

CARGILL FERTILIZER, INC.

8813 Highway 41 South - Riverview, Florida 33569 - Telephone 813-677-9111 - TWX 810-876-0648 - Telex 52666 - FAX 813-671-6146

CERTIFIED MAIL: 7000 1670 0002 1996 1191

December 7, 2001

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BUREAU OF AIR REGULATION

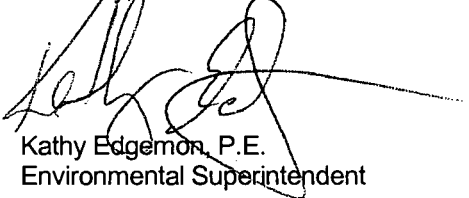
Mr. Al Linero, P.E.
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dear Mr. Linero:

Re: Cargill Fertilizer, Inc. – Riverview Facility
Permit No. 0570008-036-AC, PSD-FL-315

This purpose of this letter is to request a minor modification to the above-referenced construction permit that was issued November 21, 2001. In order to meet marketing demands, Cargill Fertilizer, Inc. (Cargill) needs to have greater operational flexibility at it's No. 5 DAP plant (EU ID No. 055). Specifically, we request that the plant be re-designated as the No. 5 Ammoniated Phosphate Plant. This change will allow us to produce ammoniated phosphate fertilizers without restriction to the narrow constituent range for di-ammonium phosphate (DAP). The only physical modifications required to achieve this goal will be some minor piping changes. These changes do not affect the recent BACT determination conducted by the department for this production unit. Since no change in emissions is expected, the allowable emissions defined by the BACT review is still valid.. If you have any questions regarding this request, please call me at 813-671-6369 or email me at kathy_edgemon@cargill.com.

Sincerely,



Kathy Edgemon, P.E.
Environmental Superintendent

cc: Alice Harman, P.E., EPCHC (CERTIFIED MAIL: 7000 1670 0002 1996 1207)
Jellerson, Narrow
File P-05-01



Table 6-23. Stack Parameters and Sulfuric Acid Mist Emission Rates for Affected Cargill - Riverview Sources

AIRS Number	Source	ISCST Source ID	Short-Term SAM Emissions		Annual Average SAM Emissions		Stack/Vent Release Height		Stack/Vent Diameter		Gas Flow Rate acfm	Gas Exit Temperature		Velocity		Discharge Direction (Vert./Horiz.)	Location ^a			
			lb/hr	g/sec	TPY	g/sec	ft	m	ft	m		F	K	ft/sec	m/sec		X Coordinate		Y Coordinate	
				ft	m	ft	m	ft	m	ft	m	F	K	ft/sec	m/sec		ft	m	ft	m
CURRENT SOURCES																				
5	No. 8 Sulfuric Acid Plant	NO8SAPC	4.08	0.514	14.09	0.405	150	45.72	8.0	2.44	118,938	165	347	39.4	12.02	V	340	104	-90	-27
6	No. 9 Sulfuric Acid Plant	NO9SAPC	4.90	0.617	10.75	0.309	150	45.72	9.0	2.74	159,602	155	341	41.8	12.74	V	0	0	0	0
FUTURE SOURCES																				
5	No. 8 Sulfuric Acid Plant	NO8SAP	13.50	1.701	59.1	1.701	150	45.72	8.00	2.44	129,400	165	347	42.91	13.08	V	340	104	-90	-27
6	No. 9 Sulfuric Acid Plant	NO9SAP	17.00	2.142	74.5	2.142	150	45.72	9.00	2.74	171,100	155	341	44.83	13.66	V	0	0	0	0
Phosphate Rock Grinding/Drying System																				
100	No. 5 Rock Mill Dust Collector	RKMLNO5	0.11	0.014	0.02	0.001	91	27.74	2.50	0.76	36,100	166	348	122.57	37.36	V	-1,620	-494	510	155
106	No. 7 Rock Mill Dust Collector	RKMLNO7	0.11	0.014	0.02	0.001	91	27.74	3.00	0.91	20,000	165	347	47.16	14.37	V	-1,638	-499	486	148
101	No. 9 Rock Mill Dust Collector	RKMLNO9	0.11	0.014	0.02	0.001	91	27.74	2.50	0.76	31,360	162	345	106.48	32.45	V	-1,630	-497	460	140
7	EPP Manufacturing Plant	EPPPLNT	0.70	0.088	0.14	0.004	126	38.40	8.00	2.44	237,000	132	329	78.58	23.95	V	-1,730	-527	50	15
Animal Feed Ingredient Plant																				
	Granulation System Scrubber No. 1	AFIGRAN	0.44	0.055	0.09	0.003	136	41.45	6.00	1.83	109,400	150	339	64.49	19.66	V	-1,230	-375	460	140
	Granulation System Scrubber No. 2	AFIGRN2	0.66	0.083	0.13	0.004	155	47.24	6.00	1.83	112,188	150	339	66.13	20.16	V	-1,415	-431	420	128
55	No. 5 DAP Plant	DAPNO5	0.22	0.027	0.04	0.001	133	40.54	7.00	2.13	121,732	132	329	52.72	16.07	V	-1,744	-532	-380	-116

^a Relative to H2SO4 Plant No. 9 stack location.

Table 6-7. Stack Parameters and Actual and Potential Fluoride Emission Rates for Current and Future Cargill Riverview Sources (Revised 5/24/01)

AIRS Number	Source	ISCST Model ID	Short-Term F Emissions		Annual Average F Emissions		Stack/Vent Release Height		Stack/Vent Diameter		Gas Flow Rate acfm	Gas Exit Temperature		Velocity		Discharge Direction (Vert./Horiz.)	Location ^c				Modeled in Significant Impact Analysis? (Yes/No)
			lb/hr	g/sec	TPY	g/sec	ft	m	ft	m		F	K	ft/sec	m/sec		X Coordinate		Y Coordinate		
																	ft	m	ft	m	
CURRENT SOURCES																					
73	Phosphoric Acid Production Facility																				
	Prayon Reactor/No. 1 Filtration Unit	PAPPRAC	0.09	0.01	0.21	0.01	110	33.53	4.00	1.22	18,300	105	313.71	24.20	7.38	V	-1140	-347	940	287	Yes
	No. 1 Filtration Unit/No.2 Filtration Unit/Dorrco Reactor	PAPF12C	1.14	0.14	2.75	0.08	110	33.53	4.80	1.46	38,900	115	319.26	35.30	10.76	V	-1200	-366	1120	341	Yes
	No. 3 Filtration Unit	PAPF3C	0.26	0.03	0.63	0.02	115	35.05	4.90	1.49	57,100	90	305.37	41.30	12.59	V	-1350	-411	984	300	Yes
7	GTSP/AP Manufacturing Plant	GTSPAPC	1.55	0.20	2.47	0.07	126	38.40	8.00	2.44	171,700	132	328.71	51.11	15.58	V	-1730	-527	50	15	Yes
70,71	Two GTSP Storage Buildings	GTSPSTC	8.44	1.06	29.04	0.84	55	16.76 ^b	--	--	--	191	58.12 ^b	25.58	7.80 ^b	^b	-2680	-817	50	15	Yes
	Animal Feed Ingredient Plant																				
78	AFI Defluorination & Granulation Scrubber	AFIPLTC	0.17	0.02	1.05	0.03	136	41.45	6.00	1.83	108,400	147	337.04	63.90	19.48	V	-1230	-375	490	149	Yes
55	No. 5 DAP Plant	DAPNO5C	3.02	0.38	8.37	0.24	133	40.54	7.00	2.13	121,732	132	328.71	52.72	16.07	V	-1744	-532	-380	-116	Yes
FUTURE SOURCES																					
73	Phosphoric Acid Production Facility																				
	Prayon Reactor	PAPPRAY	0.57	0.07	2.51	0.07	110	33.53	4.00	1.22	20,900	105	313.71	27.72	8.45	V	-1140	-347	940	287	Yes
	Nos. 1 and 2 Filtration Units	PAPF12	0.57	0.07	2.51	0.07	110	33.53	4.83	1.47	45,000	115	319.26	40.93	12.48	V	-1200	-366	1120	341	Yes
	Dorrco Reactor and New Digester	PAPDORR	0.57	0.07	2.51	0.07	95	28.96	4.50	1.37	55,000	110	316.48	57.64	17.57	V	-1070	-326	1110	338	Yes
	No. 3 Filtration Unit	PAPF3	0.57	0.07	2.51	0.07	115	35.05	4.92	1.50	57,100	90	305.37	50.06	15.26	V	-1350	-411	984	300	Yes
7	EPP Manufacturing Plant	EPPPLNT	1.89	0.24	8.26	0.24	126	38.40	8.00	2.44	237,000	132	328.71	78.58	23.95	V	-1730	-527	50	15	Yes
70,71	Two EPP Storage Buildings	EPPST24	9.92	1.25	43.46	1.25	55	16.76 ^b	--	--	--	191	58.12 ^b	25.58	7.80 ^b	^b	-2680	-817	50	15	Yes
	Animal Feed Ingredient Plant Nos. 1 and 2																				
78	Defluorination System Scrubber	AFIDFS	2.11	0.27	9.25	0.27	35	10.67	3.00	0.91	25,400	105	313.71	59.89	18.25	V	-1230	-375	490	149	Yes
55	No. 5 DAP Plant	DAPNO5	3.30	0.42	14.50	0.42	133	40.54	7.00	2.13	121,732	132	328.71	52.72	16.07	V	-1744	-532	-380	-116	Yes
22,23,24	Nos. 3 and 4 MAP Plants and South Cooler	MAPNO34	2.00	0.25	8.50	0.24	133	40.54	7.00	2.13	165,000	142	334.26	71.46	21.78	V	-1800	-549	-170	-52	No

^a Relative to H₂SO₄ Plant No. 9 stack location.

^b Volume source dimensions based on methods presented in accordance with ISCST3 User's Manual.

Source	Physical Dimensions (ft)		Model Dimensions (ft)		
	Height (H)	Width (W)	Height (H or H/2)	Sigma Y (W/4.3)	Sigma Z (H/2.15)
- Two GTSP Storage Buildings	55.0	820	55.0	191	25.58

Table 6-6. Stack Parameters and Potential PM₁₀ Emission Rates for Future Cargill Riverview Sources (Revised 5/24/01)

AIRS Number	Source	ISCST Source ID	Short-Term PM ₁₀ Emissions		Annual Average PM ₁₀ Emissions		Stack/Vent Release Height		Stack/Vent Diameter		Gas Flow Rate acfm	Gas Exit Temperature		Velocity		Discharge Direction ^a (Vert./Horiz.)	Location ^c				Modeled in Significant Impact Analysis? (Yes/No)
			lb/hr	g/sec	TPY	g/sec	ft	m	ft	m		F	K	ft/sec	m/sec		X Coordinate		Y Coordinate		
b	Molten Sulfur Handling Pits 7, 8, and 9 ^d	MSPITS	1.31	0.165	1.10	0.032	8.00	2.44 ^e	--	--	--	48.84	14.89 ^e	3.72	1.13 ^e	e	78	24	-238	-73	Yes
	Tanks 1, 2, and 3/Truck Loading	MSTKTL	0.28	0.036	1.02	0.029	33	10.06	0.83	0.25	665	110	316	20.48	6.24	V	-630	-192	-460	-140	Yes
	Phosphate Rock Grinding/Drying System																				
100	No. 5 Rock Mill Dust Collector	RKMLNO5	1.56	0.197	6.85	0.197	91	27.74	2.50	0.76	36,100	166	348	122.57	37.36	V	-1620	-494	510	155	Yes
106	No. 7 Rock Mill Dust Collector	RKMLNO7	1.56	0.197	6.85	0.197	91	27.74	3.00	0.91	20,000	165	347	47.16	14.37	V	-1638	-499	486	148	Yes
101	No. 9 Rock Mill Dust Collector	RKMLNO9	1.56	0.197	6.85	0.197	91	27.74	2.50	0.76	31,360	162	345	106.48	32.45	V	-1630	-497	460	140	Yes
102	Ground Rock Silo Dust Collector	GRKSILO	0.41	0.052	1.78	0.051	67	20.42	0.80	0.24	1,200	80	300	39.79	12.13	H	-1640	-500	526	160	Yes
7	EPP Manufacturing Plant	EPPPLNT	12.00	1.512	52.56	1.512	126	38.40	8.00	2.44	237,000	132	329	78.58	23.95	V	-1730	-527	50	15	Yes
	Molten Sulfur Tank ^f	EPPMSTK	0.19	0.024	0.85	0.024	28	8.72	0.50	0.15	1	77	298	0.10	0.03	V	-1730	-527	20	6	Yes
8	EPP Ground Rock Handling	EPPGRKH	0.95	0.120	4.16	0.120	87	26.52	1.20	0.37	4,400	138	332	64.84	19.76	H	-1880	-573	50	15	Yes
72	EPP Truck Loading Station Baghouse	EPPTLST	0.53	0.067	2.30	0.066	38	11.58	2.67	0.81	2,200	77	298	6.55	2.00	H	-2450	-747	30	9	Yes
	EPP Truck Loading Station Fugitive	EPPTLSF	0.20	0.025	0.40	0.012	27.50	8.38 ^g	--	--	--	139.53	42.53 ^g	25.58	7.80 ^g	g	-2450	-747	30	9	Yes
	Animal Feed Ingredient Plant																				
	Granulation System Scrubber No. 1	AFIGRAN	8.00	1.008	35.04	1.008	136	41.45	6.00	1.83	109,400	150	339	64.49	19.66	V	-1230	-375	460	140	Yes
	Granulation System Scrubber No. 2	AFIGRN2	8.00	1.008	35.04	1.008	155	47.24	6.00	1.83	109,400	150	339	64.49	19.66	V	-1415	-431	420	128	Yes
79	DE Hopper Baghouse	DEHOPP	0.05	0.007	0.23	0.007	64	19.51	1.50	0.46	600	90	305	5.66	1.72	--	-1840	-561	760	232	Yes
	Milling, Classification, & Cooling Equipment Baghouse No. 1	COOLEQB	5.14	0.648	22.53	0.648	85	25.91	5.00	1.52	56,000	120	322	47.53	14.49	V	-1110	-338	446	136	Yes
	Milling, Classification, & Cooling Equipment Baghouse No. 2	COOLEQ2	5.14	0.648	22.53	0.648	154	46.94	5.00	1.52	53,478	120	322	45.39	13.84	V	-1365	-416	450	137	Yes
80	Limestone Silo Baghouse	LIMESIB	0.32	0.040	1.40	0.040	85	25.91	3.00	0.91	3,500	90	305	8.25	2.52	--	-1090	-332	540	165	Yes
81	AFI Product Loadout Baghouse	AFIPRLB	2.06	0.260	9.01	0.259	20	6.10	3.00	0.91	21,100	90	305	49.75	15.16	V	-860	-262	528	161	Yes
	AFI Product Loadout Fugitive	AFIPRLF	0.03	0.003	0.12	0.003	50.00	15.24 ^h	--	--	--	63.72	19.42 ^h	46.51	14.18 ^h	h	-860	-262	528	161	Yes
55	No. 5 DAP Plant	DAPNO5	12.80	1.613	56.10	1.614	133	40.54	7.00	2.13	121,732	132	329	52.72	16.07	V	-1744	-532	-380	-116	Yes
22,23,24	Nos. 3 and 4 MAP Plants and South Cooler	MAPNO34	10.00	1.260	42.50	1.223	133	40.54	7.00	2.13	165,000	142	334	71.46	21.78	V	-1800	-549	-170	-52	No
	Material Handling Conveyor																				
51	West Baghouse	MHWESTB	1.16	0.146	4.60	0.132	30	9.14	3.50	1.07	33,000	80	300	57.17	17.42	V	-950	-290	-1480	-451	Yes
52	South Baghouse	MHSOUTB	1.16	0.146	4.60	0.132	50	15.24	1.50	0.46	4,500	80	300	42.44	12.94	H	-1030	-314	-1650	-503	Yes
53	Tower East Baghouse	MHTWREB	0.80	0.101	3.20	0.092	30	9.14	2.50	0.76	12,000	80	300	40.74	12.42	H	-910	-277	-1500	-457	Yes
58	Building No.6 Baghouse	MHBLDG6	0.62	0.078	1.20	0.035	30	9.14	1.16	0.35	3,630	80	300	57.24	17.45	H	-1890	-576	-450	-137	Yes
59	Belt 7 to 8 Baghouse	BLT78BH	0.62	0.078	1.90	0.055	45	13.72	1.16	0.35	3,630	80	300	57.24	17.45	H	-1890	-576	-580	-177	Yes
60	Belt 8 to 9 Baghouse	BLT89BH	1.19	0.150	3.60	0.104	75	22.86	1.57	0.48	6,930	80	300	59.54	18.15	H	-1030	-314	-1290	-393	Yes
	AFI Railcar Unloading	AFIRCUL	0.15	0.019	0.06	0.002	15.00	4.57 ⁱ	--	--	--	14.0	4.25 ⁱ	13.95	4.25 ⁱ	i	-850	-259	-1350	-411	Yes
61	East Vessel Loading Facility-Shiphold/Chokefeed	EVSHIPL	0.10	0.013	0.42	0.012	30.00	9.14 ⁱ	--	--	--	3.49	1.06 ⁱ	6.98	2.13 ⁱ	i	-890	-271	-1520	-463	Yes

^a For modeling purposes, horizontal discharges were modeled with a velocity of 0.01 m/s.

^b Relative to H₂SO₄ Plant No. 9 stack location.

^c AIRS Nos. 063, 064, 065, 066, 067, 068, 069, 074.

^d Location represented by centroids of pits.

^{e, g, h, i, j} Volume source dimensions based on methods presented in accordance with ISCST3 User's Manual.

Source	Physical Dimensions (ft)		Model Dimensions (ft)		
	Height (H)	Width (W)	Height (H or H/2)	Sigma Y (W/4.3)	Sigma Z (H/2.15)
^e Pits 7, 8, and 9	8.0	210	8.0	49	3.7
^g EPP Truck Loading Station Fugitive	55.0	600	27.5	140	25.6
^h AFI Product Loadout Fugitive	100.0	274	50	63.7	46.5
ⁱ AFI Railcar Unloading	30.0	60	15	14.0	14.0
^j East Vessel Loading Facility-Shiphold/Chokefeed	30.0	15	30	3.5	6.98

^l Assumed velocity, calculated flow rate.

Table 6-5. Stack Parameters and Actual PM₁₀ Emission Rates for Affected Cargill Riverview Sources (Revised 5/24/01)

AIRS Number Source	ISCST Source ID	Short-Term PM ₁₀ Emissions		Annual Average PM ₁₀ Emissions		Stack/Vent Release Height		Stack/Vent Diameter		Gas Flow Rate acfm	Gas Exit Temperature		Velocity		Discharge Direction ^a (Vert./Horiz.)	Location ^b			
		lb/hr	g/sec	TPY	g/sec	ft	m	ft	m		F	K	ft/sec	m/sec		X Coordinate ft	m	Y Coordinate ft	m
^c Molten Sulfur Handling																			
						8.00	2.44 ^f	--	--	--	48.84	14.89 ^f	3.72	1.13 ^f	^f	178	24	-238	-73
						36.00	10.97 ^g	--	--	--	29.07	8.86 ^g	16.74	5.10 ^g	^g	-650	-198	-380	-116
Phosphate Rock Grinding/Drying System																			
100						91	27.74	2.50	0.76	36,100	166	348	122.6	37.36	V	-1,620	-494	510	155
106						91	27.74	3.00	0.91	20,000	165	347	47.20	14.39	V	-1,638	-499	486	148
101						91	27.74	2.50	0.76	31,360	162	345	106.5	32.45	V	-1,630	-497	460	140
102						67	20.42	0.80	0.24	1,200	80	300	39.79	12.13	H	-1,640	-500	526	160
7						126	38.40	8.00	2.44	171,700	132	329	51.11	15.58	V	-1,730	-527	50	15
8						87	26.52	1.20	0.37	4,400	138	332	64.84	19.76	H	-1,880	-573	50	15
72						38	11.58	2.70	0.82	2,200	77	298	6.55	2.00	H	-2,450	-747	30	9
						27.50	8.38 ^h	--	--	--	139.5	42.53 ^h	25.58	7.80 ^h	^h	-2,450	-747	30	9
Animal Feed Ingredient Plant																			
78						136	41.45	6.00	1.83	108,400	147	337	63.90	19.48	V	-1,230	-375	490	149
79						64	19.51	1.50	0.46	600	90	305	5.66	1.72	--	-1,840	-561	760	232
80						85	25.91	1.50	0.46	800	90	305	7.55	2.30	--	-1,090	-332	540	165
81						30	9.14	3.00	0.91	21,100	90	305	49.75	15.16	V	-860	-262	528	161
						50.00	15.24 ⁱ	--	--	--	63.72	19.42 ⁱ	46.51	14.18 ⁱ	ⁱ	-860	-262	528	161
55						133	40.54	7.00	2.13	121,732	132	329	52.72	16.07	V	-1,744	-532	-380	-116
Material Handling Conveyor																			
51						30	9.14	3.50	1.07	33,000	80	300	57.17	17.42	V	-950	-290	-1,480	-451
52						50	15.24	1.50	0.46	4,500	80	300	42.44	12.94	H	-1,030	-314	-1,650	-503
53						30	9.14	2.50	0.76	12,000	80	300	40.74	12.42	H	-910	-277	-1,500	-457
58						30	9.14	1.20	0.37	3,630	80	300	53.49	16.30	H	-1,890	-576	-450	-137
59						45	13.72	1.20	0.37	3,630	80	300	53.49	16.30	H	-1,890	-576	-580	-177
60						75	22.86	1.60	0.49	6,930	80	300	57.44	17.51	H	-1,030	-314	-1,290	-393
						15.00	4.57 ^j	--	--	--	13.95	4.25 ^j	13.95	4.25 ^j	^j	-850	-259	-1,350	-411
61						30.00	9.14 ^k	--	--	--	3.49	1.06 ^k	6.98	2.13 ^k	^k	-890	-271	-1,520	-463

Footnotes:

^a For modeling purposes, horizontal discharges were modeled with a velocity of 0.01 m/s.

^b Relative to H2SO4 Plant No. 9 stack location.

^c AIRS Nos. 063, 064, 065, 066, 067, 068, 069, 074.

^d Location represented by centroids of pits.

^e Emissions were combined and represented by the tank closest to property boundary.

^{f,g,h,i,j,k} Volume source dimensions based on methods presented in accordance with ISCST3 User's Manual.

Source	Physical Dimensions (ft)		Model Dimensions (ft)		
	Height (H)	Width (W)	Height (H or H/2)	Sigma Y (W/4.3)	Sigma Z (H/2.15)
^f Pits 7, 8, and 9	8.0	210	8	48.8	3.7
^g Tanks 2 and 3	36.0	125	36	29.1	16.7
^h GTSP Truck Loading Station Fugitive	55.0	600	27.5	139.5	25.6
ⁱ AFI Product Loadout Fugitive	100.0	274	50	63.7	46.5
^j AFI Railcar Unloading	30.0	60	15	14.0	14.0
^k East Vessel Loading Facility-Shiphold/Chokefeed	30.0	15	30	3.5	7.0

Table 6-4. Stack Parameters and Potential SO₂ and NO_x Emission Rates for Future Cargill Riverview Sources (Revised 5/24/01)

AIRS Number	Source	ISCST Source ID	Short-Term SO ₂ Emissions		Annual Average SO ₂ Emissions		Annual Average NO _x Emissions		Stack/Vent Release Height		Stack/Vent Diameter		Gas Flow Rate acfm	Gas Exit Temperature		Velocity		Discharge Direction (Vert./Horiz.)	Location ^a				Modeled in Significant Impact Analysis? (Yes/No)
			lb/hr	g/sec	TPY	g/sec	TPY	g/sec	ft	m	ft	m		F	K	ft/sec	m/sec		X Coordinate ft	X Coordinate m	Y Coordinate ft	Y Coordinate m	
^b	Molten Sulfur Handling																						
	Pits 7, 8, and 9 ^c	MSPITS	0.13	0.017	0.12	0.003	0.00	0.00	8.00	2.44 ^d	--	-- ^d	-- ^d	48.8	14.89 ^d	3.72	1.13 ^d	^d	78	24	-238	-73	Yes
	Tanks 1, 2, and 3/Truck Loading	MSTKTL	3.34	0.421	8.88	0.255	0.00	0.00	33	10.06	0.83	0.25	665	110	316	20.48	6.24	V	-630	-192	-460	-140	Yes
4	No. 7 Sulfuric Acid Plant--24-hr/Annual Average	NO7SAP	466.70	58.803	2,044.0	58.799	70.13	2.02	150	45.72	7.50	2.29	109,924	152	340	41.47	12.64	V	-60	-18	-460	-140	No
	No. 7 Sulfuric Acid Plant--3-hr Average	NO7SAP	533.30	67.195	--	--	--	--															
5	No. 8 Sulfuric Acid Plant--24-hr/Annual Average	NO8SAP	393.75	49.612	1,724.6	49.612	59.13	1.70	150	45.72	8.00	2.44	129,400	165	347	42.91	13.08	V	340	104	-90	-27	Yes
	No. 8 Sulfuric Acid Plant--3-hr Average	NO8SAP	450.00	56.699	--	--	--	--															
6	No. 9 Sulfuric Acid Plant--24-hr/Annual Average	NO9SAP	495.83	62.474	2,171.8	62.474	74.46	2.14	150	45.72	9.00	2.74	171,100	155	341	44.83	13.66	V	0	0	0	0	Yes
	No. 9 Sulfuric Acid Plant--3-hr Average	NO9SAP	566.67	71.399	--	--	--	--															
	Phosphate Rock Grinding/Drying System																						
100	No. 5 Rock Mill Dust Collector	RKMLNO5	6.59	0.830	1.32	0.038	5.69	0.16	91	27.74	2.50	0.76	36,100	166	348	122.57	37.36	V	-1,620	-494	510	155	Yes
106	No. 7 Rock Mill Dust Collector	RKMLNO7	6.59	0.830	1.32	0.038	5.69	0.16	91	27.74	3.00	0.91	20,000	165	347	47.16	14.37	V	-1,638	-499	486	148	Yes
101	No. 9 Rock Mill Dust Collector	RKMLNO9	6.59	0.830	1.32	0.038	5.69	0.16	91	27.74	2.50	0.76	31,360	162	345	106.48	32.45	V	-1,630	-497	460	140	Yes
7	EPP Manufacturing Plant	EPPPLNT	40.54	5.108	8.11	0.233	35.04	1.01	126	38.40	8.00	2.44	237,000	132	329	78.58	23.95	V	-1,730	-527	50	15	Yes
	Molten Sulfur Tank ^e	EPPMSTK	0.15	0.019	0.66	0.019	0.00	0.00	29	8.72	0.50	0.15	1	77	298	0.10	0.03	V	-1,730	-527	20	6	Yes
	Animal Feed Ingredient Plant No. 1																						
	Granulation System Scrubber	AFIGRAN	25.36	3.195	5.07	0.146	21.90	0.63	136	41.45	6.00	1.83	109,400	150	339	64.49	19.66	V	-1,230	-375	460	140	Yes
	Animal Feed Ingredient Plant No. 2																						
	Granulation System Scrubber	AFIGRN2	38.04	4.793	7.61	0.219	32.85	0.94	155	47.24	6.00	1.83	109,400	150	339	64.49	19.66	V	-1,415	-431	420	128	Yes
55	No. 5 DAP Plant	DAPNO5	12.58	1.585	2.52	0.072	17.52	0.50	133	40.54	7.00	2.13	121,732	132	329	52.72	16.07	V	-1,744	-532	-380	-116	Yes
22,23,24	Nos. 3 and 4 MAP Plants and South Cooler	MAPNO34	0.003	0.0004	0.01	0.0004	2.08	0.06	133	40.54	7.00	2.13	165,000	142	334	71.46	21.78	V	-1,800	-549	-170	-52	No

^a Relative to H2SO4 Plant No. 9 stack location.

^b AIRS Nos. 063, 064, 065, 066, 067, 068, 069, 074.

^c Location represented by centroids of pits.

^d Volume source dimensions based on methods presented in accordance with ISCST3 User's Manual.

Source	Physical Dimensions (ft)		Model Dimensions (ft)		
	Height (H)	Width (W)	Height (H or H/2)	Sigma Y (W/4.3)	Sigma Z (H/2.15)
Pits 7, 8, and 9	8.0	210.0	8.0	48.8	3.72

^e Assumed velocity, calculated flow rate.

Table 6-3. Stack Parameters and Current Actual SO₂ and NO_x Emission Rates for Affected Cargill Riverview Sources (Revised 5/24/01)

AIRS Number	Source	ISCST Source ID	Short-Term SO ₂ Emissions		Annual Average SO ₂ Emissions		Annual Average NO _x Emissions		Stack/Vent Release Height		Stack/Vent Diameter		Gas Flow Rate acfm	Gas Exit Temperature		Velocity		Discharge Direction (Vert./Horiz.)	Location ^a			
			lb/hr	g/sec	TPY	g/sec	TPY	g/sec	ft	m	ft	m		F	K	ft/sec	m/sec		ft	m	ft	m
^b	Molten Sulfur Handling																					
	Pits 7, 8, and 9 ^f	MSPTSC	0.09	0.011	0.09	0.003	--	--	8.0	2.44 ^e	--	--	--	48.8	14.9 ^e	3.7	1.13 ^e	^e	78	24	-238	-73
	Tanks 2 and 3 ^d	MSTKTL	2.12	0.27	1.61	0.05	--	--	36.0	10.97 ^f	--	--	--	29.1	8.86 ^f	16.7	5.10 ^f	^f	-650	-198	-380	-116
5	No. 8 Sulfuric Acid Plant	NO8SAPC	366.7	46.2	1,349	38.8	44.1	1.27	150	45.72	8.0	2.44	118,938	165	347	39.4	12.02	V	340	104	-90	-27
6	No. 9 Sulfuric Acid Plant	NO9SAPC	475.0	59.8	1,211	34.8	51.2	1.47	150	45.72	9.0	2.74	159,602	155	341	41.8	12.74	V	0	0	0	0
	Phosphate Rock Grinding/Drying System																					
100	No. 5 Rock Mill Dust Collector	RKML5C	§	§	§	§	4.76	0.14	91	27.74	2.5	0.76	36,100	166	348	122.6	37.36	V	-1620	-494	510	155
106	No. 7 Rock Mill Dust Collector	RKML7C	§	§	§	§	1.58	0.05	91	27.74	3.0	0.91	20,000	165	347	47.2	14.39	V	-1638	-499	486	148
101	No. 9 Rock Mill Dust Collector	RKML9C	§	§	§	§	4.70	0.14	91	27.74	2.5	0.76	31,360	162	345	106.5	32.45	V	-1630	-497	460	140
7	GTSP/AP Manufacturing Plant	GTSPAPC	§	§	§	§	18.1	0.52	126	38.40	8.0	2.44	171,700	132	329	51.1	15.58	V	-1730	-527	50	15
78	AFI Defluorination & Granulation Scrubber	AFIPLTC	§	§	§	§	5.71	0.16	136	41.45	6.0	1.83	108,400	147	337	63.9	19.48	V	-1230	-375	490	149
55	No. 5 DAP Plant	DAPNO5C	§	§	§	§	3.90	0.11	133	40.54	7.0	2.13	121,732	132	329	52.7	16.07	V	-1744	-532	-380	-116

^a Relative to H₂SO₄ Plant No. 9 stack location.

^b AIRS Nos. 063, 064, 065, 066, 067, 068, 069, 074.

^c Location represented by centroids of pits.

^d Emissions were combined and represented by the tank closest to property boundary.

^{e,f} Volume source dimensions based on methods presented in accordance with ISCST3 User's Manual.

Source	Physical Dimensions (ft)		Model Dimensions (ft)		
	Height (H)	Width (W)	Height (H or H/2)	Sigma Y (W/4.3)	Sigma Z (H/2.15)
^e Pits	8.0	210	8.0	48.8	3.7
^f Tanks	36.0	125	36.0	29.1	16.7

[§] Insignificant source of SO₂, only natural gas used currently.

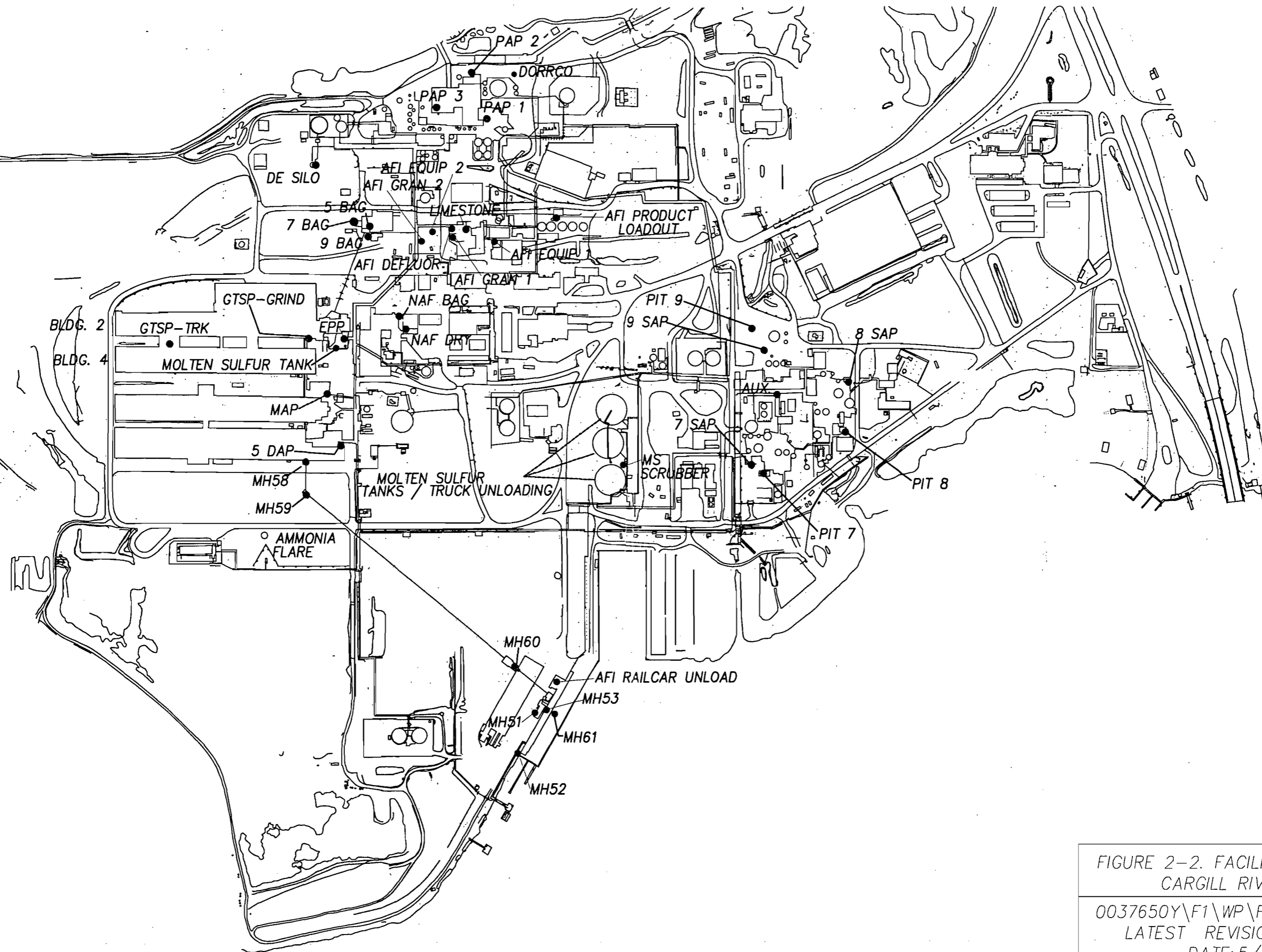
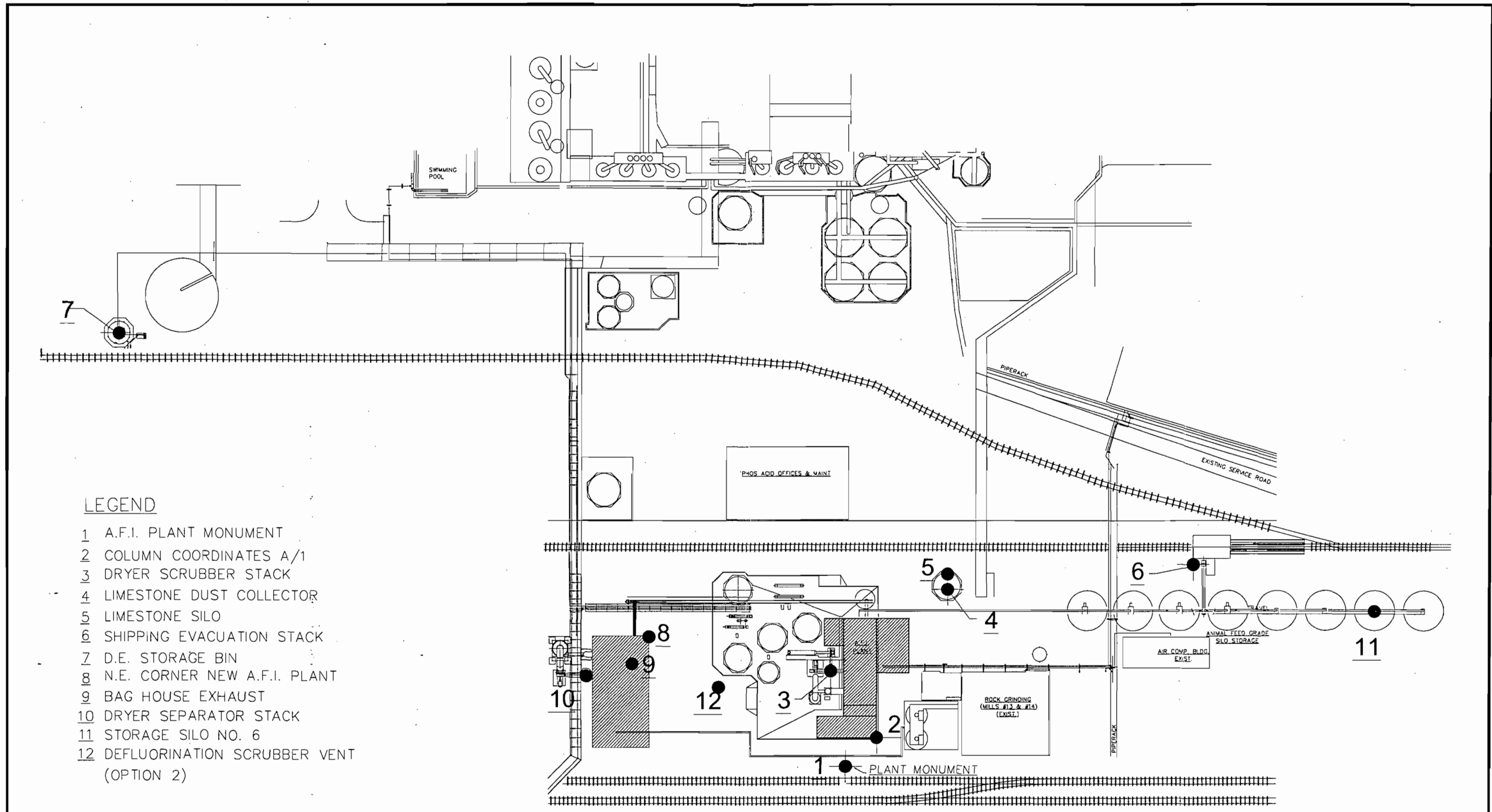


FIGURE 2-2. FACILITY PLOT PLAN
CARGILL RIVERVIEW
0037650Y\F1\WP\Figure 2-2.DWG
LATEST REVISION BY: FWH
DATE: 5/4/01



LEGEND

- 1 A.F.I. PLANT MONUMENT
- 2 COLUMN COORDINATES A/1
- 3 DRYER SCRUBBER STACK
- 4 LIMESTONE DUST COLLECTOR
- 5 LIMESTONE SILO
- 6 SHIPPING EVACUATION STACK
- 7 D.E. STORAGE BIN
- 8 N.E. CORNER NEW A.F.I. PLANT
- 9 BAG HOUSE EXHAUST
- 10 DRYER SEPARATOR STACK
- 11 STORAGE SILO NO. 6
- 12 DEFLUORINATION SCRUBBER VENT (OPTION 2)

SHADED AREAS INDICATE WORK ON EXISTING AND NEW ADDITIONS TO ANIMAL FEED PHOSPHATE PLANT.

SOURCE: CARGILL.


 Golder Associates GAINESVILLE, FLORIDA	SCALE	N/A	TITLE	AFI PLANT NO. 2
	DATE	05/18/01		
FILE Name:	Figure 2-3.dwg	LAST REVISED	ARZ 5-24-01	PATH
PROJECT No.	013-7558 REV. 1	REVIEW	N/A	

Table A-4. Current Actual Emissions For 2000 From the Molten Sulfur Handling System, Cargill Riverview

Parameters	Units	Existing Tank No. 2				Existing Tank No. 3				Pit 7			Pit 8			Pit 9		
		Tank Loading from Ship	Unloading Into Pit	Storage/Idle	Maximum and Total Emissions	Tank Loading from Ship	Unloading Into Pit	Storage/Idle	Maximum and Total Emissions	Loading	Unloading/Idle	Maximum and Total Emissions	Loading	Unloading/Idle	Maximum and Total Emissions	Loading	Unloading/Idle	Maximum and Total Emissions
SULFUR FLOW RATES																		
Maximum loading rate	TPH	2,240	336	0		2,240	336	0		336	0		336	0		336	0	
Annual loading rate	TPY	427,316	430,182	0		427,316	430,182	0		328,346	0		260,200	0		271,818	0	
VENTILATION RATES																		
Loading/Unloading	dscfm	454	0	0		454	0	0		95	0		95	0		95	0	
Natural Ventilation through vents	dscfm	0	30	30		0	30	30		5	5		5	5		5	5	
Total Ventilation	dscfm	454	30	30		454	30	30		100	5		100	5		100	5	
TRANSFER TIMES																		
Loading/Unloading	hr/yr	191	1,280	--		191	1,280	--		977	--		774	--		809	--	
Idle	hr/yr	--	--	7,289		--	--	7,289		--	7,783		--	7,986		--	7,951	
Operating	hr/yr	--	--	--		--	--	--		--	--		--	--		--	--	
EMISSION FACTORS																		
Sulfur particulate	grains/dscf	0.66	0.29	0.29		0.66	0.29	0.29		0.51	0.29		0.51	0.29		0.51	0.29	
TRS (as H ₂ S)	lb/dscf	3.50E-05	3.50E-05	3.50E-05		3.50E-05	3.50E-05	3.50E-05		3.50E-06	3.50E-06		3.50E-06	3.50E-06		3.50E-06	3.50E-06	
SO ₂	lb/dscf	7.30E-05	7.30E-05	7.30E-05		7.30E-05	7.30E-05	7.30E-05		7.30E-06	7.30E-06		7.30E-06	7.30E-06		7.30E-06	7.30E-06	
VOC	lb/dscf	5.20E-05	5.20E-05	5.20E-05		5.20E-05	5.20E-05	5.20E-05		5.20E-06	5.20E-06		5.20E-06	5.20E-06		5.20E-06	5.20E-06	
					Maximum Hourly and Annual Emission Rates				Maximum Hourly and Annual Emission Rates			Maximum Hourly and Annual Emission Rates			Maximum Hourly and Annual Emission Rates			Maximum Hourly and Annual Emission Rates
EMISSION RATES																		
Sulfur Particulate	lb/hr	2.568	0.075	0.075	2.568	2.568	0.075	0.075	2.568	0.437	0.012	0.437	0.437	0.012	0.437	0.437	0.012	0.437
	TPY	0.245	0.048	0.272	0.564	0.245	0.048	0.272	0.564	0.214	0.048	0.262	0.169	0.050	0.219	0.177	0.049	0.226
TRS (as H ₂ S)	lb/hr	0.953	0.063	0.063	0.953	0.953	0.063	0.063	0.953	0.021	0.001	0.021	0.021	0.001	0.021	0.021	0.001	0.021
	TPY	0.091	0.040	0.230	0.361	0.091	0.040	0.230	0.361	0.010	0.004	0.014	0.008	0.004	0.012	0.008	0.004	0.013
Sulfur Dioxide	lb/hr	1.989	0.131	0.131	1.989	1.989	0.131	0.131	1.989	0.044	0.002	0.044	0.044	0.002	0.044	0.044	0.002	0.044
	TPY	0.190	0.084	0.479	0.753	0.190	0.084	0.479	0.753	0.021	0.009	0.030	0.017	0.009	0.026	0.018	0.009	0.026
Volatile Organic Compounds	lb/hr	1.416	0.094	0.094	1.416	1.416	0.094	0.094	1.416	0.031	0.002	0.031	0.031	0.002	0.031	0.031	0.002	0.031
	TPY	0.135	0.060	0.341	0.536	0.135	0.060	0.341	0.536	0.015	0.006	0.021	0.012	0.006	0.018	0.013	0.006	0.019

Notes:
 Total Sulfur Transferred from Tanks to Ships = 854,631 tons/yr
 Total Sulfur Transferred from Tanks to Pits = 851,156 tons/yr
 TPH = tons per hour
 TPY = tons per year
 Density of Sulfur (280°F) = 112 lb/cf

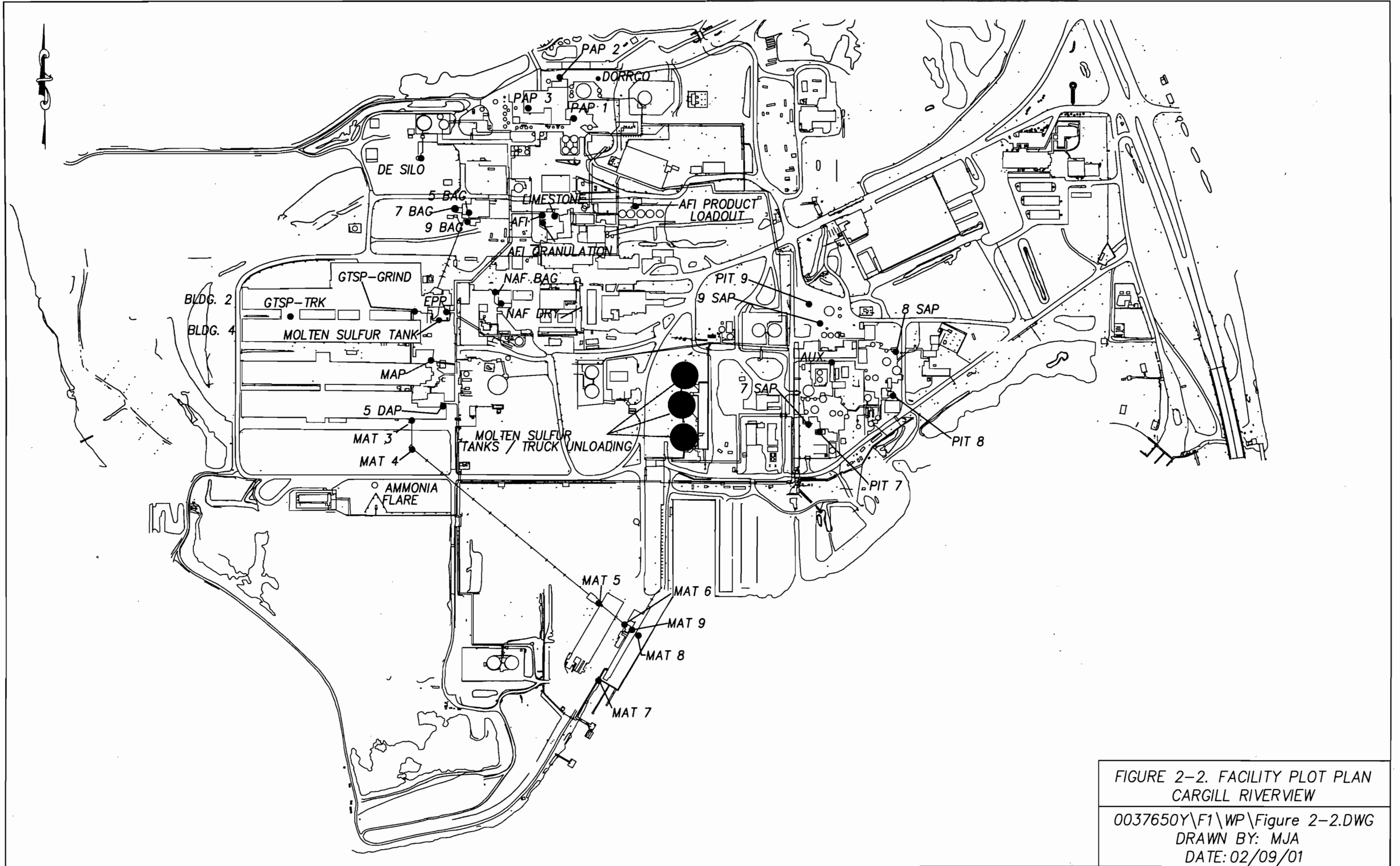


FIGURE 2-2. FACILITY PLOT PLAN
CARGILL RIVERVIEW
0037650Y\F1\WP\Figure 2-2.DWG
DRAWN BY: MJA
DATE: 02/09/01

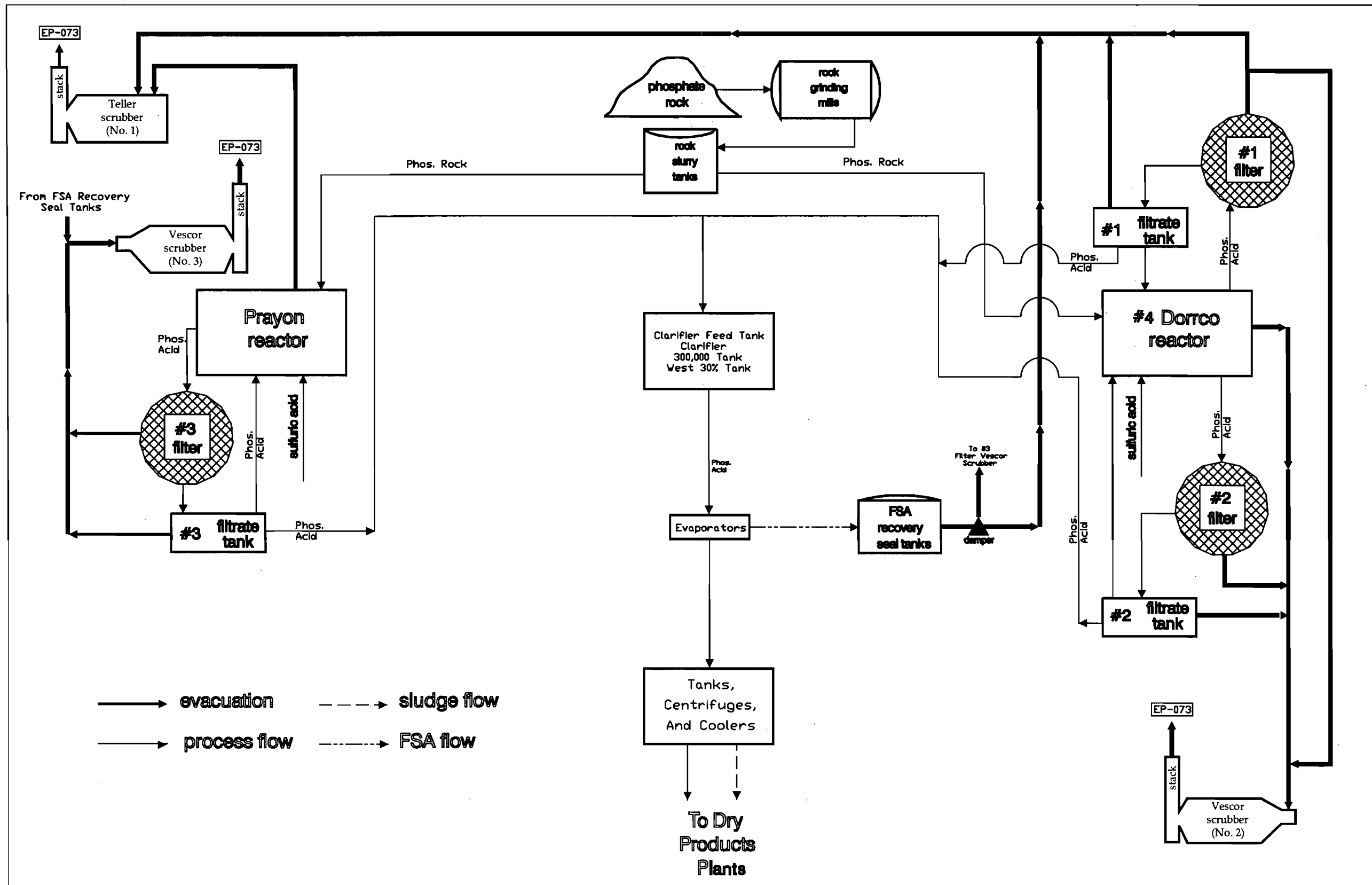


Figure 2-6. Existing Phosphoric Acid Plant Process Flow Diagram Cargill Riverview

EMISSION UNIT:	PHOSPHORIC ACID PLANT
PROCESS AREA:	PHOSPHORIC ACID PRODUCTION
FILENAME:	0037650Y\F1\WP\Figure 2-6.dwg
LATEST REVISION:	02/11/01 by PAC

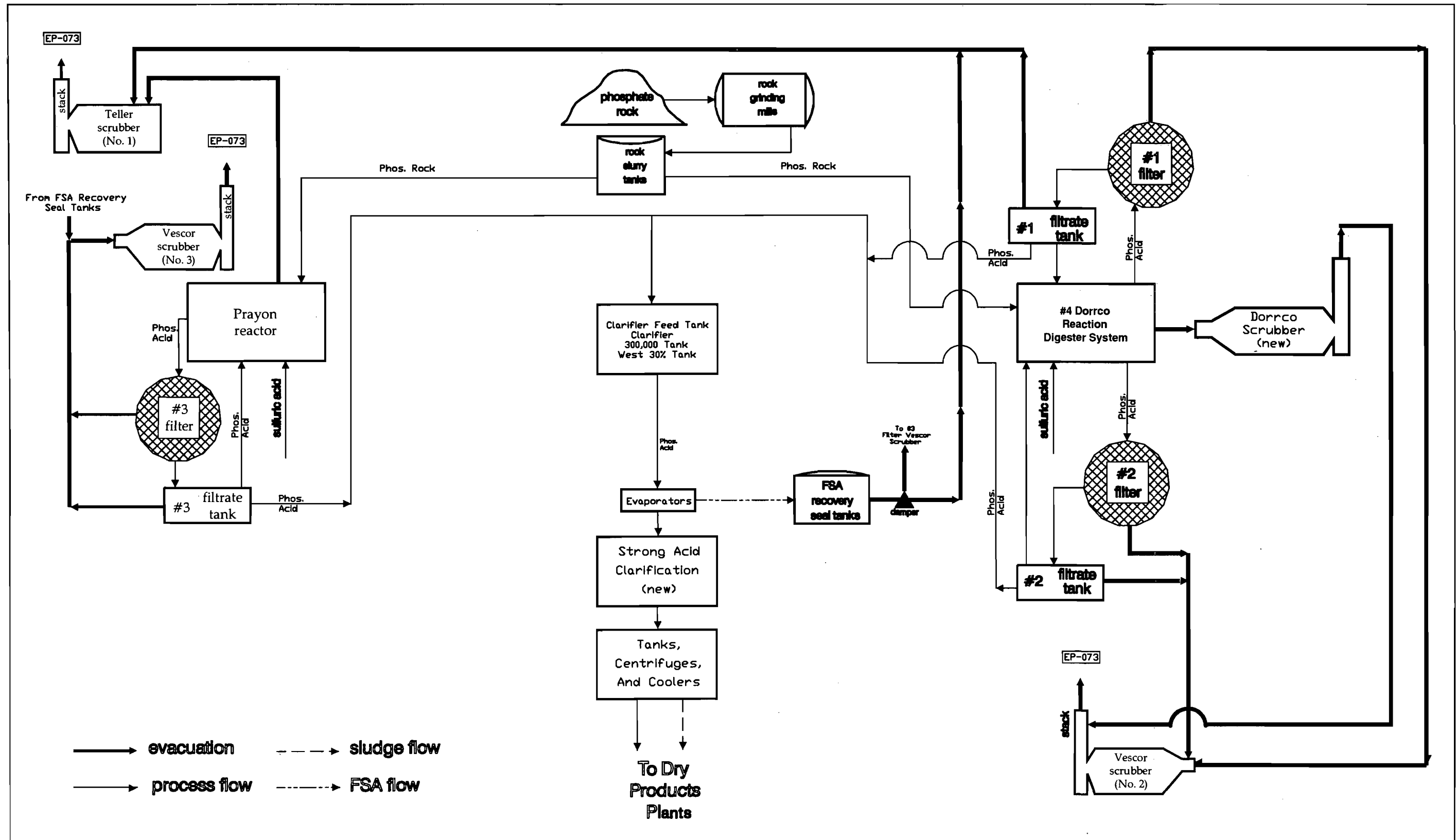


Figure 2-7 - Future Phosphoric Acid Plant Process Flow Diagram Cargill Riverview

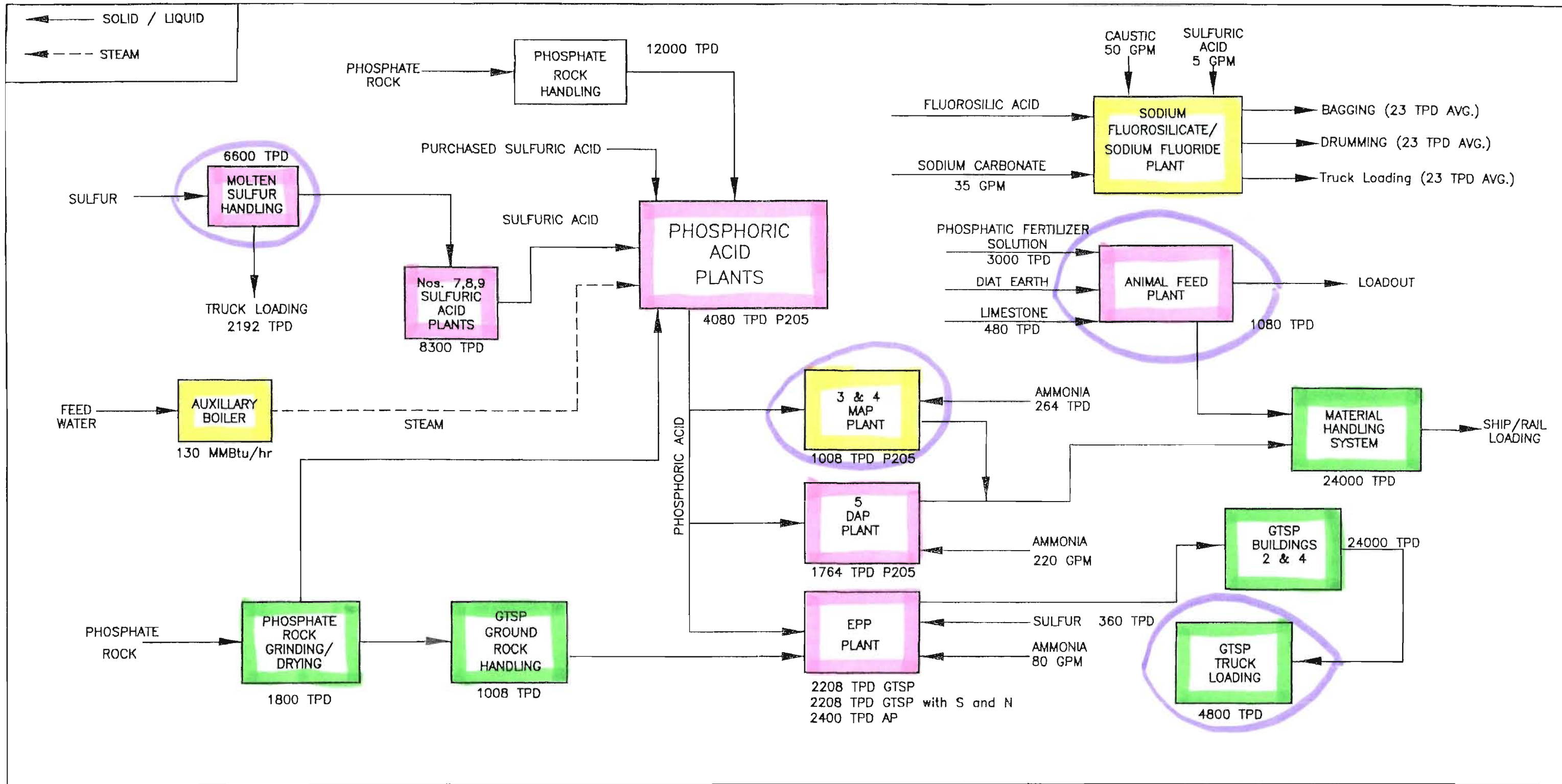
EMISSION UNIT:	FACILITY WIDE
PROCESS AREA:	
FILENAME:	0037650Y\F1\WP\Figure 2-7.dwg
LATEST REVISION:	02/11/01 by PAC

Table A-3. Current Actual Emissions For 1999 From the Molten Sulfur Handling System, Cargill Riverview

Parameters	Units	Existing Tank No. 2				Existing Tank No. 3				Pit 7			Pit 8			Pit 9		
		Tank Loading from Ship	Unloading Into Pit	Storage/Idle	Maximum and Total Emissions	Tank Loading from Ship	Unloading Into Pit	Storage/Idle	Maximum and Total Emissions	Loading	Unloading/Idle	Maximum and Total Emissions	Loading	Unloading/Idle	Maximum and Total Emissions	Loading	Unloading/Idle	Maximum and Total Emissions
SULFUR FLOW RATES																		
Maximum loading rate	TPH	2,240	336	0		2,240	336	0		336	0		336	0		336	0	
Annual loading rate	TPY	345,763	346,116	0		345,763	346,116	0		184,081	0		225,212	0		292,687	0	
VENTILATION RATES																		
Loading/Unloading	dscfm	454	0	0		454	0	0		95	0		95	0		95	0	
Natural Ventilation through vents	dscfm	0	30	30		0	30	30		5	5		5	5		5	5	
Total Ventilation	dscfm	454	30	30		454	30	30		100	5		100	5		100	5	
TRANSFER TIMES																		
Loading/Unloading	hr/yr	154	1,030	--		154	1,030	--		548	--		670	--		871	--	
Idle	hr/yr	--	--	7,576		--	--	7,576		--	8,212		--	8,090		--	7,889	
Operating	hr/yr	--	--	--		--	--	--		--	--		--	--		--	--	
EMISSION FACTORS																		
Sulfur particulate	grains/dscf	0.66	0.29	0.29		0.66	0.29	0.29		0.51	0.29		0.51	0.29		0.51	0.29	
TRS (as H ₂ S)	lb/dscf	3.50E-05	3.50E-05	3.50E-05		3.50E-05	3.50E-05	3.50E-05		3.50E-06	3.50E-06		3.50E-06	3.50E-06		3.50E-06	3.50E-06	
SO ₂	lb/dscf	7.30E-05	7.30E-05	7.30E-05		7.30E-05	7.30E-05	7.30E-05		7.30E-06	7.30E-06		7.30E-06	7.30E-06		7.30E-06	7.30E-06	
VOC	lb/dscf	5.20E-05	5.20E-05	5.20E-05		5.20E-05	5.20E-05	5.20E-05		5.20E-06	5.20E-06		5.20E-06	5.20E-06		5.20E-06	5.20E-06	
EMISSION RATES																		
Sulfur Particulate	lb/hr	2.568	0.075	0.075	Maximum Hourly and Annual Emission Rates	2.568	0.075	0.075	Maximum Hourly and Annual Emission Rates	0.437	0.012	0.437	0.437	0.012	0.437	0.437	0.012	0.437
	TPY	0.198	0.038	0.282		0.198	0.038	0.282		0.120	0.051	0.171	0.147	0.050	0.197	0.190	0.049	0.239
TRS (as H ₂ S)	lb/hr	0.953	0.063	0.063		0.953	0.063	0.063		0.021	0.001	0.021	0.021	0.001	0.021	0.021	0.001	0.021
	TPY	0.074	0.032	0.239		0.074	0.032	0.239		0.006	0.004	0.010	0.007	0.004	0.011	0.009	0.004	0.013
Sulfur Dioxide	lb/hr	1.989	0.131	0.131		1.989	0.131	0.131		0.044	0.002	0.044	0.044	0.002	0.044	0.044	0.002	0.044
	TPY	0.153	0.068	0.498		0.153	0.068	0.498		0.012	0.009	0.021	0.015	0.009	0.024	0.019	0.009	0.028
Volatile Organic Compounds	lb/hr	1.416	0.094	0.094		1.416	0.094	0.094		0.031	0.002	0.031	0.031	0.002	0.031	0.031	0.002	0.031
	TPY	0.109	0.048	0.355		0.109	0.048	0.355		0.009	0.006	0.015	0.010	0.006	0.017	0.014	0.006	0.020

Notes:

Total Sulfur Transferred to Tanks by Ship = 691,525 tons/yr
 Total Sulfur Transferred from Tanks to Pits = 692,232 tons/yr
 TPH = tons per hour
 TPY = tons per year
 Density of Sulfur (280°F) = 112 lb/cf



Attachment CR-FI-C3 - Future
 Facility Flow Diagram
 Cargill Riverview

EMISSION UNIT:	FACILITY WIDE
PROCESS AREA:	
FILENAME:	0037650\F1\WP\CR-FI-C3.dwg
LATEST REVISION:	02/11/01 by PAC

Table 6-23. Stack Parameters and Sulfuric Acid Mist Emission Rates for Affected Cargill - Riverview Sources (Revised 08/14/01)

AIRS Number	Source	ISCST Source ID	Short-Term SAM Emissions		Annual Average SAM Emissions		Stack/Vent Release Height		Stack/Vent Diameter		Gas Flow Rate acfm	Gas Exit Temperature		Velocity		Discharge Direction (Vert./Horiz.)	Location ^a			
			lb/hr	g/sec	TPY	g/sec	ft	m	ft	m		F	K	ft/sec	m/sec		X Coordinate ft	Y Coordinate m	X Coordinate ft	Y Coordinate m
CURRENT SOURCES																				
5	No. 8 Sulfuric Acid Plant	NO8SAPC	4.08	0.514	14.09	0.405	150	45.72	8.0	2.44	118,938	165	347	39.4	12.02	V	340	104	-90	-27
6	No. 9 Sulfuric Acid Plant	NO9SAPC	4.90	0.617	10.75	0.309	150	45.72	9.0	2.74	159,602	155	341	41.8	12.74	V	0	0	0	0
FUTURE SOURCES																				
5	No. 8 Sulfuric Acid Plant	NO8SAP	11.25	1.417	49.28	1.418	150	45.72	8.00	2.44	129,400	165	347	42.91	13.08	V	340	104	-90	-27
6	No. 9 Sulfuric Acid Plant	NO9SAP	14.20	1.789	62.05	1.785	150	45.72	9.00	2.74	171,100	155	341	44.83	13.66	V	0	0	0	0
Phosphate Rock Grinding/Drying System																				
100	No. 5 Rock Mill Dust Collector	RKMLNO5	0.11	0.014	0.02	0.001	91	27.74	2.50	0.76	36,100	166	348	122.57	37.36	V	-1,620	-494	510	155
106	No. 7 Rock Mill Dust Collector	RKMLNO7	0.11	0.014	0.02	0.001	91	27.74	3.00	0.91	20,000	165	347	47.16	14.37	V	-1,638	-499	486	148
101	No. 9 Rock Mill Dust Collector	RKMLNO9	0.11	0.014	0.02	0.001	91	27.74	2.50	0.76	31,360	162	345	106.48	32.45	V	-1,630	-497	460	140
7	EPP Manufacturing Plant	EPPPLNT	0.70	0.088	0.14	0.004	126	38.40	8.00	2.44	237,000	132	329	78.58	23.95	V	-1,730	-527	50	15
Animal Feed Ingredient Plant																				
	Granulation System Scrubber No. 1	AFIGRAN	0.44	0.055	0.09	0.003	136	41.45	6.00	1.83	109,400	150	339	64.49	19.66	V	-1,230	-375	460	140
	Granulation System Scrubber No. 2	AFIGRN2	0.66	0.083	0.13	0.004	155	47.24	6.00	1.83	112,188	150	339	66.13	20.16	V	-1,415	-431	420	128
55	No. 5 DAP Plant	DAPNO5	0.22	0.027	0.04	0.001	133	40.54	7.00	2.13	121,732	132	329	52.72	16.07	V	-1,744	-532	-380	-116

^a Relative to H2SO4 Plant No. 9 stack location.

Table 6-7. Stack Parameters and Actual and Potential Fluoride Emission Rates for Current and Future Cargill Riverview Sources (Revised 8/13/01)

AIRS Number	Source	ISCST Model ID	Short-Term F Emissions		Annual Average F Emissions		Stack/Vent Release Height		Stack/Vent Diameter		Gas Flow Rate acfm	Gas Exit Temperature		Velocity		Discharge Direction (Vert./Horiz.)	Location ^c				Modeled in Significant Impact Analysis? (Yes/No)																		
			lb/hr	g/sec	TPY	g/sec	ft	m	ft	m		F	K	ft/sec	m/sec		X Coordinate		Y Coordinate																				
																		ft	m	ft	m																		
CURRENT SOURCES																																							
73	Phosphoric Acid Production Facility																																						
	Prayon Reactor/No. 1 Filtration Unit	PAPPRAC	0.09	0.01	0.21	0.01	110	33.53	4.00	1.22	18,300	105	313.71	24.20	7.38	V	-1140	-347	940	287	Yes																		
	No. 1 Filtration Unit/No.2 Filtration Unit/Dorrco Reactor	PAPF12C	1.14	0.14	2.75	0.08	110	33.53	4.80	1.46	38,900	115	319.26	35.30	10.76	V	-1200	-366	1120	341	Yes																		
	No. 3 Filtration Unit	PAPF3C	0.26	0.03	0.63	0.02	115	35.05	4.90	1.49	57,100	90	305.37	41.30	12.59	V	-1350	-411	984	300	Yes																		
7	GTSP/AP Manufacturing Plant	GTSPAPC	1.55	0.20	2.47	0.07	126	38.40	8.00	2.44	171,700	132	328.71	51.11	15.58	V	-1730	-527	50	15	Yes																		
70,71	Two GTSP Storage Buildings Animal Feed Ingredient Plant	GTSPSTC	8.44	1.06	29.04	0.84	55	16.76 ^b	--	--	--	191	58.12 ^b	25.58	7.80 ^b	^b	-2680	-817	50	15	Yes																		
78	AFI Defluorination & Granulation Scrubber	AFIPLTC	0.17	0.02	1.05	0.03	136	41.45	6.00	1.83	108,400	147	337.04	63.90	19.48	V	-1230	-375	490	149	Yes																		
55	No. 5 DAP Plant	DAPNO5C	3.02	0.38	8.37	0.24	133	40.54	7.00	2.13	121,732	132	328.71	52.72	16.07	V	-1744	-532	-380	-116	Yes																		
FUTURE SOURCES																																							
73	Phosphoric Acid Production Facility																																						
	Prayon Reactor	PAPPRAY	0.57	0.07	2.51	0.07	110	33.53	4.00	1.22	20,900	105	313.71	27.72	8.45	V	-1140	-347	940	287	Yes																		
	Nos. 1 and 2 Filtration Units	PAPF12	0.57	0.07	2.51	0.07	110	33.53	4.83	1.47	45,000	115	319.26	40.93	12.48	V	-1200	-366	1120	341	Yes																		
	Dorrco Reactor and New Digester	PAPDORR	0.57	0.07	2.51	0.07	95	28.96	4.50	1.37	55,000	110	316.48	57.64	17.57	V	-1070	-326	1110	338	Yes																		
	No. 3 Filtration Unit	PAPF3	0.57	0.07	2.51	0.07	115	35.05	4.92	1.50	57,100	90	305.37	50.06	15.26	V	-1350	-411	984	300	Yes																		
7	EPP Manufacturing Plant	EPPPLNT	1.89	0.24	8.26	0.24	126	38.40	8.00	2.44	237,000	132	328.71	78.58	23.95	V	-1730	-527	50	15	Yes																		
70,71	Two EPP Storage Buildings Animal Feed Ingredient Plant Nos. 1 and 2	EPPST24	9.92	1.25	43.46	1.25	55	16.76 ^b	--	--	--	191	58.12 ^b	25.58	7.80 ^b	^b	-2680	-817	50	15	Yes																		
78	Defluorination System Scrubber	AFIDFS	2.11	0.27	9.25	0.27	35	10.67	3.00	0.91	25,400	105	313.71	59.89	18.25	V	-1230	-375	490	149	Yes																		
55	No. 5 DAP Plant	DAPNO5	2.94	0.37	12.88	0.37	133	40.54	7.00	2.13	121,732	132	328.71	52.72	16.07	V	-1744	-532	-380	-116	Yes																		
22,23,24	Nos. 3 and 4 MAP Plants and South Cooler	MAPNO34	2.00	0.25	8.50	0.24	133	40.54	7.00	2.13	165,000	142	334.26	71.46	21.78	V	-1800	-549	-170	-52	No																		

^a Relative to H₂SO₄ Plant No. 9 stack location.

^b Volume source dimensions based on methods presented in accordance with ISCST3 User's Manual.

Source	Physical Dimensions (ft)		Model Dimensions (ft)		
	Height (H)	Width (W)	Height (H or H/2)	Sigma Y (W/4.3)	Sigma Z (H/2.15)
Two GTSP Storage Buildings	55.0	820	55.0	191	25.58

Table 6-7b. Stack Parameters and Sulfuric Acid Mist Emission Rates for Affected Cargill - Riverview Sources

AIRS Number	Source	ISCST Source ID	Short-Term SAM Emissions		Annual Average SAM Emissions		Stack/Vent Release Height		Stack/Vent Diameter		Gas Flow Rate acfm	Gas Exit Temperature		Velocity		Discharge Direction (Vert./Horiz.)	Location ^a			
			lb/hr	g/sec	TPY	g/sec	ft	m	ft	m		F	K	ft/sec	m/sec		X Coordinate		Y Coordinate	
																	ft	m	ft	m
CURRENT SOURCES																				
5	No. 8 Sulfuric Acid Plant	NO8SAPC	4.08	0.514	14.68	0.422	150	45.72	8.0	2.44	118,938	165	347	39.4	12.02	V	340	104	-90	-27
6	No. 9 Sulfuric Acid Plant	NO9SAPC	4.90	0.617	13.43	0.386	150	45.72	9.0	2.74	159,602	155	341	41.8	12.74	V	0	0	0	0
FUTURE SOURCES																				
5	No. 8 Sulfuric Acid Plant	NO8SAP	13.50	1.701	59.1	1.701	150	45.72	8.00	2.44	129,400	165	347	42.91	13.08	V	340	104	-90	-27
6	No. 9 Sulfuric Acid Plant	NO9SAP	17.00	2.142	74.5	2.142	150	45.72	9.00	2.74	171,100	155	341	44.83	13.66	V	0	0	0	0
Phosphate Rock Grinding/Drying System																				
100	No. 5 Rock Mill Dust Collector	RKMLNO5	0.11	0.014	0.02	0.001	91	27.74	2.50	0.76	36,100	166	348	122.57	37.36	V	-1,620	-494	510	155
106	No. 7 Rock Mill Dust Collector	RKMLNO7	0.11	0.014	0.02	0.001	91	27.74	3.00	0.91	20,000	165	347	47.16	14.37	V	-1,638	-499	486	148
101	No. 9 Rock Mill Dust Collector	RKMLNO9	0.11	0.014	0.02	0.001	91	27.74	2.50	0.76	31,360	162	345	106.48	32.45	V	-1,630	-497	460	140
7	EPP Manufacturing Plant	EPPPLNT	0.70	0.088	0.14	0.004	126	38.40	8.00	2.44	237,000	132	329	78.58	23.95	V	-1,730	-527	50	15
Animal Feed Ingredient Plant																				
	Granulation System Scrubber	AFIGRAN	0.44	0.055	0.09	0.003	136	41.45	6.00	1.83	109,400	150	339	64.49	19.66	V	-1,230	-375	460	140
55	No. 5 DAP Plant	DAPNO5	0.22	0.027	0.04	0.001	133	40.54	7.00	2.13	121,732	132	329	52.72	16.07	V	-1,744	-532	-380	-116

^a Relative to H2SO4 Plant No. 9 stack location.

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
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<p>1. Article Addressed to:</p> <p>Mr. E. O. Morris Cargill Fertilizer, Inc. 8813 U.S. Highway 41 South Riverview, FL 33569</p>	<p>3. Service Type</p> <p><input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail</p> <p><input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise</p> <p><input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. Article Number (Copy from service label) 7000 2870 0000 7028 2928</p>	
<p>PS Form 3811, July 1999 Domestic Return Receipt 102595-99-M-1789</p>	

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage \$	Postmark Here
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees \$	

Sent To
E. O. Morris
Street, Apt. No., or PO Box No.
8813 US Hwy. 41 South
City, State, ZIP+ 4
Riverview, FL 33569

PS Form 3800, May 2000 See Reverse for Instructions

7000 2870 0000 7028 2928

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- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. E. O. Morris
 Vice President of Environmental
 Health and Safety
 Cargill Fertilizer, Inc.
 8813 U.S. Highway 41 South
 Riverview, FL 33569

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) B. Date of Delivery

C. Signature *[Signature]* 10/90

Agent
 Addressee

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type

- Certified Mail Express Mail
- Registered Return Receipt for Merchandise
- Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

2. Article Number (Copy from service label)

7000 2870 0000 7028 2645

PS Form 3811, July 1999

Domestic Return Receipt

102595-99-M-1789

U.S. Postal Service
CERTIFIED MAIL RECEIPT
 (Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

7000 2870 0000 7028 2645

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Postmark
Here

Sent To
 E. O. Morris
 Street, Apt. No., or PO Box No.
 8813 U.S. Highway 41 South
 City, State, ZIP+ 4
 Riverview, FL 33569

PS Form 3800, May 2000

See Reverse for Instructions

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- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. E. O. Morris, Vice Pres.
of Environment, Health &
Safety
Cargill Fertilizer, Inc.
8813 Highway 41 South
Riverview, FL 33569

2. Article Number (Copy from service label)
7099 3400 0000 1453 1781

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) B. Date of Delivery

Roy BURNETT 7-2

C. Signature

X Roy Burnett Agent
 Addressee

D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No

3. Service Type

- Certified Mail Express Mail
- Registered Return Receipt for Merchandise
- Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

PS Form 3811, July, 1999

Domestic Return Receipt

102595-99-M-1789

**U.S. Postal Service
CERTIFIED MAIL RECEIPT**
(Domestic Mail Only; No Insurance Coverage Provided)

Article Sent To:
Mr RIVERVIEW FL 33569

Postage	\$ 0.34
Certified Fee	\$ 1.90
Return Receipt Fee (Endorsement Required)	\$ 1.50
Restricted Delivery Fee (Endorsement Required)	\$ 0.00
Total Postage & Fees	\$ 3.74

Name (Please Print Clearly) (to be completed by mailer):
Cargill Fertilizer, Inc.
Street, Apt. No. or PO Box No.:
8813 Highway 41 South
City, State, ZIP+4:
Riverview, FL 33569

Postmark Here:
JUN 28 2001
TALLAHASSEE FL 32302
ENTERVILLE FL 32726

PS Form 3800, July 1999 See Reverse for Instructions

7099 3400 0000 1453 1781

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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:
 Mr. E. O. Morris
 Vice President of Environment,
 Health and Safety
 Cargill Fertilizer, Inc.
 8813 Highway 41 South
 Riverview, FL 33569

2. Article Number (Copy from service label)
 7099 3400 0000 1450 2583

COMPLETE THIS SECTION ON DELIVERY

A. Received by: (Please Print Clearly) B. Date of Delivery

C. Signature *X. C. Summerville* Agent Addressee

D. Is delivery address different from item 1? Yes No
 If YES, enter delivery address below:

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

U.S. Postal Service
CERTIFIED MAIL RECEIPT
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Article Sent To:
 Mr. E. O. Morris

Postage	\$ 34
Certified Fee	1.50
Return Receipt Fee (Endorsement Required)	1.90
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 3.74

Name (Please Print Clearly) (to be completed by mailer)
 Mr. E. O. Morris
 Street, Apt. No., or PO Box No.
 8813 Highway 41 South
 City, State, ZIP+4
 Riverview, FL 33569

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Stamp: TALLAHASSEE FL CENTERVILLE BR APR 26 2001 USPS

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<p>1. Article Addressed to:</p> <p style="padding-left: 40px;">Mr. E. O. Morris Vice President of Environment Health and Safety Cargill Fertilizer, inc. 8813 Highway 41 South Riverview, Florida 33569</p>	<p>3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p>
<p>2. Article Number (Copy from service label): 7099 3400 0000 1450 2644</p>	<p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952	

U.S. Postal Service

CERTIFIED MAIL RECEIPT

(Domestic Mail Only; No Insurance Coverage Provided)

Article Sent To: Cargill

Mr. E. O. Morris

Postage \$	Postmark Here
Certified Fee	
Return Receipt Fee <small>(Endorsement Required)</small>	
Restricted Delivery Fee <small>(Endorsement Required)</small>	
Total Postage & Fees \$	

Name *(Please Print Clearly)* *(to be completed by mailer)*
Mr. E.O. Morris

Street, Apt. No., or PO Box No.
8813 Highway 41 South

City, State, ZIP+4
Riverview, FL 33569

PS Form 3800, July 1999 See Reverse for Instructions

7099 3400 0000 1450 2644

SENDER: COMPLETE THIS SECTION

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- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. E.O. Morris, Vice President
of Environment, Health and
Safety
Cargill Fertilizer, Inc.
8813 Highway 41 South
Riverview, FL 33569

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) B. Date of Delivery

Roy Burnett 4/17/92

C. Signature Agent Addressee

D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

2. Article Number (Copy from service label)
7099 3400 0000 1450 3092

PS Form 3811, July 1999

Domestic Return Receipt

102595-00-M-0952

260E 054T 0000 004E 660Z

**U.S. Postal Service
CERTIFIED MAIL RECEIPT**
(Domestic Mail Only; No Insurance Coverage Provided)

Article Sent To:

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Postmark
Here

Name (Please Print Clearly) (to be completed by mailer)
Mr. E. O. Morris
Street, Apt. No.; or PO Box No.
8813 Highway 41 South
City, State, ZIP+4
Riverview, FL 33569

PS Form 3800, July 1999

See Reverse for Instructions