Best Available Control Technology Guidelines

OVERVIEW

Part A: Policy and Procedures for Major Polluting Facilities
Part B: LAER/BACT Determinations for Major Polluting Facilities
Part C: Policy and Procedures for Non-Major Polluting Facilities
Part D: BACT Guidelines for Non-Major Polluting Facilities
Part E: Policy and Procedures for Facilities Subject to Prevention of Significant Deterioration for Greenhouse Gases
Part F: BACT Determinations for Facilities Subject to Prevention of Significant Deterioration for Greenhouse Gases

August 17, 2000 (Revised June 6, 2003; December 5, 2003; July 9, 2004; July 14, 2006; December 2, 2016, February 2, 2018, February 1, 2019, February 5, 2021)

Deputy Executive Officer
Science and Technology Advancement
Matt M. Miyasato

Authors:
Alfonso Baez Program Supervisor
Bahareh Farahani Senior Air Quality Engineer
Tom Lee, P.E. Program Supervisor
Jason Aspell Assistant Deputy Executive Officer
Martin Kay, P.E. Program Supervisor (Retired)
Howard Lange Air Quality Engineer II (Retired)

Reviewed By:
Jill Whynot Chief Operating Officer
Barbara Baird Chief Deputy Counsel
Amir Dejbakhsh Deputy Executive Officer
Naveen Berry Assistant Deputy Executive Officer
William Wong Principal Deputy District Counsel
Bhaskar Chandan, P.E. Senior Air Quality Engineering Manager
Andrew Lee Senior Air Quality Engineering Manager (Retired)
Table of Contents

OVERVIEW .......................................................................................................................... 1

Chapter 1 - Introduction ..................................................................................................... 2

Chapter 2 – Applicability Determination ................................................................. 5
  Major Polluting Facility Emission Thresholds ................................................................. 5
  Potential to Emit ............................................................................................................... 7
  Limiting Potential to Emit ............................................................................................... 7

Chapter 3 - When is BACT Required? ................................................................. 8
  Pollutants Subject to NSR, PSD and BACT ................................................................. 8
  Permit Actions Subject to NSR, PSD and BACT ..........................................................10
  Calculation Procedures for Emission Increases ............................................................11

Chapter 4 - What is BACT? ..................................................................................12
  NSR Rules (Regulation XIII) .......................................................................................12
  PSD Rules (Regulation XVII) ......................................................................................12
  Definition of BACT .........................................................................................................12
  Requirements of Health & Safety Code Section 40440.11 ......................................13
  Clean Fuel Guidelines ..................................................................................................13

Chapter 5 - Review of Staff BACT Determinations ...........................................14
  BACT Scientific Review Committee (BACT SRC) ..................................................14
  Meeting with South Coast AQMD Management .......................................................15
  The BACT Review Committee ....................................................................................15
  The South Coast AQMD Hearing Board ......................................................................15
  The South Coast AQMD Governing Board .................................................................16

PART A - POLICY AND PROCEDURES FOR MAJOR POLLUTING FACILITIES ................. 17

Chapter 1 - How is LAER Determined for Major Polluting Facilities? .......................18
  Criteria for Determining LAER for Major Polluting facilities .......................................18
  LAER Application Cut-off Dates ...................................................................................24
  LAER Update Process .....................................................................................................24
  Clean Fuel Guidelines ....................................................................................................25
  Air Quality-Related Energy Policy ................................................................................26

Chapter 2 - How to Use Part B of the BACT Guidelines ...........................................27
  General ...........................................................................................................................27
  How to Determine LAER ...............................................................................................28

PART B - LAER/BACT DETERMINATIONS FOR MAJOR POLLUTING FACILITIES .................30

PART C - POLICY AND PROCEDURES FOR NON-MAJOR POLLUTING FACILITIES ..........31

Chapter 1 - How Is MSBACT Determined for Minor Polluting Facilities? ....................32
  PART D of the MSBACT Guidelines .............................................................................32
  Criteria for New MSBACT and Updating Part D .............................................................32
  Cost Effectiveness Methodology ....................................................................................35
  Clean Fuel Guidelines ....................................................................................................38
  Air Quality-Related Energy Policy ................................................................................39
  MSBACT Update Process ..............................................................................................39
# TABLE OF CONTENTS

Chapter 2 - How to Use Part D of the MSBACT Guidelines ............................................. 41
  General ......................................................................................................................... 41
  Special Permitting Considerations ............................................................................... 42
  MSBACT Application Cut-Off Dates ............................................................................. 46

PART D - BACT GUIDELINES FOR NON-MAJOR POLLUTING FACILITIES .................. 47

PART E - POLICY AND PROCEDURES FOR FACILITIES SUBJECT TO PREVENTION OF SIGNIFICANT DETERIORATION FOR GREENHOUSE GASES ................................................................. 48

Chapter 1 – GHG BACT ................................................................................................. 49
  Background ................................................................................................................. 49
  Permitting Guidance for GHG .................................................................................... 49
  Federal PSD Applicability for GHG ............................................................................ 50
  South Coast AQMD PSD Applicability for GHG ....................................................... 51
  Top-Down BACT Process ........................................................................................... 51
  GHG Control Measures White Papers ....................................................................... 54

PART F – BACT DETERMINATIONS FOR FACILITIES SUBJECT TO PREVENTION OF SIGNIFICANT DETERIORATION FOR GREENHOUSE GASES ................................................................. 55

LIST OF ABBREVIATIONS ............................................................................................. 56

INDEX OF EQUIPMENT CATEGORIES ........................................................................... 57
## LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIP</td>
<td>Achieved in Practice</td>
</tr>
<tr>
<td>APCD</td>
<td>Air Pollution Control District</td>
</tr>
<tr>
<td>AQMP</td>
<td>Air Quality Management Plan</td>
</tr>
<tr>
<td>BACT</td>
<td>Best available control technology</td>
</tr>
<tr>
<td>BRC</td>
<td>BACT Review Committee, AQMD</td>
</tr>
<tr>
<td>CAA</td>
<td>Clean Air Act</td>
</tr>
<tr>
<td>CAPCOA</td>
<td>California Air Pollution Control Officers Association</td>
</tr>
<tr>
<td>CARB</td>
<td>California Air Resources Board</td>
</tr>
<tr>
<td>CEP</td>
<td>Certified Equipment Permit</td>
</tr>
<tr>
<td>CFC</td>
<td>Chlorofluorocarbons</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>CO</td>
<td>Carbon monoxide</td>
</tr>
<tr>
<td>DEO</td>
<td>Deputy Executive Officer</td>
</tr>
<tr>
<td>H&amp;SC</td>
<td>Health and Safety Code, California State</td>
</tr>
<tr>
<td>LAER</td>
<td>Lowest achievable emission rate</td>
</tr>
<tr>
<td>LPG</td>
<td>Liquefied petroleum gas</td>
</tr>
<tr>
<td>MDAB</td>
<td>Mojave Desert Air Basin</td>
</tr>
<tr>
<td>MSBACT</td>
<td>Minor Source BACT</td>
</tr>
<tr>
<td>NO&lt;sub&gt;2&lt;/sub&gt;</td>
<td>Nitrogen dioxide</td>
</tr>
<tr>
<td>NO&lt;sub&gt;x&lt;/sub&gt;</td>
<td>Oxides of nitrogen</td>
</tr>
<tr>
<td>NSR</td>
<td>New Source Review</td>
</tr>
<tr>
<td>ODC</td>
<td>Ozone depleting compounds</td>
</tr>
<tr>
<td>PM&lt;sub&gt;10&lt;/sub&gt;</td>
<td>Particulate matter less than 10 microns in diameter</td>
</tr>
<tr>
<td>RACT</td>
<td>Reasonably available control technology</td>
</tr>
<tr>
<td>RECLAIM</td>
<td>Regional Clean Air Incentives Market</td>
</tr>
<tr>
<td>ROG</td>
<td>Reactive organic gas</td>
</tr>
<tr>
<td>South Coast AQMD</td>
<td>South Coast Air Quality Management District</td>
</tr>
<tr>
<td>SIP</td>
<td>State Implementation Plan</td>
</tr>
<tr>
<td>SOCAB</td>
<td>South Coast Air Basin</td>
</tr>
<tr>
<td>SO&lt;sub&gt;x&lt;/sub&gt;</td>
<td>Oxides of sulfur</td>
</tr>
<tr>
<td>SRC</td>
<td>Scientific Review Committee</td>
</tr>
<tr>
<td>SSAB</td>
<td>Salton Sea Air Basin</td>
</tr>
<tr>
<td>USEPA</td>
<td>United States Environmental Protection Agency</td>
</tr>
<tr>
<td>VOC</td>
<td>Volatile organic compound</td>
</tr>
</tbody>
</table>
INDEX OF EQUIPMENT CATEGORIES

A
Abrasive Blasting
Absorption Chiller
Air Start Unit
Air Stripper - Ground Water Treatment
Aluminum Melting Furnace - Crucible or Pot (All Charge)
Aluminum Melting Furnace - Crucible or Pot, Ingot and/or Clean Scrap Charge Only
Aluminum Melting Furnace - Reverberatory, Non-Sweating, Ingot or Contaminated Scrap Charge
Aluminum Melting Furnace - Reverberatory, Non-Sweating, Ingot or non-Contaminated Scrap Charge
Aluminum Melting Furnace - Reverberatory, Sweating, Ingot or Contaminated Scrap Charge
Aluminum Melting Furnace - Rotary, Sweating, Ingot or Contaminated Scrap Charge
Ammonium Bisulfate and Thiosulfate Production
Animal Feed Manufacturing - Dry Material Handling (see Bulk Solid Material Handling)
Asbestos Machining Equipment
Asphalt Batch Plant
Asphalt Roofing Line
Asphalt Storage Tank (see Storage Tank – Liquid)
Asphalt Day Tanker
Autobody Shredder

B
Ball Mill
Beryllium Machining Equipment
Blender (see Mixer)
Boiler
Boiler - Refinery Gas Fired
Boiler, CO - Refinery
Boiler - Agricultural Waste (Biomass) Fired
Boiler - Landfill or Digester Gas fired
Boiler - Municipal Solid Waste (MSW) Fired
Boiler - Wood Fired
Brake Pad Grinder
Brakeshoe Debonder
Brass Melting Furnace - Crucible
Brass Melting Furnace - Cupola
Brass Melting Furnace - Reverberatory, Non-Sweating
Brass Melting Furnace - Reverberatory, Sweating
Brass Melting Furnace - Rotary, Non-Sweating
Brass Melting Furnace - Rotary, Sweating
Brass Melting Furnace - Tilting Induction
Bulk Cement - Ship Unloading
Bulk Solid Material Handling
Bulk Solid Material - Ship Loading - Non-White Commodities
Bulk Solid Material - Ship Loading - White Commodities
Bulk Solid Material Ship Unloading - Except Cement
Bulk Solid Material Storage - Non-White Commodities
Bulk Solid Material Storage - White Commodities
Burnoff or Burnout Furnace (Excluding Wax Burnoff)

C
Calcined Petroleum Coke Handling
Calcined Petroleum Coke Truck Loading and Unloading
Calciner
Calciner - Petroleum Coke
Calciner - Portland Cement
Carpet Beating and Shearing
Carpet Oven (see Dryer or Oven)
Catalyst Manufacturing - Reactor
Catalyst Manufacturing - Rotary Dryer
Catalyst Manufacturing - Spray Dryer
Catalyst Regeneration - Fluidized Catalyst Cracking Unit
Catalyst Regeneration - Hydrocarbon Removal
Catalyst Regeneration and Manufacturing Calcining
Cement Handling (see Bulk Cement – Ship Unloading)
Charbroiler, Chain-driven (Conveyorized)
Chemical Milling Tank - Aluminum and Magnesium
Chemical Milling Tank - Nickel Alloys, Stainless Steel and Titanium
Chip Dryer
Chrome Plating - Decorative Chrome
Chrome Plating - Hard Chrome
Circuit Board Etcher - Batch Immersion Type, Subtractive Process
Circuit Board Etcher - Conveyorized Spray Type, Subtractive Process
Circuit Board Photoresist Developer
Clay, Ceramic, and Refractories Handling (Except Mixing) (see Bulk Solid Material Handling)
Cleaning Compound Blender
CO2 Plant
Coal, Coke and Sulfur Handling and Storage (see Bulk Solid Material Handling and Bulk Solid Material Storage)
Coffee Roasting
Coffee Roasting – Handling Equipment
Commodities Handling and Storage (see Bulk Solid Material Handling and Bulk Solid Material Storage)
Composting
Compressors (see Fugitive Emission Sources)
Connectors - Gas/Vapor and Light Liquid (see Fugitive Emission Sources)
Concrete Batch Plant - Central Mixed
Concrete Batch Plant - Transit-Mixed
Concrete Blocks and Forms Manufacturing
Cotton Gin
Crematory

D
Degreaser - Batch-Loaded or Conveyorized Cold Cleaners
Degreaser - Conveyorized Vapor, Volatile Organic Compounds
Degreaser - Vapor Cleaning, Volatile Organic Compounds
Degreaser - Other
Detergent Manufacturing - Solids Handling
Detergent Manufacturing - Spray Dryer
Diaphragm (see Fugitive Emission Sources)
Diesel Engine (see I.C. Engine – Compression Ignition)
Drum Reclamation Furnace
Dry Cleaning - Perchloroethylene
Dry Cleaning - Petroleum Solvent
Dry Material Handling (see Bulk Solid Material Handling)
Dryer - Kiln
Dryer - Rotary, Spray and Flash
Dryer – Tenter Frame, Fabric
Dryer - Tray, Agitated Pan, and Rotary Vacuum
Dryer or Oven - Direct and Indirect Fired

E
Electric Furnace - Pyrolyzing, Carbonizing and Graphitizing
Electrical Wire Reclamation - Insulation Burnoff Furnace
Ethylene Oxide Sterilization - Quarantine Storage
Ethylene Oxide Sterilization/Aeration
Expanded Polystyrene Manufacturing, Using Blowing Agent (see Polymeric Cellular [Foam] Product Manufacturing)
Extrusion (see Plastic or Resin Extrusion)

F
Fatty Acid - Fat Hydrolyzing and Fractionation
Fatty Alcohol
Feed and Grain Handling (see Bulk Solid Material Handling)
Fermentation - Beer and Wine
Fertilizer Handling (see Bulk Solid Material Handling)
Fiber Impregnation
Fiberglass Fabrication (see Polyester Resin Operations)
Film Cleaning Machine (see Degreaser)
Fish Cooker - Edible
Fish Reduction - Cooker
Fish Reduction - Digester, Evaporator and Acidulation Tank
Fish Reduction - Dryer
Fish Reduction - Meal Handling
Fish Rendering - Presses, Centrifuges, Separators, Tank, etc.
Fittings (see Fugitive Emission Sources)
Flare - Digester Gas or Landfill Gas from Non-Hazardous Waste Landfill
Flare - Landfill Gas from Hazardous Waste Landfill
Flare - Refinery, Non-Emergency
Flexographic Printing (see Printing)
Flow Coater, Dip Tank and Roller Coater
Fluidized Catalytic Cracking Unit
Foundry Sand Mold - Cold Cure Process
Fryer - Deep Fat
Fugitive Emission Sources at Natural Gas Plants and Oil and Gas Production Fields
Fugitive Emission Sources at Organic Liquid Bulk Loading Facilities
Fugitive Emission Sources, Other facilities
Fuming Sulfuric Acid Storage Tank (see Storage Tank – Fuming Sulfuric Acid)

G
Galvanizing Furnace - Batch Operations
Galvanizing Furnace - Continuous Sheet Metal Operations
Galvanizing Furnace - Continuous Wire Operations
Garnetting Equipment
Gas Turbine - Combined Cycle/Cogeneration
Gas Turbine - Emergency
Gas Turbine - Landfill or Digester Gas Fired
Gas Turbine - Simple Cycle
Glass Melting Furnace - Container Manufacturing
Glass Melting Furnace - Decorator Glass
Glass Melting Furnace - Flat Glass
Graphic Arts (see Printing)
Greenhouse Gas
Green Petroleum Coke Handling (see Bulk Solid Material Handling)
Green Petroleum Coke Truck Loading or Unloading (see Bulk Solid Material Handling)

H
Hatches (see Fugitive Emission Sources)
Hazardous Waste Incineration (see Incinerator – Hazardous Waste)
Heater (see Process Heater)

I
I.C. Engine - Emergency, Compression Ignition
I.C. Engine - Emergency, Spark Ignition
I.C. Engine - Fire Pump
I.C. Engine - Portable, Compression Ignition
I.C. Engine - Portable, Spark Ignition
I.C. Engine - Stationary, Non-Emergency
I.C. Engine - Landfill or Digester Gas Fired
Incinerator – Hazardous Waste
Incinerator - Infectious Waste
Incinerator - Non-Infectious, Non-Hazardous Waste
Ink Jet Printing
Iron Melting Furnace - Cupola
Iron Melting Furnace - Induction
Iron Melting Furnace - Reverberatory
INDEX OF EQUIPMENT CATEGORIES

J
Jet Engine Test Facility - Experimental Jet Engine, High Altitude Testing
Jet Engine Test Facility - Experimental Jet Engine, Sea Level (Low Altitude) Testing
Jet Engine Test Facility - Jet engine Performance Testing

L
Laminator with Corona Transfer
Landfill Gas Gathering System
Latex Manufacturing - Reaction
Lead Melting Furnace - Cupola, Secondary Melting Operations
Lead Melting Furnace - Pot or Crucible, Non-Refining Operations
Lead Melting Furnace - Pot or Crucible, Refining Operations
Lead Melting Furnace - Reverberatory, Secondary Melting Operations
Lead Oxide Manufacturing - Reaction Pot Barton Process
Letterpress Printing (see Printing)
Liquid Transfer and Handling - Container Filling
Liquid Transfer and Handling - Marine, Loading
Liquid Transfer and Handling - Marine, Unloading
Liquid Transfer and Handling - Tank Truck and Rail Car Bulk Loading, Class A (SCAQMD's Rule 462)
Liquid Transfer and Handling - Tank Truck and Rail Car Bulk Loading, Class B (SCAQMD's Rule 462)
Liquid Transfer and Handling - Tank Truck and Rail Car Bulk Loading, Class C (SCAQMD's Rule 462)
Lithographic Printing Heatset (see Printing)
Lithographic Printing - Non-Heatset (see Printing)

M
Meat Broiler and Barbecue Oven
Metal Forging Furnace
Metal Heating Furnace
Metallizing Spray Gun
Meters (see Fugitive Emission Sources)
Mixer or Blender - Wet
Mixer, Blender, or Mill - Dry

N
Natural Fertilizer Handling (see Bulk Solid Material Handling)
Natural Gas Plants (see Fugitive Emission Sources)
Nitric Acid Manufacturing
Non-Metallic Mineral Processing - Except Rock and Aggregate
Nut Roasting - Handling Equipment
Nut Roasting

O
Offset Printing (see Lithographic Printing)
Oil and Gas Production - Combined Tankage
Oil and Gas Production - Wellhead
Oil and Gas Production Fields (see Fugitive Emission Sources)
Oil/Water Separator (see Wastewater System)
Open Spraying - Spray Gun
Open-ended Valves or Lines (see Fugitive Emission Sources)
Organic Liquid Bulk Loading Facilities (see Fugitive Emission Sources)
Oven (see Dryer or Oven)

Paper and Fiber Handling (see Bulk Solid Material Handling)
Perlite Manufacturing System
Petroleum Coke Calciner (see Calciner – Petroleum Coke)
Pharmaceutical Manufacturing
Pharmaceutical - Operations Involving Solvents
Phosphoric Acid - Thermal Process
Phthalic Anhydride
Pipe – Open Ended (see Fugitive Emission Sources)
Plasma Arc Metal Cutting Torch, Electrical Input Rating
Plastic or Resin Extrusion
Pneumatic Conveying - Except Paper and Fibers (see Bulk Solid Material Handling)
Polyester Resin Operations - Molding and Casting
Polyester Resin Operations – Fiberglass Fabrication, Hand and Spray Layup
Polyester Resin Operations – Fiberglass Fabrication, Panel Manufacturing
Polyester Resin Operations – Fiberglass Fabrication, Pultrusion
Polyethylene Manufacturing (see Resin Manufacturing)
Polymeric Cellular (Foam) Product Manufacturing
Polypropylene Manufacturing (see Resin Manufacturing)
Polystyrene Extrusion (see Plastic or Resin Extrusion)
Polystyrene Foam Product Manufacturing (see Polymeric Cellular [Foam] Product Manufacturing)
Polystyrene Foam Product Manufacturing, Using Blowing Agent (see Polymeric Cellular [Foam] Product Manufacturing)
Polystyrene Manufacturing (see Resin Manufacturing)
Polyurethane Tube Manufacturing
Powder Coating Booth
Precious Metal Reclamation - Incineration
Precious Metals Recovery - Chemical Recovery and Chemical Reactions
Pressure Relief Valve (see Fugitive Emission Sources)
Printing (Graphic Arts) – Flexographic
Printing (Graphic Arts) – Letterpress
Printing (Graphic Arts) – Lithographic, Heatset
Printing (Graphic Arts) – Lithographic, Non-Heatset
Printing (Graphic Arts) – Rotogravure or Gravure – Publication and Packaging
Printing (Graphic Arts) – Screen Printing and Drying
Process Drains (see Wastewater System)
Process Heater – Non-Refinery
Process Heater - Refinery
Process Valves (see Fugitive Emission Sources)
Pultrusion (see Polyester Resin Operations)
Pumps (see Fugitive Emission Sources)
INDEX OF EQUIPMENT CATEGORIES

R
Railcar Dumper (see Bulk Solid Material Handling)
Railcar Loading/Unloading, Liquid (see Liquid Transfer and Handling)
Reactor with Atmospheric Vent
Rendering - Crax Pressing, filtering and Centrifuging Operations
Rendering - Evaporators, Cookers and Dryers
Rendering - Grease and Blood Processing
Rendering - Metal Grinding and Handling System
Rendering - Tanks and Miscellaneous Equipment
Resin Manufacturing
Rock - Aggregate Processing
Rocket Engine Test Cell
Rolling Mill
Rotogravure Printing - Publication and Packaging (see Printing)
Rubber Compounding - Banbury Type Mixer
Rubber Compounding – Roll Mill

S
SamplingConnections (see Fugitive Emission Sources)
Sand Handling System with Shakeout and/or Muller in System
Screen Printing and Drying (see Printing)
Sewage Treatment Plants
Sight Glass (see Fugitive Emission Sources)
Silo (see Bulk Solid Material Storage)
Smokehouse
Solder Leveling - Hot Oil or Hot Air
Solid Material Handling –(see Bulk Solid Material Handling)
Solid Material Storage –(see Bulk Solid Material Storage)
Solid Material Unloading - Railcar Dumper (see Bulk Solid Material Handling)
Solids Handling Catalyst (see Catalyst Manufacturing and Regeneration)
Solids Handling Pharmaceutical (see Pharmaceutical Manufacturing)
Solvent Reclamation
Spray Booth
Steam Generator - Oil field
Steel Melting Furnace - Basic Oxygen Process
Steel Melting Furnace - Electric Arc
Steel Melting Furnace - Induction
Steel Melting Furnace - Open Hearth
Storage Tank (see also Bulk Solid Material Storage)
Storage Tank - External Floating Roof, and VP <= 11 psia
Storage Tank - Fixed Roof
Storage Tank - Fuming Sulfuric Acid
Storage Tank - Grease or Tallow Storage Tank - Internal Floating Roof
Storage Tank – Liquid
Storage Tank - Spent Sulfuric Acid
Storage Tank - Underground
Sulfur Handling and Storage (see Bulk Solid Material Handling and Bulk Solid Material Storage)
Sulfur Pelletizing and Prilling
Sulfur Recovery Plant
Sulfuric Acid Storage (see Storage Tank – Liquid)
Surfactant Manufacturing

T
Tank Degassing
Tank - Grease or Tallow Processing
Tank Truck Loading/Unloading (see Liquid Transfer and Handling)
Tire Buffer
Tunnel Washer

V
Vegetable Oil Purification
Vinegar Manufacturing

W
Wastewater System
Wastewater System – Air Stripper
Wastewater System – Oil/Water Separator
Wastewater System - Sour Water Stripping
Wax Burnoff Furnace
Wet Material Handling (see Bulk Solid Material Handling)
Wood Processing Equipment
Woodworking

Z
Zinc Melting Furnace - Crucible or Pot
Zinc Melting Furnace - Reverberatory, Non-Sweating Operations
Zinc Melting Furnace - Reverberatory, Sweating Operations
Zinc Melting Furnace - Rotary, Sweating Operations