Ohio EPA

Division of Air Pollution Control

Engineering Guide #25

Question:

How should Ohio EPA emissions unit numbers and PTIO, FEPTIO, and PTI fees (for installation of new emissions units and/or Chapter 3745-31 modifications) be assigned for fugitive dust sources? This question was originally submitted by Dennis Bush of the Northeast District Office on January 9, 1981.

Answer:

Ohio EPA emissions unit numbers and PTIO, FEPTIO, and PTI fees should be assigned in accordance with the attachment to this Guide. It should be noted that this is DAPC's recommended approach for assigning emissions unit numbers. There may be situations where a different scheme is requested by a facility for valid reasons or is preferred because of site-specific source arrangements or other conditions.

The reason for this flexibility in assigning emissions unit numbers to fugitive dust sources is to provide the source owner/operator discretion in arranging the sources to be included under individual permits. This discretion is legally authorized in paragraph (A)(3) of OAC rule 3745-17-04, which reads as follows:

> "Any certification and/or application required by paragraph (A)(1) of this rule, or any permit to operate issued by the Director, may include multiple, similar fugitive dust sources located at a specified facility, if such similar fugitive dust sources fall within one of the following general source categories: storage piles, mineral extraction operations, material handling operations, or roads and parking lots. Where appropriate, the certification, application or permit to operate may specify such similar fugitive dust sources and their associated control measures by their general source categories." (emphasis added)

Thus, the field offices will receive applications that may contain more than one fugitive dust source per permit application. When multiple sources are grouped under one application, they should generally be from similar source categories.

There is no fee associated with the issuance of an operating permit; instead, annual emission fees for all types of air contaminant sources, including fugitive dust sources, are based upon the total actual annual emissions from the facility and are specified in OAC rule 3745-78-02. The permit issuance fees for new fugitive dust sources or

Chapter 3745-31 modifications are based upon the process weight rate (PWR) for the emissions unit and are specified in ORC Section 3745.11(F). The attachment to this Guide indicates how the PWR should be defined for various types of fugitive dust sources. For an emissions unit where the PWR cannot be ascertained, the minimum PWR fee from ORC Section 3745.11(F) should be used for the emissions unit. Also, in the absence of a definition of PWR in ORC Section 3745.11(F), the following definition of PWR shall be used in determining the permit fees: "process weight rate" means the total weight per hour of all materials introduced into a source operation while operating at its maximum capacity.

Note, in the attachment, the following abbreviations are used:

MPF = minimum process fee

PWR = process weight rate

EU = emissions unit

P9XX = emissions unit designation when the emissions unit has both stack and fugitive emissions.

TK/JO/JB

(Issued June 9, 1981; revised and updated July 9, 2010)

RACM Document Selection	Fugitive Dust Source	Fugitive Dust Emissions Unit Number	Basis for Permit Fee for New or Modified Sources	Recommended Emissions Unit Arrangement
2.1.1	**Plant Roadways and Parking Areas**			
	• Paved roadways and parking areas • Unpaved roadways and parking areas	FXXX	MPF	All paved roadways and parking areas as one emissions unit per facility. All unpaved roadways and parking areas as one emissions unit per facility.
2.1.2	**Aggregate Storage Piles:**			
	• Loading onto piles • Wind erosion • Loading out • Vehicular traffic	"	"	All storage piles and their associated activities as one emissions unit per facility.
2.1.3	**Material Handling:**			
	• Unloading • Transfer points • Conveying • Loading	"	PWR max of material thru-put	Material handling operations that are closely related to each other (same material, area, etc.) or to some stack source should be grouped as one EU. For more specific guidance, see the instructions given for the 29 industrial categories listed herein.
2.1.4	**Mineral Extraction:**			
	• Overburden removal • Off-highway truck loading • Waste disposal • Reclamation	"	PWR max of mineral extracted	All mineral extraction operations at a mine or quarry as one emissions unit.
2.2.1	**Coke Manufacturing:**			
	(1) Coal unloading (rail car)	FXXX	NA	Sources (1) and (3) as one EU per coal handling station.

RACM Document Selection	Fugitive Dust Source	Fugitive Dust Emissions Unit Number	Basis for Permit Fee for New or Modified Sources	Recommended Emissions Unit Arrangement
	(2) Coal storage	FXXX	MPF	All coal storage piles and any other material storage piles at the facility as one EU.
	(3) Coal conveying, transfer, pulverizing, screening	"	PWR max of coal thru-put	See (1)
	(4) Charging	B9XX	Power max of coal charged	Sources (4) thru (6) included as one EU for combustion stack(s) source on each battery.
	(5) Coking	"	NA	See (4)
	(6) Pushing	"	"	"
	(7) Coke handling	FXXX	PWR max of coke handled	All coke handling operations after quenching should be one EU per coke handling station.
2.2.2	**Iron Production:**			
	(1) Iron ore unloading (barge or rail)	FXXX	NA	Sources (1), (2), (4), (6) and (8) as one EU.
	(2) Limestone unloading (barge or rail)	"	"	See (2)
	(3) Iron ore storage	"	MPF	Sources (3), (5), (7) and (14) as one EU.
	(4) Iron ore handling and transfer	"	NA	See (1)
	(5) Limestone storage	"	"	See (3)
	(6) Limestone conveying and transfer	FXXX	NA	See (1)

RACM Document Selection	Fugitive Dust Source	Fugitive Dust Emissions Unit Number	Basis for Permit Fee for New or Modified Sources	Recommended Emissions Unit Arrangement
	(7) Coke Storage	FXXX	NA	See (3)
	(8) Coke Handling and transfer	"	PWR max of total thru-put for iron ore, coke and limestone	See (1)
	(9) Blast furnace flue dust storage (in storage hopper of control equipment for blast furnace)	P9XX	PWR max of stack source only	Sources (9), (10) and (16) thru (18) included on permit for the appropriate blast furnace – all as one emissions unit.
	(10) Blast furnace flue dust handling and transfer	"	NA	See (9)
	(11) Sinter machine windbox discharge	"	PWR max of stack source only	Source (11) and any related fugitive dust sources (windbox dust conveying and transfer points) as one EU.
	(12) Sinter machine discharge end (breaker and screens)	P9XX or FXXX	If P9XX, PWR max of stack source only If FXXX, PWR max of sinter thru-put	Sources (12), (13) (if not a stack source), (15) and any related fugitive dust sources as one EU.
	(13) Sinter cooler (**not vented thru a stack**)	P9XX or FXXX	NA	See (12)
	(14) Sinter storage	FXXX	"	See (3)
	(15) Sinter handling and transfer	P9XX or FXXX	"	See (12)

RACM Document Selection	Fugitive Dust Source	Fugitive Dust Emissions Unit Number	Basis for Permit Fee for New or Modified Sources	Recommended Emissions Unit Arrangement
	(16) Blast furnace charging	P9XX	NA	See (9)
	(17) Blast furnace upsets (slips)	"	"	"
	(18) Blast furnace tapping (cast house emissions)	"	"	"
	(19) Slag handling	FXXX	NA	Sources (19) and (20) as one emissions unit.
	(20) Slag crushing	"	PWR max of slag thru-put	See (19)
2.2.3	**Steel Manufacturing:**			
	(1) Scrap steel unloading, transfer;	FXXX	PWR max of steel thru-put	Sources (1) and (2) (except storage) as one EU.
	and storage	"	MPF	Sources (1) and (2) (storage only) as one EU.
	(2) Flux material unloading, transfer;	"	NA	See (1)
	and flux storage	"	"	"
	(3) Molten pig iron transfer to charge ladles	FXXX	PWR max of iron thru-put	One emissions unit per transfer station.
	(4) Basic oxygen furnace (charging, leaking, tapping, etc.)	P9XX	PWR max of stack source only	All fugitive dust sources associated with a furnace are included on the permit for the furnace. One EU designation per furnace.

RACM Document Selection	Fugitive Dust Source	Fugitive Dust Emissions Unit Number	Basis for Permit Fee for New or Modified Sources	Recommended Emissions Unit Arrangement
	(5) Open hearth furnace (charging, tapping, leaking, etc.)	P9XX	PWR max of stack source only	All fugitive dust sources associated with a furnace are included on the permit for the furnace. One EU designation per furnace.
	(6) Electric arc furnace (charging, leaking, tapping, etc.)	"	"	"
	(7) Molten steel reladling	FXXX	PWR max of steel reladled	All reladling operations in one shop as one EU.
	(8) Continuous casting;	"	PWR max of steel thru-put	One EU designation per continuous caster.
	conventional teeming	"	PWR max of steel teemed	One EU designation for teeming per shop.
	(9) Scarfing (hand)	"	MPF	All hand scarfing on one emissions unit.
2.3	**Lime Plants:**			
	(1) Limestone unloading (truck)	FXXX	NA	Sources (1) and (3) thru (5) as one EU per processing line.
	(2) Limestone storage piles	"	MPF	All limestone storage piles as one EU.
	(3) Primary crushing and screening	"	PWR max of limestone thru-put	See (1)
	(4) Secondary crushing and screening	"	NA	"

RACM Document Selection	Fugitive Dust Source	Fugitive Dust Emissions Unit Number	Basis for Permit Fee for New or Modified Sources	Recommended Emissions Unit Arrangement
	(5) Limestone conveying and transfer	FXXX	NA	See (1)
	(6) Product transfer, conveying and screening	"	PWR max of lime thru-put	Lime handling operations that are closely related to each other should be grouped as one EU.
	(7) Packaging and shipping	"	"	All packaging and shipping operations in one shop as one emissions unit.
2.4	**Power Plants:**			
	(1) Coal delivery (rail car)	FXXX	NA	Sources (1) and (3) as one EU.
	(2) Coal storage	"	MPF	All coal storage piles as one EU.
	(3) Transfer and conveying	"	PWR max of coal thru-put	See (1)
	(4) Fly ash handling;	"	PWR max of fly ash thru-put	All common fly ash handling operations as one EU. If each boiler has an independent fly ash handling system, then each system should be a separate emissions unit.
	and fly ash disposal	FXXX	MPF	All disposal activities and disposal sites as one EU.
2.5	**Grain Terminals:**			
	(1) Receiving: • Truck unloading • Rail car unloading • Barge unloading	P9XX or FXXX	NA	See (2)

RACM Document Selection	Fugitive Dust Source	Fugitive Dust Emissions Unit Number	Basis for Permit Fee for New or Modified Sources	Recommended Emissions Unit Arrangement
	(2) Transferring and conveying	P9XX or FXXX	If FXXX, PWR max of grain thru-put. If P9XX, PWR max of stack source only.	Sources (1), (2), and (3) should be included either as one EU if related to each other or included in the EU for the associated stack source. Generally, each type (rail car, ship, etc.) of receiving station should be a separate EU.
	(3) Screening and cleaning	"	NA	See (2)
	(4) Drying: • Column • Rack	FXXX	PWR max of grain thru-put	One EU designation for each grain dryer.
	(5) Shipping: • Truck loading • Rail car loading • Barge loading • Ship loading	FXXX	PWR max of grain thru-put	One EU designation for each type of loading station (one for rail car loading, one for barge loading, etc.)
2.6	**Grain Elevators:**			
	- Same as Section 2.5 above.			
2.7	**Gray Iron Foundries:**			
	(1) Cupola furnace charging and tapping	P9XX	PWR max of stack source only	All fugitive dust sources associated with a furnace are included with the EU for each furnace.
	(2) Electric arc furnace charging and tapping	"	"	"

RACM Document Selection	Fugitive Dust Source	Fugitive Dust Emissions Unit Number	Basis for Permit Fee for New or Modified Sources	Recommended Emissions Unit Arrangement
	(3) Electric induction furnace melting, charging and tapping	FXXX	PWR max of furnace	All fugitive dust sources associated with a furnace are included with the EU for each furnace.
	(4) Reverberatory furnace charging and tapping	P9XX	PWR max of stack source only	"
	(5) Ductile iron inoculation	FXXX	PWR max of iron and agents added	All ductile iron inoculation operations in one shop as one EU.
	(6) Pouring molten metal	"	PWR max of iron poured and sand	Each pouring and mold-cooling line as one emissions unit.
	(7) Casting shakeout	FXXX	PWR max of castings and sand molds and cores	Each casting shakeout and associated conveying system in one line as one EU.
	(8) Cooling and cleaning castings (nonstack cleaners)	"	PWR max of castings	One EU designation per cleaner.
	(9) Finishing castings	FXXX	PWR max of castings	All of grinding shop as one EU.
	(10) Core and molding sand unloading and storage: • Mechanical handling • Pneumatic handling	"	PWR max of sand thru-put	All unloading, handling and storage as one EU.

RACM Document Selection	Fugitive Dust Source	Fugitive Dust Emissions Unit Number	Basis for Permit Fee for New or Modified Sources	Recommended Emissions Unit Arrangement
	(11) Core sand and binder mixing	P9XX or FXXX	PWR max of sand and binder thru-put	Sources (11) thru (13) as one EU per each core-making line.
	(12) Core making	"	NA	See (11)
	(13) Core baking	"	"	"
	(14) Mold sand preparation	"	PWR max of sand and binder thru-put	Sources (14) and (15) as one EU per each mold-making line.
	(15) Mold making	"	See (14)	See (14)
2.8	**Steel Foundries:**			
	(1) Electric arc furnace charging and tapping	P9XX	PWR max of stack source only	All fugitive dust sources associated with a furnace are included on the permit for each furnace – all as one EU.
	(2) Electric Induction furnace melting, charging and tapping	FXXX	PWR max of furnace	"
	(3) Open hearth furnace charging and tapping	P9XX	PWR max of stack source only	All fugitive dust sources associated with a furnace are included on the permit for each furnace – all as one EU.
	(4) Crucible furnace charging and tapping	"	"	"
	(5) Hot metal pouring	FXXX	PWR max of iron pouring and sand and molds and cores	Each pouring and mold-cooling line as one emissions unit.

RACM Document Selection	Fugitive Dust Source	Fugitive Dust Emissions Unit Number	Basis for Permit Fee for New or Modified Sources	Recommended Emissions Unit Arrangement
	(6) Shakeout of castings	FXXX	PWR max of castings and sand molds and cores	Each casting shakeout and associated conveying system in one line as one EU.
	(7) Cooling and cleaning castings (nonstick cleaners)	"	PWR max of castings	One EU designation per cleaner.
	(8) Finishing castings	"	"	All of grinding shop as one EU.
	(9) Mold sand preparation	P9XX or FXXX	PWR max of sand and binder	Sources (9) and (14) as one EU per each mold-making line.
	(10) Core and mold sand unloading and storage: • Mechanical handling • Pneumatic handling	FXXX	PWR max of sand thru-put	All unloading, handling and storage as one EU.
	(11) Mixing of core sand and binder	P9XX or FXXX	PWR max of sand and binder thru-put	Sources (11) thru (13) as one EU per each core-making line.
	(12) Core baking	"	NA	See (11)
	(13) Core making	"	"	"
	(14) Mold making	"	"	See (9)
2.9	**Glass Manufacturing Plants:**			
	(1) Feed materials receiving	FXXX	NA	Sources (1) and (2) as one emissions unit.

RACM Document Selection	Fugitive Dust Source	Fugitive Dust Emissions Unit Number	Basis for Permit Fee for New or Modified Sources	Recommended Emissions Unit Arrangement
	(2) Feed materials transfer to storage	FXXX	PWR max of material thru-put	See (1)
	(3) Material batch weighing	"	See (4)	See (4)
	(4) Materials mixing	"	PWR max of material thru-put	Sources (3) and (4) and any associated conveying and transfer points as one EU per material preparation line.
	(5) Melting and refining furnace (**non-stack furnace only**)	"	PWR max of material entering furnace	One furnace per EU designation. These are generally stack sources.
	(6) Glass forming (**non-stack source only**)	FXXX	PWR max of material entering forming	One forming operation per EU designation.
2.10	**Fiberglass Manufacturing:**			
	(1) Feed materials receiving	FXXX	NA	Sources (1) and (2) as one EU.
	(2) Feed materials transfer to storage	"	PWR max of material thru-put	See (1)
	(3) Materials batch weighing	FXXX	NA	See (4)
	(4) Feed materials mixing	"	PWR max of material thru-put	Sources (3) and (4) and any associated conveying and transfer points as one EU per material preparation line.

RACM Document Selection	Fugitive Dust Source	Fugitive Dust Emissions Unit Number	Basis for Permit Fee for New or Modified Sources	Recommended Emissions Unit Arrangement
	(5) Melting, refining (**non-stack source only**);	FXXX	PWR max of material entering furnace	One furnace per EU designation. These are generally stack sources.
	• and forming (**non-stack source only**)	"	PWR max of material entering forming	One forming operation per EU designation. These are generally stack sources.
2.11	**Secondary Aluminum Processing Plants:**			
	(1) Sweating furnace charging and tapping	P9XX	PWR max of stack source only	All fugitive dust sources associated with a furnace are included with the EU for each furnace.
	(2) Crushing and screening scrap metal	FXXX	PWR max of metal thru-put	Each crushing and screening line including any conveying and transfer points as one EU.
	(3) Rotary chip dryer (nonstack source only)	"	PWR max of metal entering dryer	Each dryer as one emissions unit.
	(4) Smelting furnace charging and tapping	P9XX or FXXX	If P9XX, PWR max of stack source only. If FXXX, PWR max of material thru-put.	All fugitive dust sources associated with a furnace are included with the EU for each furnace.
	(5) Fluxing (chlorination)	"	See (4) or if separate FXXX, use PWR max of materials entering batch process.	Include as part of (4) if fluxing is performed in the furnace, or if performed in separate unit, assign one EU per unit.

RACM Document Selection	Fugitive Dust Source	Fugitive Dust Emissions Unit Number	Basis for Permit Fee for New or Modified Sources	Recommended Emissions Unit Arrangement
	(6) Hot dross handling and cooling	FXXX	PWR max of dross thru-put	Each hot dross handling and processing line as one EU.
	(7) Pouring hot metal into molds or crucible	P9XX or FXXX	If P9XX, PWR max of stack source only. If FXXX, PWR max of metal poured.	If metal is poured at smelting furnace, include this source with the corresponding furnace in (4). If metal is poured away from furnace, include all such pouring in one shop as one EU.
	(8) Slag Disposal	FXXX	MPF	All disposal activities and disposal site as one EU.
2.12	**Fertilizer Mixing / Blending Plants:**			
	(1) Rail car unloading and transfer to storage	FXXX	PWR max of material thru-put	Sources (1) thru (3) as one emissions unit per facility.
	(2) Mixing building fugitive losses	"	NA	See (1)
	(3) Loading operations	"	"	"
2.13	**Cement Manufacturing and Blending Plants:**			
	(1) Raw material unloading – gypsum, iron ore, clay, limestone, sand and coal	FXXX	NA	Sources (1) thru (5) as one EU per processing line
	(2) Raw material charging to primary crusher	"	"	See (1)
	(3) Primary crusher	"	"	"

RACM Document Selection	Fugitive Dust Source	Fugitive Dust Emissions Unit Number	Basis for Permit Fee for New or Modified Sources	Recommended Emissions Unit Arrangement
	(4) Transfer and conveying	FXXX	PWR max of material thru-put	See (1)
	(5) Vibrating screen, secondary screen	"	NA	"
	(6) Unloading outfall to storage	"	MPF	All storage piles as one EU.
	(7) Raw material grinding mill and feed/discharge exhaust systems	P9XX or FXXX	PWR max of material thru-put	All grinding mills as one EU if FXXX. If P9XX, one EU designation per such grinder.
	(8) Raw material blending and storage	"	NA	See (7)
	(9) Coal storage	"	NA	See (6)
	(10) Coal transfer to grinding	"	PWR max of coal thru-put	One EU designation per coal handling and processing line.
	(11) Leakage from grinding	P9XX or FXXX	NA	See (10)
	(12) Clinker/gypsum out-fall-loading, storage, loadout	"	PWR max of material thru-put	All clinker/gypsum outfalls as one emissions unit.
	(13) Finish grinding with mill leaks and feed discharge exhaust	"	"	All finish grinding mills as one EU if FXXX. If P9XX, one EU designation per grinder.

RACM Document Selection	Fugitive Dust Source	Fugitive Dust Emissions Unit Number	Basis for Permit Fee for New or Modified Sources	Recommended Emissions Unit Arrangement
	(14) Cement silo vents	FXXX	PWR max of cement loaded into silos	All silos as one EU.
	(15) Cement loading	P9XX or FXXX	PWR max of cement loaded	One EU designation per loading station.
	(16) Cement packaging	"	PWR max of cement packaged	One EU designation per packaging station.
2.14	**Ferroalloy Production:**			
	(1) Raw material unloading;	FXXX	PWR max of material thru-put	All unloading and handling operations at raw materials building as one emissions unit.
	• and storage	FXXX	MPF	All storage piles as one EU.
	(2) Raw material crushing	"	NA	Included with EU for unloading in (1).
	(3) Raw material screening	FXXX	NA	Included with EU for unloading in (1).
	(4) Furnace charging and melting	P9XX	PWR max for stack source only	All fugitive dust sources associated with a furnace are included with the EU for each furnace.
	(5) Furnace tapping	"	NA	See (4)
	(6) Casting, crushing and screening:			
	• Casting	FXXX	PWR max of alloy cast	One EU designation for all casting in each shop.

RACM Document Selection	Fugitive Dust Source	Fugitive Dust Emissions Unit Number	Basis for Permit Fee for New or Modified Sources	Recommended Emissions Unit Arrangement
	• Crushing/grinding product	P9XX or FXXX	PWR max of alloy crushed	If P9XX, one EU designation for each crusher or grinder. If FXXX, all such crushers/grinders in one shop as one EU.
2.15	**Metal Salvage Operations:**			
	(1) Hauling over unpaved surfaces	FXXX	MPF	All unpaved roadways and parking lots as one emissions unit.
	(2) Torching	"	"	All torching stations as one EU. Each torch station can also be a separate EU if needed.
	(3) Shredder	"	PWR max of material thru-put	One EU designation per shredder.
	(4) Magnetic separation/conveying of nonferrous material onto open storage pile	FXXX	PWR max of material thru-put	Sources (4), (5), (7) and (9) as one EU.
	(5) Conveying of ferrous material onto open storage pile	"	NA	See (4)
	(6) Ferrous scrap stockpile	"	MPF	All material stockpiles as one EU.
	(7) Ferrous material handling and loadout	"	NA	See (4)
	(8) Nonferrous material stockpile (if stored on-site)	FXXX	NA	See (6)

RACM Document Selection	Fugitive Dust Source	Fugitive Dust Emissions Unit Number	Basis for Permit Fee for New or Modified Sources	Recommended Emissions Unit Arrangement
	(9) Nonferrous material handling and loadout	FXXX	NA	See (4)
2.16	**Pulp and paper mills:**			
	No specific sources (other than general fugitive dust sources) identified in RACM document.			
2.17	**Woodworking Operations:**			
	(1) Log debarking (sawmills)	FXXX	NA	Sources (1) and (2) as one emissions unit.
	(2) Sawing (sawmills)	"	PWR max of total waste	See (1)
	(3) Sawdust pile loading, unloading and storage (sawmills)	FXXX	MPF	All storage piles as one EU.
	(4) Wood waste storage bin vent	"	NA	Sources (4) and (5) as one EU.
	(5) Wood waste storage bin loadout	"	PWR max of wood waste loaded	See (4)
2.18	**Aggregate Processing Plants:**			
	(1) Raw material unloading (trucks)	FXXX	NA	Sources (1) thru (6) and (8) as one EU per processing line.
	(2) Primary crushing and screening	"	PWR max of material thru-put	See (1)

RACM Document Selection	Fugitive Dust Source	Fugitive Dust Emissions Unit Number	Basis for Permit Fee for New or Modified Sources	Recommended Emissions Unit Arrangement
	(3) Secondary crushing and screening	FXXX	NA	See (1)
	(4) Tertiary crushing and screening	"	"	"
	(5) Recrushing and rescreening	"	"	"
	(6) Screening, conveying and handling	"	"	"
	(7) Storage piles: • Wind erosion • Loading onto piles • Loading out • Vehicular traffic	FXXX	MPF	All storage piles as one emissions unit.
	(8) Product loading (truck): • Front-end loaders (coarse aggregate) • Loading from storage bins (fine aggregate)	"	NA	See (1)
2.19	**Coal Processing Plants:**			
	(1) Unloading: • Truck • Rail car	FXXX	NA	Sources (1) thru (4) and (7) as one EU per processing line.
	(2) Primary crushing	"	PWR max of coal thru-put	See (1)

RACM Document Selection	Fugitive Dust Source	Fugitive Dust Emissions Unit Number	Basis for Permit Fee for New or Modified Sources	Recommended Emissions Unit Arrangement
	(3) Secondary crushing/screening	FXXX	NA	See (1)
	(4) Transfer and conveying	"	"	"
	(5) Cleaning	FXXX or P9XX	PWR max of coal thru-put	All cleaning plant operations as one EU.
	(6) Storage: • Loading onto piles • Wind erosion • Loading out • Vehicular traffic	FXXX	MPF	All storage piles as one EU.
	(7) Loading: • Rail car/barge • Truck	"	NA	See (1)
2.20	**Brick and Related Clay Product Manufacturing Plants:**			
	(1) Truck unloading	FXXX	NA	Sources (1) and (2) as one EU per processing line.
	(2) Primary crusher	FXXX	PWR max of material thru-put	See (1)

RACM Document Selection	Fugitive Dust Source	Fugitive Dust Emissions Unit Number	Basis for Permit Fee for New or Modified Sources	Recommended Emissions Unit Arrangement
2.21	**Asphaltic Concrete Plants:**			
	(1) Storage of coarse and fine aggregate: • Loading onto pile • Vehicular traffic • Load out • Wind erosion	FXXX	MPF	All storage piles as one EU.
	(2) Unloading coarse and fine aggregate to storage bins	P9XX	NA	Sources (2) and (3) as one emissions unit.
	(3) Cold aggregate elevator	P9XX	PWR max for stack source only	See (2)
2.22	**Concrete Batching Plants:**			
	(1) Sand and aggregate storage: • Loading onto piles • Vehicular traffic • Loading out • Wind erosion	FXXX	MPF	All storage piles as one EU.
	(2) Transfer of sand and aggregate to elevated bins	"	PWR max for sand, aggregate & cement	Sources (2) thru (4) as one EU.
	(3) Cement unloading to elevated storage silos	FXXX	NA	See (2)
	(4) Silo vents	"	"	"

RACM Document Selection	Fugitive Dust Source	Fugitive Dust Emissions Unit Number	Basis for Permit Fee for New or Modified Sources	Recommended Emissions Unit Arrangement
	(5) Weigh hopper loading of cement, sand and aggregate	FXXX	Fee based upon either (6), (7), or (8), whichever is applicable	Sources (5) thru (8) as one EU.
	(6) Mixer loading of cement, sand and aggregate (central mix plant)	"	PWR max	Included with the respective weigh hopper in (5) as one EU.
	(7) Loading of transit-mix truck (batch plant)	"	"	"
	(8) Loading of flat-bed truck (dry batch)	FXXX	PWR max	Included with the respective weigh hopper in (5) as one EU. Note that if more than one type of loading [(6), (7), or (8)] is present at the same facility, use one EU designation for each type of loading unless the loading facilities are identical.
2.23	**Sandblasting Operations:**			
	(1) Storage of sand: • Loading onto pile • Vehicular traffic • Loading out • Wind erosion	FXXX	MPF	All storage piles as one emissions unit.
	(2) Unloading sand into storage bin on sand-blaster	FXXX	NA	See (3)
	(3) Sandblasting	"	MPF	Sources (2) and (3) as one EU.

RACM Document Selection	Fugitive Dust Source	Fugitive Dust Emissions Unit Number	Basis for Permit Fee for New or Modified Sources	Recommended Emissions Unit Arrangement
2.24	**Petroleum Refineries:**			
	No specific sources (other than general fugitive dust sources) identified in RACM document.			
2.25	**Agricultural Chemical Manufacturing Plants:**			
	(1) Transfer and conveying	FXXX	PWR max of material thru-put	Sources (1) thru (4) as one EU per processing facility.
	(2) Storage	FXXX	NA	See (1)
	(3) Bagging	"	"	"
	(4) Bulk loading	"	"	"
2.26	**Bulk Gasoline Terminals and Plants:**			
	No specific sources (other than general fugitive dust sources) identified in RACM document.			
2.27	**Carbon Black Plants:**			
	(1) Vents on storage bins	FXXX	PWR max of carbon black	All storage bins as one EU.
	(2) Carbon black bagging operation	FXXX	PWR max of carbon black	All bagging operations as one EU.
	(3) Bulk loading of hopper	"	"	All loading operations as one EU.

RACM Document Selection	Fugitive Dust Source	Fugitive Dust Emissions Unit Number	Basis for Permit Fee for New or Modified Sources	Recommended Emissions Unit Arrangement
	cars			
2.28	**Municipal Incineration:**			
	(1) Refuse dumping, handling	N9XX	PWR max for stack source only	Refuse dumping and handling included with incinerator EU.
	(2) Ash handling;	"	NA	All ash handling operations included with incinerator EU. One EU designation for all activities at the disposal site.
	• and disposal	FXXX	MPF	"
2.29	**Salt Processing Operations:**			
	(1) Conveying	Depends on where conveyors are located. See example diagram.	PWR max for associated handling operations	All related conveying operations should be included under one EU for the associated handling operations.
2.30	**Galvanizing Plants:**			
	(1) Galvanizing kettle: • Batch fed operations • Continuous fed operations	FXXX	PWR max of zinc	One EU designation per galvanizing kettle.

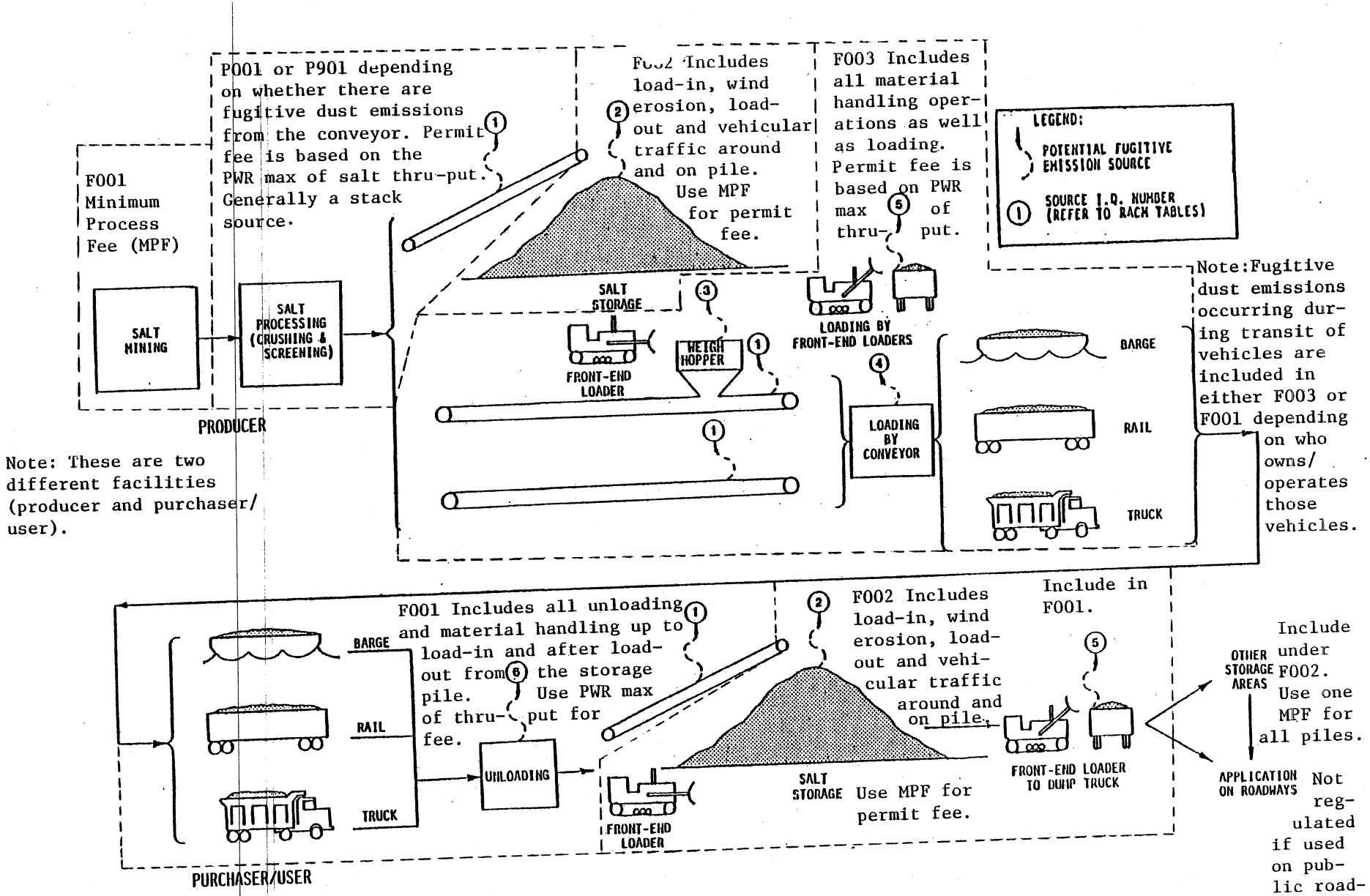

Figure 2.29-1. Simplified process flow diagram for salt processing operations and associated fugitive particulate emission sources.