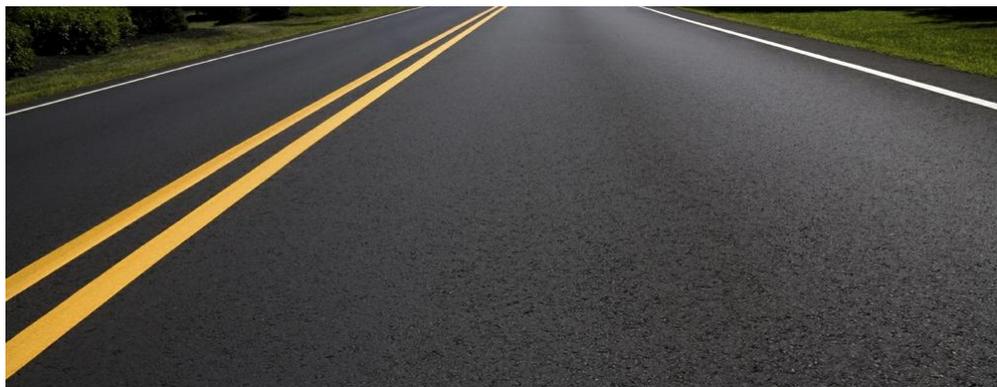


Environmental Guideline for Saskatchewan Asphalt Plants



Ministry of Environment
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Please note: The May 2014 version of this Guideline went through minor modifications to reflect the new Saskatchewan Environmental Code that became effective on June 1, 2015. The Saskatchewan Environmental Code is a results or outcome-based model for environmental regulation that provides directions for projects, allowing operators in many situations to proceed in an environmentally-friendly manner without unnecessary permits from the ministry, while holding proponents accountable for achieving important environmental outcomes.

OVERVIEW

This Guideline applies to all stationary and mobile asphalt plants located in Saskatchewan. This Guideline does not apply to hot-in-place asphalt recycling equipment. This Guideline replaces the ministry's Asphalt Plant Policy/Guideline of 2003.

In the past, permits to operate were issued for stationary asphalt plants under the authority of *The Clean Air Act* and *The Clean Air Regulations*. This is no longer the case. With the introduction of the Saskatchewan Environmental Code on June 1, 2015, *The Clean Air Act* and *The Clean Air Regulations* have been repealed. It is also important to note that the Industrial "Air" Source Chapter of the Saskatchewan Environmental Code does not regulate asphalt plants located in the province due to the lower environmental risks associated with asphalt plants when appropriate management practices are followed, such as those outlined in the Canadian Construction Association's (CCA) Environmental Best Practices Guide for Hot Mix Asphalt Plants (CCA83 - 2004). The CCA Guide provides owners and operators of hot mix asphalt plants with information and guidance related to the management of their plant assets in a more sustainable and environmentally-friendly fashion. The guide contains checklists that owners can use to improve their plant's environmental performance. This document is available free of charge for CCA members. Further, the *Environmental Management and Protection Act (EMPA) 2010* does not consider stationary or mobile asphalt plants to be an "industrial activity" as defined within the Act.

Asphalt plants can still be investigated by the ministry under the authority of the *Environmental Management and Protection Act (EMPA) 2010*. Should there be an adverse effect to the environment, due to the operation of a stationary or mobile asphalt plant, the ministry can conduct compliance investigations and, if required, issue a Control Order under the authority of Section 54 of *EMPA 2010* to instruct the owner of the plant to rectify problems in a reasonable manner and within an acceptable timeframe.

Proponents should also consider the potential applicability of The Environmental Assessment Act for asphalt facilities. When project proposals are received by the Environmental Assessment Branch (EAB), they are screened against criteria which assess the significance of potential environmental impacts of an activity and determine whether the project constitutes a "development" which is required to undergo an environmental impact assessment prior to proceeding. For more information on the criteria that define a "development" and to determine whether a project may warrant review by the EAB, proponents should review information regarding the Proponent Self-Assessment process located on the Environmental Assessment Branch website at <http://www.environment.gov.sk.ca/EnvironmentalAssessment>.

The purpose of this Guideline is to eliminate the ministry's former requirement of companies having to obtain permits/approvals for the construction and operation of stationary or mobile asphalt facilities, and to clarify minimum siting and operational requirements for stationary and mobile asphalt plants. It is the responsibility of asphalt plant owners and operators to ensure that the requirements of this Guideline are met. Isolation distance requirements for mobile plants and emission requirements for stationary asphalt plants are outlined below.

DEFINITIONS

Air pollution control system means an engineered air pollution control device(s) such as baghouses, scrubbers and cyclones, designed to collect particulate emissions.

Asphalt plant means any stationary or mobile facility in which asphalt concrete is produced by heating and drying aggregate and the mixing of dried aggregate with asphalt cement.

Control Order means an order issued pursuant to Section 54 of *EMPA 2010*.

EMPA 2010 means *The Environmental Management and Protection Act, 2010*.

EMPA (General) Regulations means *The Environmental Management and Protection Act (General) Regulations*.

Fugitive dust emissions means the presence in the ambient air of any particulate matter from sources other than pollution control equipment. Fugitive dust emissions may be generated from the delivery, storage and handling of aggregates or from general plant and yard activities.

Industrial activity means prescribed activity that is a source of air contaminants that may cause or are causing an adverse effect.

Ministry means the Saskatchewan Ministry of Environment.

Total particulate matter means dust and grit with a diameter less than 100 microns.

**GENERAL REQUIREMENTS FOR
STATIONARY AND MOBILE ASPHALT PLANTS**

1. Asphalt plants shall follow appropriate measures to prevent pollution and to ensure that:
 - a) the air pollution control system is serviced on regularly scheduled basis per manufacturer's specifications and upgraded, if necessary, in order to meet minimum particulate emission criteria levels;
 - b) the air pollution control system is operating to its normal efficiency rating when the associated process equipment is operational; and
 - c) the proper operational procedures, equipment maintenance and operator training are provided to ensure efficient performance of the equipment.
2. Companies shall not cause air contamination that creates an adverse effect as defined in Sections 2(1)(b) or 51(a) of *EMPA 2010*.
3. Excessive emissions of fugitive dust and/or odours from any part of the operation, which cause complaints, may necessitate in-stack and/or ambient air monitoring, and/or the installation of additional air pollution control equipment, or a Control Order being issued by the ministry under the authority of Section 54 of *EMPA 2010*.
4. The use of waste oil as supplementary fuel in the process would be defined as an industrial activity and requires a permit under Section 14 of the *EMPA (General) Regulations*.
5. On-site storage of hazardous substances and/or waste dangerous goods (e.g. diesel, asphalt, waste oil) may be subject to regulation under *The Hazardous Substances and Waste Dangerous Goods Regulations*, administered by the ministry if volume thresholds are eclipsed.
6. Companies shall not discharge or allow the discharge of a substance into the environment that may cause an adverse effect as defined in Sections 2(1)(b) or 51(a) of *EMPA 2010*. A substance that may cause an adverse effect can be solid, liquid, particulate or gas, and includes seepage, rainwater or storm water that is contaminated by the substance. Companies are encouraged to implement a wastewater and storm water management plant when deemed necessary. Unauthorized discharges must be reported and cleaned up in accordance with Sections 9 and 10 of *EMPA 2010*.
7. Spills of hazardous substances and waste dangerous goods must be reported and cleaned up in accordance with the Discharge and Discovery Chapter of the Saskatchewan Environmental Code.
8. All wastes must be disposed of in a manner acceptable to the ministry. No wastes shall be buried or burned on-site.

9. Companies are obliged to ensure all practical measures are taken to clean and/or remediate all equipment and property that may have been impacted by the plant's operation.
10. Ministry staff may visit the plant site at any reasonable time to inspect and assess the facility's operation.
11. Nuisance complaints may result in an investigation of the facility's operation, at the discretion of the ministry. If corrective actions taken by the owner or operator of the facility to remedy a concern are not to the satisfaction of the ministry, a Control Order may be issued by the ministry under the authority of Section 54 of *EMPA 2010*.
12. The owner or operator of the facility must ensure compliance with *EMPA 2010*, or any other applicable legislation such as the Saskatchewan Ministry of Labour Relations and Workplace Safety's *Occupational Health and Safety Act/Regulations*.
13. All applicable federal, provincial and local permits and approvals should be obtained and adhered to. It is incumbent upon the plant operator to ensure that all necessary written documentation is obtained from local jurisdictions (Cities, Towns and Villages and Rural Municipalities) prior to set up and commencement of operations.
14. Asphalt plant operators are encouraged to maintain operational logs, which may include:
 - a) Hours of plant operation
 - b) Air pollution control system operation and maintenance
 - c) Plant and process upsets, including upset duration, time of upset, wind direction, etc.
 - d) Amount and type of fuel(s) burned
 - e) Stormwater and wastewater management
 - f) Spill reporting and clean-up activities
 - g) Hazardous substances and waste storage
 - h) Mobile plant location and local authorization
 - i) Log of nuisance complaints and complaint follow-up
 - j) Control of on-site fugitive emissions
 - k) Decommissioning and reclamation activities
 - l) Stack testing results, if applicable
 - m) Air dispersion modeling results, if applicable
 - n) Membership in an air zone, if applicable
 - o) Other applicable operating details
15. All recorded information regarding the above requirements shall be kept by the owner or operator of the facility for at least 3 years and made readily available for the use of ministry staff during compliance investigations or nuisance complaints.
16. Reclamation shall be carried out in a manner acceptable to the ministry when stationary and mobile asphalt plants are decommissioned or re-located. Failure to do so may result in the ministry issuing a Control Order under the authority of Section 54 of *EMPA 2010* to the

owner or operator. Please refer to the ministry's Risk-Based Corrective Actions for Petroleum Hydrocarbon Impacted Sites (EPB 344).

MOBILE ASPHALT PLANTS

1. Mobile plant operators are required to choose remote locations from Villages, Towns and Cities. Isolation distance requirements for mobile plants are:
 - a) 4.8 kilometres or more from the boundary of any City;
 - b) 3 kilometres or more from the developed area of any recreational park;
 - c) 1.5 kilometres or more from the boundary of any Town, Village, or Hamlet;
 - d) 1 kilometre or more from any residence or business; and
 - e) 100 metres from any water course, unless otherwise approved.
2. Prior ministry approval of a mobile plant's location isn't required, notwithstanding the environmental assessment screening process and determination of a development as described in the Overview section.
3. Operating approvals for mobile plants aren't required to be obtained from the ministry.
4. At a minimum, mobile asphalt plants shall be equipped with cyclones to capture particulate emissions.

STATIONARY ASPHALT PLANTS

1. Asphalt plants sited in sensitive areas (e.g. native grasslands, near wetlands, etc.) have the potential to cause adverse environmental impacts. It is recommended that proponents review the Self-Assessment Checklist in Appendix A of the Technical Proposal Guidelines (<http://www.environment.gov.sk.ca/EATEchnicalProposalGuidelines>) when considering whether their project warrants review by the Environmental Assessment Branch.
2. Construction and operating approvals aren't required to be obtained from the ministry notwithstanding the environmental assessment screening process and determination of a development as described in the Overview section.
3. Minimum operating criteria that stationary asphalt plants must meet:
 - a) emissions of total particulate matter from dry exhaust stacks do not exceed a concentration of 0.25 grams per standard cubic meter, measured on a dry and undiluted basis; and
 - b) fugitive emissions of particulate matter at the facility are to be minimized.
4. All stationary asphalt plants must meet minimum criteria. Particulate emission control technology such as baghouses, wet scrubbers and cyclones can be employed to ensure minimum criteria are met.
5. Annual stack testing shall be performed under normal operating conditions to ensure the plant's total particulate matter emissions from each dry exhaust stack does not exceed a concentration of 0.25 grams per standard cubic meter.
6. Stack testing shall be conducted following approved Environment Canada or U.S. Environmental Protection Agency Reference Methodologies, or by such other method as approved by the ministry. A stack sampling survey shall consist of three separate tests.
7. Concentration exceedences of 0.25 grams per standard cubic meter are to be reported to the ministry within 10 working days with a plan to reduce emissions to meet the 0.25 grams per standard cubic meter requirement.