

**Government
of Alberta ■**

Code of Practice for Asphalt Paving Plants

*Made under the Environmental Protection and Enhancement
Act, RSA 2000, cE-12*

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CODE OF PRACTICE FOR ASPHALT PAVING PLANTS

ALBERTA ENVIRONMENTAL PROTECTION

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CODE OF PRACTICE FOR ASPHALT PAVING PLANTS
ALBERTA ENVIRONMENTAL PROTECTION

Preface

1(1) The Code of Practice for Asphalt Paving Plants is incorporated by the *Substance Release Regulation* (A.R. 124/93), under the authority of section 36 of the *Environmental Protection and Enhancement Act*. Persons responsible for plants affected by this Code must meet all its requirements to ensure that their activities are in compliance with Alberta's environmental laws. In addition to the requirements of this Code of Practice, persons responsible must comply with all requirements of the *Environmental Protection and Enhancement Act*, its associated regulations, and all other applicable laws.

(2) Persons responsible for plants affected by this Code must register with Alberta Environmental Protection prior to commencing operation of an asphalt paving plant. Section 4 of this Code deals with registration in greater detail.

Introduction

2(1) This Code of Practice outlines the minimum operating requirements that asphalt paving plants that produce hot or cold mix asphalt must meet to ensure environmental protection. Persons responsible for asphalt paving plants within the Province of Alberta must comply with these requirements. As well, persons responsible should consult with persons or parties that may be affected by the plant's operations.

(2) Questions or concerns regarding the application or contents of this Code of Practice can be made to:

Alberta Environmental Protection
Northeast Boreal & Parkland Regions
Regional Director
5th Floor, 9820 - 106 Street
Edmonton, AB T5K 2J6
Phone: (780) 427-5836
Fax: (780) 422-5120

or:

Alberta Environmental Protection
Northwest Boreal & Northern East Slopes Regions
Regional Director
203, 111 - 54 Street
Edson, AB T7E 1T2
Phone: (780) 723-8395
Fax: (780) 723-8542

or:

Alberta Environmental Protection
Southern East Slopes & Prairie Regions
Regional Director
201 Deerfoot Square
2938 – 11 Street N.E.
Calgary, AB T2E 7L7
Phone: (403) 297-7605
Fax: (403) 297-5944

Definitions

3(1) In this Code of Practice,

- (a) “asphalt paving plant” means a plant that manufactures asphalt through the mixing of aggregate and asphalt oil or recycled asphalt material, but does not include hot in-place recycling equipment;
- (b) “baghouse” means a device that removes particulates from air by passing the air through a fabric bag or paper cartridge filter;
- (c) “environmental log” means the environmental log format set out in Appendix “A” to this Code;
- (d) “fugitive dust emissions” means dust emissions to the environment originating from a plant source other than a vent, flue, stack, or break or rupture in process equipment.

(2) Terms that are defined in section 1 of the *Environmental Protection and Enhancement Act* and in the *Substance Release Regulation* (A.R. 124/93) have the same meaning when used in this Code of Practice, unless otherwise defined or modified within this Code of Practice.

Registration

4 In addition to any information required by the Director under the *Approvals and Registration Procedure Regulation* (A.R. 113/93), the person responsible shall complete the registration form attached to this Code of Practice and forward it to the Director.

Person Responsible’s Duty

- c) The person responsible shall comply with all requirements of this Code of Practice.

Pollution Control Technology Requirements

6(1) An asphalt paving plant shall be equipped with pollution control technology that meets the requirements of this Code.

(2) Where a person responsible proposes at any time to make significant modifications to the pollution control technology or the plant throughput of an

asphalt paving plant, the person responsible shall provide the Director with additional information about these proposed modifications by completing and submitting the form attached as Appendix "B" to this Code of Practice.

(3) An asphalt paving plant shall use pollution control technology and operating practices that meet the following environmental requirements.

- (a) The opacity from all air emission sources at the asphalt paving plant shall not exceed 40 percent, averaged over a period of 6 consecutive minutes.
- (b) The concentration of particulates in each effluent stream from the asphalt paving plant's dryer stack to the ambient air shall not exceed 0.20 grams per kilogram of effluent.
- (c) Emissions from the asphalt paving plant shall not cause an offensive odour.
- (d) Fugitive dust emissions from the asphalt paving plant shall not cause an adverse effect.

Operation Requirements

7(1) The following requirements apply to an asphalt paving plant that uses wet scrubbers to control particulate emissions.

- (a) The scrubber water return system shall be operated to ensure that there is sufficient retention time in the system to settle out collected dust and sediment.
- (b) The person responsible shall check the quality of the scrubber water on a daily basis and record the results in the environmental log. A sample of the scrubber water shall be taken from the outlet or inlet of the scrubber water supply pump in a clear container that allows visual inspection of the scrubber water. The clarity of the water and the amount of sediment that settles out shall be noted in the environmental log.
- (c) The scrubber water supply pump shall be of sufficient size to provide the circulation capacity required for proper scrubber operation. The person responsible shall perform a test of the capacity of the pump on an annual basis to ensure it can provide the supply water at the required rate. The person responsible shall record the findings of the pump capacity test in the environmental log.
- (d) The person responsible shall inspect the hoses and couplings connecting the scrubber water supply pump to the return water pit or tank and the scrubber on a daily basis. The person responsible shall record the findings of these inspections in the environmental log.

- (e) The person responsible shall install and maintain a pressure gauge, capable of reading to the nearest 50 kpa or 5 psi, on the outlet of the scrubber water supply pump. The person responsible shall record the pressure measured by this gauge in the environmental log at least once per day while the asphalt paving plant is under normal operating conditions.
 - (f) Where the pressure on the gauge referred to in section 7(1)(e) deviates significantly from normal operating pressures, the person responsible shall inspect the pump and associated scrubber equipment and shall make necessary repairs or adjustments.
- (2) The following requirements apply to an asphalt paving plant that uses baghouse type systems to control particulate emissions.
- (a) The person responsible shall check the integrity of the baghouse on a daily basis and record the findings in the environmental log. This inspection shall be a check of the ducting on the outlet (clean) side of the baghouse for any evidence of dust that may be passing. For those asphalt paving plants where access to the outlet of the baghouse is not practical, the person responsible shall install an access hatch near the inlet to the draft air fan and a check for passing dust in the ducting shall be made from this location.
 - (b) The person responsible shall perform a test of the integrity of the baghouse using a suitable fluorescent tracer dust within the first week of commencement of operation in each calendar year. After this test, the same test shall be performed
 - (i) once every 200 hours, or
 - (ii) whenever the asphalt paving plant is moved to a new location, whichever of these is more frequent.
 - (c) The person responsible shall introduce a fluorescent tracer dust into the inlet (dirty) side of the baghouse when testing the integrity of the baghouse under section 7(2)(b). The outlet shall then be examined for any evidence of tracer dust that may be bypassing the baghouse. The person responsible shall record the results of these tests in the environmental log.
 - (d) The person responsible shall conduct an inspection of the baghouse and dust handling systems within the first week of operation in each calendar year to ensure they are in proper working order. The person responsible shall record the findings of this inspection in the environmental log.

General Requirements

- 8(1)** The person responsible shall record in the environmental log each location of operation of the asphalt paving plant, recording the date that the asphalt paving plant was set up and the date that it was dismantled at each location.
- (2)** The person responsible shall check the plume from the asphalt paving plant on a daily basis by visually checking the discharge from the main stack after the steam has dissipated, and shall record the results in the environmental log.
- (3)** The person responsible shall record in the environmental log all problems occurring at the asphalt paving plant, and the corrective or maintenance action taken.
- (4)** The person responsible shall manage all dust collected from the pollution control equipment to prevent its release into the air.
- (5)** The person responsible shall collect, store, transport and dispose of baghouse dust in tight containers to minimize its release in the ambient air.
- (6)** All liquid burner fuel, other than virgin fuel grade product, used in the production of asphalt at the asphalt paving plant shall come from a used oil recycling facility approved by Alberta Environmental Protection.
- (7)** The person responsible shall collect and take all used lubrication oil generated at the asphalt paving plant to an oil recycling facility approved by Alberta Environmental Protection.
- (8)** No person shall burn or bury waste at an asphalt paving plant.
- (9)** Prior to relocating an asphalt paving plant, the person responsible shall inform Alberta Environmental Protection of the new location. This notification shall be made by telephoning the Pollution Control Division at (403) 422-4505.

Record Keeping

- 9(1)** The person responsible shall maintain a copy of the registration at the asphalt paving plant at all times during set up and operation. This document shall be made available for inspection by Alberta Environmental Protection at any time.
- (2)** The person responsible shall record all information required to be recorded in the environmental log as specified by Appendix "A". Copies of the environmental log are available through the Alberta Road Builders and Heavy Construction Association.
- (3)** The environmental log for the operating year shall include a summary of the most recent annual tests, required by this Code, that have been performed. The person responsible shall make this material available at any time for inspection by Alberta Environmental Protection. The person responsible shall keep the environmental log for the current operating year at the asphalt paving plant. Each environmental log shall then be retained by the person responsible at

its head office in Alberta for a minimum of 5 years from the completion of the operating year covered by the environmental log.

Reporting

10 The person responsible shall immediately report any contraventions of this Code of Practice by telephone to the Director of Pollution Control Division at (403) 422-4505. The Director of Pollution Control Division may require the person responsible to provide a further written report of any contravention.

Code Amendment

11 This Code of Practice will be reviewed every 10 years beginning in 2006. Alberta Environmental Protection will accept and compile written comments on the contents of this Code at any time, and will review all comments received at the next 10 year review. The Director may institute a review and amendment of this Code of Practice at any time. All proposed amendments to this Code of Practice will be reviewed by government, the industry, and the interested public. The Director shall have the final decision on amendments made to this Code of Practice. Amendments to this Code of Practice shall become effective when published by Alberta Environmental Protection.

Effective Date

- c) This Code of Practice is effective September 30, 1996.

APPENDIX A

ALBERTA

ASPHALT PAVING PLANTS, WET SCRUBBER SYSTEMS

ENVIRONMENTAL LOG

COMPANY NAME: _____

REGISTRATION NO.: _____

YEAR: _____

**ASPHALT PAVING PLANTS, WET SCRUBBER SYSTEM
ENVIRONMENTAL LOG**

PUMP CAPACITY TEST:

A. CONTAINER CAPACITY: _____

B. TIME TO FILL RUN #1 _____
 RUN #2 _____
 RUN #3 _____
 AVERAGE TIME _____

C. AVERAGE FLOW RATE _____

Test Performed by: _____
 Date Performed: _____

OPERATING LOCATIONS (Legal Description/Street Address)

1. LOCATION: _____	START DATE: _____	END DATE: _____
2. LOCATION: _____	START DATE: _____	END DATE: _____
3. LOCATION: _____	START DATE: _____	END DATE: _____
4. LOCATION: _____	START DATE: _____	END DATE: _____
5. LOCATION: _____	START DATE: _____	END DATE: _____
6. LOCATION: _____	START DATE: _____	END DATE: _____
7. LOCATION: _____	START DATE: _____	END DATE: _____
8. LOCATION: _____	START DATE: _____	END DATE: _____
9. LOCATION: _____	START DATE: _____	END DATE: _____
10. LOCATION: _____	START DATE: _____	END DATE: _____

ENVIRONMENTAL MAINTENANCE LOG

Page _____

DATE	ACTIONS TAKEN

ALBERTA

ASPHALT PAVING PLANTS, BAGHOUSE SYSTEMS

ENVIRONMENTAL LOG

COMPANY NAME: _____

REGISTRATION NO.: _____

YEAR: _____

**ASPHALT PAVING PLANTS, BAGHOUSE SYSTEM
ENVIRONMENTAL LOG**

ANNUAL BAGHOUSE INSPECTION:

NOTES ON THE CONDITION OF THE BAGHOUSE:

Test Performed by: _____ Date Performed: _____

OPERATING LOCATIONS (Legal Description/Street Address)		
1. LOCATION:	START DATE:	END DATE:
2. LOCATION:	START DATE:	END DATE:
3. LOCATION:	START DATE:	END DATE:
4. LOCATION:	START DATE:	END DATE:
5. LOCATION:	START DATE:	END DATE:
6. LOCATION:	START DATE:	END DATE:
7. LOCATION:	START DATE:	END DATE:
8. LOCATION:	START DATE:	END DATE:
9. LOCATION:	START DATE:	END DATE:
10. LOCATION:	START DATE:	END DATE:

TRACER DUST TESTS

TEST NO. 1:

Date: _____	Location: _____	Performed By: _____
Amount and Type of Tracer Dust: _____		
Observation of Dust Passing: _____		

TEST NO. 2:

Date: _____	Location: _____	Performed By: _____
Amount and Type of Tracer Dust: _____		
Observation of Dust Passing: _____		

TEST NO. 3:

Date: _____	Location: _____	Performed By: _____
Amount and Type of Tracer Dust: _____		
Observation of Dust Passing: _____		

TEST NO. 4:

Date: _____	Location: _____	Performed By: _____
Amount and Type of Tracer Dust: _____		
Observation of Dust Passing: _____		

TEST NO. 5:

Date: _____	Location: _____	Performed By: _____
Amount and Type of Tracer Dust: _____		
Observation of Dust Passing: _____		

DAILY CHECK LIST

COMPANY: _____ PLANT NUMBER: _____

DATE OF OPERATION									
Visual Check									
Plume Condition									
Hours of Operation (Total)									

DATE OF OPERATION									
Visual Check									
Plume Condition									
Hours of Operation (Total)									

DATE OF OPERATION									
Visual Check									
Plume Condition									
Hours of Operation (Total)									

DATE OF OPERATION									
Visual Check									
Plume Condition									
Hours of Operation (Total)									

TOTAL OPERATING HOURS RECORDED ON THIS PAGE _____

TOTAL OPERATING HOURS FROM PREVIOUS PAGE _____

TOTAL OPERATING HOURS FOR THIS YEAR TO DATE _____

ENVIRONMENTAL MAINTENANCE LOG

Page _____

DATE	ACTIONS TAKEN

APPENDIX B



INFORMATION FORM FOR ASPHALT PAVING PLANTS,
FOUNDRIES AND READY-MIX CONCRETE PLANTS

REGISTRATION NO.:

1. ADMINISTRATION

Company Name (legal incorporated Name):	
Operating Name (if different than above):	
Mailing Address:	
Contact Person:	Phone No.:

2. MODIFICATION DESCRIPTION

3. OPERATIONS

OLD EQUIPMENT	NEW EQUIPMENT

4. SIGNATORY REQUIREMENTS

_____	SIGNATURE
_____	NAME AND TITLE OF SIGNATORY
DATE	



REGISTRATION FORM FOR ASPHALT PAVING PLANTS,
FOUNDRIES AND READY-MIX CONCRETE PLANTS

1. ADMINISTRATION

A. GENERAL			
Company Name (legal incorporated Name)			
Operating Name (if different than above)			
Mailing Address			
Contact Person		Phone No	
Location	Legal Land Description		
B. ASPHALT PLANTS ONLY			
Portable <input type="checkbox"/>	Stationary <input type="checkbox"/>	Hot Mix <input type="checkbox"/>	Cold Mix <input type="checkbox"/>
Max. Production Capacity (t/hr)		Fuel Type	

2. APPROVALS

(a) Has the plant ever received an environmental approval? Yes <input type="checkbox"/> If Yes , the approval number: _____ and go to Section 4. No <input type="checkbox"/> If No , provide information in Section 3.
(b) Have there been any equipment changes since the issuance of the approval or registration that affect substance release to the environment? Yes <input type="checkbox"/> If Yes , provide information requested in Section 3 No <input type="checkbox"/> If No , go to Section 4.

3. OPERATIONS

AIR POLLUTION CONTROL EQUIPMENT	MAKE AND MODEL (DESCRIBE)
Baghouse	
Baghouse	
Baghouse	
Baghouse	
Baghouse	
Scrubbers	
Cyclones	

For Plants with Scrubbers:

Water Pump Flow Rate	Scrubber Water	Recycled
		Discharged

4. SIGNATORY REQUIREMENTS

I acknowledge that I have reviewed a copy of the Code of Practice for (check one):

Asphalt Paving Plants _____

Concrete Producing Plants _____

Foundries _____

and that I am bound by the provisions of this Code of Practice, and any subsequent amendments to it.

SIGNATURE

DATE

NAME AND TITLE OF SIGNATORY

For Office Use Only:

Date Received: _____

Registered By: _____

Director's Signature: _____ Title: _____ Date: _____

Registration Number: _____

ASPHALT PAVING PLANTS, WET SCRUBBER SYSTEMS

ENVIRONMENTAL LOG GUIDE

- 1) An environmental log is required to be filled out for each calendar year of operation.
- 2) The locations of operation of the plant shall be recorded indicating the date the plant was set up and when it was dismantled.
- 3) The pump capacity test shall be performed utilizing a container of at least 205 litres capacity (i.e. an empty 40 gallon drum).
- 4) The daily check list shall be filled out as follows.
 - i) The environmental log shall be filled out for each day that the plant produces asphalt.
 - ii) The scrubber water shall be checked each day by collecting a sample from the pump discharge in a clear container allowing visual inspection of the scrubber water. The quality of the water shall be recorded on the environmental log as one of the following:
 - a) Clear
 - b) Cloudy
 - c) Muddy
 - iii) The amount of sediment that settles out of the sample shall be recorded in the environmental log.
 - iv) The hose/coupling check shall be comprised of an examination of all hose and couplings in the wet scrubber system. The results of this check shall be entered on the daily log as pass or fail. Examples of situations that would constitute a fail include:
 - a) Leaking or collapsed hoses
 - b) Excess leakage from connection
 - c) Large kinks in the hoses that would restrict water flow
 - d) Blockage of the pump suction within the scrubber pit/tank
 - v) The plume check shall be comprised of a visual check of the discharge from the main stack after the steam has dissipated. The plume check shall be recorded as one of the following:
 - a) Clear
 - b) White

- c) Dark
 - d) Dusty
 - vi) The pressure gauge on the outlet of the scrubber water supply pump shall be checked at least once each day while the plant is under normal operating conditions and the pressure shall be recorded. If the pressure deviates significantly from normal operating pressures, then the pump and associated scrubber equipment shall be inspected and necessary repairs or adjustments shall be made and recorded.
- 5) The environmental maintenance log shall be filled out each time maintenance is performed on the environmental control systems at the plant. These shall include:
- i) Dredging or silt removal
 - ii) Pump, hose or coupling maintenance or repair
 - iii) Adjustments made to the spray system

IF THERE ARE ANY QUESTIONS OR CONCERNS REGARDING THE COMPLETION OF THIS LOG, PLEASE CONTACT ALBERTA ENVIRONMENTAL PROTECTION AT (403)427-5836 (NORTHEAST BOREAL & PARKLAND REGIONS), (403)723-8395 (NORTHWEST BOREAL & NORTHERN EAST SLOPES REGIONS), OR (403)297-7605 (SOUTHERN EAST SLOPES & PRAIRIE REGIONS) FROM 8:15 AM TO 4:30 PM, MONDAY TO FRIDAY.

ASPHALT PAVING PLANTS, BAGHOUSE SYSTEMS

ENVIRONMENTAL LOG GUIDE

- 1) An environmental log is required to be filled out for each calendar year of operation.
- 2) The locations of operation of the plant shall be recorded indicating the date the plant was set up and when it was dismantled.
- 3) The annual baghouse inspection shall be performed by visually inspecting the inside of the baghouse. Notes on the condition of baghouse, such as the structural integrity and any signs of corrosion or erosion wear, shall be recorded as good, fair or poor in the environmental log.
- 4) The tracer dust test shall be performed within the first week of commencement of operation each calendar year and once every 200 hours of operating time thereafter, or whenever the plant is moved to a new location, whichever is more frequent. The tracer dust check shall be performed with a tracer dust designed for this application and the amount of dust used shall conform with the manufacturer's specification. Within one hour of the dust being added to the inlet side of the baghouse, the outlet side shall be inspected to determine if any dust is passing. If it is noted that dust is passing, actions should be taken to identify and correct the problem.
- 5) The daily check list shall be filled out as follows:
 - i) The environmental log shall be filled out for each day that the plant produces asphalt. The total number of hours that the plant produced asphalt for that day shall be recorded on the environmental log.
 - ii) The visual check shall be carried out by checking the outlet (clean) side of the baghouse of any evidence of dust that may be passing. For those plants where access to the outlet of the baghouse is not practical, an access hatch shall be installed on the inlet to the draft fan and a check for passing dust in the ducting shall be made from this location. The findings of this inspection shall be recorded in the environmental log as OK, if no or minimal dust is found or AR (Action Required) if a substantial amount of dust is encountered.
 - iii) The plume check shall be comprised of a visual check of the discharge from the main stack. The plume check shall be recorded as one of the following:
 - a) Clear
 - b) White
 - c) Dark

d) Dusty

5) The environmental maintenance log shall be filled out each time maintenance is performed on the environmental control systems at the plant. These shall include:

- i) Replacement or repair of any bags
- ii) Adjustments made to the dampers or ducting of the dust collection system.

IF THERE ARE ANY QUESTIONS OR CONCERNS REGARDING THE COMPLETION OF THIS LOG, PLEASE CONTACT ALBERTA ENVIRONMENTAL PROTECTION AT (403)427-5836 (NORTHEAST BOREAL & PARKLAND REGIONS), (403)723-8395 (NORTHWEST BOREAL & NORTHERN EASTERN SLOPES REGIONS), OR (403)297-7605 (SOUTHERN EASTERN SLOPES & PRAIRIE REGIONS) FROM 8:15 AM TO 4:30 PM, MONDAY TO FRIDAY.