zinc mining);

"mining material" means geological material obtained through mining processes and includes ore-bearing and non-ore bearing rock, but does not include concentrate or tailings;

"new mining facility" means a mining facility,

(a) the construction of all parts of which began on or after July 1, 2016, and

(b) for which no application for an environmental compliance approval for any part of the facility was made in respect of the facility before July 1, 2016;

"Operating Parameter Summary Table" means the table prepared and maintained in accordance with section 22;

"open-pit mine" means an excavation made at the surface of the ground for the purpose of extracting mining material such that the whole excavation is open to the surface;

"O. Reg. 419/05" means Ontario Regulation 419/05 (Air Pollution – Local Air Quality) made under the Act;

"originating source" means a piece of equipment, place or thing that discharges a registered contaminant, whether the discharge is into the natural environment or into an enclosed building, structure, equipment, or other place or thing;

"Particulate Matter Visual Inspection Summary Table" means the table prepared and maintained in accordance with section 28;

"prevailing wind" means the wind direction most frequently observed at a specified location;

"registered contaminant" means a contaminant for which a registered person is registered in respect of this industry standard;

"registered person" and "person registered" mean a person who is registered on the Ministry's Technical Standards Registry – Air Pollution in respect of this industry standard, a mining facility and one or more contaminants listed in Appendix 8-A (All Contaminants);

"site", with respect to a facility, means the property on which the facility is located;

"Site Plan" means the diagram set out in the Best Practices Procedure and required by section 46;

"suspended particulate matter" means particulate matter that has an aerodynamic diameter of less than 44 microns;

"tailings" means the material remaining after the extraction of concentrate from ore;

"transfer point" means a location where mining material, concentrate or tailings intended to be used as backfill is transferred between equipment, vehicles, or railcars;

"wet scrubber" means an air pollution control device used to remove a contaminant through the use of a scrubbing liquid.

(2) For greater certainty, a site may contain more than one mining facility.

(3) For greater certainty, the definition of "mining facility" in subsection (1) does not include a facility described in NAICS code 331410 (Non-ferrous metal (except aluminum) smelting and refining).

(4) For greater certainty, the meaning of "management method" as defined in subsection (1) includes the use of the following,

(a) an air pollution control device;

(b) the selection and use of equipment that prevents, minimizes or reduces the discharge of a registered contaminant;

(c) the operation of a process or equipment in a manner that prevents, minimizes or reduces the discharge of a registered contaminant;

(d) the selection and use of materials that prevents, minimizes or reduces of the discharge of a registered contaminant;

(e) dust suppressants; and

(f) natural and artificial wind barriers.

(5) A reference in this industry standard to a place listed in this subsection is a reference to any point on the property on which one or more of the following places is located, unless the place is located on the same site as the mining facility:

1. A place referred to in subsection 30 (8) of O. Reg. 419/05.

2. A place used, in whole or in part, for recreational activities or gatherings of people for civic, religious or social purposes.

(6) Words and expressions used in this industry standard have the same meaning as in the Act and O. Reg. 419/05, unless the context requires otherwise.

(7) In this industry standard, a reference to the Director means,

(a) the Director appointed under section 5 of the Act in respect of the section of this industry standard in which the reference appears; or

(b) if no Director described in clause (a) has been appointed in respect of a provision other than a provision mentioned in clause (b), any Director appointed under section 5 of the Act in respect of section 27.1 or paragraph 3 of subsection 11 (1) of O. Reg. 419/05.

Application

2. A registered person who is registered with respect to a facility set out in Column 1 of Table 8-2 and one or more of the contaminants listed in an Appendix set out in Column 2 of Table 8-2, shall comply with the sections set out opposite the Appendix in Column 3 of Table 8-2 that apply in respect of the person.

TABLE 8-2: Application

Item	Column 1 Facility Type	Column 2 Appendix	Column 3 Applicable Sections
1.	Mining facility	Appendix 8-A (All Contaminants): All Contaminants	1-4, 7-10, 13-14, 16-50
2.	Mining facility	Appendix 8-B (Metals): Metals	5-6, 11-12, 15

Tables, initial preparation

3. (1) A registered person shall ensure that the first version of each of the following tables required under this industry standard are prepared no later than the applicable date indicated for the table:

1. The Operating Parameter Summary Table: the earlier of,
    i. three months from date that the first plan is approved by the Director in respect of the mining facility under section 22; and
    ii. January 1, 2019.
2. The Particulate Matter Visual Inspection Table: May 1, 2019.
3. The Inspection and Maintenance Summary Table: May 1, 2019.
4. The Managed Originating Sources Table: May 1, 2019.

(2) Information contained in a table required to be prepared and maintained by this industry standard shall be current to the date that the table was prepared or amended.

PART II – MINING MATERIAL AND CONCENTRATE STORAGE

Mining material storage piles – requirements

4. (1) This section applies to mining material which may contain or discharge a registered contaminant, except material which is stored in accordance with section 5.

(2) A registered person shall ensure that mining material referred to in subsection (1) is stored in a manner that meets both paragraph 1 and 2 or paragraphs 1 and 3, as follows:

1. The surface of the material,
    i. is coated with a chemical dust suppressant, or
    ii. contains sufficient moisture to prevent the discharge of suspended particulate matter into the air.
2. The material is protected from wind by at least one of the methods described in subsection (3) if it is stored one kilometre or more from a place described in subsection 1 (5).
3. The material is protected from wind by at least two of the methods described in subsection (3) if it is stored less than one kilometre from a place described in subsection 1 (5).

(3) The methods to be used to protect material from wind for the purposes paragraphs 2 and 3 of subsection (2) are:

1. Shielding the material from wind through the use of a wind barrier, including trees, a fence, or a natural feature.

2. Storing the material such that its longitudinal axis is parallel to the prevailing wind direction.

3. If the mining material is stored in an open-pit mine at the mining facility, the stored mining material is below grade.

4. The stored mining material is surrounded by walls on three sides and is below the height of the lowest wall.

5. A method that, in the opinion of the Director, reduces the discharge of suspended particulate matter from the stored material.

(4) Paragraphs 2 and 3 of subsection (2) do not apply to mining material stored at an existing mining facility before January 1, 2019.

(5) A registered person shall ensure that each time water or chemical dust suppressant is applied to mining material for the purposes of this section a record is made containing the following information:

1. The date, time and location of the application.

2. The title of each personnel who assigned a person to apply water or chemical dust suppressant to the mining material.

3. If chemical dust suppressant was applied to stored fine mining material, the type of dust suppressant applied and quantity applied.

Storage of fine mining material

5. (1) A person registered in respect of a new mining facility shall ensure that stored fine mining material that may contain a registered contaminant set out in Appendix 8-B (Metals) is stored inside an enclosed building.

(2) On and after July 1, 2019, a person registered in respect of an existing mining facility shall ensure that fine mining material that may contain a registered contaminant set out in Appendix 8-B (Metals) that is stored less than one kilometre from a place described in subsection 1 (5) is stored inside an enclosed building.

(3) Despite subsection (2), the fine mining material may be stored in a structure with a roof and at least three sides or within a structure that is a half dome if the structure existed prior to July 1, 2019 and has continually been used to store fine mining material.

Storage of concentrate

6. On and after July 1, 2020, a registered person shall ensure that all concentrate that may contain a registered contaminant set out in Appendix 8-B (Metals) and that is stored at the mining facility, is stored inside an enclosed building.

PART III – MATERIAL HANDLING AND PROCESSING

Transfer points – requirements

7. (1) A registered person shall ensure that, at least once per day, the ground at each outside transfer point at the mining facility is cleaned of mining material, concentrate, and tailings.

(2) On and after July 1, 2019, if a transfer point at the mining facility where concentrate is transferred is located inside an enclosed building, a registered person shall ensure registered contaminants discharged during the transfer are conveyed to a baghouse or wet scrubber.

(3) Subject to subsection (4), a registered person shall not load or cause or permit the loading of fine mining material or concentrate at the mining facility that may contain a registered contaminant listed in Appendix 8-B (Metals) into a vehicle or railcar to be used for shipment unless,

(a) the discharge of the fine mining material or concentrate to air is limited during the transfer into the vehicle or rail car using curtains;

(b) the vehicle or rail car is loaded in a building; or

(c) if the material being loaded is fine mining material,

(i) the material contains sufficient moisture to prevent the discharge of suspended particulate matter into the air; or

(ii) registered contaminants discharged from the transfer are conveyed to a baghouse or wet scrubber.

(4) Subsection (3) does not apply to,

(a) the loading of fine mining material or concentrate at an existing mining facility before January 1, 2019;

(b) the loading of fine mining material at an existing mining facility at a transfer point that is located one or more kilometres from a place described in subsection 1 (5); and

(c) concentrate in the form of a slurry.

(5) A registered person shall ensure that each time a transfer point is cleaned as required by subsection (1) that a record is made of the date and time that the transfer point was cleaned.

Material handling – requirements

8. (1) A registered person shall ensure that all mining material and concentrate that may contain or discharge a registered contaminant and that is not handled in an enclosed building,

(a) is only handled if the wind speed is less than the maximum wind speed set out in the Best Practices Procedure for the location and the material or concentrate being handled; and

(b) on and after January 1, 2019, is handled in an area that is surrounded by a natural or artificial wind barrier.

(2) A registered person shall not use, or cause or permit the use of a conveyor to handle fine mining material that may contain or discharge a registered contaminant at an existing mining facility unless the conveyor,

(a) is enclosed in a building; or

(b) has a belt that is covered or curtained.

(3) Despite subsection (2), the management methods set out in that subsection are not required to be used if the conveyor is located one or more kilometres from a place described in subsection 1 (5) and the requirements of paragraph 1 or 2 are met:

1. If the conveyor was installed at the facility before July 1, 2019, water spray equipment is used such that the material contains sufficient moisture to prevent the discharge of suspended particulate matter into the air.

2. If the conveyor was installed at the facility on or after July 1, 2019, adjustable water spray equipment is used together with a variable speed conveyor such that the material contains sufficient moisture to prevent the discharge of suspended particulate matter into the air.

(4) Water spray equipment used for the purposes of subsection (3) is not required to be operated on a cold weather day.

(5) Subsection (2) does not apply to a conveyor if,

(a) the conveyor is being used before July 1, 2019; and

(b) the material contains sufficient moisture to prevent the discharge of suspended particulate matter into the air.

(6) A registered person shall not use or cause or permit the use of a conveyor to handle fine mining material that may contain or discharge a registered contaminant at a new mining facility unless the conveyor,

(a) is enclosed in a building; or

(b) has a belt that is covered.

(7) On and after July 1, 2019, a registered person shall not use or cause or permit the use of, a conveyor at the mining facility to handle concentrate that may contain or discharge a registered contaminant unless the conveyor,

(a) is enclosed in a building; or

(b) has a belt that is covered.

(8) Subsections (2), (6) and (7) do not apply to a conveyor attached to a vehicle.

Material processing – requirements

9. (1) A registered person shall ensure that the following materials are not crushed or screened outside if the wind speed is greater than the maximum wind speed recorded in the Best Practices Procedure for the location and the material being processed:

1. Mining material that may contain or discharge a registered contaminant.

2. Tailings that are intended to be used for backfill, if the tailings may contain or discharge a registered contaminant.

(2) A registered person shall not crush or screen, or cause or permit the crushing or screening of a thing described in paragraphs 1 and 2 of subsection (1) at the mining facility unless,

(a) registered contaminants discharged from the crushing or screening are conveyed to a baghouse; or

(b) the material is crushed or screened in an area that is surrounded by a natural or artificial wind barrier.

(3) Despite subsection (2), if the mining facility is an existing mining facility, the management methods set out in that subsection are not required to be used if water spray equipment is used to ensure that the material that is crushed, screened contains sufficient moisture to prevent the discharge of suspended particulate matter into the air.

(4) Water spray equipment used for the purposes of subsection (3) is not required to be operated on a cold weather day.

PART IV – MILLS

Mill operations – requirement to enclose

10. (1) A registered person shall not operate or cause or permit the operation of a crusher, screener or dryer to crush, screen or dry fine mining material unless the equipment is located inside an enclosed building.

(2) A registered person shall ensure that registered contaminants discharged from the operation of a crusher, screener or dryer used to crush, screen or dry fine mining material are conveyed to a baghouse or wet scrubber,

(a) on and after July 1, 2019, if any part of the building in which the crusher, screener or dryer is located is less than one kilometre from a place described in subsection 1 (5); or

(b) on an after July 1, 2020,

(i) if the crusher, screener or dryer was installed before July 1, 2020 and the registered contaminants are captured by a local exhaust ventilation system, or

(ii) if the crusher, screener or dryer was installed on or after July 1, 2020.

(3) A registered person shall ensure that, at least once per day, the area around each crusher, screener and dryer used to crush, screen or dry fine mining material and any related transfer points are cleaned of mining material.

(4) A registered person shall ensure that each time a crusher, screener, dryer or transfer point is cleaned as required by subsection (3) that a record is made of the date and time the area was cleaned.

Wet grinding

11. A registered person shall not grind fine mining material or cause or permit the grinding of fine mining material unless,

(a) wet grinding is used; or

(b) registered contaminants discharged during grinding are conveyed to a baghouse or wet scrubber.

Dewatering

12. (1) A registered person shall not operate or cause or permit the operation of a dewatering process in the production of a concentrate from mining material, unless one of the following processes are used:

1. A thickening process.
2. A process that passes slurry through a filter.
3. At an existing mining facility, drying the material using a thermal dryer installed at the facility before July 1, 2019.

(2) On and after July 1, 2019, the following requirements apply in respect of the use of a thermal dryer in accordance with paragraph 3 of subsection (1):

1. The dryer shall be operated at a temperature that is lower than 200°C.
2. Registered contaminants discharged from the dryer shall be conveyed to a baghouse.

PART V – TAILINGS AREAS

Tailings – operating requirements

13. (1) A registered person shall ensure that tailings that may contain or discharge a registered contaminant, other than tailings intended to be used for backfill, are stored in a manner that meets one or more of the following criteria:

1. The tailings are submerged in a tailings pond.
2. The surface of the tailings contains sufficient moisture to prevent the discharge of suspended particulate matter into the air.
3. The surface of the tailings is coated with a chemical dust suppressant.
4. The tailings are covered by a sufficiently thick layer of one or more of the following materials in order to prevent the discharge of suspended particulate matter into the air:
    i. A physical cover, such as a tarp.
    ii. Mulch.

iii. A lime slurry.

iv. Bio-solids.

v. Vegetation.

vi. Straw.

vii. Ice or snow.

(2) A registered person shall ensure that a wind barrier is located between a place described in subsection 1 (5) and any part of an area where tailings are stored that is located less than two kilometres from that place.

(3) Subsection (2) does not apply to tailings submerged in a tailings pond before July 1, 2019.

(4) A registered person shall ensure that after September 1 in each calendar year dust suppressant is applied to tailings that are not submerged in a tailings pond or covered by a material described in subparagraphs i through vi of subsection (2) at least once on or before the first cold weather day.

Storage of tailings to be used as backfill

14. A registered person shall ensure that tailings that are intended to be used as backfill are stored,

(a) in an area on the Site Plan identified as a tailings backfill storage area; and

(b) in a manner that meets the following criteria:

(i) The surface of the tailings,

(A) is coated with a chemical dust suppressant, or

(B) contains sufficient moisture to prevent the discharge of suspended particulate matter into the air.

(ii) In an area that is sheltered from the wind on at least three sides by a structure or natural feature other than vegetation, with the structure or natural feature extending to a height that is above the highest point of the stored tailings.

PART VI – RETURN AIR RISES

Return air rises

15. (1) A registered person shall ensure that any equipment that exhausts to the air from an underground mine that is installed one year or more after this industry standard first applies to the mining facility is,

(a) equipped with a system that uses a series of baffles or other similar equipment to reduce the velocity of its exhaust; and

(b) that the direction of the prevailing wind and the distance to any places set out in subsection 1 (5) are considered when setting the equipment's direction of discharge.

(2) For each piece of equipment to which this section applies, the registered person shall ensure that a record is made documenting the date of installation and how the requirements of clause (1) (b) were considered.

(3) This section does not apply to a registered person before July 1, 2019.

PART VII – OPEN PIT MINES

Extraction – requirements

16. (1) On and after January 1, 2019, a registered person shall not blast or cause or permit blasting within an open pit mine all of which is located two kilometres or more from a place described in subsection 1 (5) unless,

(a) the surface of the material to be extracted by the blast is covered by one or more blasting mats; or

(b) the maximum wind speed forecasted to occur during blasting activities is less than the maximum wind speed set out in in the Best Practices Procedure for the purposes of this section and the surface of the material to be extracted by the blast is sufficiently wet to prevent the discharge of a registered contaminant.

(2) On and after January 1, 2019, a registered person shall not blast or cause or permit blasting within an open pit mine any part of which is located less than two kilometres from a place described in subsection 1 (5) unless,

(a) the surface of the material to be extracted by the blast is covered by one or more blasting mats;

(b) there is a berm between the place described in subsection 1 (5) and the edges of the mine that are less than two kilometres from the place; and

(c) the surface area to be extracted by blasting is minimized to the extent practicable.

(3) Clause (2) (b) does not apply at an existing mining facility before July 1, 2020.

(4) At an open pit mine that did not exist before July 1, 2019, a registered person shall not drill or cause or permit drilling for the purposes of preparing an area for the extraction of material by blasting, unless,

(a) wet drilling is used; or

(b) the drill is equipped with dust collection equipment that is used to reduce the discharge of registered contaminants to air.

(5) A registered person shall ensure that when blasting is used within an open pit mine that a record is made containing the following information:

1. The date.
2. The time that blasting took place.
3. An indication whether the extraction area was covered by a blasting mat.
4. If the extraction area was not covered by a blasting mat in accordance with this Part, the wind speed and direction when blasting took place and the maximum wind speed set out in the Best Practices procedure for the purposes of this section.

PART VIII – ROADS

High risk road segments

17. (1) A registered person shall ensure that a record is made identifying all road segments at the mining facility that for the purposes of this industry standard are considered high risk road segments such that they may contribute in a significant way to a registered contaminant being discharged from the facility in a quantity that may adversely impact a place described in subsection 1 (5).

(2) The following criteria shall be considered when identifying high risk road segments for the purpose of subsection (1):

1. The speed that vehicles typically travel over the road segment.
2. The volume of vehicular traffic over the road segment.
3. The weight of the vehicles travelling on the road segment.
4. The distance between the road segment and a place described in subsection 1 (5).

5. The likelihood that the road segment will contribute to an increase or has contributed to an increase in the discharge of suspended particulate matter from the mining facility, including a consideration of the analysis made in accordance with section 43.

6. The likelihood that the road segment will be the subject of a complaint or has been the subject of a complaint in the preceding five-year period related to the discharge of suspended particulate matter.

7. The silt content or silt loading in relation to the road segment.

(3) A record required under this section shall be updated annually, but no later than March 31 in each year.

(4) A record has been updated for the purposes of subsection (3) if the information depicted on the Site Plan is current to December 31 in the preceding year.

(5) A record required by this section shall contain the following information:

1. The length, location, and surface materials of each high risk road segment that is part of the mining facility.

2. The criteria set out in subsection (2) and any other criteria that lead to a road segment being identified as a high risk road segment.

Signs, requirement to post

18. A registered person shall ensure that one or more signs indicating the following are posted so that they are visible to each direction of travel on each high risk road segment:

1. The maximum speed that a vehicle may travel on the road, in kilometres per hour.

2. A phone number that can be used to contact the mining facility in respect of suspended particulate matter discharged from the road segment or vehicles travelling on the road segment.

Vehicles using high risk roads – requirements

19. (1) A registered person shall ensure that each vehicle carrying mining material, tailings or concentrate meets the following requirements while traveling on a high risk road segment:

1. No mining material, tailings or concentrate is visible above the top of the portion of the vehicle in which the mining material, tailings or concentrate is carried.

2. Fine mining material or tailings carried in the vehicle is covered or contains sufficient moisture to prevent the discharge of suspended particulate matter into the air.

3. The vehicle does not exceed the speed limit indicated on a sign required under section 18.

(2) Paragraphs 1 and 2 of subsection (1) do not apply in respect of mining material, tailings or concentrate contained in a vehicle that is a front end loader.

New roads

20. (1) A registered person shall ensure that any high risk road segment constructed on or after January 1, 2019 and which part of it is located less than one kilometre from a place described in subsection 1 (5) is paved with a layer or layers of asphalt, concrete or asphalt emulsion.

(2) Subsection (1) does not apply to a road segment that is regularly used by overweight vehicles.

(3) For the purposes of this section,

"overweight vehicle" means a vehicle that is prohibited from being operated on a highway by Part VIII of the Highway Traffic Act.

Road maintenance

21. (1) A registered person shall ensure that the following actions are undertaken in respect of each high risk road segment:

1. For each part of the road segment that is paved,
    i. vacuum the part using a vacuum truck at a frequency that is equal to or greater than the minimum frequency recorded in the Best Practices Procedure; or
    ii. wash the part using high pressure water at a frequency that is equal to or greater than the minimum frequency recorded in the Best Practices Procedure.
2. Apply chemical dust suppressant or water to any unpaved parts of the road at a frequency that is equal to or greater than the minimum frequency recorded in the Best Practices Procedure.
3. For each part of the road segment that is unpaved, ensure that the surface is covered by aggregate material, compacted or graded at a frequency that is equal to or greater than the minimum frequency recorded in the Best Practices Procedure.

(2) A registered person shall ensure that a record is made containing the following information in respect of each high risk road segment:

1. The date a road segment is vacuumed or washed.

2. The date chemical dust suppressant or water is applied to it and the quantity applied.

3. The date aggregate material is added to its surface or its surface is compacted.

4. The date a high risk road segment is resurfaced.

PART IX – GENERAL OPERATION AND MAINTENANCE

Operating Parameter Summary Table

22. (1) A registered person shall ensure that a table titled "Operating Parameter Summary Table" is prepared and maintained in accordance with this section.

(2) Column one of the Operating Parameter Summary Table shall separately list each originating source within the mining facility that is described in Column 1 of Table 8-22.

(3) Columns two through six of the Operating Parameter Summary Table shall contain the following information in respect of each originating source listed in the table:

1. The associated management method or methods.

2. The operating parameter or parameters.

3. The measurement frequency for the operating parameter or parameters.

4. The measurement location for the operating parameter or parameters.

5. The normal operating range for the management method or methods.

(4) The information required to be set out in the Operating Parameter Summary Table by subsection (3) shall be determined in accordance with the text contained in Columns two through six of Table 8-22 that is set out opposite the related category of originating sources in Column 1 of that Table.

(5) Despite subsection 3 (1) and subsection (2) an originating source described in items 6 to 9 of Table 8-22 is not required to be listed in an Operating Parameter Summary Table before the later of the following dates:

1. January 1, 2019.

2. The day that is six months after the day that the related management method is installed.

(6) Despite paragraph 5 of subsection (3) and subsection (4), an Operating Parameter Summary Table shall contain the text "Not Applicable" in place of a normal operating range for an operating parameter in relation to an originating source described in items 1 to 5 of Table 8-21 | **Draft for consultation**

22 where the related originating source has been listed in the Operating Parameter Summary Table for less than three years and the Director,

(a) has not required the registered person under subsection (19) to use an alternative source of monitoring data for determining the normal operating range for the operating parameter in a plan approved under this section; or

(b) has required the registered person under subsection (19) to use an alternative source of monitoring data for determining the normal operating range for the operating parameter in a plan approved under this section, but the data set necessary to make the calculations required for the purpose of subsection (7) does not yet contain data for three years.

(7) The upper end of a normal operating range for an applicable month for the purposes of Column 6 of Table 8-22 in relation to an originating source described in items 1 to 5 of Table 8-22 that has been listed in the Operating Parameter Summary Table for less than three years and for which the Director has required the registered person under subsection (19) to use an alternative source of monitoring data for determining the normal operating range for the operating parameter in a plan approved under this section shall be determined by applying the following:

$$\text{value} = \frac{M1+M2+M3}{3} * 1.25$$

where,

For each applicable month in the preceding three years for which measurements were taken in accordance with subsection 23 (1) in respect of the originating source, the values of M1, M2 and M3 shall be determined using the respective monthly average calculated under subsection 23 (2) in the preceding one, two or three calendar years; and

For each applicable month in the preceding three years for which measurements were not taken in accordance with subsection 23 (1) in respect of the originating source, for each of the values of M1, M2, and M3 that where not determined under the previous paragraph, the values shall be determined using a monthly average calculated from measurements taken in respect of the originating source under a monitoring program that in the Director's opinion is suitable for that purpose.

(8) The upper end of a normal operating range for an applicable month for the purposes of Column 6 of Table 8-22 in relation to an originating source described in items 1 to 5 of Table 8-22 that has been listed in the Operating Parameter Summary Table for three years or more shall be determined by applying the following:

$$\text{value} = \frac{M1+M2+M3}{3} * 1.25$$

where,

M1, M2 and M3 are the monthly averages calculated under subsection 23 (2) for the applicable month in the three preceding calendar years respectively.

(9) Where Table 8-22 requires that an operating parameter, measurement frequency for an operating parameter, measurement location for an operating parameter or a normal operating range for a management method be determined in accordance with a recommendation from a source set out in this subsection, the operating parameter, measurement frequency, measurement location or normal operating range shall be determined by using one of the following sources:

1. An operating and maintenance manual prepared by the related equipment manufacturer.
2. Written instructions provided by the related equipment supplier or equipment manufacturer.
3. Written advice from a licensed engineering practitioner that has relevant experience with respect to the subject matter of the recommendation, together with the rationale for the advice.

(10) If an operating parameter, measurement frequency, measurement location, or range of normal operating values set out in the Operating Parameter Summary Table is determined in accordance with a recommendation from a source set out in subsection (9), the source of the recommendation used shall also be set out in the Operating Parameter Summary Table.

(11) If an operating parameter, measurement frequency, measurement location or range of normal operating values set out in the Operating Parameter Summary Table is determined in accordance with a recommendation from a source set out in subsection (9), the Director may order a registered person in writing to amend the Operating Parameter Summary Table to substitute an operating parameter, measurement frequency, measurement location or range of normal operating values set out in the order if the Director is of the opinion that the amendment is appropriate to assess whether a management method is operating effectively.

(12) Despite any other requirement of this section, a registered person shall ensure that an Operating Parameter Summary Table is amended and maintained in accordance with an order made under subsection (11).

Mandatory changes to table

(13) If a change to the mining facility or the operation of the mining facility would affect the information contained in the Operating Parameter summary table or if a change to the table is necessary to allow for the accurate measurement and assessment of an operating parameter, the registered person shall ensure that the information contained in the table is updated within 30 days of the change being implemented.

(14) A registered person shall ensure that the information contained in column 6 of the Operating Parameter Summary Table in respect of an originating source described in items 1 to 5 of Table 8-22 is updated annually if the originating source has been listed in the table for three years or less.

Plan, measurement and normal operating ranges

(15) A registered person shall apply to the Director for approval of a plan specifying the procedures to be followed to provide for the accurate measurement of an operating parameter required to be listed in Column 3 of an Operating Parameter Summary Table in relation to an originating source described in items 1 to 5 of Table 8-22 and the Director may approve that plan.

(16) An application under subsection (15) that relates to an originating source shall contain all monitoring data related to that that source for the five years preceding the application.

(17) A plan required under this section shall be prepared in consideration of the following:

1. The location, size and orientation of the originating source.
2. The number of monitors and sampling points used and their proposed locations.
3. Proposed types of monitors and monitoring methods to be used.
4. Sampling frequencies and collection periods.
5. Proposed sampling and analysis methodologies.
6. The prevailing wind direction at the site.
7. The determination of recorded measurements.

8. The determination of normal operating ranges for the purposes of column 6 of the Operating Parameter Summary Table.

9. Determining whether a deviation has occurred for the purposes of section 25.

(18) For the purposes of a measurement required by subsection 23 (1) in respect of an operating parameter described in items 1 to 5 of Table 8-22, a plan required under this section need only require that measurements be taken in the period beginning May 1 and ending September 30.

(19) In approving a plan under this section the Director may require that the registered person use alternative monitoring data submitted in accordance with subsection (16) for the purposes of determining a normal operating range in accordance with subsection (7) and may specify how that data must be used for that purpose.

(20) A plan approved under this section shall be updated and submitted to the Director for approval if:

1. An originating source described in items 1 to 5 of Table 8-22 is to be added or removed from the Operating Parameter Summary Table.

2. A change is proposed to be made to the Operating Parameter Summary Table in respect of an originating source described in items 1 to 5 of Table 8-22.

3. It is necessary to amend the plan to provide for the accurate measurement of an operating parameter or for any other reason.

(21) Subsections (15) to (19) apply with necessary modifications to a proposed amendment to a plan submitted to the Director in accordance with subsection (20).

TABLE 8-22: Operating Parameter Summary Table

Item	Column 1 Originating source	Column 2 Management method	Column 3 Operating parameter	Column 4 Measurement frequency for the operating parameter	Column 5 Measurement location for the operating parameter	Column 6 Normal operating range for the management method or methods
1.	Areas where mining material is stored in accordance with Part II, excluding mining material stored in an enclosed building	Management methods described in the Best Practices Procedure that are associated with the originating source	The operating parameter is suspended particulate matter loading (mg/m^2) or concentration (ug/m^3)	The operating parameter shall be measured at a frequency determined in accordance with the plan described in subsection 22 (15)	The measurement location for the operating parameter shall be determined in accordance with the plan described in subsection 22 (15)	The normal operating range for the management method for any one month is less than or equal to the value determined in accordance with subsections 22 (7) and (8)

Item	Column 1 Originating source	Column 2 Management method	Column 3 Operating parameter	Column 4 Measurement frequency for the operating parameter	Column 5 Measurement location for the operating parameter	Column 6 Normal operating range for the management method or methods
2.	Areas where tailings are stored in accordance with Part V, excluding tailings submerged in water	Management methods described in the Best Practices Procedure that are associated with the originating source	The operating parameter is suspended particulate matter loading (mg/m^2) or concentration (ug/m^3)	The operating parameter shall be measured at a frequency determined in accordance with the plan described in subsection 22 (15)	The measurement location for the operating parameter shall be determined in accordance with the plan described in subsection 22 (15)	The normal operating range for the management method for any one month is less than or equal to the value determined in accordance with subsections 22 (7) and (8)
3.	Areas where mining material, concentrate, or tailings that are intended to be used for backfill, is handled or processed in accordance with Part III, excluding mining material, concentrate, or tailings stored in an enclosed building	Management methods described in the Best Practices Procedure that are associated with the originating source	The operating parameter is suspended particulate matter loading (mg/m^2) or concentration (ug/m^3)	The operating parameter shall be measured at a frequency determined in accordance with the plan described in subsection 22 (15)	The measurement location for the operating parameter shall be determined in accordance with the plan described in subsection 22 (15)	The normal operating range for the management method for any one month is less than or equal to the value determined in accordance with subsections 22 (7) and (8)
4.	Portions of unpaved road segments that are high risk road segments	Management methods described in the Best Practices Procedure that are associated with the originating source	The operating parameter is suspended particulate matter loading (mg/m^2) or concentration (ug/m^3), or silt content (percentage by weight)	The operating parameter shall be measured at a frequency determined in accordance with the plan described in subsection 22 (15)	The measurement location for the operating parameter shall be determined in accordance with the plan described in subsection 22 (15)	The normal operating range for the management method for any one month is less than or equal to the value determined in accordance with subsections 22 (7) and (8)
5.	Portions of paved road segments, excluding unpaved road shoulders, that are high risk road segments	Management methods described in the Best Practices Procedure that are associated with the originating source	The operating parameter is suspended particulate matter loading (mg/m^2) or concentration (ug/m^3) or silt loading (mg/m2)	The operating parameter shall be measured at a frequency determined in accordance with the plan described in subsection 22 (15)	The measurement location for the operating parameter shall be determined in accordance with the plan described in subsection 22 (15)	The normal operating range for the management method for any one month is less than or equal to the value determined in accordance with subsections 22 (7) and (8)
6.	Originating source associated with a baghouse used in respect of a registered contaminant	Baghouse used in respect of a registered contaminant	The operating parameter is pressure differential	The operating parameter shall be measured daily	The measurement locations for the operating parameter are the baghouse inlet and the baghouse outlet	The normal operating range for the management method shall be determined in accordance with a recommendation from a source set out in subsection 22 (9)

Item	Column 1 Originating source	Column 2 Management method	Column 3 Operating parameter	Column 4 Measurement frequency for the operating parameter	Column 5 Measurement location for the operating parameter	Column 6 Normal operating range for the management method or methods
7.	Originating source associated with a wet scrubber used in respect of a registered contaminant	Wet Scrubber used in respect of a registered contaminant	The operating parameters are the scrubbing liquid flow rate and pressure differential	The operating parameter shall be measured daily	The measurement location for the operating parameter shall be determined in accordance with a recommendation from a source set out in subsection 22 (9)	The normal operating range for the management method shall be determined in accordance with a recommendation from a source set out in subsection 22 (9)
8.	Low temperature dryer used in respect of a registered contaminant	Low temperature dryer used in respect of a registered contaminant	The operating parameter is temperature	The operating parameter shall be measured continuously	The measurement location for the operating parameter shall be determined in accordance with a recommendation from a source set out in subsection 22 (9)	The normal operating range for the management method is less than 200 degrees Celsius
9.	Originating source associated with an air pollution control device used in respect of a registered contaminant that is not otherwise described in items 1 through 7	Air pollution control device used in respect of a registered contaminant	The operating parameter shall be determined in accordance with a recommendation from a source set out in subsection 22 (9)	The measurement frequency shall be determined in accordance with a recommendation from a source set out in subsection 22 (9)	The measurement location for the operating parameter shall be determined in accordance with a recommendation from a source set out in subsection 22 (9)	The normal operating range for the management method shall be determined in accordance with a recommendation from a source set out in subsection 22 (9)

Measurement of operating parameters

23. (1) A registered person shall ensure that each operating parameter set out in Column 3 of the Operating Parameter Summary Table is measured at the frequency and location set out for the operating parameter in Columns 4 and 5 of the Table and in accordance with a plan prepared in accordance with section 22.

(2) No later than the last day in each month, the registered person shall ensure that a monthly average measurement is calculated for the preceding month for each location at which an operating parameter is measured for items 1 to 5 of Table 8-22.

(3) A registered person shall ensure that a record is made containing the following information for each measurement required to be taken under subsection (1):

1. The value of the measurement.

2. The date on which the measurement was taken.

3. For each measurement taken in relation to an originating source described in items 1 to 5 of Table 8-22 the following information:

    i. The location at which the measurement was taken.

    ii. The start and end date for the taking of each sample used to determine the measurement, and the duration in number of days over which each sample was taken.

(4) A registered person shall ensure that a record is made of each monthly average calculated under subsection (2).

(5) A measurement required by this section in respect of a baghouse shall not be taken during a bag cleaning cycle.

Phase-in of deviations for certain operating parameters

24. Subsection 25 (1) does not apply in respect of an originating source set out in the Operating Parameter Summary Table that is described in items 1 to 5 of Table 8-22 and for which subsection 22 (6) requires column 6 in respect of that originating source to contain the text “Not Applicable”.

Deviations from normal operating range

25. (1) If a deviation occurs in accordance with this section in respect of an originating source set out in the Operating Parameter Summary Table, the registered person shall ensure that one or more operational adjustments are made in respect of the originating source as soon as practicable such that the operational adjustments prevent the continuation of the deviation.

(2) A deviation occurs for the purposes of this section in respect of an originating source in each of the following scenarios.

1. A measurement relates to an originating source described in items 1 to 5 of Table 8-22 and a monthly average calculated for the operating parameter under subsection 23 (2) exceeds the normal operating range for the operating parameter for the month.

2. A measurement relates to an originating source described in items 6 to 9 of Table 8-22 and a measured value of the operating parameter taken under subsection 23 (1) is outside of the normal operating range for the operating parameter.

(3) If one or more operational adjustments are required to be made under this section in respect of an originating source described in items 1 to 5 of Table 8-22, the registered person shall ensure that consideration is given to taking one or more of the following actions:

1. Reduce the surface area of stored mining material by combining mining material stored separately.
2. Reduce the number of transfer points.
3. Reduce the height from which mining material or concentrate is dropped from equipment, including conveyor belts, mechanical shovels and mechanical grabs.
4. Reduce the speed of an adjustable speed conveyor.
5. Increase the water application rate on a conveyor.
6. Cover railcars used to transport fine mining material or concentrate.
7. Reduce the maximum wind speed at which mining material or concentrate may be handled, crushed or screened for the purposes of section 8.
8. Reduce the maximum wind speed at which mining material or tailings that are intended to be used for backfill may be crushed or screened for the purposes of section 9.
9. Reduce the maximum forecasted wind speed beyond which blasting activities in an open pit mine will not be initiated for the purposes of section 16.
10. Increase the minimum frequency at which a paved high risk road segment is vacuumed for the purposes of section 21.
11. Increase the minimum frequency at which a paved high risk road segment is washed using high pressure water for the purposes of section 21.
12. Increase the minimum frequency at which chemical dust suppressant or water is applied to a unpaved high risk road segment for the purposes of section 21.
13. Change the type of chemical dust suppressant applied to mining material, tailings or high risk road segments.
14. Increase the minimum frequency at which an unpaved high risk road segment is covered by aggregate material, compacted or graded for the purposes of section 21.

15. Re-evaluate which roads segments have been determined to be high risk road segments for the purposes of section 17.

16. Require any vehicle transporting or handling mining material or concentrate to drive over a wheel shaker before the vehicle leaves the mining facility.

(4) If an operational adjustment is required to be made under this section the registered person shall ensure that a record is made containing the following information:

1. The operating parameter and originating source to which the operational adjustments relate.

2. The management method or methods to which the operating parameter relates.

3. The normal operating range for the operating parameter.

4. The measurements that were outside of the normal operating range.

5. The date, time and duration of the measurements that were outside of the normal operating range.

6. An explanation of the suspected cause of measurements that were outside of the normal operating range.

7. A description of each operational adjustment made and the date each operational adjustment was completed.

8. The position title of each person who required another person to make an operational adjustment described in paragraph 7.

Alternative dust suppressant study

26. (1) The Director may order a registered person to test dust suppressants and report on their effectiveness at the mining facility if the Director is of the opinion that it is advisable to prevent or reduce the number of deviations that may occur within the meaning of subsection 25 (2).

(2) A report required under this section shall contain the following:

1. A list of the dust suppressants available for use at the mining facility.

2. A list of the dust suppressants tested at the mining facility in accordance with the order.

3. A description of the testing methodologies used.

4. The results of the tests.

5. An analysis of the effectiveness of each dust suppressant tested.

(3) A person who receives an order under subsection (1) shall submit the report required under this section to the Director not later than the date specified in the order.

Meteorological monitoring

27. A registered person shall ensure that a record is made containing the following information with respect to the weather at or near the mining facility:

1. The daily minimum and maximum temperature at the mining facility and forecasted for the following day.

2. The daily minimum and maximum wind speed at the mining facility and forecasted for the following day.

3. The prevailing wind direction at the mining facility over the course of a day and forecasted for the following day.

4. An indication of whether precipitation fell at the mining facility over the course of a day and whether precipitation is forecasted for the following day.

Particulate Matter Visual Inspection Summary Table

28. (1) A registered person shall ensure that a table titled “Particulate Matter Visual Inspection Summary Table” is prepared and maintained in accordance with this section.

(2) Column one of the Particulate Matter Visual Inspection Summary Table shall separately list each originating source at the mining facility that is described in Column 1 of Table 8-28.

(3) Columns two and three of the Particulate Matter Visual Inspection Table shall contain the following information in respect of each originating source listed in the table:

1. The inspection frequency taken from Table 8-28 that is set out opposite the related category of originating source.

2. The inspection objectives taken from Table 8-28 that are set out opposite the related category of originating source.

(4) A registered person shall ensure that where there has been a change to the operation of the mining facility that would necessitate an amendment to an Particulate Matter Visual Inspection Summary Table if subsection (2) or (3) were applied, that the Table is updated in accordance with this section within thirty days.

TABLE 8-28: Particulate Matter Visual Inspection Summary Table

Item	Column 1 Originating source	Column 2 Inspection Frequency	Column 3 Inspection Objective
1.	Stored fine mining material that is stored in a structure with a roof and at least three sides or within a structure that is a half dome, in accordance with subsection 5 (3)	Daily	No visible emission of particulate matter The area surrounding the stored fine mining material is free of loose fine mining material
2.	Stored mining material that is required to be stored in accordance with subsection 4 (1)	Daily from May 1 to October 31, inclusive	No visible emission of particulate matter The area surrounding the stored mining material is free of loose mining material The surface of the mining material contains sufficient moisture to prevent the discharge of suspended particulate matter or is coated with a chemical dust suppressant
3.	Stored mining material that is required to be stored in accordance with subsection 4 (1)	Once in every two week period from November 1 to April 30, inclusive	No visible emission of particulate matter The area around the stored mining material is free of loose mining material
4.	Tailings located less than two kilometers from a place set out in subsection 1 (5) and not submerged in a tailings pond	Twice daily	The surface of the tailings contains sufficient moisture to prevent the discharge of suspended particulate matter, is coated with a chemical dust suppressant, or is covered by one of the materials set out in paragraph 4 of subsection 13 (1) No visible emission of particulate matter
5.	Tailings located two or more kilometers from a place set out in subsection 1 (5) and that are not submerged in a tailings pond	Daily	The surface of the tailings contains sufficient moisture to prevent the discharge of suspended particulate matter, is coated with a chemical dust suppressant, or is covered by one of the materials set out in paragraph 4 of subsection 13 (1) No visible emission of particulate matter
6.	Tailings which are submerged in a tailings pond	Daily	Tailings are submerged
7.	A conveyor referred to in subsections 8 (2) or (3) that is not enclosed in a building or covered	Daily from May 1 to October 31, inclusive	The surface of the mining material contains sufficient moisture to prevent the discharge of suspended particulate matter No visible emission of particulate matter
8.	Areas in which mining material is handled	Daily	No visible emission of particulate matter
9.	A high risk road segment	Daily from May 1 to October 31, inclusive	The road segment is not damaged If the road segment is paved, the shoulder of the road segment is graded to ensure water drains away from the road
10.	A high risk road segment that is less than one kilometre from a place set out in subsection 1 (5)	Twice daily	No visible emission of particulate matter

Particulate matter visual inspection activities

29. (1) A registered person shall ensure that each originating source set out in Column 1 of the Particulate Matter Visual Inspection Summary Table is inspected at the frequency set out for the source to confirm whether the inspection objectives set out for the source have been met.

(2) A registered person shall ensure that a record is made containing the following information in respect of each inspection conducted for the purposes of this section:

1. The date of the inspection.
2. Whether the inspection occurred within the required frequency.
3. The inspection objectives that were not met.
4. The position title of each person who required another person to perform the inspection.

(3) On or before the fifth day of each month a registered person shall ensure that the record required by subsection (2) is reviewed to determine if each inspection required by this section to have been performed in the preceding month was performed at the required frequency.

(4) If it is determined that an inspection was not performed at the required frequency, the registered person shall ensure that a record is made containing the following information:

1. A description of the inspection that was to be performed.
2. The date on which the inspection was to be performed.
3. The reason the inspection was not performed at the required frequency.
4. A description of the actions to be taken to ensure that future inspections will be performed at the required frequency.
5. The position title of each person who required another person to take an action described in paragraph 4.

Deviations – particulate matter visual inspections

30. (1) If an inspection objective listed in the Particulate Matter Visual Inspection Table is confirmed to have not been met during an inspection required under section 29, the registered person shall ensure that one or more actions are taken forthwith until the inspection objective is met.

(2) A registered person shall ensure that the following actions are considered when determining which actions to take for the purposes of subsection (1):

1. Apply water or chemical dust suppressant to stored mining material, tailings or a high risk road segment.

2. Reduce the speed of an adjustable speed conveyor.

3. Increase the water application rate on a conveyor.

4. Clean the paved portion of a high risk road segment with a vacuum truck or water.

(3) A registered person shall ensure that any deposit of particulate matter on a paved portion of a high risk road segment that is located less than one kilometre from a place described in subsection 1 (5) that is observed during an inspection required under this Part is cleaned by vacuuming the road segment with a vacuum truck.

(4) If an action is required to be taken under subsections (1) or (3), the registered person shall ensure that a record is made containing the following information in respect of each action taken:

1. The date of the inspection.

2. The inspection objective or objectives that were not met.

3. The suspected reason the inspection objective or objectives were not met.

4. A description of each action taken, and that will be taken if applicable, to ensure the inspection objective or objectives are met.

5. The date on which each action mentioned in paragraph 4 was or will be taken.

6. The title of each person who required another person to take an action that was taken or will be taken.

Inspection and Maintenance Summary Table

31. (1) A registered person shall ensure that a table titled “Inspection and Maintenance Summary Table” is prepared and maintained in accordance with this section.

(2) Column one of the Inspection and Maintenance Summary Table shall separately list,

(a) each management method employed at the mining facility that is described in items 1 to 9 of column 1 of Table 8-31; and

(b) every other piece of equipment employed at the mining facility that is described items 10 to 12 of Table 8-31.

(3) Columns two and three of the Inspection and Maintenance Summary Table shall contain the following information in respect of each management method or piece of equipment listed in the table:

1. The inspection frequency.

2. The maintenance objectives taken from Table 8-31 that are set out opposite the related category of management method or equipment.

(4) The information required to be set out in the Inspection and Maintenance Summary Table by paragraph 1 of subsection (3) shall be determined by applying the text contained in Column 2 of Table 8-31 that is set out opposite the related category of management method or equipment in Column 1 of that Table.

(5) Where an inspection frequency may be determined in accordance with a recommendation from a source set out in this subsection, the frequency shall be taken from one of the following sources:

1. An operating and maintenance manual prepared by the related equipment manufacturer.

2. Written instructions provided by the related equipment supplier or equipment manufacturer.

3. Written advice from a licensed engineering practitioner that has relevant experience with respect to the subject matter of the recommendation, together with the rationale for the advice.

(6) The Director may order a registered person to add to or amend any of the information in an Inspection and Maintenance Summary Table if the Director is of the opinion that the amendment is necessary to,

(a) prevent, minimize or reduce the discharge of a registered contaminant from an originating source; or

(b) ensure the normal operation of any item described in Column 1 of Table 8-31.

(7) Despite any other requirement of this industry standard, a registered person shall ensure that an Inspection and Maintenance Summary Table is amended and applied in accordance with an order made under subsection (6).

(8) A registered person shall ensure that where there has been a change to the operation of the mining facility that would necessitate an amendment to an Inspection and Maintenance

Summary Table if subsection (2) or (3) were applied, that the Table is updated in accordance with this section within thirty days.

TABLE 8-31: Inspection and Maintenance Summary Table

Item	Column 1 Management Method / Equipment	Column 2 Inspection Frequency	Column 3 Maintenance Objective
1.	A wind barrier related to a tailings storage area that is required by subsection 13 (2)	Monthly	No damage to wind barrier
2.	Water spray equipment used in respect of a conveyor handling fine mining material referred to in clause 8 (3)	Daily from May 1 to October 31	Water spray equipment is functioning
3.	Water spray equipment used in respect of a conveyor handling fine mining material referred to in clause 8 (3)	The inspection frequency for the management method shall be determined in accordance with a recommendation from a source set out in subsection 31 (5)	Water spray equipment is dispersing an amount of water, at a pressure and angle of distribution determined in accordance with subsection 31 (5)
4.	Curtains related to the handling of mining material that are referred to in clause 7 (3) (a)	Daily when mining material or concentrate is loaded into a vehicle or railcar	Curtain is correctly positioned Curtain is not damaged
5.	A wet scrubber	Monthly or an inspection frequency determined in accordance with a recommendation from a source set out in subsection 31 (5)	No fan housing drain is clogged No solids build-up or erosion on each fan No leaks anywhere in the wet scrubber system
6.	A baghouse	Weekly	No visual evidence of abnormal discharges.
7.	A baghouse	Monthly	Dust hopper is not likely to overflow
8.	A baghouse	At least once in every six-month period or an inspection frequency determined in accordance with a recommendation from a source set out in subsection 31 (5)	No visual evidence of damaged bags, cleaning mechanism components, dampers and spare parts are available if needed
9.	A baghouse	Annually or an inspection frequency determined in accordance with a recommendation from a source set out in subsection 31 (5)	No sign of corrosion on any weld, joint or seal All fasteners are tightly in place All welds, joints and seals are clean and painted to avoid rusting
10.	A return air rise that may emit a registered contaminant	The inspection frequency for the management method shall be determined in accordance with a recommendation from a source set out in subsection 31 (5)	No excessive accumulation of deposited material
11.	A monitoring device used to measure suspended particulate matter for the purposes of section 39	The inspection frequency for the management method shall be determined in accordance with a recommendation from a source set out in subsection 31 (5)	Monitoring device is taking measurements at least 95% of the time Monitoring device is measuring accurately

Item	Column 1 Management Method / Equipment	Column 2 Inspection Frequency	Column 3 Maintenance Objective
12.	A monitoring device not described in item 11 used to take a measurement required by this industry standard	The inspection frequency for the management method shall be determined in accordance with a recommendation from a source set out in subsection 31 (5)	Monitoring device is measuring accurately

Inspection and maintenance activities

32. (1) A registered person shall ensure that each management method or piece of equipment set out in Column 1 of the Inspection and Maintenance Summary Table is inspected at the frequency set out for the method or piece of equipment to confirm whether the maintenance objectives set out for the method or piece of equipment have been met.

(2) A registered person shall ensure that a record is made containing the following information in respect of each inspection conducted for the purposes of this section:

1. The date of the inspection.
2. Whether the inspection occurred within the required frequency.
3. The maintenance objectives that were not met.
4. The position title of each person who required another person to perform the inspection.

(3) On or before the fifth day of each month a registered person shall ensure that the record required by subsection (2) is reviewed to determine if each inspection required by this section to have been performed in the preceding month was performed at the required frequency.

(4) If it is determined that an inspection was not performed at the required frequency, the registered person shall ensure that a record is made containing the following information:

1. A description of the inspection that was to be performed, including the management method or equipment that was to be the subject of the inspection.
2. The date on which the inspection was to be performed.

3. The reason the inspection was not performed at the required frequency.

4. A description of the actions to be taken to ensure future inspections will be performed at the required frequency.

5. The position title of each personnel who assign a person to take an action mentioned in paragraph 4.

Deviations – inspection and maintenance

33. (1) If a maintenance objective listed in the Inspection and Maintenance Summary Table is confirmed to have not been met during an inspection required under section 32, the registered person shall ensure that one or more actions are taken without delay until the maintenance objective is met.

(2) If an action is required to be taken under subsection (1) the registered person shall ensure that a record is made containing the following information in respect of each action taken:

1. The date of the inspection.

2. The maintenance objective that was not met.

3. The reason the maintenance objective was not met.

4. A description of each action taken, and that will be taken if applicable, to ensure the maintenance objective or objectives is met.

5. The date on which each action mentioned in paragraph 4 was or will be taken.

6. The title of each person who required another person to take an action that was taken or will be taken.

PART X – REQUIREMENT TO CONTINUE THE USE OF MANAGEMENT METHODS TO MANAGE EMISSIONS

Managed Originating Sources Table

34. (1) A registered person shall ensure that a table titled the “Managed Originating Sources Table” is prepared and maintained in accordance with this section.

(2) The Managed Originating Sources Table shall contain the following information:

1. Column one shall list each originating source from which the discharge of a registered contaminant is prevented, minimized or reduced by a management method.

2. Column two shall describe the management methods used in respect of each originating source listed in column one.

(3) A management method described in column two of a Managed Originating Sources Table may be the same as a piece of equipment listed as an originating source in column one of the Table if the equipment is better at preventing, minimizing, or reducing the emission of a registered contaminant when compared to other equipment that it would have been reasonable to use.

(4) Despite subsection (3), column two of a Managed Originating Sources Table may contain more than one management method in respect of an originating source described in that subsection.

(5) A registered person shall ensure that where there has been a change to the operation of the mining facility that would necessitate an amendment to the Managed Originating Sources Table if subsection (2) were applied, that the table is updated in accordance with this section within thirty days.

Requirement to continue the management of originating sources

35. (1) A registered person shall not cease to use a management method associated with an originating source set out in the Managed Originating Sources Table, unless,

(a) the method is no longer required because the associated originating source has been removed; or

(b) the related originating source has not been removed and, after consideration of an application from the registered person, the Director has provided a written authorization to the registered person allowing the cessation of use or operation of the method.

(2) A Director shall only provide an authorization described in clause (1) (b) if one or both of the following are true:

1. Any emissions that may be attributable to the originating source without the management method being used are negligible.

2. The likelihood of an adverse effect being caused by an emission from the originating source is not increased if the management method were no longer being used.

Changes to managed originating sources

36. (1) A registered person shall not replace or cause or permit a person to replace a management method associated with an originating source set out in the Managed Originating Sources Table with another management method unless,

(a) the proposed method is at least as effective or better at reducing, minimizing or preventing the discharge of a registered contaminant than the method to be replaced; or

(b) after consideration of an application from the registered person, the Director has provided a written authorization to the registered person allowing the replacement of the method with the proposed method.

(2) A Director shall only provide an authorization described in clause (1) (b) if one or both of the following are true:

1. Any emissions that may be attributable to the originating source without either of the management methods being used are negligible.

2. The likelihood of an adverse effect being caused by an emission from the originating source is not increased if the management method were replaced by the proposed management method.

3. The effectiveness of the management method to be replaced and the proposed management method are comparable.

Management methods for new originating sources

37. (1) A registered person shall not establish or cause or permit a person to establish a new originating source at the mining facility that is the same as or similar to an originating source listed in the Managed Originating Sources Table unless a management method is used in accordance with subsection (2) to prevent, minimize or reduce emissions of a registered contaminant from the source.

(2) A management method used for the purposes of subsection (1) shall be a management method that is the same as or at least as effective or better at preventing, minimizing, or reducing the discharge of a registered contaminant than the most effective management method described in the Management Originating Source Table in respect of originating sources of the same type.

Application to originating sources addressed in Parts II to VIII

38. Sections 35 to 37 do not apply to a management method used in respect of an originating source if the method is used for the purposes of Parts II to VIII of this industry standard.

PART XI – COMMUNITY MONITORING

Measurement of suspended particulate matter and metals – community monitors

39. (1) A registered person shall ensure that the amount of suspended particulate matter in the air between each of the following originating sources and places described in subsection 1 (5) is measured and recorded in accordance with the requirements of this section:

1. Each place where mining material is required to be stored in accordance with Part II is stored other than in an enclosed building and every place described in subsection 1 (5) that is within one kilometre.

2. Each place where mining material required to be handled or processed in accordance with Part III is handled or processed and every place described in subsection 1 (5) that is within one kilometre.

3. A mill where fine mining material is crushed, screened or dried and every place described in subsection 1 (5) that is within one kilometre of that mill.

4. Each place where tailings are stored, other than tailings intended to be used as backfill, and every place described in subsection 1 (5) that is within two kilometres.

5. Each place where tailings intended to be used as backfill are handled, processed or stored and every place described in subsection 1 (5) that is within one kilometre.

6. Each open pit mine and every place described in subsection 1 (5) that is within two kilometres.

7. Each high risk road segment and every place described in subsection 1 (5) that is within one kilometre.

(2) A measurement of suspended particulate matter for the purposes of this section may be determined by measuring its concentration or loading.

(3) The measurements required by subsection (1) shall be taken in accordance with a plan approved by the Director that allows for the impact of a discharge of suspended particulate matter from an originating source on a place described in subsection 1 (5) to be evaluated for the purposes of this Part.

(4) A plan required under this section shall be prepared having regard to the following:

1. The location, extent and orientation of the originating source.
2. The number of monitors and their proposed locations.
3. The proposed monitoring method in relation to the originating source being evaluated.
4. The sampling frequency and collection period for each monitor.
5. The prevailing wind direction at the originating source.
6. The averaging period for each monitor.
7. Whether it is impractical to take specific samples at certain times of the year.

(5) A plan required under this section shall provide for the use of continuous monitoring equipment to measure suspended particulate matter discharged from an open pit mine described in paragraph 6 of subsection (1) that did not exist before July 1, 2016, with a sampling frequency that is not less than once in every minute and a daily averaging period.

(6) Monitoring equipment used to measure suspended particulate matter discharged from an open pit mine described in paragraph 6 of subsection (1) that did not exist before July 1, 2016 shall be in operation for at least ninety-five percent of each year.

(7) A plan required under this section that provides for the measurement of suspended particulate matter loading at a monitoring location, shall require a minimum of ten measurements each year.

(8) A registered person shall, at least once in every calendar year and in accordance with a plan required by subsection (3), determine the concentration of every registered contaminant set out in Appendix 8-B (Metals) at each monitoring location set out in the plan.

(9) For each measurement taken in relation to suspended particulate matter for the purposes of this section, the following record shall be made,

(a) if the monitor successfully measures the concentration or loading of suspended particulate matter and,

(i) the monitor is not a continuous monitor, the value of each measurement taken, or

(ii) the monitor is a continuous monitor, the daily average of the measurements taken each day;

(b) if the monitor cannot measure the concentration of suspended particulate matter because the sample is less than the monitor's detection limit, a value representing half of the monitor's detection limit; or

(c) if the monitor cannot measure the concentration or loading of suspended particulate matter for a reason other than the sample is less than the monitor's detection limit, a note indicating why the monitor failed to record a measurement.

(10) For each measurement taken in relation to the determination of the concentration of a registered contaminant set out in Appendix 8-B (Metals) for the purposes of this section, a record shall be made containing the concentration and related record of analysis from the laboratory.

Transition, first baseline calculation

40. No later than March 31 in the year that is three full calendar years after which this industry standard first applied to the mining facility, a registered person shall ensure that a baseline for the concentration or loading of suspended particulate matter at the mining facility is calculated in accordance with subsection 42 (4) for each monitoring location set out in a plan required by section 39.

Transition, application of baseline calculation and statistical analyses in sections 42 and 43

41. Sections 42 and 43 apply to a registered person on and after January 1 in the year that is four full calendar years after which this industry standard first applied to the mining facility.

Recalculation of baseline – community monitors

42. (1) No later than March 31 in each year but after the analysis required by section 43 has been completed, a registered person shall ensure that a baseline for the concentration or loading of suspended particulate matter at the mining facility is determined in accordance with this section for each monitoring location set out in a plan required by section 39.

(2) For the purposes of this section,

"baseline three-year average" means, in respect of a monitoring location, the mean of the natural logarithm of the measurements recorded under subsection 39 (9) that were last used for the purposes of subsection (4) to calculate a baseline for that location;

"preceding three-year average" means, in respect of a monitoring location, the mean of the natural logarithm of the measurements recorded under subsection 39 (9) in the preceding three calendar years.

(3) The baseline for a monitoring location for the year is:

1. If the baseline three-year average is less than or equal to the preceding three-year average, the most recent baseline used for the purposes of the calculations required under section 43.

2. If the baseline three-year average is greater than the preceding three-year average, a new baseline calculated in accordance with subsection (4).

(4) If a baseline for a monitoring location is required to be calculated in accordance with this subsection, the baseline is the value that is the square of the standard deviation determined by applying the following formulae:

$$S^2 = \frac{\sum_1^m (x_i - X)^2}{(m-1)}$$

where,

S^2 is the square of the standard deviation;

m is the total number of measurements recorded under subsection 39 (9) in the three calendar years for the monitoring location;

x_i is the natural logarithm of each measurement recorded under subsection 39 (9) in the preceding three calendar years for the monitoring location; and

X is the preceding three year average.

Statistical analysis – community monitors

43. (1) No later than March 31 in each year a registered person shall ensure that an annual determination is made in accordance with this section as to whether a statistically significant increase in the concentration or loading of suspended particulate matter occurred in the preceding year at each monitoring location set out in a plan under section 39.

(2) There has been a statistically significant increase in the concentration or loading of suspended particulate matter in the preceding calendar year at a monitoring location if the value calculated under subsection (3) is greater than the value determined under subsection (4).

(3) The value required to be calculated in accordance with this subsection is the test statistic determined by applying the following steps:

1. Calculate the square of the standard deviation determined by applying the following formulae:

$$S^2 = \frac{\sum_1^n (x_i - X)^2}{(n-1)}$$

where,

S^2 is the square of the standard deviation;

n is the total number of measurements recorded under subsection 39 (9) in the preceding calendar year at the monitoring location;

x_i is the natural logarithm of each measurement recorded under subsection 39 (9) in the preceding calendar year for the monitoring location; and

X is the mean of the natural logarithms of each measurement recorded under subsection 39 (9) in the preceding calendar year for the monitoring location.

2. Calculate the test statistic by applying the following formulae:

$$T = (Y - X)/\sqrt{({S_1}^2/m + {S_2}^2/n)}$$

where,

T is the test statistic;

Y is the mean of the natural logarithms of each measurement recorded under subsection 39 (9) in the preceding calendar year for the monitoring location;

X is the value of X last used under subsection 42 (4) to calculate a baseline for the monitoring location;

S_1 is the most recent baseline for the monitoring location determined under section 40 or subsection 42 (4) for the preceding year;

S_2 is the square of the standard deviation calculated under paragraph 1;

m is the value of m last used under subsection 42 (4) to calculate a baseline for the monitoring location; and

n is the total number of measurements recorded under subsection 39 (9) in the preceding calendar year for the monitoring location.

(4) The value required to be determined in accordance with this subsection is the test statistic determined by applying the following steps:

1. Calculate the degrees of freedom using the following equation:

$$v = [\ (S_1^{\ 2}/\ m + S_2^{\ 2}/n\ )^2]/[(S_1^{\ 2}/m)^2/(m-1) + (\ S_2^{\ 2}/\ n)^2/(n-1)]$$

where

(v) is the degrees of freedom; and

S_1, S_2, m and n have the same meanings as in paragraph 2.

2. Find the test statistic set out in Column 2 of Table 8-43 that is opposite the degrees of freedom calculated under paragraph 1.

TABLE 8-43: Statistical Analysis

Item	Column 1	Column 2
	Degrees of Freedom (v)	**Test Statistic (T) with level of significance (%) = 0.0005**
	1	636.6
	2	31.60
	3	12.92
	4	8.610
	5	6.869
	6	5.959
	7	5.408
	8	5.041
	9	4.781
	10	4.587
	11	4.437
	12	4.318
	13	4.221
	14	4.141
	15	4.073
	16	4.015
	17	3.965
	18	3.922
	19	3.883
	20	3.850
	21	3.819

Item	Column 1	Column 2
	Degrees of Freedom (v)	**Test Statistic (T) with level of significance (%) = 0.0005**
	22	3.792
	23	3.768
	24	3.745
	25	3.725
	26	3.707
	27	3.690
	28	3.674
	29	3.659
	30	3.646
	40	3.551
	60	3.460
	120	3.373
	∞	3.291

Community monitoring – baseline and statistical analysis records

44. A registered person shall ensure that the following information is recorded for each monitor required by the plan mentioned in subsection 39 (3):

1. Each community monitor baseline determined under sections 40 or 42.

2. The results of each calculation and determination made for the purposes of this Part.

3. Whether, in accordance with this Part, there has been a statistically significant increase in the concentration or loading of suspended particulate matter in the preceding calendar year at a monitoring location.

Notification – community monitoring

45. (1) A registered person shall ensure that, as soon as practicable, a provincial officer is notified in writing if it is determined in accordance with section 43 that there has been a statistically significant increase in the concentration or loading of suspended particulate matter at a monitoring location.

(2) No later than six months after notice is required to be given under subsection (1), the registered person shall ensure that the following written information is submitted to a provincial officer:

1. The measured and calculated values relating to the statistically significant increase in the concentration or loading of suspended particulate matter.

2. An explanation of the suspected cause of the statistically significant increase in the concentration or loading of suspended particulate matter.

3. A description of any steps taken or that will be taken to prevent, minimize or reduce the risk of future statistically significant increases in the concentration or loading of suspended particulate matter.

4. An indication of the date by which each step mentioned in paragraph 3 will be implemented.

5. A written explanation of how each step mentioned in paragraph 3 will prevent, minimize or reduce the risk of any future statistically significant increases in the concentration or loading of suspended particulate matter.

PART XII – SITE PLAN AND BEST PRACTICES

Particulate matter management – Best Practices Procedure

46. (1) A registered person shall ensure that a record titled "Best Practices Procedure" is prepared, maintained and implemented in accordance with this section and otherwise as required under this industry standard.

(2) A Best Practices Procedure shall include the following:

1. A Site Plan drawn to scale and that is at least current to December 31 of the preceding year and that shows the layout of the mining facility and the surrounding area, including the following:

    i. The boundaries of the site on which the mining facility is located.

    ii. Roads at the mining facility, including which portions are paved or unpaved, and which portions are high risk road segments.

    iii. Areas at the mining facility where mining material is stored, handled, crushed, or screened, and noting the related identifiers required under paragraph 3 for each storage area.

    iv. Areas at the mining facility where tailings that are not intended to be used as backfill and are subject to section 13 are stored and noting the related identifiers required under paragraph 3 for each storage area.

    v. Areas at the mining facility where tailings that are intended to be used as backfill and are subject to section 14 are stored and noting the related identifiers required under paragraph 3 for each storage area.

vi. The location of each outdoor conveyor, open pit mine, and natural or artificial wind barrier at the mining facility.

vii. The location of each return air rise exhaust described in subsection 15 (1), the direction of the exhaust, and the volumetric flow rate of the exhaust.

viii. The location of every originating source at the mining facility that is not located in an enclosed building other than those specifically required to be included on the site plan under this subsection.

ix. The location of any buildings or structures at the mining facility, including fences.

x. The location of each place described in subsection 1 (5) that is located less than one kilometre from the boundary of the site on which the mining facility is located and the distance of each place from the site.

xi. Each location at which an operating parameter is measured and that is set out in a plan approved under subsection 22 (15).

xii. Each location at which suspended particulate matter is measured and that is set out in a plan approved under section 39.

xiii. If meteorological equipment is operated at the mining facility for the purposes of obtaining the information required by section 27, the location of the equipment.

xiv. A wind rose showing prevailing wind direction at the mining facility.

xv. If the mining facility is deemed under subsection 4 (2) of the Regulation to be a single property that contains other facilities, the information described in sub-paragraphs i to xiv as it relates to the other facilities.

2. A list of each of the following storage areas at the mining facility:

   i. Each area where mining material to which section 4 applies is stored.

   ii. Each area where fine mining material to which section 5 applies is stored.

   iii. Each area where tailings to which sections 13 and 14 apply is stored.

3. The list prepared for the purposes of paragraph 2 shall include the following information for each storage area:

   i. A description of the storage area and the material stored.

ii. The sections of this industry standard that apply to the storage of the material and how the requirements of those sections are met.

iii. A unique identifier for each storage area.

iv. The minimum frequency with which water or chemical dust suppressant is applied to stored material or tailings, and if chemical dust suppressant is applied, the type of chemical dust suppressant.

4. A description of how the requirements of subsection section 7 are met for each transfer point where fine mining material or concentrate containing a registered contaminant listed in Appendix 8-B (Metals) is loaded into a vehicle or railcar.

5. The maximum wind speeds beyond which mining material or concentrate will not be handled at the mining facility outside of an enclosed building in accordance with subsection 8 (1), together with a rationale for each speed.

6. For each conveyor at the mining facility, a description of how the requirements of subsections 8 (2) or (3) are met.

7. The maximum wind speeds beyond which mining material or tailings intended to be used for backfill will not be crushed or screened at the mining facility outside of an enclosed building in accordance with subsection 9 (1), together with a rationale for each speed.

8. For each location where fine mining materials are ground at the mining facility, a description of how the requirements of section 11 are met.

9. For each dewatering process used in the production of a concentrate from mining material, a description of how the requirements of section 12 are met.

10. For each open pit mine located at the mining facility, the following information:

    i. For the extraction of surface material by blasting, a description of how the requirements of subsection 16 (1) are met together with the maximum forecasted wind speed beyond which blasting activities will not be initiated in accordance with subclause 16 (1) (b) (i), together with a rationale for that wind speed.

    ii. For the purposes of preparing an area for the extraction of material by blasting, a description of how subsection 16 (4) is complied with.

11. For each high risk road segment at the mining facility, the following information:

i. The maximum speed in kilometres per hour that vehicles are permitted to travel over it.

ii. For the portion of the road segment that is paved, the minimum frequencies at which it will be vacuumed or washed using high pressure water.

iii. For the portion of the road segment that is unpaved, the minimum frequency at which chemical dust suppressant or water is applied.

iv. For the portion of the road segment that is unpaved, the minimum frequency at which it will be covered by aggregate material, compacted or graded.

(3) Where this section requires that a maximum wind speed be recorded in the Best Practices Procedure in respect of an activity, the wind speed shall be one that, when the activity is engaged in, it is not likely to cause a visible emission of particulate matter.

(4) Where this section requires that a minimum frequency be stated in the Best Practices Procedure in respect of an activity, the frequency shall be one that if the activity were engaged in at that frequency it is likely to prevent a visible emission of particulate matter.

(5) The Best Practices Procedure shall be updated no later than March 31 in each year.

(6) Updates to the Best Practices Procedure shall, at a minimum, incorporate changes necessitated by the following considerations:

1. Preventing a deviation in respect of an originating source set out in the Operating Parameter Summary Table within the meaning of section 25.

2. Any operational adjustments taken during the preceding year as a result of a deviation within the meaning of section 25.

3. A report assessing dust suppressants prepared in accordance with section 26.

4. Meeting the inspection objectives set out in the Particulate Matter Visual Inspection Summary Table.

5. Actions taken during the preceding year in accordance with section 30 as a result of an inspection objective not being met.

6. Concentration and loading measurements taken in accordance with section 39.

(7) Any changes to the Best Practices Procedure shall be documented together with a rationale for the change, and shall include a description of,

(a) any changes made to the Site Plan and the reason for the change;

(b) any changes made to the Best Practices Procedure with respect to the information required by paragraphs 2 to 11 of subsection 46 (1) and the reason for the change; and

(c) any places referred to in subsection 1 (5) established during the year and that are located less than one kilometre from the mining facility.

(8) A registered person shall ensure that all workers at the mining facility receive such training as may be required to ensure an effective implementation of the Best Practices Procedure.

(9) A registered person shall ensure that a record is made of the following information with respect to the training provided in accordance with subsection (8):

1. The name of each person who has received the training.

2. Each date each person received the training.

(10) For the purposes of subsection (8), "worker" has the same meaning as in the *Occupational Health and Safety Act*.

PART XIII – COMPLAINTS, ANNUAL SUMMARY REPORTS AND RECORDS

Complaint procedure

47. (1) A registered person shall ensure that the following steps are taken in response to each complaint received in respect of the mining facility that relates to the discharge of a registered contaminant into the air:

1. A prompt response is provided to the complainant, unless the person requests that a response not be made or fails to provide contact information.

2. Appropriate actions are taken to address the cause of the complaint.

3. A written record of the complaint is made that includes the following information about the compliant and the event that is suspected to have led to the complaint:

    i. A description of the complaint.

    ii. The date and time that the complaint was received.

    iii. The date, time and suspected cause of the incident, including any originating source that may have contributed to the event.

iv. Ambient temperature and approximate wind direction and speed at the time of the incident and other general weather conditions.

v. A description of any actions taken to address the incident and the date each action was completed.

vi. A description of any actions taken to prevent a future incident of a similar nature and the date each action was completed.

vii. An indication of whether the complaint was in relation to a place referred to in subsection 1 (5) and, if so, any source of a registered contaminant located less than one kilometre from the place.

(2) If a complaint is made that relates to a registered contaminant or any other thing regulated under this industry standard, the registered person shall ensure that the Ministry's Spills Action Centre is notified of the complaint as soon as practicable after the complaint is made.

(3) No later than five days after notification is required to be given under subsection (2), the registered person shall ensure that the information described in subparagraphs 3 i, ii, iii and v of subsection (1) is submitted in writing to a provincial officer.

(4) The steps required to be taken under this section do not relieve a registered person from any other requirement imposed on the person in connection with the Act or any other legislation.

Summary reports

48. (1) A registered person shall ensure that annual summaries for each calendar year are made in accordance with this section.

(2) The annual summaries shall be completed by March 31 in the following year and contain information in respect of the previous calendar year.

(3) The annual summaries required under this section are the following:

1. A table titled "Implementation Summary Table" containing a summary of the provisions of this industry standard that apply to the mining facility, in accordance with section 2, and for each provision that applies,

   i. the date on which the provision first applied to the mining facility, and

   ii. if compliance with the provision has been achieved, the date on which compliance was achieved.

2. A table titled “Performance Summary Table” containing,

    i. the date and time each notification was given under section 45 in respect of a statistically significant increase in the concentration or loading of suspended particulate matter,

    ii. an indication of whether any orders were given by the Director under section 26 in respect of dust suppressants, and

    iii. an indication of whether any orders were given to the registered person under section 22 in respect of an amendment to the Operating Parameter Summary Table or under section 31 in respect of an amendment to the Inspection and Maintenance Summary Table.

3. A summary containing the information required in a record prepared for the purposes for subsection 46 (7).

4. A summary of the dates on which any steps were taken as described in paragraph 3 of subsection 45 (2) in relation to statistically significant increases in the concentration or loading of suspending particulate matter.

5. A summary of any changes made to the Operating Parameter Summary Table.

6. A summary of any changes made to the Inspection and Maintenance Summary Table.

7. A record titled “Summary of Deviations” containing,

    i. a summary of the information contained in the following records:

        A. A record made under subsection 25 (4) in relation to operational adjustments made in respect of a deviation.

        B. A record made under subsection 30 (4) in relation to actions taken in respect of a suspended particulate matter inspection objective that has not been met.

        C. A record made under subsection 33 (2) in relation to actions taken in respect of maintenance objectives that have not been met.

    ii. the number of deviations requiring an operational adjustment to have been made under section 25, the number of times that one or more actions were required to be taken under section 30 because an inspection objective was not met, and the

number of times that one or more actions were required to be taken under section 33 because a maintenance objective was not met,

iii. a comparison between the numbers reported under subparagraph ii and the numbers reported in the Summary of Deviations prepared under this section for the previous year,

iv. whether any one of the events described in subparagraph ii warrant an assessment of whether further action by the registered person is required, and

v. an assessment of whether one or more of the events described in subparagraph ii and any events that occurred in previous years are indicative of underlying chronic operational issues that need to be addressed and any actions taken to address those issues.

8. A graphical representation of each measurement required to be taken under section 23 in respect of the originating sources described in items 1 to 5 of Table 8-22.

9. A report titled the “Community Monitor Report” that sets out,

i. a map showing the following,

A. the location of each monitor required under a plan approved under section 39,

B. the location of each originating source associated with a monitor required under a plan approved under section 39, and

C. each place described in subsection 1 (5) that are associated with a monitor required under a plan approved under section 39,

ii. for each location at which the concentration or loading of suspended particulate matter is measured in accordance with section 39,

A. each measured concentration or loading of suspended particulate matter or, if a continuous monitor is used at the location, the calculated daily average concentration or loading of suspended particulate matter,

B. the results of the calculations required by section 43 to identify whether a statistically significant increase in the concentration or loading of suspended particulate matter occurred, and

C. the average of the suspended particulate matter concentration or loading measurements taken during the year and the average concentration or loading for the preceding five years,

iii. a summary of the records required by section 44, and

iv. for each location at which the concentration of a registered contaminant set out in Appendix 8-B (Metals) is determined in accordance with subsection 39 (8), each concentration determined for the purposes of that subsection during the year and the concentrations determined for the purposes of that subsection for the preceding five years.

10. A record titled “Annual Summary of Changes to Source Information” that contains information on any changes made during the previous year in respect of air pollution control devices and other management methods employed at the mining facility and listed in the Managed Originating Sources Table.

11. A table titled “Complaint Summary Table” that sets out the total number of complaints received under section 47 in respect of the mining facility in the year and the preceding year.

(4) The information contained in the records required under subsection (3) shall be certified as having been completed in accordance with the requirements of this industry standard and that the information contained in them is complete and accurate by the highest ranking person regularly present at the mining facility who has management responsibilities relating to the facility.

Public reporting

49. (1) A registered person shall ensure that the following information is made available for examination by any person without charge on a website for the mining facility and available for review during the regular business hours at the mining facility:

1. The Community Monitoring Report required by subparagraph 9 of subsection 48 (3).

2. An excerpted copy of the map required by subparagraph 9 i of subsection 48 (3).

3. An excerpted copy of the information required by sub-sub paragraph 9 ii C of subsection 48 (3).

4. An excerpted copy of the information required by sub paragraph 9 iv of subsection 48 (3).

5. The Implementation Summary Table and Performance Summary Table required by paragraphs 1 and 2 of subsection 48 (3).

(2) A registered person shall ensure that, if a person requests a written copy of the information required under subsection (1), that it is given, without charge, to the person within 15 days of the request.

(3) A registered person shall ensure that the information required to be made public under this section is updated at least once in every 12-month period and not later than March 31 in each year.

Record retention

50. (1) In addition to the requirements of section 165.1 (1) of the Act, a registered person shall ensure that the following records and previous versions of the records are made available at the mining facility to a provincial officer and a Director upon request:

1. A record required to be made under this industry standard, including procedures, measurements, notifications, tables, and reports;

2. A notice or order given to the registered person in respect of this industry standard.

3. Any documents related to the operation and maintenance of equipment used at the mining facility that is an originating source or monitor to which this industry standard applies.

(2) A record, notice or order described in paragraphs 1 and 2 of subsection (1) shall be retained for a minimum of five years from the date the record was created.

(3) A document describe in paragraph 3 of subsection (1) shall be retained for a minimum of five years from the date the equipment to which the record relates was last used at the mining facility.

(4) If a record is retained in electronic form, the Director or provincial officer may require that a copy of it be provided to him or her on paper or electronically, or both.

Appendix 8-A (All Contaminants)

Item	CAS No.	Contaminant
1	7440-36-0	Antimony
2	7440-38-2	Arsenic and compounds
3	7440-39-3	Barium – total water soluble
4	7440-41-7	Beryllium and compounds
5	7440-43-9	Cadmium and Cadmium Compounds
6	1305-78-8	Calcium Oxide
7	7440-47-3	Chromium and Chromium Compounds (Metallic, Divalent and Trivalent)
8	7440-48-4	Cobalt
9	7440-50-8	Copper
10	1309-37-1	Ferric Oxide
11	7439-92-1	Lead and Lead Compounds
12	7439-93-2	Lithium
13	1309-48-4	Magnesium Oxide
14	7439-96-5	Manganese and Manganese Compounds
15	7439-98-7	Molybdenum
16	7440-02-0	Nickel and Nickel Compounds
17	7782-49-2	Selenium
18	7440-22-4	Silver
19	-	Suspended Particulate Matter (< 44μm Diameter)
20	13494-80-9	Tellurium (except hydrogen telluride)

Item	CAS No.	Contaminant
21	7440-31-5	Tin
22	13463-67-7	Titanium dioxide
23	7440-62-2	Vanadium
24	7440-66-6	Zinc
25	7440-67-7	Zirconium (and compounds)

Appendix 8-B (Metals)

Item	CAS No.	Contaminant
1	7440-36-0	Antimony
2	7440-38-2	Arsenic and compounds
3	7440-39-3	Barium – total water soluble
4	7440-41-7	Beryllium and compounds
5	7440-43-9	Cadmium and Cadmium Compounds
6	1305-78-8	Calcium Oxide
7	7440-47-3	Chromium and Chromium Compounds (Metallic, Divalent and Trivalent)
8	7440-48-4	Cobalt
9	7440-50-8	Copper
10	1309-37-1	Ferric Oxide
11	7439-92-1	Lead and Lead Compounds
12	7439-93-2	Lithium
13	1309-48-4	Magnesium Oxide

Item	CAS No.	Contaminant
14	7439-96-5	Manganese and Manganese Compounds
15	7439-98-7	Molybdenum
16	7440-02-0	Nickel and Nickel Compounds
17	7782-49-2	Selenium
18	7440-22-4	Silver
19	13494-80-9	Tellurium (except hydrogen telluride)
20	7440-31-5	Tin
21	13463-67-7	Titanium dioxide
22	7440-62-2	Vanadium
23	7440-66-6	Zinc
24	7440-67-7	Zirconium (and compounds)