

ATTACHMENT 1

SUPPLEMENTAL AND UPDATED INFORMATION SOUTH PIERCE PLANT

Facility-wide Items

1. Please include a provision allowing for 5 percent downtime for monitors and recording equipment due to maintenance, calibration or malfunction, as allowed under certain NSPS.
2. Please note that a total of the daily records may differ somewhat from the annual totals due to inventory adjustments. IMC relies on the daily records for the purposes of annual reports.
3. Please include a provision that would allow equivalency of the methods for recording monitoring parameters such as strip charts, manual records, electronically logged manual reading, electronic records, and electronically filtered records.
4. The procedure, for revision of emission control equipment operating parameter ranges, should be clarified to allow the testing, reporting and implementing of off-permit changes for indicator ranges established for MACT, CAM and emission units under the current facility-wide Condition No. 14. Suggested wording is as follows:

An excursion would occur in case of emission control equipment operating ± 20 percent of the baseline established value of the daily average of the indicator range determined during annual compliance testing. If an excursion occurs, corrective action will be initiated, including an evaluation of what corrective action is appropriate. The excursion would not be considered a violation if compliance testing is conducted within 30 days to demonstrate compliant operations within the updated indicator range (with due 15-day prior written, including email, notice to FDEP).

Emission Unit-Specific Items (grouped by topic)

5. EU 004 and EU 005:

Specific Conditions C10 and C16: The required calculations for the sulfuric acid plants should allow equivalent methods (Reich test) used for determining the SO₂ strength. Equivalent methods of monitoring and reporting should be allowed in the permit. For example, approval of a procedure for electronic calculation of the lb/ton conversion factor required for sulfuric plants that is part of an electronic report generated using programming or software.

6. Please delete the following units as they have been eliminated:

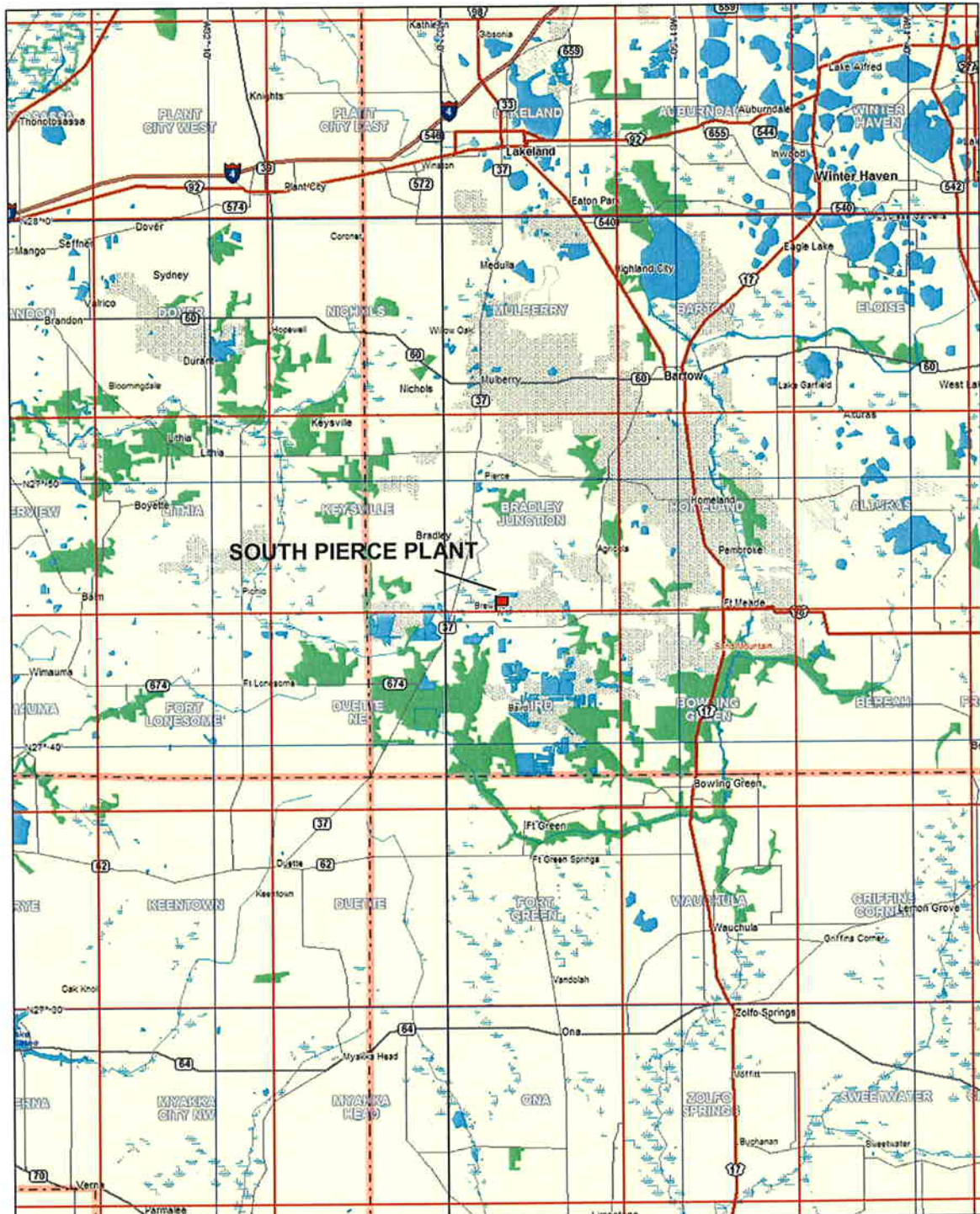
- 002 – West Loadout
- 003 – Purified MAP/DAP Plant
- 012 – Purified MAP/DAP Plant, Silo No. 3
- 013 – Purified MAP/DAP Plant, Bagging Machine
- 014 – Purified MAP/DAP Plant, Bulk Truck Loading
- 016 – Silicofluoride Plant Dryer
- 017 – Silicofluoride Plant Packaging
- 027 – Purified MAP/DAP Plant, Silo No. 2
- 028 – Purified MAP/DAP Plant, Silo No. 1
- 029 – Purified MAP/DAP Plant, Bulk Railcar Loading
- 034 – Vent 5, Molten Sulfur Tank 1
- 044 – Molten Sulfur Rail Pit, North Vent
- 045 – Molten Sulfur Rail Pit, South Vent
- 046 – MAP/DAP Filter Cake Dryer

ATTACHMENT 2
(Submitted Electronically)

ITEM 1: LOCATION MAP

SITE LOCATION MAP

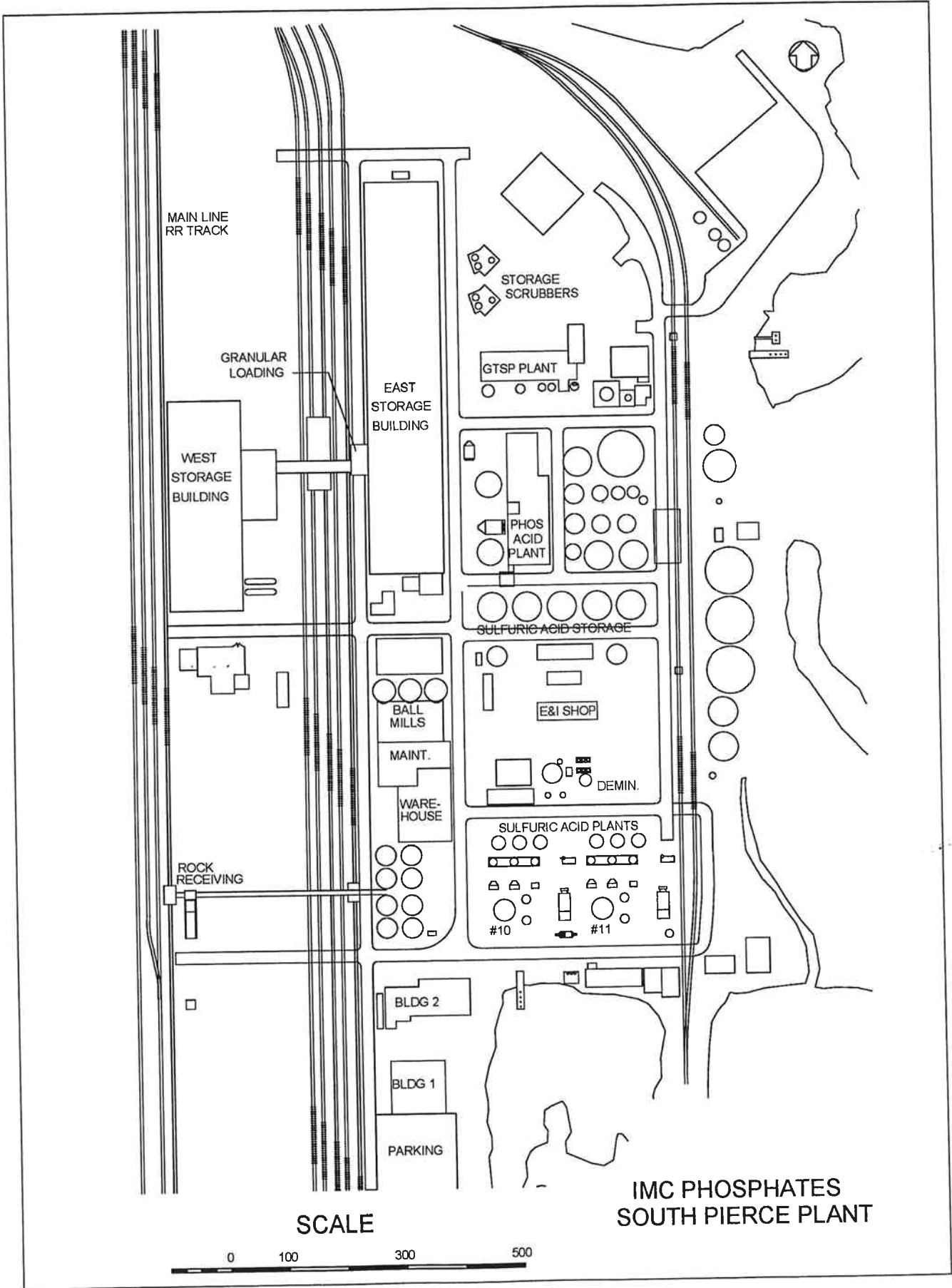
IMC PHOSPHATES—SOUTH PIERCE PLANT



3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096 | 1 mi Scale 1: 380,000 Detail 9:2 Datum WGS84

ATTACHMENT 2
(Submitted Electronically)

ITEM 2: FACILITY LAYOUT MAP



MAIN LINE RR TRACK

GRANULAR LOADING

WEST STORAGE BUILDING

EAST STORAGE BUILDING

STORAGE SCRUBBERS

GTSP PLANT

PHOS ACID PLANT

SULFURIC ACID STORAGE

E&I SHOP

DEMIN.

SULFURIC ACID PLANTS

#10

#11

BALL MILLS

MAINT.

WARE-HOUSE

ROCK RECEIVING

BLDG 2

BLDG 1

PARKING

SCALE

IMC PHOSPHATES SOUTH PIERCE PLANT

0 100 300 500

ATTACHMENT 2
(Submitted Electronically)

ITEM 3: PROCESS FLOW DIAGRAMS

ATTACHMENT 2
(Submitted Electronically)

ITEM 4: PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED
PARTICULATE MATTER

PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

Reasonable precautions to minimize emissions of unconfined particulate matter may include, as necessary:

- Paved roadways; application of water to unpaved roads.
- Landscaping or planting of vegetation.
- Use of enclosures and windbreaks, where practical.
- Oiling of fertilizer products to reduce dust generation.

ATTACHMENT 2
(Submitted Electronically)

ITEM 5: LIST OF INSIGNIFICANT AND/OR UNREGULATED ACTIVITIES

LIST OF INSIGNIFICANT AND/OR UNREGULATED EMISSIONS UNITS FOR TITLE V PERMIT

GENERAL FACILITY WIDE

E	abrasive cleaning - indoors
E	agricultural related activities
E	air compressors
E	air conditioners
E	air vents in compressed air systems
E	ammonia bullets, pipeline, pop off valves, flanges, truck/rail unloading, flares and chillers
CD	asbestos, waste and haz-waste removal
CD	automatic oil/lube systems for mechanical equipment and fueling operations
E	automotive, tractor, locomotives and their repair shops
E	blueprint copiers
E	building ventilation systems
E	caustic tanks/vents
E	closed containers of maintenance chemicals
CD	cold cleaning degreasers (containing heavier than air solvents)
E	construction/repair of office, storage and residential units
E	containers, reservoirs, wax and grease
GD	containers and tanks for oils
CD	cooling ponds and process water storage ponds, gypsum stacks
GD	cooling towers (no heavy metals used as antiscalants or algaecides)
E	degassifiers/deaerators
CD	diesel pump motors
E	drain vents
E	drinking water treatment area and wastewater treatment plant
E	ducts, chutes, equipment maintenance
E	dumpsters, other miscellaneous waste collection and handling
GD	electric substation/electric yard
E	electric-powered vehicles
E	electrical charging systems
E	electrically heated equipment for heat treating, drying, annealing, etc.
E	equipment cleaning, including steam cleaning
E	equipment for bonding brake shoes
E	equipment of hydraulic or hydrostatic testing
E	fire training exercises
E	food preparation, handling, consumption
E	fresh water tanks/vents
E	fuel tanks and dispensers
CD	gypsum stack process water re-circulation system (ditches, ponds, spillways)
E	hand held equipment
GD	handling of baghouse materials
E	hydroblasting
E	instrument air systems/vents
CD	laboratories (quality control, analytical, metallurgical)
E	landscaping and farm equipment
GD	lime silo with baghouse
E	lime tanks/vents

E	liming station
E	liquid sampling systems
E	maintenance of facilities
E	maintenance of grounds
E	maintenance shops
E	mechanical drives/gearboxes
CD	metal shops
GD	minor fugitive leaks from process equipment
E	mobile equipment fueling operations (diesel/gasoline)
E	mobile sources, including internal combustion engines, pumps, compressors, generators, welding , etc
E	neutralization tanks/vents
E	non process mineral spirits use
E	open containers in use
E	painting /coating of equipment, tanks and structures (less than 6 gallons per day)
CD	portable kerosene space heaters
E	pressure/steam relief valves
GD	process water treatment and management systems
GD	pump seals
E	purchased non-listed chemical tanks/vents (no HAP or VOC content)
GD	railcar/truck/tanker unloading
E	railroad flares
GD	raw material, reclaim/recycle material and product transfer and storage tanks
GD	reclaimed mined areas
E	reclaimed water tank vents
CD	refrigeration systems
GD	rock pile, rock hoppers, rock grinding mills
CD	safety devices . .
CD	safety kleen solvent cleaners
E	sandbasters, welding equipment, compressors, wood shop, metal shop
E	service of air pollution control devices
CD	space heaters
E	steam vents/leaks
E	storage facilities for packaged materials
E	storage tanks and dispensers
GD	sulfuric acid tanks/vents
E	sweeping and general cleanup
E	temporary use of compressors, generators, water pumps with internal combustion engines
GD	transfer of materials on covered belt systems
GD	transformer vault/building
E	vacuum cleaning systems
GD	valves and flanges (no HAP or VOC content)
E	washing and cleaning equipment
E	waste preparation for disposal (in closed drums or other containers, spill cleanup)
GD	wastewater plants, water treatment area
CD	water pumps
E	water treatment aeration
E	water treatment chemical tanks/totes/drums
GD	wet limestone transfer, handling, storage
E	woodworking shops
E	fugitive emissions of PM/PM10, SO2, NOx, CO, VOCs, NH3 and HAPs

GRANULATION

GD	choke feeder, covered conveyors, screening tower
GD	chutes, conveyor and hopper
E	coating oil tanks
GD	cooling tower, slurry pump, scrubber sump
GD	covered conveyor, surge bin, product screens, chute to truck/railcar
GD	material conveyors, elevators and screens
E	oil coating application systems
E	pond water sumps
GD	product recovery units
GD	raw material, reclaim material and product storage tanks, bins and buildings
GD	scrubber seal tanks
E	seal oil tanks

MOLTEN SULFUR HANDLING

GD	molten sulfur storage tank fires
GD	tanker truck/rail unloading
GD	sulfur spill cleanup

PHOSPHATE ROCK HANDLING

GD	railcar unloading and unloading pit
GD	rock and feed hoppers, conveyors
GD	train/truck unloading, hoppers, conveyors, wet rock stacking on pile
GD	wet rock grinding
GD	wet rock pile, stacking and transfer

SULFURIC ACID PRODUCTION

E	auxiliary power diesel generators
E	auxiliary power generator diesel tank
GD	cooling towers
E	economizers
GD	hot water reuse tank
GD	process and product storage tanks
GD	sulfuric acid tanker truck/rail loading/unloading
E	water reuse, uncontaminated water storage, condensate tanks for evaporators

NOTES:

1. E reflects items to be exempted under EPA "trivial list" criteria
2. CD reflects items to be exempted under DEP's categorical exemption criteria
3. GD reflects items to be exempted under DEP's generic exemption criteria or criteria in 62-4.040 FAC

ATTACHMENT 2
(Submitted Electronically)

ITEM 6: SUMMARY OF FUGITIVE EMISSIONS

FUGITIVE EMISSIONS

The phosphate fertilizer manufacturing process and associated activities result in fugitive emissions of PM/PM10, SO₂, NO_x, CO, VOCs, NH₃ and HAPs from the receiving, storage, handling, transfer and use of process, product and maintenance related materials. These fugitive emissions may occur both inside the manufacturing buildings and outside within the plant site.

ATTACHMENT 2
(Submitted Electronically)

ITEM 7: SUMMARY OF BAGHOUSE TEST DATA

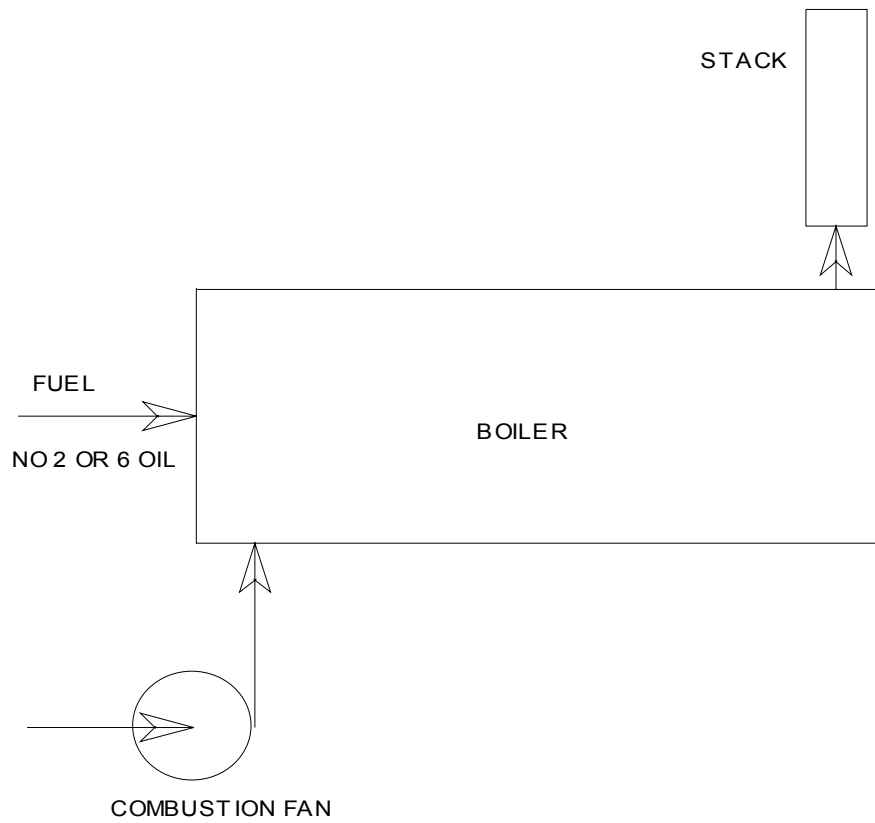
SUMMARY OF BAGHOUSE TESTS

EU O22, No. 2 BALL MILL GRINDING SYSTEM

Proposed Operating Range: Maximum Pressure Drop of 15 in. H₂O

DATE	OPACITY		PM Emissions (lb/hr)		DP (in.H ₂ O)
	Test	Allowable	Test	Allowable	
02/18/99	0	20			7.0
01/25/00	0	20			3.0
03/20/01	0	20			1.0
04/15/02	0	20			0.8
11/19/03	5.6	20	0.2	31.8	3.1

Flow Diagram



Control Equipment Discription

The boiler has no specific emission controls. The emissions are limited by the type of fuel oil consumed.

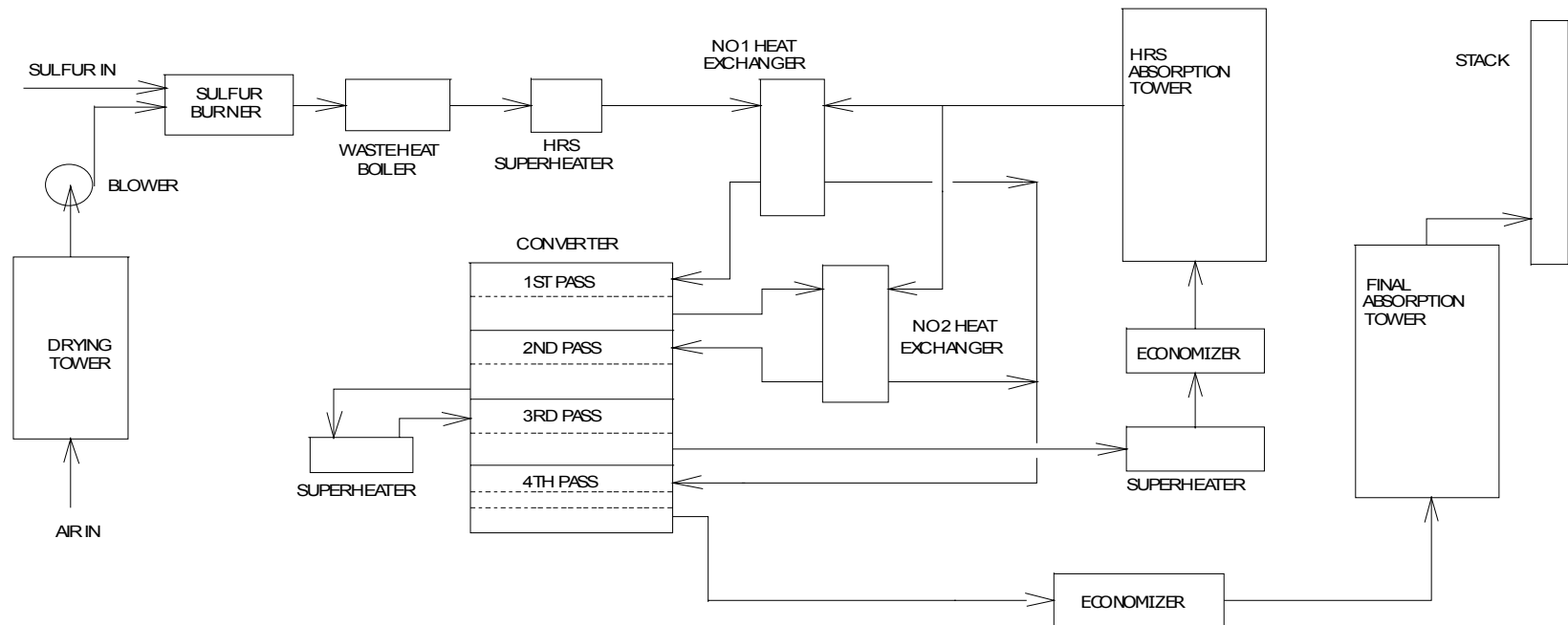
Emission Unit: **Auxiliary Boiler**

ID No.: **001**

Facility: **IMC Phosphates South Pierce Plant**

ID No.: **1050055**

Flow Diagram



Control Equipment Discription

The Sulfuric Acid Plant consists of a double absorption system. Acid Mist emissions are controlled by a demister.

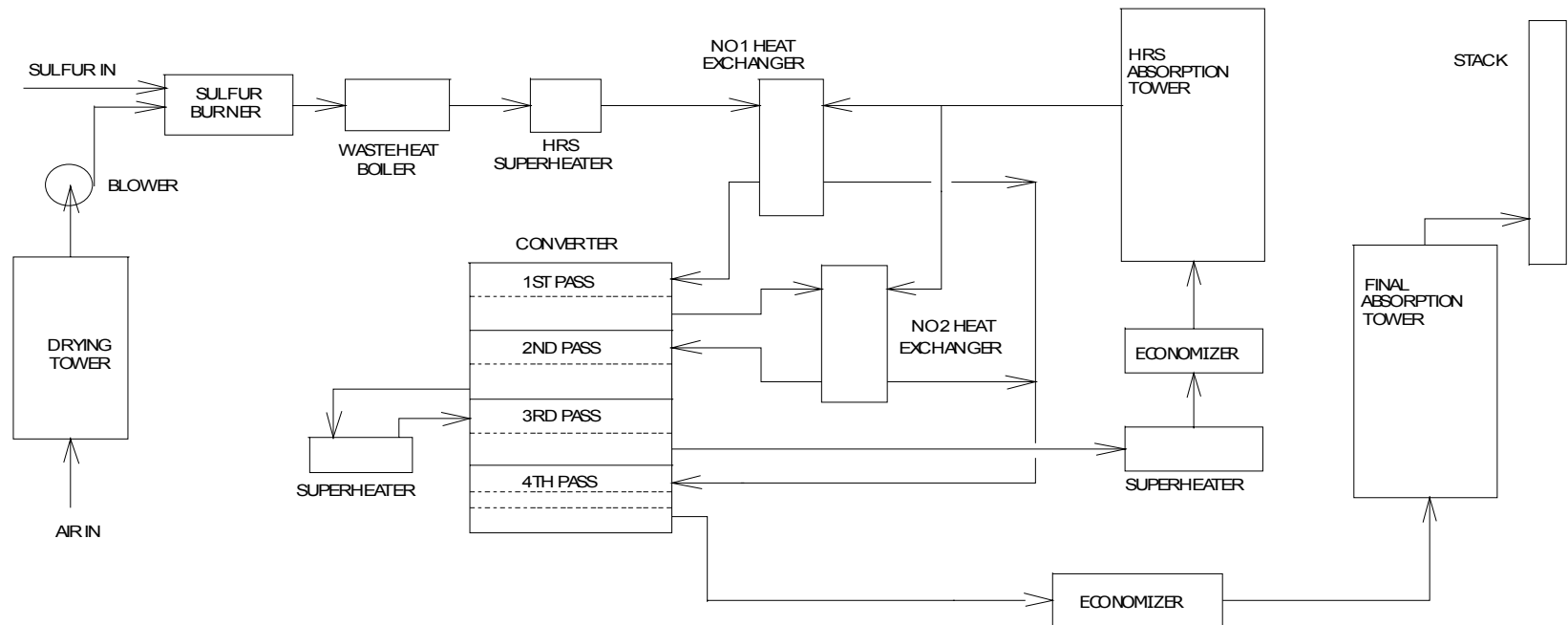
Emission Unit: **Sulfuric Acid Plant No. 10**

ID No.: **004**

Facility: **IMC Phosphates South Pierce Plant**

ID No.: **1050055**

Flow Diagram



Control Equipment Discription

The Sulfuric Acid Plant consists of a double absorption system. Acid Mist emissions are controlled by a demister.

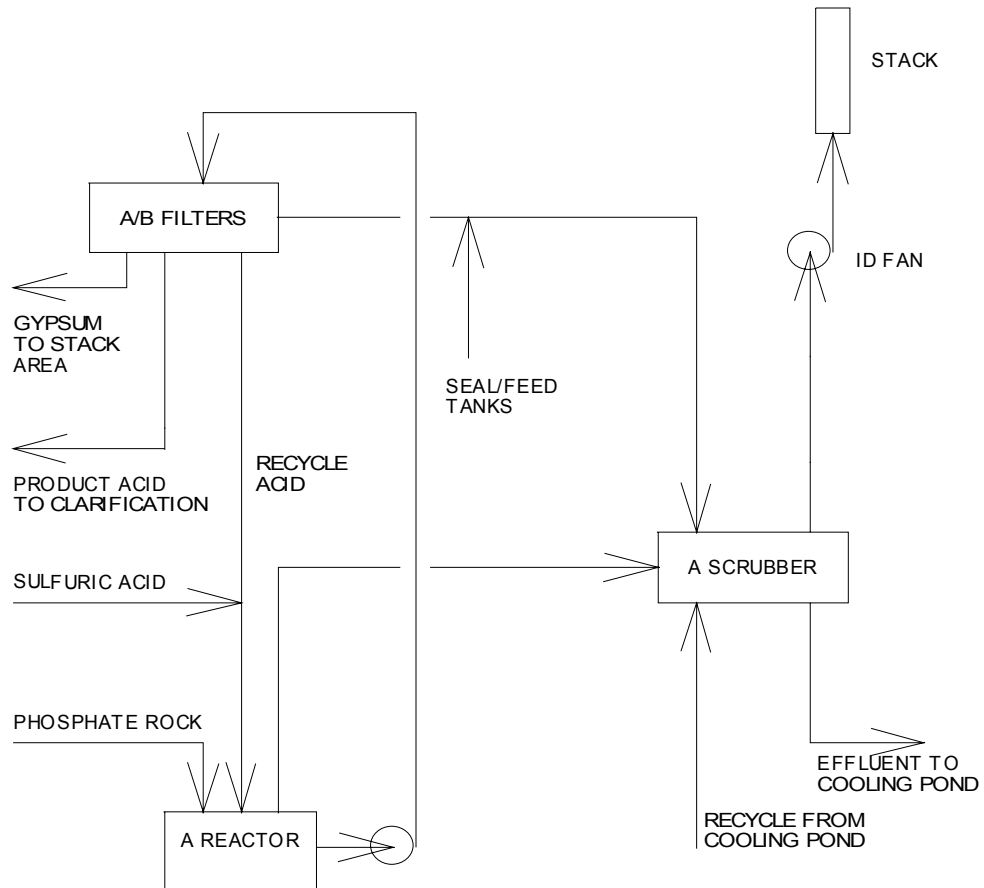
Emission Unit: **Sulfuric Acid Plant No. 11**

ID No.: **005**

Facility: **IMC Phosphates South Pierce Plant**

ID No.: **1050055**

Flow Diagram



Control Equipment Description

The emissions from the reactor, filter and seal tanks are controlled by a crossflow scrubber using process water. The scrubber contains Kimre Pads as its packing material.

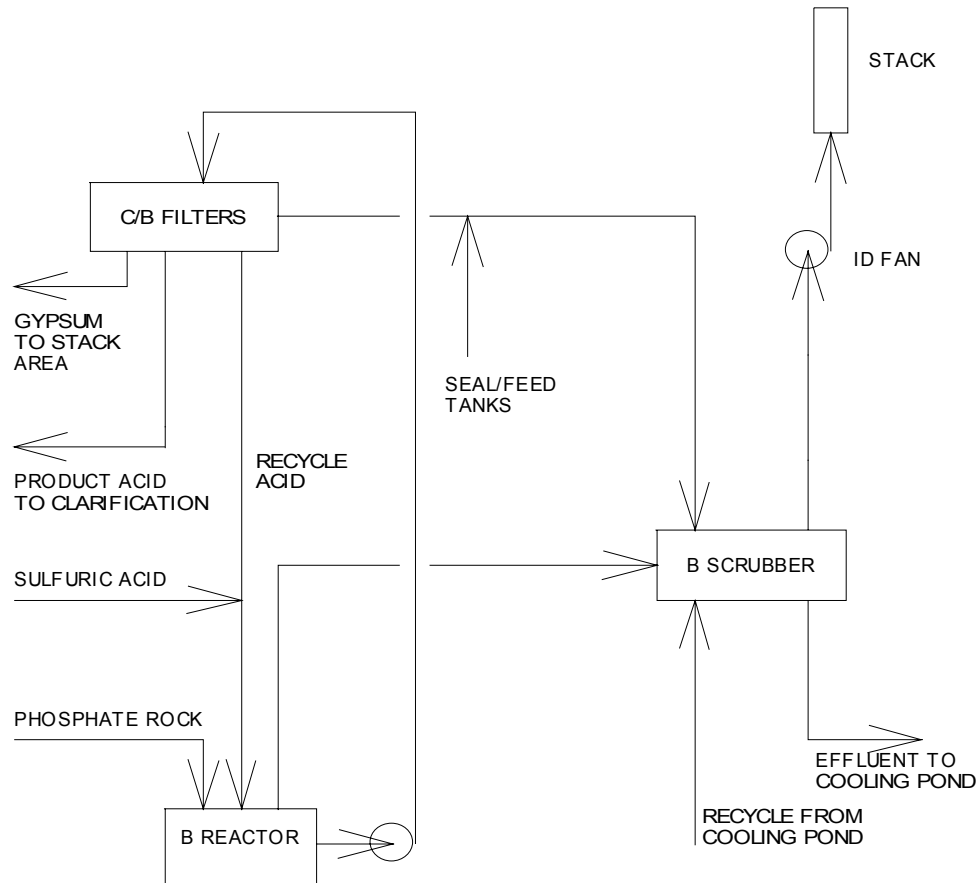
Emission Unit: **Phosphoric Acid Plant - A Train**

ID No.: **008**

Facility: **IMC Phosphates South Pierce Plant**

ID No.: **1050055**

Flow Diagram



Control Equipment Description

The emissions from the reactor, filter and seal tanks are controlled by a crossflow scrubber using process water. The scrubber contains Kimre Pads as its packing material.

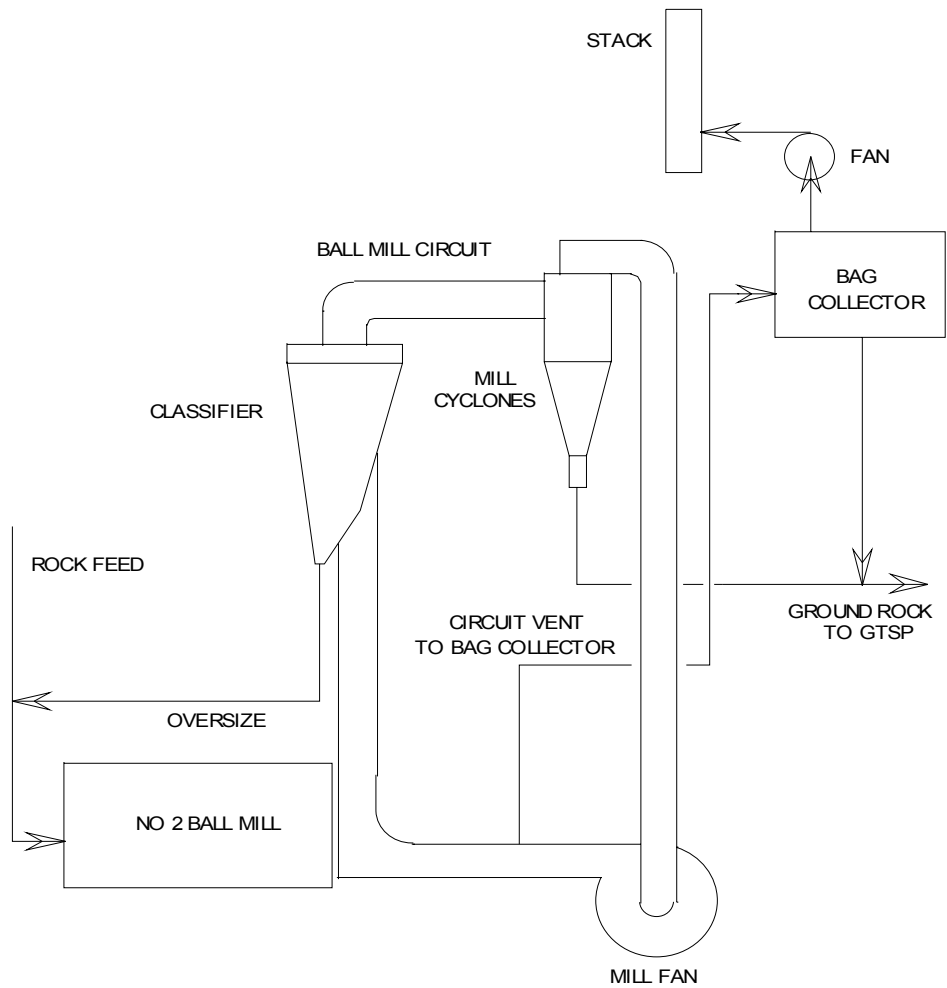
Emission Unit: **Phosphoric Acid Plant - B Train**

ID No.: **009**

Facility: **IMC Phosphates South Pierce Plant**

ID No.: **1050055**

Flow Diagram



Control Equipment Description

The emissions are controlled by a pulse type bag collector. It is vented by a fan located upstream from the collector. The fan discharges to a vertical stack.

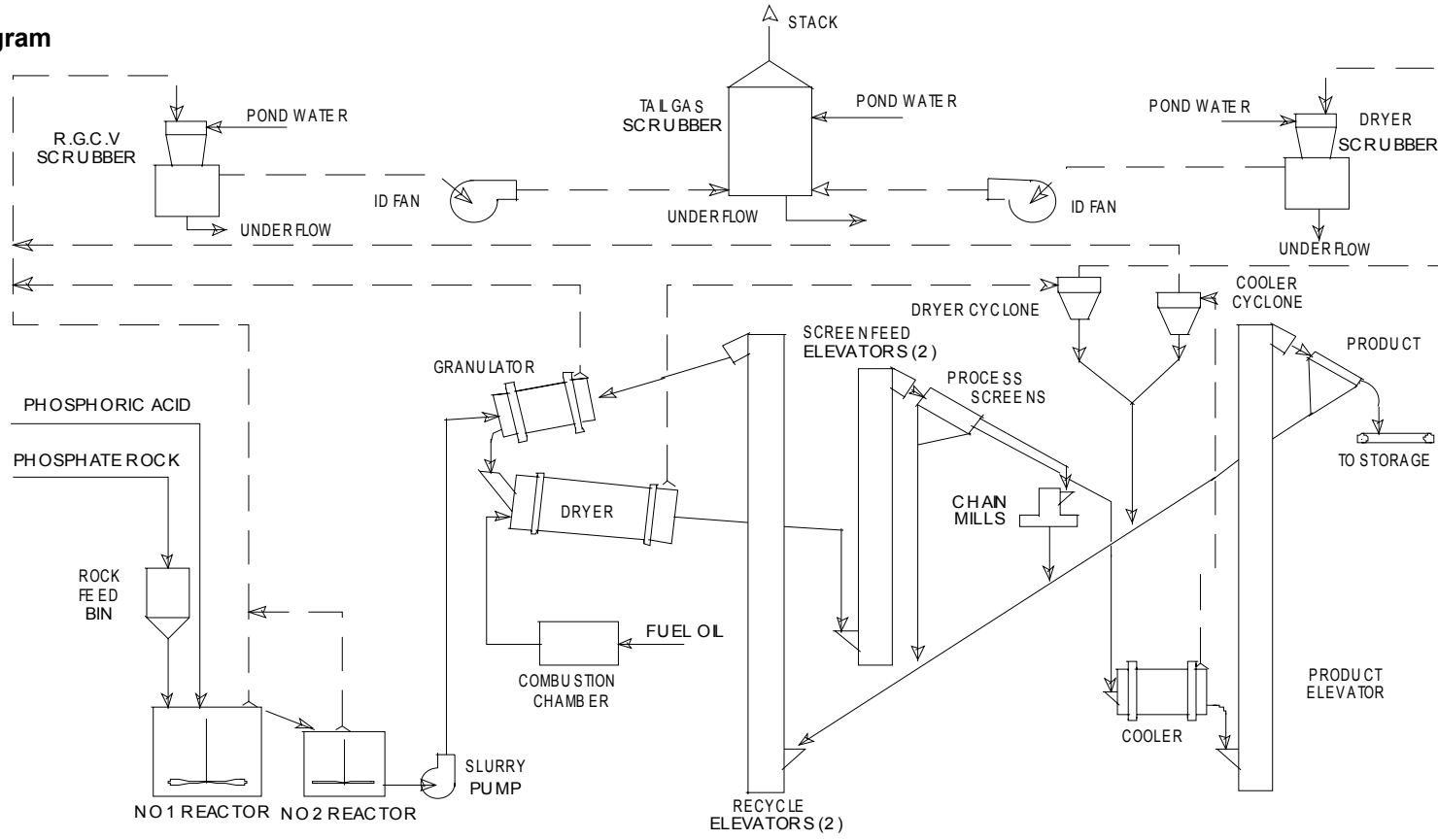
Emission Unit: **No. 2 Ball Mill Grinding System**

ID No.: **022**

Facility: **IMC Phosphates South Pierce Plant**

ID No.: **1050055**

Flow Diagram



Control Equipment Discription

The emissions are controlled by two parallel systems each consisting of venturi scrubber followed in series by vertical 2-stage packed scrubber using process water.

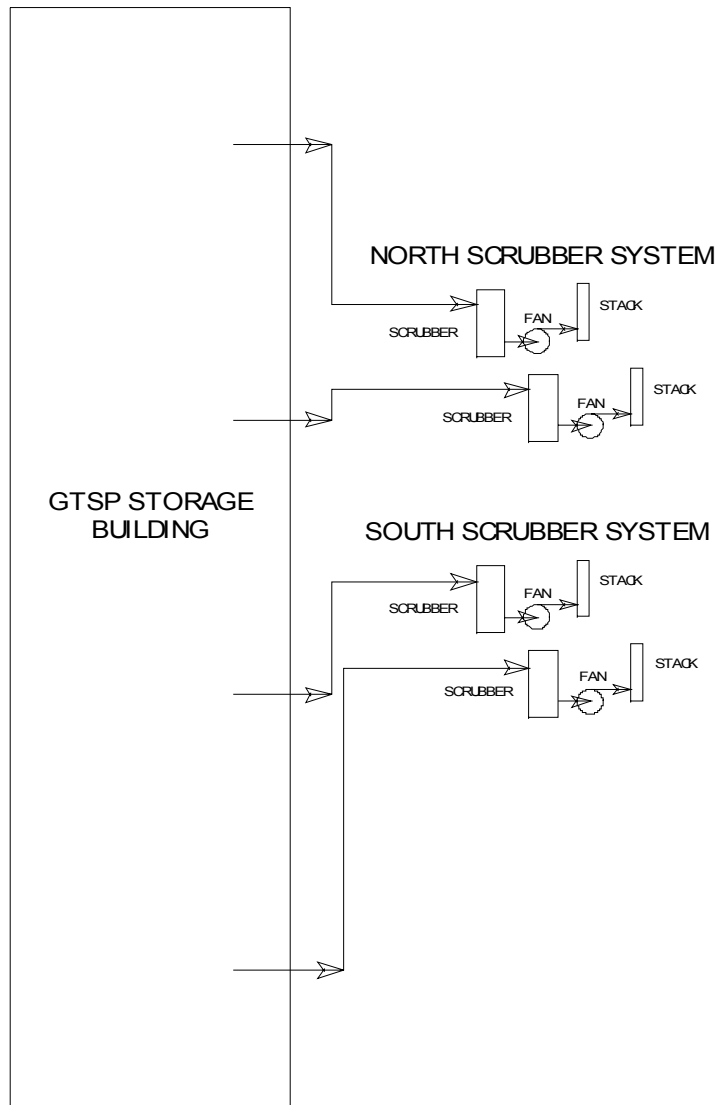
Emission Unit: **GTSP Production Plant**

ID No.: **023**

Facility: **IMC Phosphates South Pierce Plant**

ID No.: **1050055**

Flow Diagram



Control Equipment Description

The emissions are controlled by two parallel systems each consisting of two cyclonic scrubbers and fans. Each scrubber pair vents to a common vertical stack. Each scrubber uses process water as the scrubbing liquid.

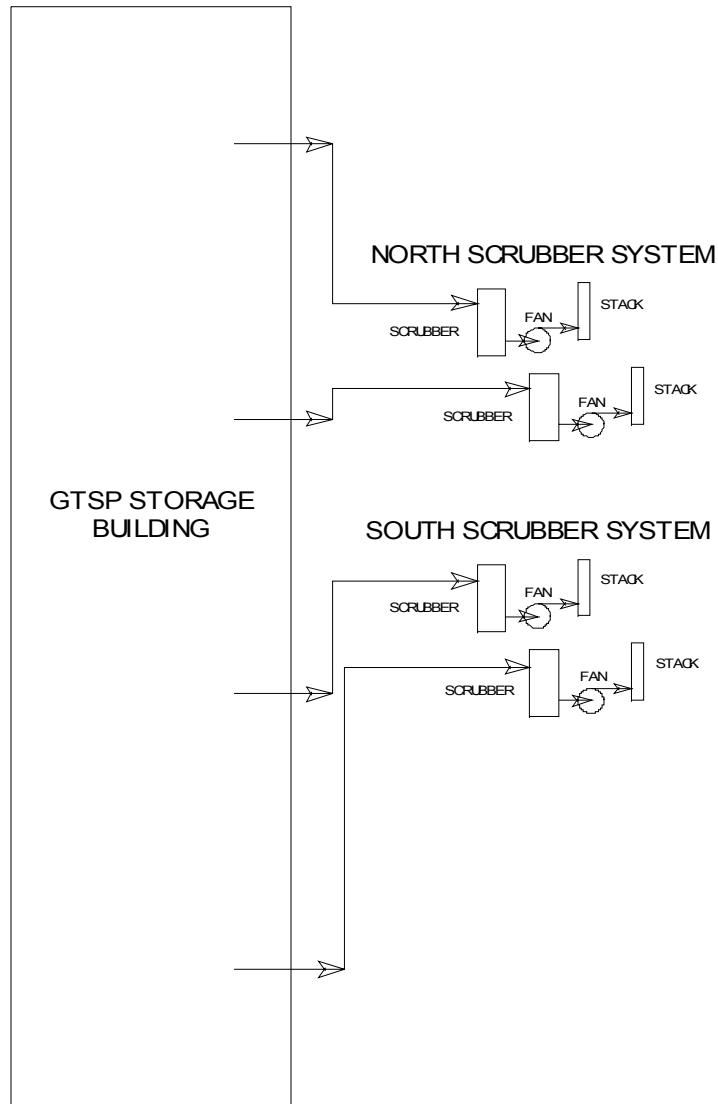
Emission Unit: **GTSP East Storage Building - North Scrubbers**

ID No.: **024**

Facility: **IMC Phosphates South Pierce Plant**

ID No.: **1050055**

Flow Diagram



Control Equipment Discription

The emissions are controlled by two parallel systems each consisting of two cyclonic scrubbers and fans. Each scrubber pair vents to a common vertical stack. Each scrubber uses process water as the scrubbing liquid.

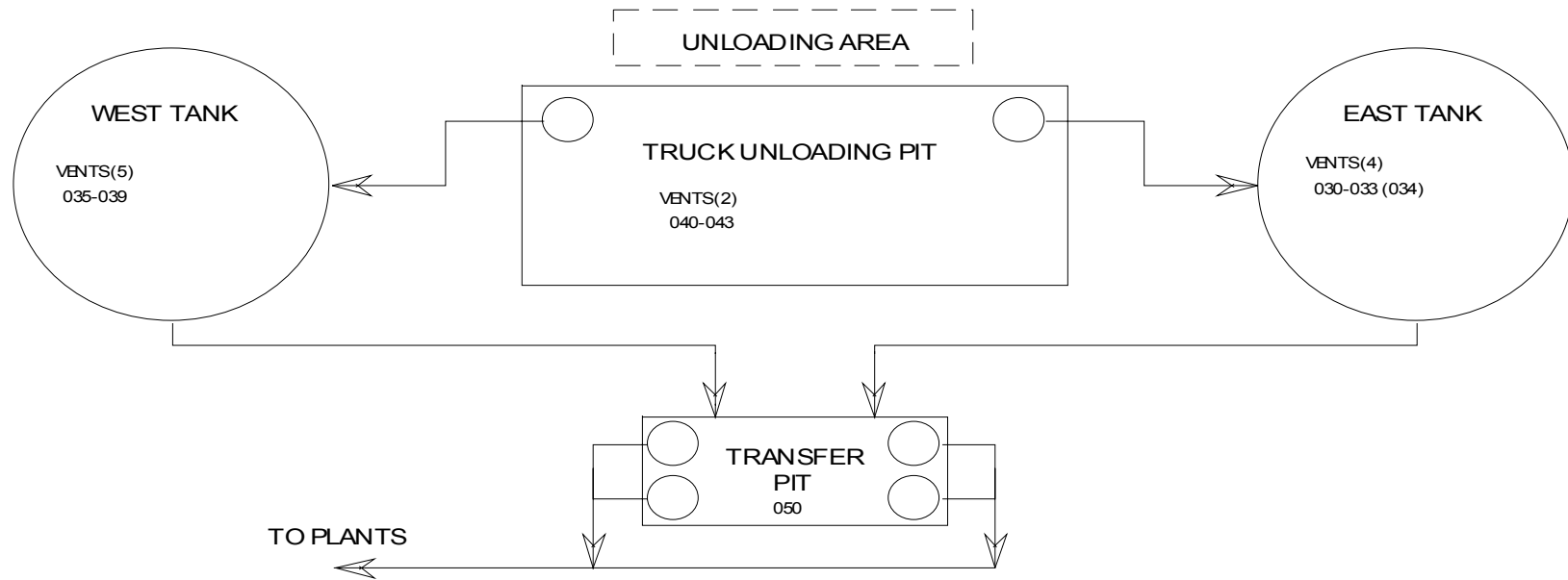
Emission Unit: **GTSP East Storage Building - South Scrubbers**

ID No.: **025**

Facility: **IMC Phosphates South Pierce Plant**

ID No.: **1050055**

Flow Diagram



Control Equipment Discription

The molten sulfur handling system has no specific emission control equipment. Handling practices are specified by the Rule 62-296.411, F.A.C., Sulfur Storage and Handling Facilities.

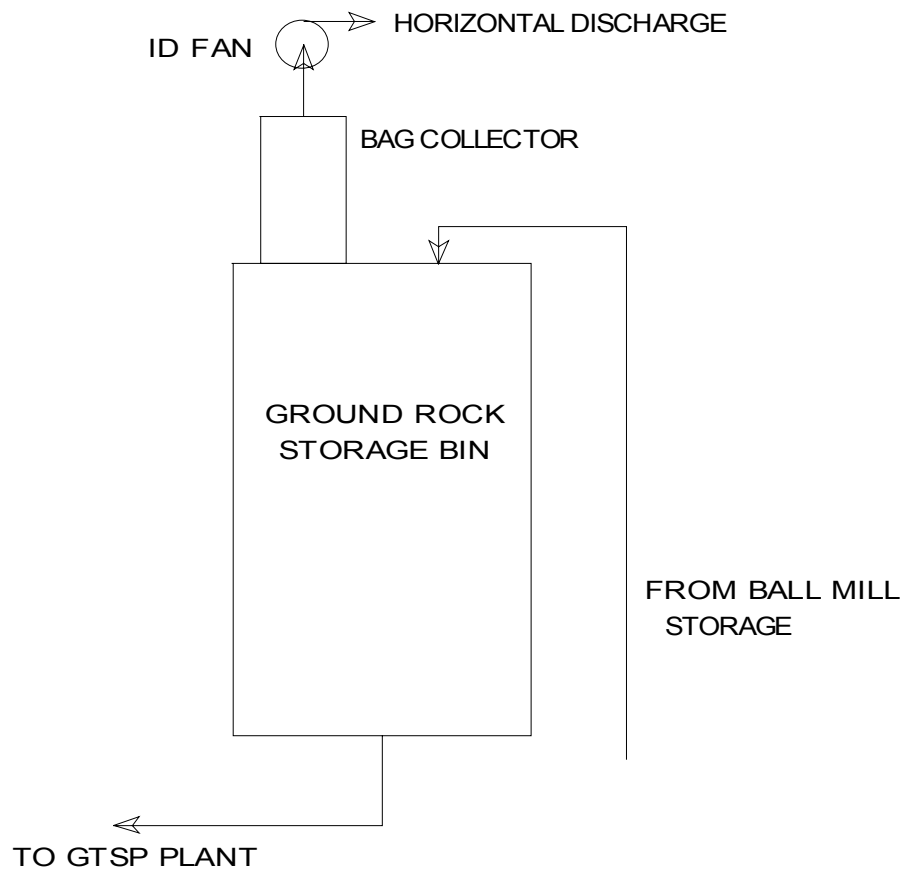
Emission Unit: **Molten Sulfur System**

ID No.: **30-43, 50**

Facility: **IMC Phosphates South Pierce Plant**

ID No.: **1050055**

Flow Diagram



Control Equipment Description

The emissions are controlled by a pulse type bag collector. It is vented by a fan located upstream from the collector. The fan discharges horizontally.

Emission Unit: **GTSP Rock Hopper Bin**

ID No.: **026**

Facility: **IMC Phosphates South Pierce Plant**

ID No.: **1050055**