Best Available Control Technology (BACT) Guideline 8.1.1*

Last Update: 7/19/2018

Woodworking Equipment

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	Woodworking equipment vented to a baghouse system		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.1.2*

Last Update: 3/22/1998

Corrugated Cardboard Manufacturing - Waste Handling System

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	1D-3D Cyclone Collector		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.1.3*

Last Update: 4/15/1995

Paper Handling - Paper Grinding Operation, = or > 60 tons paper/day

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	Paper grinder served by baghouse		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.1.4*

Last Update: 4/17/2020

Cardboard Sawing

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	99% capture and control (cyclone in series with a fabric or cartridge filter dust collector, or equivalent)		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.1.5*

Last Update: 6/15/2020

Glass Cullet Crusher

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	Baghouse with 99% control efficiency		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.2.1*

Last Update: 2/19/2020

Petroleum Coke Handling - Receiving, Storage, and Loadout

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	Receiving: Receiving operation vented to a baghouse		
	Storage/Conveying: Enclosed storage and adequate moisture to prevent visible emissions in excess of 5% opacity		
	Loadout: Loadout operation vented to a baghouse		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.2.2*

Last Update: 7/1/1995

Chrome Plating Operation - Hard Chrome Plating,= or > 5.00 MM Amp-hr/yr

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10		 Merlin enclosed tank cover with 0.1 µm Teflon filter HEPA filter Water Scrubber Mist Suppressant Poly Balls 	

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.2.3*

Last Update: 7/21/2000

Chrome Plating Operation - Decorative Chrome Plating

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	97% control efficiency (Chemical fume suppressant containing a wetting agent)	99.9 % control efficiency (Chrome dome EED enclosed tank cover.)	

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.2.4*

Last Update: 7/18/2000

Chrome Plating Operation - Limited Operation (= or < 500,000 Amp-hr/yr)

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	99% control efficiency (Chemical fume suppressant containing a wetting agent)	99.9 % control efficiency (Chrome dome EED enclosed tank cover.)	Trivalent Chromium Plating

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.2.5*

Last Update: 4/21/2020

Munitions Cartridge Case Manufacturing - Metal *RESCINDED*

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.2.6*

Last Update: 4/21/2020

Brass/Bronze Foundry > or = 300 lb/hr Brass/Bronze Process Rate *RESCINDED*

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.3.1*

Last Update: 4/30/2020

Flat Glass Manufacturing - Adipic Acid Spraying System to Coat Flat Glass before Storage

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	Low Volume (≤ 2 Gallons per Hour per Nozzle) Ultrasonic Spray Equipment with Curtains on Both Sides of the Spray Modules (Minimum Transfer Efficiency of 90%)		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.3.2*

Last Update: 2/21/1998

Animal Matter Rendering Plant

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC		Use of an odor scrubbing system utilizing a scrubbing medium of chlorine dioxide in water with a minimum overall control of 95% or better. Thermal oxidizer utilizing natural gas with a minimum chamber temperature of 1400°F and minimum retention time of 1.0 second with a minimum overall control of 95%.	
PM10		Use of an odor scrubber with a particulate removal system that consists of a particulate scrubber, shell and tube condenser, a Venturi scrubber, a cyclone, an air cooled condenser, and a contact condenser or a combination thereof with a minimum overall control of 95%, or Thermal oxidizer utilizing natural gas with a minimum chamber temperature of 1400°F and minimum retention time of 1.0 seconds with a particulate removal system that consists of a particulate scrubber, shell and tube condenser, a Venturi scrubber, a cyclone, an air cooled condenser, and a contact condenser or a combination thereof with a minimum overall control of 95%.	

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.3.3*

Last Update: 4/11/2003

Standby LPG Fuel Supply System - = or > 30 MMBtu/hr

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	99.9% Control efficiency (Thermal Oxidation, Flare, or equal)		
SOx	LPG		
PM10	0.008 lb/MMBtu		
NOx	0.068 lb/MMBtu		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.3.4*

Last Update: 5/6/2020

Metal Parts and Products Fabrication - Plasma Cutting

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	99.9% efficiency (dust collector with a HEPA filter or equivalent)		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.3.5*

Last Update: 4/21/2020

Satellite Thruster Testing Operation *RESCINDED*

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.3.6*

Last Update: 4/21/2020

Phosphate Fertilizer Manufacturing - Transportable, = or < 40 tons/hour *RESCINDED*

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.3.7*

Last Update: 9/4/2019

Plastic and Polymeric Material Processing - Grinding

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	Cyclone(s) in series with a fabric filter dust collector (99% or greater control efficiency)		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.3.8*

Last Update: 10/10/2019

Explosives Detomation Chamber

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC		1. Thermal Oxidation	
		2. Carbon Adsorption	
		3. Non-Selective Catalytic Reduction	
SOx		 Wet scrubber using a slurry of alkaline sorbent (e.g. limestone) to scrub the gases 	
		2. Dry Scrubber Technology	
PM10	Use of wet scrubber (e.g. sodium hydroxide 0.5% solution), pre-filters and HEPA filtration system (HEPA filter reducing at least 99.97% of particulate matter 0.3 microns diameter or larger)		
NOx		Selective Catalytic Reduction	
		2. Non-Selective Catalytic Reduction	
СО		Oxidation Catalyst	

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.3.9*

Last Update: 3/3/2000

Glass Packing and Cullet Handling Operation - For Flat Glass Manufacturing

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	Packing machine vented to a Fabric Filter Baghouse		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.3.10*

Last Update: 6/19/2000

Cooling Tower - Induced Draft, Evaporative Cooling

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10		Cellular Type Drift Eliminator	

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.3.11*

Last Update: 11/13/2008

Laser Cutting System

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	> 99.9% Control Efficiency (HEPA Dust Collector, Fabric Filter Baghouse, or Equiv.)		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.3.12*

Last Update: 4/21/2020

Helicopter Engine Test Cell *RESCINDED*

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.3.13*

Last Update: 4/15/2002

Carpet Padding Manufacturing – Fabric Fiber Separating Operation

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	95% control (Rotary Drum Filter, or equal)		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.3.14*

Last Update: 8/28/2019

Tire Recycling Operation - Ground Tire Material Processing

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	99% Control (Fabric Filter Baghouse or equal)		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.3.15*

Last Update: 4/21/2020

Solder Paste Manufacturing *RESCINDED*

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.3.16*

Last Update: 9/28/2004

Repair and Maintenance or Emergency Ammonia Venting Operation (=< 100 hr/yr operation)

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
NH3	Flare, or equivalent (99% control efficiency)		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.3.17*

Last Update: 4/21/2020

Sulfur Powder Manufacturing (<= 4 MMBtu/hr Gas Generator) *RESCINDED*

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.3.18*

Last Update: 11/9/2006

Explosives Detonation - when unrestrained detonations or outdoor environmental conditions are required **(Rescinded: 3-06-07)**

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	NONE	NONE	NONE
H2S	NONE	NONE	NONE

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Best Available Control Technology (BACT) Guideline 8.3.19*

Last Update: 5/27/2020

Metal Grinding Operations

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	99% capture and control and use of a fabric filter dust collector or baghouse	Use of a dust collector or baghouse with 0.002 gr/dscf and equipped with HEPA filter (99.97%)	

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.3.20*

Last Update: 8/25/2008

On-line Chemical Vapor Deposition Process**

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	Use of thermal oxidizer	At least 95% overall control (capture and control) using thermal oxidizer or equivalent overall control	
PM10	Use of baghouse	At least 99.5% overall control (capture and control) using baghouse or equivalent overall control	
HCI	Use of dry scrubber (sodium bicarbonate reagent) with a baghouse	At least 99% overall control (capture and control) using dry scrubber system (chamber and baghouse) with sodium bicarbonate reagent or equivalent overall control	

^{**}A process that vaporizes chemicals and deposit them on the glass surface while the glass is being formed

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.3.21*

Last Update: 4/23/2020

Abrasive Blasting Cabinet

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	Use of a dust collector or baghouse	Use of a dust collector or baghouse with 0.002 gr/dscf or equipped with HEPA filter	

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.4.1*

Last Update: 6/15/2020

Dry Material Storage and Handling Operations (Except Grains)

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	Storage, processing equipment, conveyors, and associated material transfer points all enclosed and vented to a fabric filter baghouse (99% control)		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.4.2*

Last Update: 5/14/2020

Wet Material Storage and Conveying Operation

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	Enclosed storage with sufficient moisture so visible emissions are less than 5% opacity from any single emission point		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.4.3*

Last Update: 5/26/2020

Dry Material Handling Operation - Mixing, Blending, Milling, or Storage

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	Mixer, augers, elevators, conveyors, and storage all enclosed and vented to a fabric filter baghouse or equivalent (99% or greater control efficiency)		

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

Best Available Control Technology (BACT) Guideline 8.4.4*

Last Update: 1/27/2004

Mulch and Soil Bagging Operation (Receiving, Outdoor Storage, and Bagging Line Hopper)

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10		Bagging Line Hopper:	
		Baghouse, 99.9% control Use of water spray or fog, or surfactants, to maintain an adequate material moisture content such that the maximum opacity will not exceed 5% Receiving and Outdoor Storage:	
		use of water spray or fog, or surfactants, to maintain an adequate material moisture content such that the maximum opacity will not exceed 5%	

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a State Implementation Plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.