



west virginia department of environmental protection

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G20-C

Application Appendix

for the
Prevention and Control of Air Pollution in regard to the
Construction, Modification, Relocation, Administrative Update and
Operation of Hot Mix Asphalt Plants

**THIS REFERENCE DOCUMENT PROVIDES DEFINITIONS AND HELPFUL
INFORMATION THAT CAN BE USED WHEN PREPARING A REGISTRATION
APPLICATION FOR CLASS II GENERAL PERMIT NUMBER G20-B.**

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1.0. Definitions

Terms used throughout the General Permit are defined in this section. Unless otherwise indicated, other words and phrases used in this General Permit shall have the meaning ascribed to them in 45CSR3, 45CSR13, 45CSR16, 45CSR22, 45CSR30; W.Va. Code §§22-5-1 et seq., as amended, and 40CFR60.

AFFECTED FACILITY

means, for purposes of this General Permit, any dryer; system for screening, handling, storing and weighing hot aggregate; system for loading transferring and storing mineral filler; system for mixing hot mix asphalt; and loading, transfer and storage system associated with emission control systems (air pollution control device) subject to NSPS as defined in 40 C.F.R. 60, Subpart I (those facilities commencing construction or modification after June 11, 1973 are considered affected facilities subject to the requirements of 40 C.F.R. 60, Subpart I).

AIR POLLUTANT

means any solid, liquid or gas which if discharged into the air, may result in statutory air pollution.

AIR POLLUTION OR STATUTORY AIR POLLUTION

means and is limited to the discharge into the air by an act of man substances (liquid, solid, gaseous, organic or inorganic) in a locality, manner and amount as to be injurious to human health or welfare, animal or plant life or property, or which would interfere with the enjoyment of life or property.

AIR POLLUTION CONTROL DEVICE or APCD

means any equipment, auxiliary air pollution control device, system or element of design which controls or reduces the emission of substances from an emissions unit or stationary source:

- a. Primary Collection means that air pollution control device such as cyclones or multicyclones incorporated for the collection of fine particulate matter generated and emitted principally from the drying operation and from which all collected material may or may not be reinjected into the main aggregate flow; and
- b. Secondary Collection means that air pollution control device (e.g. bag filters or baghouse) incorporated for the collection of that particulate matter not collected by the primary collection equipment and from which such collected material may or may not be reinjected into the main aggregate flow. A secondary collection air pollution control device may incorporate a settling or knockdown chamber which performs the function of a primary collection device.

AUTHORIZED REPRESENTATIVE

means a person certified by a Responsible Official who shall represent and have the authority to legally bind the business. An Authorized Representative may be certified through a certification statement submitted with the General Permit Registration Application. Such certification is subject to approval by the Director.

AUXILIARY AIR POLLUTION CONTROL DEVICE

means any device or element of design that senses temperature, pressure drop or any other parameter for the purpose of activating, controlling, modulating, delaying or deactivating the operation of any part of air pollution control device.

CABINET SECRETARY

means the Cabinet Secretary of the West Virginia Department of Environmental Protection.

CERTIFIED EMISSION STATEMENT OR CES

means an annual submitted statement, certified by a Responsible Official, required of Tier III registration category registrants (area sources subject to NSPS) by 45CSR30 containing accurate accounting of the actual emissions of all regulated pollutants from a source.

C.F.R.

means the United States Code of Federal Regulations.

CONSTRUCTION

means any physical change or change in the method of operation (including fabrication, erection, installation, demolition or modification of an emissions unit or affected facility) which would result in an increase in the potential to emit or an increase in actual emissions of any regulated air pollutant.

CSR

means the West Virginia Code of State Rules.

DAQ

means the Division of Air Quality of the WV Department of Environmental Protection.

DEP

means the Department of Environmental Protection of the West Virginia Bureau of the Environment.

DIRECTOR OF AIR QUALITY OR DIRECTOR

means the Director of the Division of Air Quality or a designated representative appointed by the Cabinet Secretary of the Department of Environmental Protection pursuant to the provisions of W.Va. Code §§22-1-1 et seq.

EMISSION

means the release, escape or discharge of air pollutants into the air.

EMISSION INVENTORY

means an annual submittal, due on or before July 1 of each calendar year for the previous calendar year, containing the speciated pollutants and the corresponding emission poundage or tonnage for each (W.Va. Code §22-5-4(a)(14)).

EMISSIONS UNIT

means any affected facility, part or activity of a stationary source which emits or has the potential to emit any regulated pollutant.

EPA OR USEPA

means the United States Environmental Protection Agency.

FUEL

means any gaseous, liquid or solid substance or any combination thereof burned in fuel burning equipment.

FUEL BURNING UNIT

means and includes any chamber, apparatus, device, mechanism, stack or structure used in the process of burning fuel or other combustible material for the primary purpose of producing heat for direct heat transfer as applied to an hot mix asphalt plant (excluding internal combustion engines).

FUGITIVE EMISSIONS

means those emissions which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening.

FUGITIVE PARTICULATE MATTER

means any and all particulate matter generated by the operation of a hot mix asphalt plant which, if not confined, would be emitted directly to the atmosphere from points other than the stack outlet.

FUGITIVE PARTICULATE MATTER CONTROL SYSTEM

means, for purposes of this General Permit, any equipment or method used to confine, collect and dispose of fugitive particulate matter, including but not limited to: hoods, bins, ductwork, fans, air pollution control equipment and equipment used to prevent or minimize the emission of fugitive particulate matter by application of water or a mixture of water and an environmentally acceptable dust control additive (solution).

MAINTENANCE OPERATION

means any adjustment, repair, removal, disassembly, cleaning or replacement of components or systems of emission units or air pollution control devices required to be performed on a periodic basis to prevent part failure or malfunction, or those actions anticipated as necessary to correct an overt indication of malfunction or failure for which maintenance is not appropriate.

MAJOR STATIONARY SOURCE OR MAJOR SOURCE

means, for purposes of this General Permit, any stationary source which emits or has the potential to emit two hundred fifty (250) tons per year or more of any regulated air pollutant as defined in 45CSR14 or directly emits or has the potential to emit one hundred (100) tons per year or more of any air pollutant as defined in 45CSR30.

MODIFICATION

means, for purposes of this General Permit, any proposed physical change or change in the method of operation of an affected facility that would require an individual permit pursuant to 45CSR13. Any person operating an existing affected facility who desires to modify and/or increase throughput may complete a General Permit Registration Application and if eligible, receive General Permit registration in lieu of individual permit coverage pursuant to 45CSR13.

NEW SOURCE PERFORMANCE STANDARDS OR NSPS

means the standards set forth for affected facilities as promulgated under 40CFR60.

OPACITY

means the degree to which particulate emissions reduce the transmission of light and obscure the view of an object in the background.

PARTICULATE MATTER OR PM

means any material except uncombined water that exists in a finely divided form as a liquid or solid.

PARTICULATE MATTER CAPTURE SYSTEM

means any equipment or method used to confine, collect, and transport particulate matter from elevators, screens, mixers, weighing equipment, bins and other plant components to air pollution control equipment. Particulate matter capture systems shall include, but not be limited to, hoods, bins, ductwork, enclosures and fans.

PM2.5

means any particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers.

PM10

means any particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers.

PERSON

means any and all persons, natural or artificial, including the State of West Virginia or any other state, the United States of America, any municipal, statutory, public or private corporation organized or existing under the laws of this or any other state or country and any firm, partnership or association of whatever nature.

PLANT OR HOT MIX ASPHALT PLANT

means and includes all equipment utilized in the manufacture of hot mix asphalt (by heating and drying aggregate and mixing with asphaltic cements) such as burners, dryers, elevators, screens, mixers, weighing equipment, bins and associated air pollution control equipment.

POTENTIAL TO EMIT

means the maximum capacity of an affected facility to emit any pollutant under its existing or proposed physical and operational design.

REGISTRANT

means a person who has submitted a General Permit Registration Application and has been granted General Permit registration by the Director.

REGISTRATION

means the process where the owner or operator of an eligible affected facility submits a complete General Permit Registration Application and is granted General Permit registration.

REGISTRATION MODIFICATION

means the General Permit provision for any proposed physical change or change in the method of operation of a registered affected facility.

RELOCATION

means the physical movement of a source outside its existing plant boundaries. The physical location of the plant must be noticed to DAQ. Any location properly noticed and permitted under the same G20 Registration will remain a permitted location for the life of the registration.

RESPONSIBLE OFFICIAL

means a person who shall represent the business and is a President, Vice President, Secretary, Treasurer, General Partner, General Manager, a member of a Board of Directors or Owner, depending on business structure. Any submitted Registration Application, report, Emission Inventory, Certified Emission Statement, compliance certification record or Certification of Data Accuracy shall be signed by a Responsible Official or an Authorized Representative. A Responsible Official or an Authorized Representative shall have the authority to legally bind the business. An Authorized Representative may be certified by a Responsible Official through a certification statement submitted with the General Permit Registration Application. Such certification is subject to approval by the Director.

SMOKE

means any small gasborne and airborne particles arising from a process of combustion in sufficient numbers to be visible.

SOURCE OR STATIONARY SOURCE

means, for purposes of this General Permit, any building, structure, affected facility, installation or emission unit or combination thereof which emits or may emit any regulated air pollutant.

STACK

means, but shall not be limited to, any duct, control equipment exhaust or similar apparatus which vents gases containing any regulated pollutant into the open air.

STANDARD CONDITIONS

means, for purposes of this General Permit, a temperature of 68oF (20o C) and a pressure of 29.92 inches of mercury (760 mm of Hg).

2.0. Control Device Identification Number Instructions

For sources which use an emission control device, appropriate control efficiency corrections must be made. Where control efficiencies are known from source tests or control equipment vendor guarantee, such efficiency should be used. Otherwise the values for the control efficiency of various control methods are listed in Table A of this Reference Document. For clarity, the identification of control systems should adhere to the following nomenclature:

For consistency, all Control Devices referenced in the Registration Application should appear in the following Control Device Identification Number format:

XX - YY#

Where: **XX** = two letter abbreviation indicating the type of operation

YY = two letter abbreviation indicating the type of control device

= number assigned to specific operation/device combination starting with 1,2,3

Combinations of these abbreviations for specific types of operations and corresponding control alternatives appear in Table A. These operation/device combinations should be used.

NOTE: If a single control device is used to control multiple operations, the abbreviation for the primary operation should be used for the Control Device Identification Number. Each individual control device should have only one Control Device Identification Number (refer to Example 2).

EXAMPLE 1:

A facility has a total of five pressurized spray bar water sprays employed to control fugitive emissions from open conveyor transfer points. From Table A - Control Device Listing, under the Transfer and Conveying section, water sprays at such transfer points are abbreviated as TC-WS. Therefore, in this example, the assigned Control Device Identification numbers for these five water sprays would be TC-WS1, TC-WS2, TC-WS3, TC-WS4 and TC-WS5. These Control Device Identification numbers should be used throughout the Registration Application to reference the respective water sprays.

EXAMPLE 2:

A facility's water truck is primarily used for controlling haulroad emissions, but also utilizes a fire hose type spray to wet open stockpiles to control wind erosion. In this case, a control device is used for multiple operations. From Table A for Haulroads, a water truck is abbreviated as HR-WS. However, stockpile watering to control wind erosion is abbreviated as SW-WS. In this case the water truck should be labeled as HR-WS1 for both haulroad control and stockpile wind erosion control since haulroads are the primary purpose. This single *Control Device ID#* should be used throughout the application when referencing the water truck.

TABLE A - CONTROL DEVICE LISTING

Fugitive Dust Sources	Control Device	Control Device Prefix	Control Efficiency (%)
U N L O A D I N G			
From Railcar or Truck	Full Enclosure Vented to Baghouse	UL-BH	99
From Railcar or Truck	Full Enclosure	UL-FE	70
From Railcar or Truck	Wet Suppression with Chemical Solution	UL-CS	80
From Railcar or Truck	Water Spray	UL-WS	50
Dump Bins	Full Enclosure	UD-FE	80
Dump Bins	Partial Enclosure with water sprays	UD-PW	85
C R U S H I N G A N D S C R E E N I N G			
Crushing or Screening	Full Enclosure Vented to Baghouse	CS-BH	99
Crushing or Screening	Wet Suppression with Chemicals	CS-CS	90
Crushing or Screening	Full Enclosure with Water Spray	CS-FW	90
Crushing or Screening	Partial Enclosure with Water Spray	CS-PW	80
Crushing or Screening	Full enclosure	CS-FE	80
T R A N S F E R A N D C O N V E Y I N G			
Conveyor Transfer Point	Full Enclosure Vented to Baghouse	TC-BH	99
Conveyor Transfer Point	Full Enclosure with Water Spray	TC-FW	90
Conveyor Transfer Point	Water Spray with Chemical Solution	TC-CS	90
Conveyor Transfer Point	Partial Enclosure with Water Spray	TC-PW	80
Conveyor Transfer Point	Full enclosure	TC-FE	80
Conveyor Transfer Point	Water spray	TC-WS	70
Conveyor Transfer Point	Partial Enclosure	TC-PE	50
C L E A N I N G			
Wet Wash Operations	Full Enclosure	WW-FE	100
S T O R A G E			
Loading onto Piles	Full Enclosure	SL-FE	80
Loading onto Piles	Telescopic Chute	SL-TC	75
Loading onto Piles	Wet Suppression with Chemical Solution	SL-CS	75
Loading onto Piles	Wind Guard	SL-WG	50
Wind Erosion	Full Enclosure	SW-FE	100
Wind Erosion	Wet Suppression with Chemical Solution	SW-CS	99
Wind Erosion	Water Spray (including water truck)	SW-WS	75
L O A D I N G O U T			
From Stockpiles	Wet Suppression with Chemical Solution	LO-CS	95
From Stockpiles	Under-pile Conveyor	LO-UC	80
From Stockpiles	Bucket Wheel Reclaimer	LO-RC	80
L O A D I N G			
To Railcar, Barge or Truck	Wet Suppression with Chemical Solution	LR-CS	80
To Railcar, Barge or Truck	Telescopic Chute	LR-TC	75
H A U L R O A D S			
Unpaved	Water Truck with Chemical Solution	HR-CS	85
Unpaved	Water Truck with Water Spray	HR-WS	70

Example Process Flow Diagrams

Figure 1. HMA Batch Mix Plant Process Flow Diagram

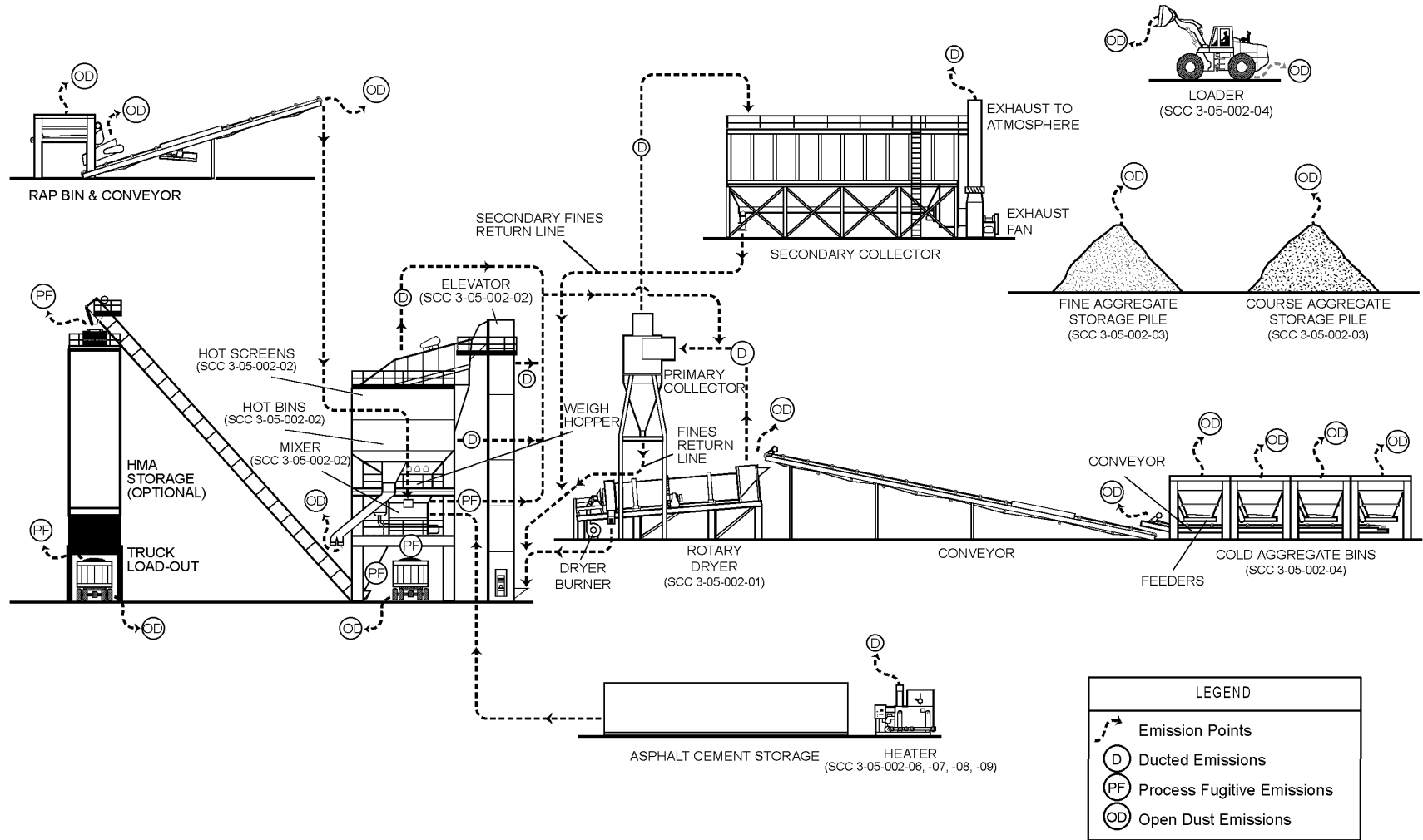


Figure 2. HMA Parallel Flow Drum Mix Plant Process Flow Diagram

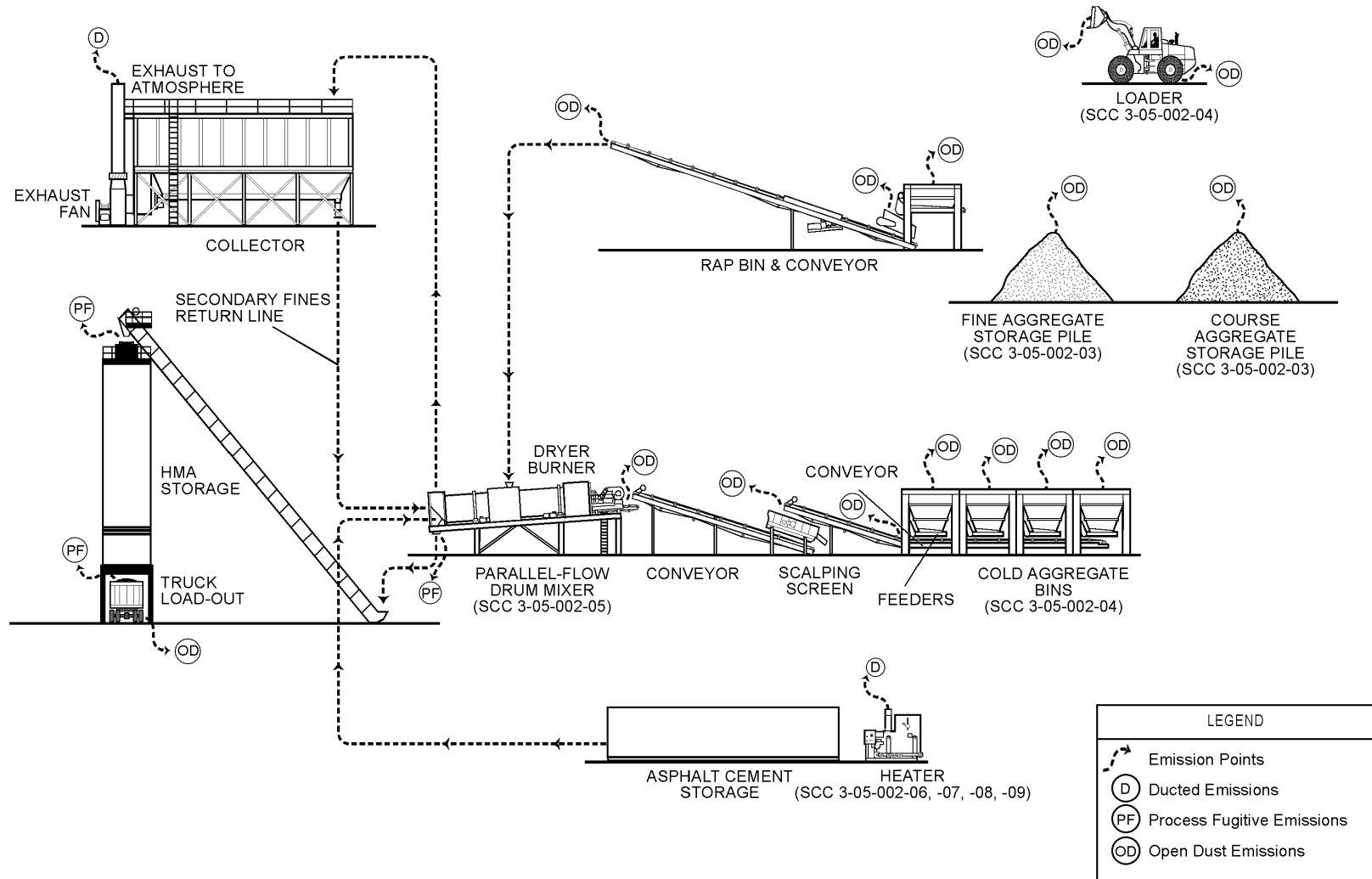


Figure 3. HMA Counter Flow Drum Mix Plant Process Flow Diagram

