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KA 124-03-06

July 8, 2004

Ms. Cindy Phillips, P.E.
Florida Department of
Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Additional Information on Title V Permit Renewal
IMC Phosphates Company - New Wales Plant
File No. 1050059-045-AV

Dear Ms. Phillips:

This is a follow up to your letter dated May 20, 2004, requesting additional information on the above referenced Title V renewal project. The responses are in the order of the issues raised by FDEP.

1. For each pollutant at each emissions unit that is subject to CAM, provide the test date, allowable operating capacity, operating capacity during the test, percentage of allowable operating capacity during the test, tested emissions rate, allowable emissions rate, percentage of allowable emissions rate measured during the test, maximum and minimum scrubber flow rates, maximum and minimum pressure drops across the scrubber(s). If the control device is a baghouse, provide the maximum and minimum pressure drop across the baghouse that assures compliance and is protective of the bags.

A minimum of five test results must be submitted for each emission unit's pollutant(s) in order to determine and justify the chosen indicator ranges.

The following units are subject to CAM for the pollutants specified and will need to provide the information requested above:

E.U. ID.	DESCRIPTION
009	**DAP #1 for PM**
045	**DAP II East for SO2 and PM**
046	**DAP II West for SO2 and PM**
047	**DAP II West Cooler for PM (baghouse)**
056	**DAP II East Cooler for PM**

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E.U. ID.	DESCRIPTION
078	**GMAP for PM**
011	**MAP Prill for PM**
027	**Animal Feed Granulation plant for PM**
036	**Multifos A & B Kilns, dryer and blending for PM and F**
055	**MAP Cooler for PM**

RESPONSE:

The requested information is presented in Attachment 1.

2. The PE and RO certifications are presented in Attachment 2.

If you have any additional questions, please call Pradeep Raval or me.

Very truly yours,

KOOGLER & ASSOCIATES

John B. Koogler, Ph.D., P.E.

JBK:par
Encl.

C: C. D. Turley, IMC

ATTACHMENT 1

CAM PLAN SUPPORTING INFORMATION
AND SUMMARY OF TEST DATA

BACKGROUND INFORMATION

There are several general considerations that can be stated in the selection of the CAM "indicators" for the pollution control systems discussed below.

In complex control systems such as a stack with several parallel control devices or a system of parallel control devices followed by a single control device, the consideration of each individual control device status does not inherently assure compliance of the overall emissions. An overall indicator may need to be defined for these complex emission units systems to be the basis of the CAM "indicator."

The compliance performance of scrubbing systems may be defined in terms of minimum operating limits, as reflected by the current permit provisions. The summary of the available test data generated for this provision is presented herein.

Visible Emission observations for the subject units indicate the presence of fine particulate matter emissions, which have lower collection efficiency in most control devices. However, the fine particles typically contribute little to the unit's overall mass emission as do the larger particles, which typically have higher collection efficiency, make up the majority of the mass emissions. For the units evaluated herein, it would be unlikely that a mass emission limit would be exceeded when a VE limit is not exceeded. Generally, if a bag collector is in compliance with the visible emission limit, it will be in compliance with the mass emission limit.

The attached tables contain the available test data for the subject units. The specific test run information is included as requested.

UNITS SUBJECT TO CAM (and not MACT)

A list of the emission units subject to CAM provisions (and not MACT monitoring requirements) is presented below, along with the applicable pollutants and the pertinent pollution control equipment.

027 - AFI Plant: PM controlled by system of four venturi scrubbers in parallel.

036 - Multifos A and B Kilns, Dryer and Blending Operation: PM and F controlled by system of three packed scrubbers in parallel.

046 - DAP Plant No 2 West Product Cooler: PM controlled by system of two bag collectors in parallel.

055 - MAP Plant Cooler: PM controlled by a single bag collector.

New Wales AFI Plant (027)
Compliance Test Results

Run	Test Date	Rate TPH	120 TPH max	PM lb/hr	PM limit lb/hr	% limit	Dryer Venturi GPM	Dryer Venturi dP	R/G Venturi GPM	R/G Venturi dP	C/V Venturi GPM	C/V Venturi dP	Vent Scrubber GPM	Vent Scrubber dP
1	11/09/00	96	80%	18.3			1404	11.5	673	16.5	1656	17.5	752	26.0
2	11/09/00	96	80%	14.1			1253	11.5	700	16.5	1536	17.5	713	26.0
3	11/09/00	96	80%	20.6			1248	11.5	716	16.5	1500	17.5	710	26.0
Test Average	11/09/00	96	80%	17.7	36.8	48%	1302	11.5	696	16.5	1564	17.5	725	26.0
1	04/05/02	89	74%	23.7			1438	12.0	855	14.0	1436	15.0	800	26.0
2	04/05/02	89	74%	25.4			1448	12.0	860	14.0	1410	15.0	798	26.0
3	04/06/02	89	74%	30.1			1541	12.0	846	14.0	1350	15.0	780	26.0
Test Average	04/06/02	89	74%	26.4	36.8	72%	1476	12.0	854	14.0	1399	15.0	793	26.0
1	05/06/02	112	93%	32.2			1330	10.0	714	12.0	1120	12.0	650	19.0
2	05/06/02	112	93%	28.5			1314	11.0	740	12.0	1006	12.0	624	19.0
3	05/06/02	112	93%	32.6			1303	11.0	714	13.0	1027	14.0	614	19.0
Test Average	05/06/02	112	93%	31.1	36.8	85%	1316	10.7	723	12.3	1051	12.7	629	19.0
1	10/23/02	114	95%	18.8			1316	12.0	684	15.0	1031	12.0	608	22.0
2	10/23/02	114	95%	21.2			1335	12.0	702	15.0	1018	12.0	619	22.0
3	10/23/02	114	95%	19.4			1322	12.0	704	15.0	1006	12.0	618	22.0
Test Average	10/23/02	114	95%	20.0	36.8	54%	1324	12.0	697	15.0	1018	12.0	615	22.0
1	01/22/04	111	93%	28.3			1237	9.9	662	20.3	960	11.0	734	15.7
2	01/22/04	114	95%	27.8			1239	10.7	662	16.9	969	11.3	755	16.2
3	01/22/04	115	96%	33.5			1226	10.2	655	15.8	899	11.1	748	16.1
Test Average	01/22/04	113	94%	29.9	36.8	81%	1234	10.3	660	17.7	943	11.1	746	16.0
						min	1226	9.9	655	12.0	899	11.0	608	15.7
						max	1541	12.0	860	20.3	1656	17.5	800	26.0

NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

New Wales Multifos A and B Kilns, Dryer and Blending Operation (036)
Compliance Test Results

Run	Test Date	A Feed TPH	B Feed TPH	PM lb/hr	PM limit lb/hr	% limit	F lb/hr	F limit lb/hr	% limit	A Total GPM	A Packing dP	A Duct Spray GPM	B Total GPM	B Packing dP	B Duct Spray GPM	Equip Total GPM	Equip Packing dP	Sulfite Sump 50% caustic GPH
1	08/10/00	10.5	11.0	12.9			1.59			2813	6.0		3772	3.0		2749	1.7	
2	08/10/00	10.5	11.0	5.4			1.22			2816	6.0		3775	3.1		2746	1.9	
3	08/10/00	10.5	11.0	9.5			1.07			2817	6.0		3756	3.1		2738	1.9	
Test Average	08/10/00	10.5	11.0	9.3	29.8	31%	1.29	2.8	46%	2816	6.0		3770	3.1		2746	1.6	
1	10/03/00	11	12.8	10.8			1.49			3040	7.4		4088	3.4		2751	2.7	
2	10/03/00	11	12.8	10.8			1.37			2993	7.4		4091	3.3		2767	2.8	
3	10/03/00	11	12.8	11.0			1.71			2847	7.4		4078	3.3		2738	2.7	
Test Average	10/03/00	11	12.8	10.9	29.8	36%	1.52	3.2	48%	2949	7.4		4085	3.3		2751	2.7	
1	11/16/00	10.5	12.5	7.5			1.15			2237	4.4		3352	4.3		2044	2.6	
2	11/16/00	10.5	12.5	5.9			0.88			2179	4.4		3343	4.3		2041	2.5	
3	11/16/00	10.5	12.5	6.4			0.79			2173	4.4		3347	4.2		2015	2.6	
Test Average	11/16/00	10.5	12.5	6.6	29.8	22%	0.94	3.0	32%	2187	4.4		3348	4.3		2036	2.6	
												demist			demist			
1	05/11/01	12.1	13.0	5.0			1.16			2463	4.6	120	3485	4.2	126	2377	5.9	15.2
2	05/11/01	12.2	11.3	6.4			1.31			2469	4.6	121	3489	4.3	129	2380	6.0	15.3
3	05/11/01	12.1	13.0	4.9			1.19			2477	4.6	119	3500	4.3	128	2374	3.8	15.3
Test Average	05/11/01	12.1	12.4	5.4	29.8	18%	1.22	3.1	40%	2470	4.6	120	3491	4.3	128	2376	5.5	15.3
1	05/09/01	14.0	14.0	13.4			3.56			2512	4.6	108	3525	4.1	103	2381	4.2	15.3
2	05/09/01	14.0	14.0	11.5			2.03			2490	4.8	106	2493	4.2	102	2397	4.1	15.3
3	05/09/01	14.0	14.0	9.0			1.85			2483	4.9	107	3507	4.2	104	2387	3.9	15.3
Test Average	05/09/01	14.0	14.0	11.3	29.8	38%	2.48	3.6	69%	2495	4.8	107	3509	4.2	103	2392	4.1	15.3
1	06/17/02	11.0	10.9	9.5			1.08			2291	1.2	113	3165	1.6	103	2184	1.2	15.4
2	06/17/02	11.0	10.8	9.2			1.37			2291	1.2	112	3177	1.6	104	2177	0.4	15.2
3	06/17/02	11.0	10.4	10.8			1.40			2316	1.2	112	3194	1.5	105	2176	0.1	15.2
Test Average	06/17/02	11.0	10.7	9.8	29.8	33%	1.28	2.8	46%	2299	1.2	112	3179	1.6	104	2179	0.6	15.3
1	05/28/03	13.0	9.6	16.5			1.28			2128	2.5	114	2933	2.5	114	1987	8.7	15.3
2	05/28/03	13.0	13.0	24.4			1.87			2101	2.3	114	2970	2.6	114	1954	8.7	15.2
3	05/28/03	10.9	13.1	20.3			1.70			2098	2.5	114	2945	2.7	114	1949	8.7	15.2
Test Average	05/28/03	12.3	11.9	20.4	29.8	68%	1.62	3.2	51%	2109	2.4	114	2949	2.6	114	1963	8.7	15.2
1	04/23/04	11.0	9.2	11.4			0.75			2167	5.2	133	3030	2.6	114	1366	15.4	20.5
2	04/23/04	11.1	11.0	8.9			0.95			2172	5.2	135	3034	2.6	114	1368	14.0	29.8
3	04/23/04	11.0	10.4	12.5			1.63			2179	5.1	134	3016	2.6	114	1371	13.8	37.0
Test Average	04/23/04	11.0	10.2	10.8	29.8	36%	1.11	2.8	40%	2173	5.2	134	3027	2.6	114	1368	14.4	29.1
							min			2098	1.2	106	2493	1.5	102	1366	0.1	15.2
							max			3040	7.4	135	4091	4.3	129	2767	15.4	37.0

NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

New Wales DAP Plant No 2 West Product Cooler (047)
Compliance Test Results

Test Date	Rate TPH	170 TPH max	PM lb/hr	PM limit lb/hr	% limit	F lb/hr	Plant F limit lb/hr *	% limit	VE	VE limit	% limit	East Bag Collector dP	West Bag Collector dP
03/13/98	139	82%	2.7	4.2	64%	0.13	2.67	5%	0	5	0%	3.2	3.4
04/14/98	150	88%	1.5	4.2	35%	0.07	2.88	2%	0	5	0%	no data	no data
08/10/98	153	90%							0	5	0%	no data	no data
07/14/99	150	88%							0	5	0%	11.6	5.3
09/25/00	157	92%							0	5	0%	8.0	7.0
09/10/01	148	87%							0	5	0%	9.5	8.0
05/22/02	149	88%							0	5	0%	1.2	1.3
09/04/03	143	84%							0	5	0%	0.7	0.4
03/19/04	138	81%				0.14	2.65	5%	0	5	0%	3.9	4.1
							* Limit for total plant emissions (Plant (046) and Cooler (047))						
											min	0.7	0.4
											max	11.6	8.0

NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

New Wales MAP Plant Cooler (055)
Compliance Test Results

Test Date	Rate TPH	50 TPH max	PM lb/hr	PM limit lb/hr	% limit	vemax	veall	% limit	Bag Collector dP
03/04/98	49	97%	0.4	2.8	15%	0	5	0%	2.8
08/20/98	50	100%				0	5	0%	3.0
02/26/99	50	100%				0	5	0%	5.0
06/26/00	50	100%				2	5	40%	10.0
03/28/01	50	100%				0	5	0%	7.0
06/20/02	50	100%				0	5	0%	11.6
12/18/02	50	100%				5	5	100%	4.1
01/30/04	49	99%				0	5	0%	13.8
								min	2.8
								max	13.8

NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

UNITS SUBJECT TO CAM and MACT

A list of the emission units subject to CAM provisions and the MACT monitoring requirements is presented below, along with the applicable pollutants and the pertinent pollution control equipment.

In the case of the following emissions units, the MACT F monitoring requirements can be used for PM CAM purposes. In certain situations, if the fluoride emissions are controlled and in compliance, it can be assumed that the PM emissions will also be in compliance. Therefore, the implementation of the MACT monitoring requirements for such units will suffice for CAM.

For the packed scrubbers, a request to establish MACT ranges for the pressure drops for these units was previously submitted to the FDEP. The emission tests related to this request are included in the tables. The requested pressure drop ranges are indicated in the tables. More recent test results are included also.

009- DAP Plant No. 1: PM and F controlled by three venturi scrubbers in parallel followed by a single impact spray/cyclonic scrubber system in series.

011 - MAP Plant: PM and F controlled by a single venturi scrubber.

045 - DAP Plant No 2 - East Train: PM and F controlled by two systems in parallel each consisting of a venturi scrubber followed by a packed scrubber. While there is no add-on control equipment for SO2, the emissions are nonetheless reduced inherently by the scrubbing liquid when the plant uses fuel oil. There are virtually no SO2 emissions when the plant fires natural gas.

046 - DAP Plant No 2 - West Train: PM and F controlled by two systems in parallel each consisting of a venturi scrubber followed by a packed scrubber. While there is no add-on control equipment for SO2, the emissions are reduced inherently by the scrubbing liquid when the plant uses fuel oil. There are virtually no SO2 emissions when the plant fires natural gas.

056 - DAP Plant No 2 East Product Cooler: PM and F controlled by a single venturi scrubber.

078 - GMAP Plant: PM and F controlled by two systems in parallel consisting of a main plant system using a venturi scrubber followed by impact sprays and a packed scrubber, and an equipment system using impact sprays and a venturi scrubber.

New Wales DAP Plant No. 1 (009)
Compliance Test Results

Run	Test Date	Rate TPH	150 TPH max	fuel	mmBtu /hr	PM lb/hr	PM limit lb/hr	% limit	F lb/hr	F limit lb/hr	% limit	VE 20 max	% limit	Dryer Venturi GPM	Dryer Venturi dP	R/G Venturi GPM	R/G Venturi dP	Cyclonic Scrubber GPM	Cyclonic Scrubber dP	Equip Scrubber GPM	Equip Scrubber dP
1	03/07/01	119	79%			11.1			0.48					808	16.0	938	15.0	873	8.0	199	7.2
2	03/07/01	119	79%			14.7			0.37					842	16.0	969	15.0	848	7.6	234	7.6
3	03/07/01	117	78%			6.1			0.26					805	16.0	941	15.0	830	7.5	232	7.9
Test Average	03/07/01	118	79%	No. 6 Oil	3.5	10.7	28.6	37%	0.37	2.9	13%	0	0%	818	16.0	949	15.0	850	7.7	222	7.6
1	03/08/01	115	77%			12.8			0.43					874	18.0	1039	17.0	894	7.8	277	9.2
2	03/08/01	115	77%			8.6			0.41					858	16.0	1017	17.0	880	8.1	260	7.8
3	03/08/01	116	77%			11.6			0.48					695	17.0	802	16.0	874	8.1	177	8.1
Test Average	03/08/01	115	77%	No. 6 Oil	3.8	11.0	28.6	38%	0.44	2.9	15%	4	21%	809	17.0	953	16.7	883	8.0	238	8.4
1	06/27/02	117	78%			2.9			0.41					1524	19.7	1914	21.2	1430	9.8	410	22.8
2	06/27/02	119	79%			2.9			0.40					1723	21.8	2160	23.5	1182	9.1	409	25.0
3	06/27/02	122	81%			3.9			0.55					1396	21.3	1763	23.1	1173	9.5	403	26.1
Test Average	06/27/02	119	80%	Nat Gas	2.6	3.2	28.6	11%	0.45	2.9	16%	5	25%	1548	20.9	1946	22.6	1262	9.5	407	24.6
1	01/29/03	115	77%			3.5			1.66					1373	15.1	1614	18.2	1117	10.0	451	17.5
2	01/29/03	114	76%			4.0			1.49					1375	15.2	1618	17.9	1119	9.9	449	17.6
3	01/29/03	116	77%			5.1			1.28					1376	15.1	1616	17.5	1116	9.9	449	17.6
Test Average	01/29/03	115	77%	Nat Gas	4.8	4.2	28.6	15%	1.48	2.9	51%	0	0%	1375	15.1	1616	17.9	1118	9.9	450	17.6
1	03/30/04	106	71%			8.5			1.67					1319	17.6	1556	21.1	1035	9.8	436	21.7
2	03/30/04	108	72%			8.0			1.55					1330	17.3	1573	21.2	1070	9.2	433	21.4
3	03/30/04	104	69%			7.6			1.68					1323	18.0	1566	22.2	1035	9.2	439	22.2
Test Average	03/30/04	106	71%	Nat Gas	2.4	8.0	28.6	28%	1.63	2.9	56%	0	0%	1324	17.6	1565	21.5	1047	9.4	436	21.8
													Maximum	+20%	+20%	+20%	+20%	+20%	+20%	+20%	+20%
												Applicable MACT Limits	Minimum	-20%	-20%	-20%	-20%	-20%	-20%	-20%	-20%
													DATA min	695	15.1	802	15.0	830	7.5	177	7.2
													DATA max	1723	21.8	2160	23.5	1430	10.0	451	26.1

NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

New Wales MAP Plant (011)
Compliance Test Results

Run	Test Date	Rate TPH	50 TPH max	PM lb/hr	PM limit lb/hr	% limit	F lb/hr	F limit lb/hr	% limit	VE 20 max	% limit	Venturi GPM	Venturi dP
1	02/10/00	48	95%	1.43			0.26					160	11.0
2	02/10/00	48	95%	1.14			0.24					160	11.0
3	02/10/00	48	95%	1.42			0.25					163	11.0
Test Average	02/10/00	48	96%	1.33	14.4	9%	0.25	0.83	30%	0	0%	161	11.0
1	03/28/01	50	100%	0.70			0.19					160	10.9
2	03/28/01	50	100%	0.80			0.72					127	11.0
3	03/28/01	50	100%	1.60			0.48					142	11.0
Test Average	03/28/01	50	100%	1.01	15.0	7%	0.47	0.83	57%	0	0%	143	11.0
1	06/20/02	49	99%	0.56			0.73					252	16.5
2	06/20/02	49	99%	0.56			0.80					280	16.8
3	06/20/02	49	99%	0.54			0.69					280	17.2
Test Average	06/20/02	49	99%	0.55	14.8	4%	0.74	0.83	89%	5	25%	271	16.8
1	12/19/02	50	100%	0.54			0.63					260	15.5
2	12/19/02	50	100%	0.38			0.62					260	15.4
3	12/19/02	50	100%	1.19			0.61					260	15.3
Test Average	12/19/02	50	100%	0.70	15.0	5%	0.62	0.83	75%	4	19%	260	15.4
1	12/19/03	49	99%	0.53			0.32					270	18.3
2	12/19/03	49	99%	0.24			0.39					270	18.0
3	12/19/03	49	99%	0.40			0.34					270	18.0
Test Average	12/19/03	49	99%	0.39	14.8	3%	0.35	0.83	42%	3	13%	270	18.1
									Applicable MACT Limits		Maximum	+20%	+20%
											Minimum	-20%	-20%
									DATA min			127	10.9
									DATA max			280	18.3

NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

New Wales DAP Plant No 2 - East Train (045)
Compliance Test Results

Run	Test Date	Rate TPH	PM lb/hr	PM limit lb/hr	% limit	F lb/hr	Plant F limit lb/hr *	% limit	SO2 lb/hr **	SO2 limit lb/hr	% limit	VE	VE limit	% limit	NOx lb/hr 12.6 max	R/G Venturi GPM	R/G Venturi dP	Dryer Venturi GPM	Dryer Venturi dP	R/G Tailgas GPM	R/G Tailgas dP	Dryer Tailgas GPM	Dryer Tailgas dP
Test Average	01/25/95	139	3.3	14.1	23%	0.37	2.8	13%	0.2	22	1%	5	20	25%	5.1		14.0		14.5		6.2		6.2
Test Average	01/30/96	140	1.9	14.1	13%	0.91	2.8	32%				0	20	0%	4.4		18.5		20.0		3.0		2.0
Test Average	03/12/97	140	1.3	14.1	9%	2.55	2.8	90%				0	20	0%	0.8		16.5		19.0		3.4		3.4
Test Average	02/03/98	137	3.5	14.1	25%	2.08	2.7	77%	3.3	22	15%	0	20	0%	3.6		24.0		19.2		5.4		2.9
Test Average	05/12/98	150	2.1	5.7	37%	1.51	3.0	51%				0	15	0%	1.3		17.0		21.0		6.2		5.7
Test Average	02/23/99	154	2.1	5.8	36%	1.51	3.0	50%	3.4	22	15%	0	15	0%	6.2		18.0		19.5		5.0		2.0
Test Average	08/29/00	168	4.0	6.0	66%	2.40	3.1	76%	8.5	22	39%	0	15	0%	5.2	1000	15.7	1000	21.3	1500	5.0	1000	3.8
1	09/24/01	154	2.8			0.82			4.51						3.0	1608	19.5	1654	23.9	2000	5.1	1700	4.1
2	09/24/01	152	3.5			0.97									2.5	1609	19.1	1651	23.9	2000	6.1	1650	3.9
3	09/24/01	150	2.0			0.88									2.6	1608	19.0	1651	23.8	2000	6.0	1600	4.0
Test Average	09/24/01	152	2.8	5.8	48%	0.89	3.0	30%	4.5	22	21%	0	15	0%	2.7	1608	19.2	1652	23.9	2000	5.7	1650	4.0
1	10/10/01	152	3.1			0.90									2.2	1536	17.1	1610	15.8	1891	5.2	1603	4.1
2	10/10/01	153	3.0			1.20									2.0	1538	17.3	1507	17.5	1917	5.0	1603	3.9
3	10/10/01	154	3.7			1.35									0.9	1528	17.2	1665	15.5	1873	5.1	1576	4.2
Test Average	10/10/01	154	3.3	5.8	56%	1.15	3.0	38%				5	15	33%	1.7	1534	17.2	1561	16.3	1894	5.1	1594	4.1
1	10/30/02	142	4.6			0.86									0.8	1543	18.8	1550	23	1936	5.4	1899	3.7
2	10/30/02	135	3.3			0.96									1.0	1546	18.8	1550	24.6	1943	5.4	1905	3.4
3	10/30/02	139	4.2			1.14									1.1	1548	18.9	1550	23.7	1929.5	5.3	1879	3.5
Test Average	10/30/02	139	4.0	5.2	77%	0.99	2.7	37%				12	15	80%	1.0	1546	18.8	1550	23.8	1936	5.4	1894	3.5
1	03/26/03		4.9			2.44									1.1	1496	20.0	1493	21.6	2247	6.5	1986	3.9
2	03/26/03		2.9			1.70									0.9	1498	20.2	1494	21.2	2233	6.3	1990	3.9
3	03/26/03		1.4			1.32									0.7	1508	20.0	1504	21.7	2229	6.4	1991	3.8
Test Average	03/26/03	142	3.1	5.4	56%	1.82	2.8	65%				2	15	14%	0.9	1501	20.1	1497	21.5	2236	6.4	1989	3.9
1	01/28/04	152	0.9			0.04									2.5	1632	22.9	1639	24	2098	6.1	1893	3.8
2	01/28/04	152	1.1			0.02									2.5	1655	22.5	1951	23.8	2081	6.2	1884	3.8
3	01/28/04	152	0.9			0.02									2.5	1645	22.6	1650	23.9	2076	6.1	1890	3.9
Test Average	01/28/04	152	1.0	5.8	17%	0.03	3.0	1%				5	15	33%	2.5	1644	22.7	1647	23.9	2085	6.1	1889	3.8
Applicable/Requested MACT Limits															Maximum	+20%	24.0	+20%	23.9	+20%	6.4	+20%	6.2
															Minimum	-20%	15.0	-20%	15.0	-20%	3.0	-20%	2.0
DATA min																1000	14.0	1000	14.5	1500	3.0	1000	2.0
DATA max																1655	24.0	1951	24.6	2247	6.5	1991	6.2

* Limit for total plant emissions (Plant (045) and Cooler (056))

** Sulfur dioxide testing done plant firing oil only.

Note the 15 in HOH minimum is a construction permit condition

NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

New Wales DAP Plant No 2 - West Train (046)
Compliance Test Results

Run	Test Date	Rate TPH	170 TPH max	PM lb/hr	PM limit lb/hr	% limit	F lb/hr	Plant F limit lb/hr *	% limit	SO2 lb/hr **	SO2 limit lb/hr	% limit	VE	VE limit	% limit	NOx lb/hr 12.6 max	R/G Venturi GPM	R/G Venturi dP	Dryer Venturi GPM	Dryer Venturi dP	R/G Tailgas GPM	R/G Tailgas dP	Dryer Tailgas GPM	Dryer Tailgas dP
Test Average	01/17/95	153	90%	4.1	14.1	29%	1.22	3.1	39%	18.9	22	86%	6	20	30%	3.6		17.4		15.7		7.6		2.9
Test Average	02/13/96	140	82%	2.1	14.1	15%	1.18	2.8	42%				15	20	75%			18.0		19.0		3.0		3.0
Test Average	01/26/98	140	82%	8.7	14.1	62%	2.49	2.8	90%	5.0	22	23%	5	20	25%	3.9		16.7		15.5		3.1		1.9
Test Average	04/14/98	150	88%	3.1	5.7	55%	2.53	3.0	85%				5	15	33%	2.7		16.1		20.7		3.1		1.5
Test Average	02/10/99	154	91%	2.7	5.8	46%	2.59	3.0	85%	5.5	22	25%	5	15	33%	3.7		17.0		15.5		7.0		1.5
Test Average	09/25/00	157	92%	5.1	6.0	86%	2.61	3.1	84%	14.2	22	64%	6	15	39%	5.8	1100	18.6	1100	17.1	2200	6.0	1200	4.0
1	09/10/01	145	86%	3.6			2.03			26						0.7	1560	20.4	1500	19.5	1900	5.2	1700	4.1
2	09/10/01	148	87%	4.5			1.45			9.2						1.0	1500	20.4	1500	19.5	2000	5.4	1700	4.1
3	09/10/01	150	88%	3.1			1.51			6.8						0.9	1500	20.8	1500	19.6	2000	5.1	1700	4.1
Test Average	09/10/01	148	87%	3.7	5.6	66%	1.66	2.9	56%	14.0	22	64%	5	15	33%	0.8	1520	20.5	1500	19.5	1967	5.2	1700	4.1
1	05/22/02	145	85%	5.0			2.05									0.2	1632	21.0	1662	22.0	2240	5.3	1737	4.0
2	05/22/02	152	89%	2.2			2.24									0.2	1690	21.5	1737	21.8	2205	5.1	1822	3.6
3	05/22/02	150	88%	4.1			0.96									0.2	1735	21.4	1738	22.0	2248	5.2	1815	3.6
Test Average	05/22/02	149	88%	3.8	5.7	66%	1.82	3.0	61%				10	15	67%	0.2	1686	21.3	1712	21.9	2231	5.2	1791	3.7
1	04/01/03	140	83%	2.9			1.30									2.7	1550	21.2	1550	22.0	2180	7.0	1985	4.3
2	04/01/03	141	83%	2.0			1.80									2.7	1548	21.3	1552	22.2	2205	7.0	2000	4.2
3	04/01/03	142	84%	3.1			2.23									2.3	1550	21.3	1550	22.0	2185	7.0	1992	4.2
Test Average	04/01/03	141	83%	2.7	5.4	49%	1.78	2.8	64%				14	15	94%	2.6	1549	21.3	1551	22.1	2190	7.0	1992	4.2
1	09/04/03	143	84%	2.1			0.92									3.2	1571	21.7	1572	18.4	2224	5.4	2088	4.0
2	09/04/03	143	84%	3.9			1.24									1.9	1577	21.7	1576	18.4	2239	5.4	2095	4.0
3	09/04/03	143	84%	0.9			1.03									1.8	1570	21.7	1573	18.5	2226	5.5	2093	3.9
Test Average	09/04/03	143	84%	2.3	5.4	43%	1.06	2.8	38%				9	15	62%	2.3	1573	21.7	1574	18.4	2230	5.4	2092	4.0
1	04/06/04	148	87%	1.8			2.17									5.8	1553	22.6	1553	21.0	2190	5.2	1992	3.1
2	04/06/04	148	87%	2.0			1.92									4.5	1578	22.7	1584	21.2	2200	5.1	1991	3.1
3	04/06/04	147	87%	2.1			2.29									3.9	1594	22.7	1599	20.8	2160	5.1	1949	3.1
Test Average	04/06/04	148	87%	2.0	5.6	35%	2.13	2.9	73%				5	15	33%	4.7	1575	22.7	1579	21.0	2183	5.1	1977	3.1

* Limit for total plant emissions (Plant (046) and Cooler (047))

** Sulfur dioxide testing done plant firing oil only.

Applicable/Requested MACT Limits	Maximum	+20%	21.3	+20%	22.1	+20%	7.6	+20%	4.2
	Minimum	-20%	**15.0**	-20%	**15.0**	-20%	3.0	-20%	2.0

Note the 15 in HOH minimum is a construction permit condition

DATA min	1100	16.1	1100	15.5	1900	3.0	1200	1.5
DATA max	1735	22.7	1738	22.2	2248	7.6	2095	4.3

NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

New Wales DAP Plant No 2 East Product Cooler (056)
Compliance Test Results

Run	Test Date	Rate TPH	170 TPH max	PM lb/hr	PM limit lb/hr	% limit	F lb/hr	Plant F limit lb/hr *	% limit	VE 15 max	% limit	Cooler Venturi GPM	Cooler Venturi dP
1	08/30/00	156	91%	3.5			0.08					250	15
2	08/30/00	156	91%	3.1			0.10					250	15
3	08/30/00	156	91%	3.6			0.07					250	15
	08/30/00	168	99%	3.4	6.1	56%	0.08	3.2	2%	0	0%	250	15.0
1	09/18/01	158	93%	0.9			0.23					350	17.2
2	09/18/01	154	90%	3.9			0.30					360	17.3
3	09/18/01	157	92%	4.2			0.33					380	17.3
	09/18/01	156	92%	3.0	6.1	50%	0.29	3.0	10%	0	0%	363	17.3
1	12/06/01	150	88%	3.2			0.51					500	16.5
2	12/07/01	149	88%	2.8			0.28					300	16.0
3	12/07/01	148	87%	2.6			0.26					300	16.0
	12/06/01	149	88%	2.8	6.1	47%	0.35	2.9	12%	0	0%	367	16.2
1	12/17/02	133	78%	3.0			0.21					366	15.6
2	12/17/02	134	79%	2.6			0.10					376	15.5
3	12/17/02	135	79%	2.7			0.10					375	15.4
	12/17/02	134	79%	2.7	6.1	45%	0.14	2.6	5%	5	33%	372	15.5
1	05/04/04	144	85%	3.3			0.16					346	17.1
2	05/04/04	151	89%	0.8			0.15					344	16.8
3	05/04/04	142	84%	0.6			0.16					346	17.0
	05/04/04	146	86%	1.6	6.1	26%	0.16	2.8	6%	5	33%	345	17.0

* Limit for total plant emissions (Plant (045) and Cooler (056))

Applicable MACT Limits	Maximum	+20%	+20%
	Minimum	-20%	**15.0**

Note the 15 in HOH minimum is a construction permit condition

DATA min	250	15.0
DATA max	500	17.3

NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

New Wales GMAP Plant (078)
Compliance Test Results

Run	Test Date	Rate TPH	150 TPH max	PM lb/hr *	PM limit lb/hr	% limit	F lb/hr	F limit lb/hr	% limit	VE	VE limit	% limit	Venturi GPM	Venturi dP	Impact Spray GPM	Kimre Face GPM	Kimre dP	Equip Venturi GPM	Equip Venturi dP	Equip Impact Spray GPM
1	07/13/01	98	65%	6.1			0.32						1696	22.6	1422	1065	2.6	380	15.3	229
2	07/13/01	103	69%	5.8			0.19						1690	22.6	1418	1059	2.6	377	15.5	242
3	07/13/01	84	56%	4.7			0.33						1681	22.4	1423	1064	2.6	377	15.4	244
Test average	07/13/01	95	63%	5.5	6.1	90%	0.28	1.4	19%	10	20	50%	1689	22.5	1421	1063	2.6	378	15.4	238
1	05/08/02	138	92%	5.8			0.60						1875	21.7	1571	1233	3.8	398	17.4	249
2	05/09/02	139	93%	6.6			0.67						1812	21.8	1567	1230	3.9	390	18.0	247
3	05/09/02	140	93%	3.4			0.63						1874	22.0	1565	1230	3.9	389	18.0	246
Test average	05/09/02	139	93%	5.2	9.0	58%	0.64	2.4	27%	15	20	75%	1854	21.8	1568	1231	3.9	393	17.8	247
Test average	05/24/02	118	78%				0.61	2.0	31%				1880	22.8	1585	1216	3.6	418	17.9	241
Test average	09/25/02	115	77%				0.51	2.0	26%				1878	22.0	1481	1	2.4	394	17.0	299
Test average	09/25/02	114	76%				0.44	2.0	22%				1891	21.2	837	1167	3.8	393	17.1	298
Test average	03/05/03	124	83%				0.21	2.1	10%				1758	20.8	904	1150	9.8	436	16.0	236
Test average	07/14/03	127	85%				0.63	1.9	34%	0	20	0%	1814	22.6	971	1224	2.4	372	17.8	193
Test average	12/10/03	124	83%				0.28	2.1	13%	10	20	50%	1688	23.4	957	1205	1.0	354	18.3	183

* PM testing only required on a 5 year basis.

09/25/02 Special test conducted to determine if Kimre pads could be eliminated.

Applicable MACT Limits	Maximum	+20%	+20%	+20%	+20%	9.8	+20%	+20%	+20%
	Minimum	-20%	-20%	-20%	-20%	2.6	-20%	-20%	-20%
						The 2.6 should be changed to 1.0 based on 12/10/03 test.			
DATA min		1681	20.8	837	1	1.0	354	15.3	183
DATA max		1891	23.4	1585	1233	9.8	436	18.3	299

NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

ATTACHMENT 2

P.E. AND R.O. CERTIFICATION

Professional Engineer Certification

1. Professional Engineer Name: **John B. Koogler, Ph.D, P.E.**
   Registration Number: **12925**
2. Professional Engineer Mailing Address...
   Organization/Firm: **Koogler and Associates**
   Street Address: **4014 NW 13th Street**
   City: **Gainesville** State: **FL** Zip Code: **32609**
3. Professional Engineer Telephone Numbers...
   Telephone: **(352) 377-5822** ext. Fax: **(352) 377-7158**
4. Professional Engineer Email Address: **jkoogler@kooglerassociates.com**
5. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein*, that:

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

(3) If the purpose of this application is to obtain a Title V air operation permit (check here ☐, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.

(4) If the purpose of this application is to obtain an air construction permit (check here ☐, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here ☒, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here ☐, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Signature (seal)

7/8/04
Date

*** Attach any exception to certification statement.**

APPLICATION INFORMATION

Application Responsible Official Certification

Complete if applying for an initial/revised/renewal Title V permit or concurrent processing of an air construction permit and a revised/renewal Title V permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name:
   M. A. Daigle
   Vice President, Florida Concentrates

2. Application Responsible Official Qualification (Check one or more of the following options, as applicable):
   - [X] For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.
   - [ ] For a partnership or sole proprietorship, a general partner or the proprietor, respectively.
   - [ ] For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.
   - [ ] The designated representative at an Acid Rain source.

3. Application Responsible Official Mailing Address...
   Organization/Firm: **IMC Phosphates MP Inc.**
   Street Address: **P.O. Box 2000**
   City: **Mulberry** State: **FL** Zip Code: **33860**

4. Application Responsible Official Telephone Numbers...
   Telephone: **(863) 428-2500** ext. Fax: **(863) 428-7190**

5. Application Responsible Official Email Address: **madaigle@imcglobal.com**

6. Application Responsible Official Certification:

   I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.

   M A Daigle — Signature
   7/2/04 — Date

Department of
Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

May 20, 2004

CERTIFIED MAIL

Mr. M. A. Daigle, Vice President
IMC Phosphates Company
PO Box 2000
Mulberry, FL 33860

Re: Title V Permit Renewal Project 1050059-045-AV
IMC Phosphates Company - New Wales Plant

Dear Mr. Daigle:

On April 22, 2004 the Department received your additional information for the renewal of the Title V permit for the IMC Phosphates Company New Wales Plant. The application is still incomplete. Specifically, the following information remains outstanding:

For each pollutant at each emissions unit that is subject to CAM, provide the test date, allowable operating capacity, operating capacity during the test, percentage of allowable operating capacity during the test, tested emissions rate, allowable emissions rate, percentage of allowable emissions rate measured during the test, maximum and minimum scrubber flow rates, maximum and minimum pressure drops across the scrubber(s). If the control device is a baghouse, provide the maximum and minimum pressure drop across the baghouse that assures compliance and is protective of the bags.

A minimum of five test results must be submitted for each emission unit's pollutant(s) in order to determine and justify the chosen indicator ranges.

The following units are subject to CAM for the pollutants specified and will need to provide the information requested above:

-009 DAP #1 for PM
-045 DAP II East for SO_2 and PM
-046 DAP II West for SO_2 and PM
-047 DAP II West Cooler for PM (baghouse)
-056 DAP II East Cooler for PM
-078 GMAP for PM
-011 MAP Prill for PM
-027 Animal feed granulation plant for PM
-036 Multifos A & B Kilns, dryer and blending for PM and F
-055 MAP Cooler for PM

As a reminder, rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature.

Please submit all requested information as soon as possible to me at FDEP Bureau of Air Regulation, MS 5505, 2600 Blair Stone Road, Tallahassee, FL 32399-2400. If you have any questions regarding this request for additional information, please contact me at Cindy.Phillips@dep.state.fl.us or (850) 921-9534. To discuss the specific CAM requirements, please contact Mr. Jonathan Holtom at (850)921-9531 or Jonathan.Holtom@dep.state.fl.us.

Sincerely,

Cindy L. Phillips

Cindy L. Phillips, P.E.
Bureau of Air Regulation

cc: Jason Waters, FDEP-SWD
Jonathan Holtom, FDEP - DARM
Pradeep Raval, Consultant, Koogler and Associates
John B. Koogler, PhD., P.E., Koogler and Associates

FMC - New Wales

SUMMARY OF BAGHOUSE TESTS

EU O47, DAP PLANT NO. 2 WEST PRODUCT COOLER

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

DATE	OPACITY		PM Emissions (lb/hr)		DP (in.H2O)	
	Test	Allowable	Test	Allowable	East	West
03/11/98	0	5	2.7	4.5	3.2	3.4
07/14/99	0	5			11.6	5.3
09/25/00	0	5			8.0	7.0
09/10/01	0	5			9.5	8.0
05/22/02	0	5			1.2	1.3
09/04/03	0	5			0.7	0.4

EU O55, MAP PLANT COOLER

Proposed Operating Range: Maximum Pressure Drop of 16 in. H2O

DATE	OPACITY		PM Emissions (lb/hr)		DP (in.H2O)
	Test	Allowable	Test	Allowable	
03/04/98	0	5	0.4	2.8	2.8
06/26/00	2	5			10.0
03/28/01	0	5			7.0
06/20/02	0	5			11.6
12/18/02	5	5			4.1
01/30/04	0	5			13.8

JONATHAN

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
352/377-5822 ▪ FAX/377-7158

KA 124-03-06

April 21, 2004

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Due by 5/21
Target 5/15

Ms. Cindy Phillips, P.E.
Florida Department of
Environmental Protection
MS 5505
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Additional Information on Title V Permit Renewal
IMC Phosphates Company - New Wales Plant
File No. 1050059-045-AV

Dear Ms. Phillips:

This is a follow up to the Department's letter dated November 20, 2003, requesting additional information on the above referenced Title V renewal project. The responses are in the order of the issues raised by FDEP.

1. Application Format: The Title V renewal application (EPSAP) has been submitted electronically, in a format acceptable to FDEP.

2. P.E. Seal: It is our understanding that submittal of the application with the appropriate PIN by the P.E. is adequate certification of the application.

3. Facility Supplemental Information: The pertinent facility supplemental information is presented in Attachments 1 and 2. The information that would be reflected in the permit has been presented in Microsoft Word format to facilitate permit editing by FDEP staff. Process flow diagrams are presented in electronic format to facilitate storage in FDEP files.

4. Emission Unit Information: The requested information was provided in the EPSAP application. All updated emission unit information is presented in Attachments 1 and 2.

5. Compliance Assurance Monitoring: IMC proposes to meet the CAM requirements by implementing the applicable provisions of the MACT standard for the affected emission units. For other emission units utilizing a scrubber system for emission control, IMC has proposed as CAM to meet the requirements of Facility-wide

Condition No. 14 of the current Title V permit. For emission units utilizing a bag collector for emission control, IMC has proposed as CAM the following:

A. EU No. 047, DAP Plant No. 2 West Product Cooler: The proposed maximum pressure drop for this unit is 15 inches of water, based on the available test data presented in Attachment 2.

B. EU No. 055, MAP Plant Cooler: The proposed maximum pressure drop for this unit is 16 inches of water, based on the available test data presented in Attachment 2.

6. MACT Applicability: IMC and FDEP have agreed on an approach to implement the applicable provisions of the MACT standard under 40 CFR 63, Subparts AA and BB. However, based on the most recent data, IMC maintains its previous determination that the New Wales facility is not a major source of hazardous air pollutants.

7. Facility Regulatory Classification: All items were completed in the application.

8. The requested RO and PE certifications are presented in Attachment 3.

If you have any additional questions, please call Pradeep Raval.

Very truly yours,

KOOGLER & ASSOCIATES

John B. Koogler, Ph.D., P.E.

JBK:par
Encl.

C: C. D. Turley, IMC

ATTACHMENT 1

SUPPLEMENTAL AND UPDATED INFORMATION
NEW WALES 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 $\pm$ 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 (EU) Specific Items (grouped by topic)

5. EU 045, EU 046 and EU 015:

Please update the permit by including the screening changes submitted previously (at the time of implementation) using a 7-day notice letter for DAP Plant II East Train and DAP Plant II West Train (letter dated 8-2-2000) and Animal Feed Ingredient Shipping/Truck Loadout operations (letter dated 3-5-2001).

6. EU 009 and EU 078:

Please note that for the DAP Plant No. 1 and Granular MAP Plant, specialty products can be produced by adding compounds containing certain minor elements to the

either the wet portion or to the granular portion of the plant. A specialty product would be considered to be a product that contains an additional 1-10% of the particular element above normal product levels. The amount of specialty production would be less than 10% of total production for the plants.

7. EU 029, EU 037, EU 041, EU 043 and EU 059:

Specific Conditions N1 and Q1 for the fertilizer shipping operations should be revised such that the permitted fertilizer shipping rates only apply when the dust collector is in operation. It is requested that the rate not be restricted when shipping oiled product, as there is virtually no dust generated. Accordingly, we request that the permit be worded such that Title V fees would be calculated based on the hours of operation of the dust collectors associated with these units.

8. EU 036:

Specific Condition P1 for the Multifos mixed feed area should be revised to remove the limit on the dryer throughput rate to reflect the provisions of the construction permit. The current wording resulted from an error when the construction permit was incorporated into the Title V permit.

9. EU 036:

Specific Condition P27 should be revised to also allow the use of binder acid, an equivalent dust suppressant, for use on the Multifos product. This suppressant is used when the product grade is a consideration. Also, the correct units for the dust suppressant application rate are gallons per ton rather than pounds per ton.

10. EU 002, EU 003, EU 004, EU 042 and EU 044:

Specific Condition A13 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.

11. EU 078:

For the GMAP plant, please allow for the ability to conduct the necessary tests to generate the test data required to support the removal of the Kimre pads in the tailgas scrubber. IMC had previously proposed this as an alternate method of operation for the scrubber (without Kimre pads) but the issue has not yet been resolved.

12. EU 045 and EU 046:

Please add a specific condition to limit the pH of the DAP Plant II East and West scrubber sumps, as previously requested in the permit application submitted to FDEP on 7-23-2003.

13. EU 060, 062-069, 079 and 080:

Please include the terms of the sulfur system construction permit in the Title V permit. The construction of one sulfur truck loading station is complete. The second sulfur pit (assigned EU 079) will not be constructed.

14. EU 048:

Please note that this emission unit, previously identified as Uranium Recovery Acid Clean-up should now be referred to as 30% Clarification Area (Area 10).

15. EU 023:

Please note that this emission unit, previously identified as AFI Storage Silos (3) - "A" Side, should now be referred to as AFI Storage Silos (3) - "North" Side.

16. EU 028:

Please note that this emission unit, previously identified as AFI Storage Silos (3) - "B" Side, should now be referred to as AFI Storage Silos (3) - "South" Side.

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

005 – Ground Phosphate Rock Railcar Unloading
006 – Ground Phosphate Rock Silo
010 – GTSP Plant
012 – GTSP Storage
021 – Ground Phosphate Rock Bin
049 – Uranium Recovery – Solvent Extraction
050 – Uranium Recovery – Uranium Refining
051 – Uranium Recovery – Clay Storage
054 – No. 1 DAP Plant Cooler

18. EU 048:

Please eliminate or reduce the particulate matter compliance test frequency for the scrubber, in the 30% Clarification Area (Area 10), to once every five years because the particulate matter emissions are negligible.

ATTACHMENT 2
(Submitted Electronically)

ITEM 1	LOCATION MAP
ITEM 2	FACILITY LAYOUT MAP
ITEM 3	PROCESS FLOW DIAGRAMS
ITEM 4	PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER
ITEM 5	LIST OF INSIGNIFICANT AND/OR UNREGULATED ACTIVITIES
ITEM 6	SUMMARY OF FUGITIVE EMISSIONS
ITEM 7	SUMMARY OF BAGHOUSE TEST DATA

ATTACHMENT 3

RO & PE CERTIFICATIONS

Professional Engineer Certification

1. Professional Engineer Name: **John B. Koogler, Ph.D, P.E.**
   Registration Number: **12925**
2. Professional Engineer Mailing Address...
   Organization/Firm: **Koogler and Associates**
   Street Address: **4014 NW 13th Street**
   City: **Gainesville** State: **FL** Zip Code: **32609**
3. Professional Engineer Telephone Numbers...
   Telephone: **(352) 377-5822** ext. Fax: **(352) 377-7158**
4. Professional Engineer Email Address: **jkoogler@kooglerassociates.com**
5. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein*, that:

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

(3) If the purpose of this application is to obtain a Title V air operation permit (check here ☐, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.

(4) If the purpose of this application is to obtain an air construction permit (check here ☐, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here ☒, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here ☐, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Signature (seal)

4/20/04
Date

*** Attach any exception to certification statement.**

Application Responsible Official Certification

Complete if applying for an initial/revised/renewal Title V permit or concurrent processing of an air construction permit and a revised/renewal Title V permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name:
   Mike Daigle, Vice President Florida Concentrates

2. Application Responsible Official Qualification (Check one or more of the following options, as applicable):

   ☒ For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

   ☐ For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

   ☐ For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

   ☐ The designated representative at an Acid Rain source.

3. Application Responsible Official Mailing Address...
   Organization/Firm: **IMC Phosphates, Inc.**
   Street Address: **P.O. Box 2000**
   City: **Mulberry** State: **FL** Zip Code: **33860**

4. Application Responsible Official Telephone Numbers...
   Telephone: **(863) 428-2500** ext. Fax: **(863) 428-7190**

5. Application Responsible Official Email Address: **mdaigle@imcglobal.com**

6. Application Responsible Official Certification:

I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.

Mike Daigle — Signature

4/21/04 — Date

EPSAP Permit Review

EMISSION UNIT SUPPLEMENTAL ATTACHMENT INFORMATION

APPLICATION: IMCNWTV (#190-1)
FACILITY: IMC PHOSPHATES COMPANY (#1050059)
EU: (47) DAP PLANT NO 2 WEST PRODUCT COOLER

(+) 2 - SULFURIC ACID PLANT NO. 1
(+) 3 - SULFURIC ACID PLANT NO. 2
(+) 4 - SULFURIC ACID PLANT NO. 3
(+) 8 - PHOSPHORIC ACID PLANT (EA
(+) 9 - DAP PLANT NO. 1
(+) 11 - MAP PLANT
(+) 12 - PRODUCT STORAGE BUILDING
(+) 13 - AUXILIARY BOILER
(+) 15 - ANIMAL FEED INGREDIENTS (
(+) 17 - PHOSPHORIC ACID PLANT (WE
(+) 23 - AFI STORAGE SILOS (3) -
(+) 24 - AFI SHIPPING RAIL CAR LOA
(+) 25 - AFI LIMESTONE STORAGE SIL
(+) 26 - AFI SILICA UNLOADING AND
(+) 27 - AFI PLANT
(+) 28 - AFI STORAGE SILOS (3) -
(+) 29 - FERTILIZER TRUCK/RAIL LOA
(+) 30 - MULTIFOS SODA ASH UNLOADI
(+) 31 - MULTIFOS SODA ASH CONVEYI
(+) 32 - MULTIFOS
(+) 33 - MULTIFOS
(+) 34 - MULTIFOS A & B KILNS MILL
(+) 35 - MULTIFOS A & B KILNS MILL
(+) 36 - MULTIFOS A AND B KILNS, D
(+) 37 - FERTILIZER TRUCK LOADOUT
(+) 38 - MULTIFOS A&B KILNS MILLIN
(+) 39 - PHOSPHORIC ACID PLANT NO.
(+) 41 - FERTILIZER TRUCK LOADOUT
(+) 42 - SULFURIC ACID PLANT NO. 4
(+) 43 - FERTILIZER RAIL LOADOUT N
(+) 44 - SULFURIC ACID PLANT NO. 5
(+) 45 - DAP PLANT NO 2 - EAST TRA
(+) 46 - DAP PLANT NO 2 - WEST TRA
(-) 47 - DAP PLANT NO 2 WEST PRODU

Click on an Electronic File Name Below to Open and/or Save the Document

Supplemental Item	Electronic File Name	Attachment Description	Electronic Document?	Date Uploaded
COMPLIANCE ASSURANCE MONITORING PLAN	N/A	CAM PLAN	No	N/A
IDENTIFICATION OF APPLICABLE REQUIREMENTS	N/A	APPLICABLE REQUIREMENTS	No	N/A

??

I left a message for Pradeep to call me.

- Cindy

EPSAP Permit Review

EMISSION UNIT SUPPLEMENTAL ATTACHMENT INFORMATION

APPLICATION: IMCNWTV (#190-1)
FACILITY: IMC PHOSPHATES COMPANY (#1050059)
EU: (55) MAP PLANT COOLER

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(+) 28 - AFI STORAGE SILOS (3) -
(+) 29 - FERTILIZER TRUCK/RAIL LOA
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(+) 31 - MULTIFOS SODA ASH CONVEYI
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(+) 46 - DAP PLANT NO 2 - WEST TRA
(-) 47 - DAP PLANT NO 2 WEST PRODU

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Supplemental Item	Electronic File Name	Attachment Description	Electronic Document?	Date Uploaded
COMPLIANCE ASSURANCE MONITORING PLAN	N/A	CAM PLAN	No	N/A
IDENTIFICATION OF APPLICABLE REQUIREMENTS	N/A	APPLICABLE REQUIREMENTS	No	N/A

EPSAP Permit Review

FACILITY SUPPLEMENTAL ATTACHMENT INFORMATION

APPLICATION: IMCNWTV (#190-1)
FACILITY: IMC PHOSPHATES COMPANY (#1050059)

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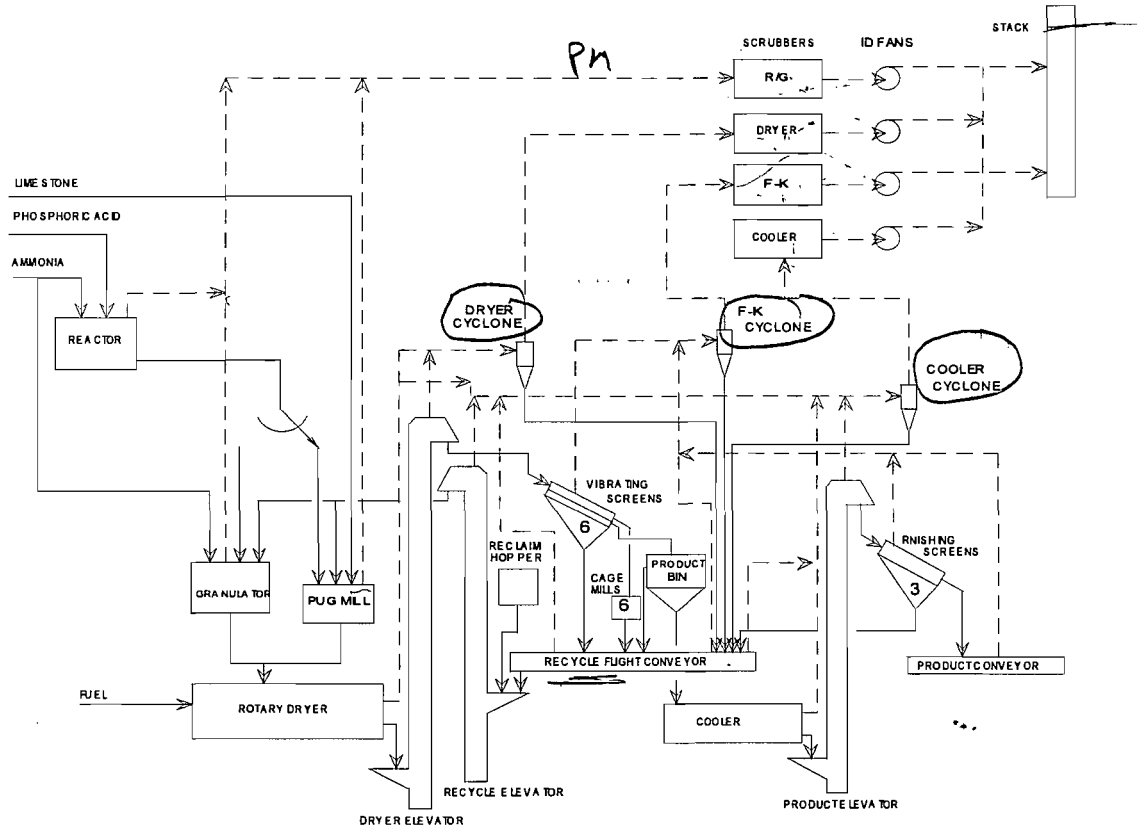
(+) 45 - DAP PLANT NO 2 - EAST TRA
(+) 46 - DAP PLANT NO 2 - WEST TRA
(-) 47 - DAP PLANT NO 2 WEST PRODU
Emission Point

Facility Contact | Facility Pollutants | Facility Regulations | Facility Supplemental Information

Click on an Electronic File Name Below to Open and/or Save the Document

Supplemental Item	Electronic File Name	Attachment Description	Electronic Document?	Date Uploaded
COMPLIANCE REPORT AND PLAN	N/A	HARDCOPY TO BE SUBMITTED.	No	N/A
IDENTIFICATION OF APPLICABLE REQUIREMENTS	N/A	HARDCOPY TO BE SUBMITTED.	No	N/A
LIST OF INSIGNIFICANT ACTIVITIES	N/A	HARDCOPY TO BE SUBMITTED.	No	N/A

Flow Diagram



Control Equipment Discription

The emissions are controlled by 4 venturi scrubber systems each with individual fans. All fans vent to a common stack.

Emission Unit: **AFI Plant**

ID No.: **027**

Facility: **IMC Phosphates New Wales Plant**

ID No.: **1050059**

COMPLIANCE ASSURANCE MONITORING PLAN (CAM PLAN) *FOR IMC PHOSPHATES COMPANY NEW WALES FACILITY*

Prepared For:
IMC Phosphates Company
Mulberry, FL

Prepared By:

Golder Associates Inc.
6241 NW 23rd Street, Suite 500
Gainesville, Florida 32653-1500

September 2003
0337582

DISTRIBUTION:
4 Copies – FDEP
1 Copy – IMC Phosphates
2 Copies - Golder Associates Inc.

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1.0 EMISSION UNITS REQUIRING CAM PLANS

1.1 *CAM Rule Applicability Definition*

IMC Phosphates Company (IMC) was issued a Title V Air Operation Permit (Permit No. 1050059-014-AV) that was effective March 26, 1999 for their New Wales facility. This permit expires on March 26, 2004. In order to renew this permit, a renewal application must be submitted to the Florida Department of Environmental Protection (FDEP) by September 26, 2003.

As part of the Title V renewal application, as required through regulations adopted in Title 40, Part 64 of the Code of Federal Regulations (40 CFR 64), Compliance Assurance Monitoring (CAM) Plans must be submitted. This regulation has been incorporated by reference in Rule 62-204.800 and implemented in Rule 62-213.440.

CAM plans are required for all Title V permitted emission units using control devices to meet federally enforceable emission limits or standards with pre-control emissions greater than "major" source thresholds. The term "control device" is defined as equipment, other than inherent process equipment, that is used to destroy or remove air pollutants prior to discharge to the atmosphere. EPA considers the following three factors to constitute inherent process equipment:

- The primary purpose of the equipment is other than to control emissions;
- The cost savings of product recovery is greater than the cost of the equipment itself; and
- The equipment would still be installed even if there were no emission limits.

The term "major" is defined as in the Title V Regulations (40 CFR 70), but applied on a source-by-source basis. For most non-hazardous pollutants, the major source threshold is 100 tons per year (TPY). For hazardous air pollutants (HAPs), the threshold is 10 TPY for an individual HAP and 25 TPY for all HAPs combined.

The CAM rules contain specific exemptions from applicability of the CAM Rule. Specifically exempted from the CAM Rule are emissions units subject to requirements under Stratospheric Ozone Regulations (40 CFR 82), the Acid Rain Program (40 CFR 72), or that are part of an emissions cap included in the Title V Permit. Also exempt are emission units subject to New Source Performance Standards (40 CFR 60) and National Emission Standards for Hazardous Air Pollutants (40 CFR 63) promulgated after November 15, 1990, as these sources have CAM-equivalent monitoring requirements included as part of the standard.

1.2 Emissions Units Requiring CAM Plans

A review of emission units at the IMC New Wales facility was conducted to determine the applicability of the CAM Rule. This evaluation was conducted for each emission unit and pollutant. First, the existence of a "control device" as defined by the CAM Rule was determined on a source-by-source basis for each pollutant. Those emission units without control devices were eliminated from further consideration. The remaining emission units were then evaluated on a pollutant-by-pollutant basis to determine if a control device was used to meet a federally enforceable emission limit or standard.

Each pollutant without a federally enforceable emission limit or standard, emitted from a given emission unit, was eliminated from further consideration. Uncontrolled annual emissions were then calculated for each remaining source-pollutant combination. If uncontrolled emissions for a pollutant emitted from a given emission unit source were below the major source threshold as defined by the CAM Rule, that pollutant was not further considered.

A summary of the results of this evaluation process is presented in Table 1. Supporting information is presented in Tables 2 through 4. Specific exemptions to the applicability of the CAM Rule were also considered in this evaluation.

Each pollutant-specific emissions unit identified to require a CAM plan is described below.

1.2.1 Phosphoric Acid Plants (EU 008, 017, and 039)

IMC operates three Phosphoric Acid Plants (PAP) designated PAP East (EU 008), PAP West (EU 017), and PAP No. 3 (EU 039). The three PAPs have federally enforceable emissions limits for F (fluorides), use control devices to meet these emission limits, and have uncontrolled F emissions greater than the major source threshold. Therefore, CAM plans are required for these sources for F.

1.2.2 DAP Plant No. 1, No. 2—East and West Train (EU 009, 045, and 046)

IMC operates two diammonium phosphate (DAP) plants, designated as the DAP Plant No. 1 (EU 009) and the DAP Plant No. 2—East Train (EU 045) and the West Train (EU 046). The DAP Plant No. 1 has federally enforceable emissions limits for particulate matter (PM) and F. The DAP Plant No. 1 uses control devices to meet these emission limits and has uncontrolled PM and F emissions greater than the major source threshold. Therefore, CAM plans are required for this source for PM and F.

The DAP Plant No. 2—East and West Trains have federally enforceable emissions limits for PM, F, sulfur dioxide (SO_2), and nitrogen oxides (NO_x). The DAP Plant No. 2—East and West Trains use control devices to comply with the emission limits for PM, F, and SO_2. Uncontrolled PM and SO_2 emissions are greater than the major source threshold. Uncontrolled F emissions are less than the major source threshold. Therefore, CAM plans are required for these sources for PM and SO_2.

1.2.3 DAP Plant No. 2—West and East Product Coolers (EU 047 and 056)

IMC operates two product coolers associated with the DAP Plant No. 2, designated as the West Product Cooler (EU 047) and the East Product Cooler (EU 056). Each product cooler has federally enforceable emission limits for PM and F. The product coolers use control devices to comply with these emission limits. Since uncontrolled PM emissions are greater than the major source threshold, CAM plans are required for these sources for PM. However, since uncontrolled F emissions are less than the major source threshold, CAM plans are not required for these sources for F.

1.2.4 GMAP Production Plant (EU 078)

IMC operates a granular monoammonium phosphate (GMAP) Plant (EU 078). The GMAP Plant has federally enforceable emission limits for PM and F, and uses control devices to comply with these emission limits. Since uncontrolled PM emissions are greater than the major source threshold, a CAM plan is required for this source for PM. However, since uncontrolled F emissions are less than the major source threshold, CAM plans are not required for this source for F.

1.2.5 MAP Prill Plant (EU 011)

IMC operates a MAP Prill Plant (EU 011). The MAP Prill Plant has federally enforceable emission limits for PM and F, and uses control devices to comply with these emission limits. Since uncontrolled PM emissions are greater than the major source threshold, a CAM plan is required for this source for PM. However, since uncontrolled F emissions are less than the major source threshold, CAM plans are not required for this source for F.

1.2.6 Animal Feed Ingredient Granulation Plant (EU 027)

IMC operates an AFI Plant (EU 027). The AFI Plant has a federally enforceable emission limit for PM, uses control devices to comply with this emission limit, and has uncontrolled PM emissions greater than the major source threshold. Therefore, a CAM plan is required for this source for PM.

PM + F

1.2.7 Multifos A and B Kilns, Dryer, and Blending Operation, and C Kiln (EU 036, 074)

IMC operates a Multifos production plant including three kilns and dryer and blending operations, designated A and B Kilns, Dryer and Blending Operation (EU 036) and C Kiln (EU 074).

Kilns A and B and the Dryer and Blending Operations have federally enforceable emissions limits for PM and F and use control devices to comply with these emission limits. Uncontrolled PM and F emissions are greater than the major source threshold. Therefore, a CAM plan is required for this source for PM and F.

PM, SO_2, F

Kiln C has federally enforceable emissions limits for PM, F, SO_2, and NO_x. Kiln C uses control devices to comply with the PM, F, and SO_2 emissions limits. Uncontrolled PM, SO_2, and F emissions are greater than the major source threshold. Therefore, a CAM plan is required for this source for PM, SO_2, and F.

PM

1.2.8 MAP Plant Cooler (EU 055)

IMC operates a plant rotary cooler associated with the MAP plant, designated the MAP Plant Cooler (EU 055). The MAP Plant Cooler has federally enforceable emission limits for PM and F and uses control devices to comply with these emission limits. Uncontrolled PM emissions are greater than the major source threshold. Therefore, a CAM plan is required for this source for PM. However, since F emissions are less than the major source threshold, CAM plans are not required for this source for F.

1.2.9 All Other Permitted Sources

In addition to the sources described above, IMC's Title V Permit includes the following sources:

1. Sulfuric Acid Plants Nos. 1 – 5 (EU 002, 003, 004, 042, and 044)
2. Phosphoric Acid Clarification and Storage Area (EU 053)
3. Auxiliary Boiler (EU 013)
4. Animal Feed Ingredient (AFI) Shipping/Truck Loadout (EU 015)
5. AFI Storage Silos (3)—North Side (EU 023)
6. AFI Storage/Shipping/Railcar Loadout (EU 024)
7. AFI—(2) Limestone Storage Silos (EU 025)
8. AFI—Silica Storage Bin (EU 026)
9. AFI Storage Silos (3)—South Side (EU 028)
10. AFI Limestone Feed Bin (EU 052)
11. Fertilizer Truck/Rail Loadout No. 1 (EU 029)

12. Multifos Soda Ash Rail Hopper Car Unloading System (EU 030)
13. Multifos Soda Ash Conveying System (EU 031)
14. Multifos Kiln "A" and "B" Coolers (EU 032, 033)
15. Multifos A and B Kilns Milling and Sizing System—West Baghouse(EU 034)
16. Multifos A and B Kilns Milling and Sizing System—East Baghouse (EU 035)
17. Multifos A and B Kilns Milling and Sizing System—Surge Bin (EU 038)
18. Multifos Kiln C Cooler Baghouse (EU 075)
19. Multifos Kiln C Milling and Sizing Baghouse (EU 076)
20. Fertilizer Truck Loadout No. 2 (EU 037)
21. Fertilizer Truck Loadout No. 3 (EU 041)
22. Fertilizer Rail Loadout No. 2 (EU 043)
23. Fertilizer Rail Loadout No. 3 (EU 059)
24. 30% Clarification Area (EU 048)
25. Molten Sulfur Storage Tanks and Truck/Rail Pits (EU 060 through 069)
26. Limestone Storage Silo/Rock Grinding (EU 070)
27. Phosphogypsum Stack (EU 071)

None of these sources require CAM plans at this time. EU 002, 003, 004, 042, 044, 013, 029, 037, 041, 043, 059, 060 through 069, and 071 do not use "control devices" as defined in 40 CFR Part 64, thus a CAM plan is not required for these sources. EU 053, 015, 023, 024, 025, 026, 028, and 048 have uncontrolled emissions less than the major source threshold. EU 030, 031, 032, 033, 034, 035, 038, 075, 076, and 071 do not have federally enforceable emission limits.

The Sulfuric Acid Plants Nos. 1 through 5 (EU 002, 003, 004, 042, and 044) use mist eliminators to reduce sulfuric acid mist emissions. The primary purpose of the mist eliminators is for acid recovery and to prevent corrosion in the stack and of surrounding process equipment and structures as well as control sulfuric acid mist emissions. Although the mist eliminators are controlling sulfuric acid mist emissions, the mist eliminator would still be installed if no emissions limits existed. They are normal equipment for a double contact process sulfuric acid plant. Furthermore, mist eliminators have been installed in sulfuric acid plants prior to any emissions regulations such as NSPS. Therefore, the Sulfuric Acid Plants Nos. 1 through 5 do not use "control devices" as defined in 40 CFR Part 64, thus a CAM plan is not required for these sources for sulfuric acid mist.

The AFI Limestone Feed Bin (EU 052) uses a bag collector to recover limestone. The limestone is pneumatically conveyed into the AFI Limestone Feed Bin. The primary purpose of the bag collector is to recover limestone. It is standard practice to operate a pneumatic conveyor with a bag collector. The bag collector would still be used if no air pollution control regulations existed. Therefore, the AFI Limestone Feed Bin does not use "control devices" as defined in 40 CFR Part 64, thus a CAM plan is not required for this source for PM.

The Limestone Storage Silo/Rock Grinding (EU 070) uses a bag collector to recover limestone. The limestone is pneumatically conveyed into the Limestone Storage Silo. The primary purpose of the bag collector is to capture limestone. It is standard practice to operate a pneumatic conveyor with a bag collector. The bag collector would still be used if no air pollution control regulations existed. Therefore, the Limestone Storage Silo does not use "control devices" as defined in 40 CFR Part 64, thus a CAM plan is not required for this source for PM.

JONATHAN

KOOGLER & ASSOCIATES
ENVIRONMENTAL SERVICES
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KA 124-03-06

July 8, 2004

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BUREAU OF AIR REGULATION

EPSDN 1901

Ms. Cindy Phillips, P.E.
Florida Department of
Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Subject: Additional Information on Title V Permit Renewal
IMC Phosphates Company - New Wales Plant
File No. 1050059-045-AV

Dear Ms. Phillips:

This is a follow up to your letter dated May 20, 2004, requesting additional information on the above referenced Title V renewal project. The responses are in the order of the issues raised by FDEP.

1. For each pollutant at each emissions unit that is subject to CAM, provide the test date, allowable operating capacity, operating capacity during the test, percentage of allowable operating capacity during the test, tested emissions rate, allowable emissions rate, percentage of allowable emissions rate measured during the test, maximum and minimum scrubber flow rates, maximum and minimum pressure drops across the scrubber(s). If the control device is a baghouse, provide the maximum and minimum pressure drop across the baghouse that assures compliance and is protective of the bags.

A minimum of five test results must be submitted for each emission unit's pollutant(s) in order to determine and justify the chosen indicator ranges.

The following units are subject to CAM for the pollutants specified and will need to provide the information requested above:

E.U. ID.	DESCRIPTION
009	DAP #1 for PM
045	DAP II East for SO2 and PM
046	DAP II West for SO2 and PM
047	DAP II West Cooler for PM (baghouse)
056	DAP II East Cooler for PM

> Recovery

Ms. Cindy Phillips, P.E.
Florida Department of
Environmental Protection

July 8, 2004

E.U. ID.	DESCRIPTION
078	**GMAP for PM**
011	**MAP Prill for PM**
027	**Animal Feed Granulation plant for PM**
036	**Multifos A & B Kilns, dryer and blending for PM and F**
055	**MAP Cooler for PM**

RESPONSE:

The requested information is presented in Attachment 1.

2. The PE and RO certifications are presented in Attachment 2.

If you have any additional questions, please call Pradeep Raval or me.

Very truly yours,

KOOGLER & ASSOCIATES

John B. Koogler, Ph.D., P.E.

JBK:par
Encl.

C: C. D. Turley, IMC

ATTACHMENT 1

CAM PLAN SUPPORTING INFORMATION
AND SUMMARY OF TEST DATA

BACKGROUND INFORMATION

There are several general considerations that can be stated in the selection of the CAM "indicators" for the pollution control systems discussed below.

In complex control systems such as a stack with several parallel control devices or a system of parallel control devices followed by a single control device, the consideration of each individual control device status does not inherently assure compliance of the overall emissions. An overall indicator may need to be defined for these complex emission units systems to be the basis of the CAM "indicator."

The compliance performance of scrubbing systems may be defined in terms of minimum operating limits, as reflected by the current permit provisions. The summary of the available test data generated for this provision is presented herein.

Visible Emission observations for the subject units indicate the presence of fine particulate matter emissions, which have lower collection efficiency in most control devices. However, the fine particles typically contribute little to the unit's overall mass emission as do the larger particles, which typically have higher collection efficiency, make up the majority of the mass emissions. For the units evaluated herein, it would be unlikely that a mass emission limit would be exceeded when a VE limit is not exceeded. Generally, if a bag collector is in compliance with the visible emission limit, it will be in compliance with the mass emission limit.

The attached tables contain the available test data for the subject units. The specific test run information is included as requested.

UNITS SUBJECT TO CAM (and not MACT)

A list of the emission units subject to CAM provisions (and not MACT monitoring requirements) is presented below, along with the applicable pollutants and the pertinent pollution control equipment.

027 - AFI Plant: PM controlled by system of four venturi scrubbers in parallel.

036 - Multifos A and B Kilns, Dryer and Blending Operation: PM and F controlled by system of three packed scrubbers in parallel.

046 - DAP Plant No 2 West Product Cooler: PM controlled by system of two bag collectors in parallel.

055 - MAP Plant Cooler: PM controlled by a single bag collector.

Reactor/Granulator

New Wales AFI Plant (027)
Compliance Test Results

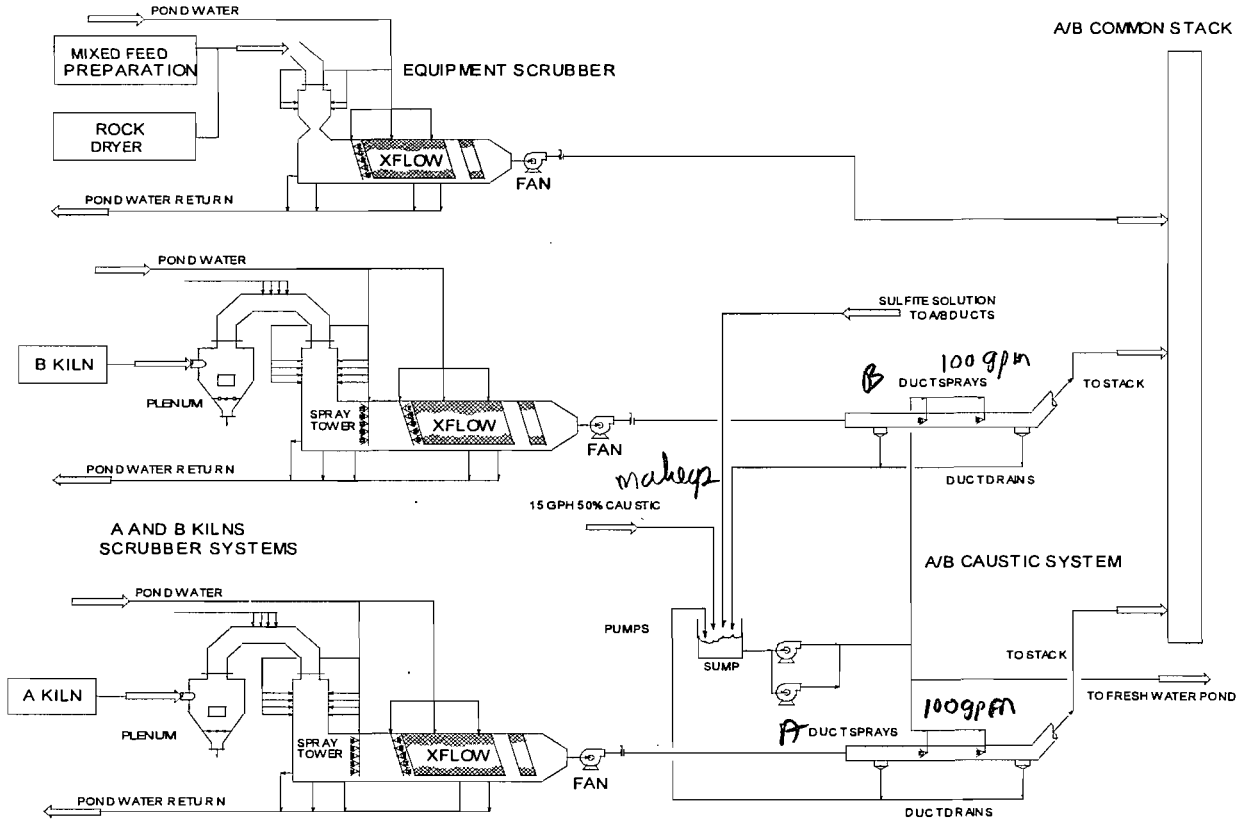
Run	Test Date	Rate TPH	120 TPH max	PM lb/hr	PM limit lb/hr	% limit	Dryer Venturi GPM	Dryer Venturi dP	R/G Venturi GPM	R/G Venturi dP	C/V Venturi GPM	C/V Venturi dP	Vent Scrubber GPM	Vent Scrubber dP
1	11/09/00	96	80%	18.3			1404	11.5	673	16.5	1656	17.5	752	26.0
2	11/09/00	96	80%	14.1			1253	11.5	700	16.5	1536	17.5	713	26.0
3	11/09/00	96	80%	20.6			1248	11.5	716	16.5	1500	17.5	710	26.0
Test Average	11/09/00	96	80%	17.7	36.8	48%	1302	11.5	696	16.5	1564	17.5	725	26.0
1	04/05/02	89	74%	23.7			1438	12.0	855	14.0	1436	15.0	800	26.0
2	04/05/02	89	74%	25.4			1448	12.0	860	14.0	1410	15.0	798	26.0
3	04/06/02	89	74%	30.1			1541	12.0	846	14.0	1350	15.0	780	26.0
Test Average	04/06/02	89	74%	26.4	36.8	72%	1476	12.0	854	14.0	1399	15.0	793	26.0
1	05/06/02	112	93%	32.2			1330	10.0	714	12.0	1120	12.0	650	19.0
2	05/06/02	112	93%	28.5			1314	11.0	740	12.0	1006	12.0	624	19.0
3	05/06/02	112	93%	32.6			1303	11.0	714	13.0	1027	14.0	614	19.0
Test Average	05/06/02	112	93%	31.1	36.8	85%	1316	10.7	723	12.3	1051	12.7	629	19.0
1	10/23/02	114	95%	18.8			1316	12.0	684	15.0	1031	12.0	608	22.0
2	10/23/02	114	95%	21.2			1335	12.0	702	15.0	1018	12.0	619	22.0
3	10/23/02	114	95%	19.4			1322	12.0	704	15.0	1006	12.0	618	22.0
Test Average	10/23/02	114	95%	20.0	36.8	54%	1324	12.0	697	15.0	1018	12.0	615	22.0
1	01/22/04	111	93%	28.3			1237	9.9	662	20.3	960	11.0	734	15.7
2	01/22/04	114	95%	27.8			1239	10.7	662	16.9	969	11.3	755	16.2
3	01/22/04	115	96%	33.5			1226	10.2	655	15.8	899	11.1	748	16.1
Test Average	01/22/04	113	94%	29.9	36.8	81%	1234	10.3	660	17.7	943	11.1	746	16.0
				14.1		min	1226	9.9	655	12.0	899	11.0	608	15.7
				33.5		max	1541	12.0	860	20.3	1656	17.5	800	26.0

NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

which for PM control some loads like Recovery.

lbs

Flow Diagram



Control Equipment Discription

The emissions from the dryer, the blending operation and Kilns A and B are controlled by three separate packed bed scrubbers vented to a common stack.

Emission Unit: **Multifos A and B Kilns, Dryer and Blending Operation**

ID No.: **036**

Facility: **IMC Phosphates New Wales Plant**

ID No.: **1050059**

PM, F. & SO2 Kiln C ELIOTT

100 GPM min by Permit

New Wales Multifos A and B Kilns, Dryer and Blending Operation (036)
Compliance Test Results

Dryer ?

Run	Test Date	A Feed TPH	B Feed TPH	PM lb/hr	PM limit lb/hr	% limit	F lb/hr	F limit lb/hr	% limit	A Total GPM	A Packing dP	A Duct Spray GPM	B Total GPM	B Packing dP	B Duct Spray GPM	Equip Total GPM	Equip Packing dP	Sulfite Sump 50% caustic GPH
1	08/10/00	10.5	11.0	12.9			1.59			2813	6.0		3772	3.0		2749	1.7	
2	08/10/00	10.5	11.0	5.4			1.22			2816	6.0		3775	3.1		2746	1.9	
3	08/10/00	10.5	11.0	9.5			1.07			2817	6.0		3756	3.1		2738	1.9	
Test Average	08/10/00	10.5	11.0	9.3	29.8	31%	1.29	2.8	46%	2816	6.0		3770	3.1		2746	1.6	
1	10/03/00	11	12.8	10.8			1.49			3040	7.4		4088	3.4		2751	2.7	
2	10/03/00	11	12.8	10.8			1.37			2993	7.4		4091	3.3		2767	2.8	
3	10/03/00	11	12.8	11.0			1.71			2847	7.4		4078	3.3		2738	2.7	
Test Average	10/03/00	11	12.8	10.9	29.8	36%	1.52	3.2	48%	2949	7.4		4085	3.3		2751	2.7	
1	11/16/00	10.5	12.5	7.5			1.15			2237	4.4		3352	4.3		2044	2.6	
2	11/16/00	10.5	12.5	5.9			0.88			2179	4.4		3343	4.3		2041	2.5	
3	11/16/00	10.5	12.5	6.4			0.79			2173	4.4		3347	4.2		2015	2.6	
Test Average	11/16/00	10.5	12.5	6.6	29.8	22%	0.94	3.0	32%	2187	4.4		3348	4.3		2036	2.6	
												demist			demist			
1	05/11/01	12.1	13.0	5.0			1.16			2463	4.6	120	3485	4.2	126	2377	5.9	15.2
2	05/11/01	12.2	11.3	6.4			1.31			2469	4.6	121	3489	4.3	129	2380	6.0	15.3
3	05/11/01	12.1	13.0	4.9			1.19			2477	4.6	119	3500	4.3	128	2374	3.8	15.3
Test Average	05/11/01	12.1	12.4	5.4	29.8	18%	1.22	3.1	40%	2470	4.6	120	3491	4.3	128	2376	5.5	15.3
1	05/09/01	14.0	14.0	13.4			3.56			2512	4.6	108	3525	4.1	103	2381	4.2	15.3
2	05/09/01	14.0	14.0	11.5			2.03			2490	4.8	106	2493	4.2	102	2397	4.1	15.3
3	05/09/01	14.0	14.0	9.0			1.85			2483	4.9	107	3507	4.2	104	2387	3.9	15.3
Test Average	05/09/01	14.0	14.0	11.3	29.8	38%	2.48	3.6	69%	2495	4.8	107	3509	4.2	103	2392	4.1	15.3
1	06/17/02	11.0	10.9	9.5			1.08			2291	1.2	113	3165	1.6	103	2184	1.2	15.4
2	06/17/02	11.0	10.8	9.2			1.37			2291	1.2	112	3177	1.6	104	2177	0.4	15.2
3	06/17/02	11.0	10.4	10.8			1.40			2316	1.2	112	3194	1.5	105	2176	0.1	15.2
Test Average	06/17/02	11.0	10.7	9.8	29.8	33%	1.28	2.8	46%	2299	1.2	112	3179	1.6	104	2179	0.6	15.3
1	05/28/03	13.0	9.6	16.5			1.28			2128	2.5	114	2933	2.5	114	1987	8.7	15.3
2	05/28/03	13.0	13.0	24.4			1.87			2101	2.3	114	2970	2.6	114	1954	8.7	15.2
3	05/28/03	10.9	13.1	20.3			1.70			2098	2.5	114	2945	2.7	114	1949	8.7	15.2
Test Average	05/28/03	12.3	11.9	20.4	29.8	68%	1.62	3.2	51%	2109	2.4	114	2949	2.6	114	1963	8.7	15.2
1	04/23/04	11.0	9.2	11.4			0.75			2167	5.2	133	3030	2.6	114	1366	15.4	20.5
2	04/23/04	11.1	11.0	8.9			0.95			2172	5.2	135	3034	2.6	114	1368	14.0	29.8
3	04/23/04	11.0	10.4	12.5			1.63			2179	5.1	134	3016	2.6	114	1371	13.8	37.0
Test Average	04/23/04	11.0	10.2	10.8	29.8	36%	1.11	2.8	40%	2173	5.2	134	3027	2.6	114	1368	14.4	29.1
							min			2098	1.2	106	2493	1.5	102	1366	0.1	15.2
							max			3040	7.4	135	4091	4.3	129	2767	15.4	37.0

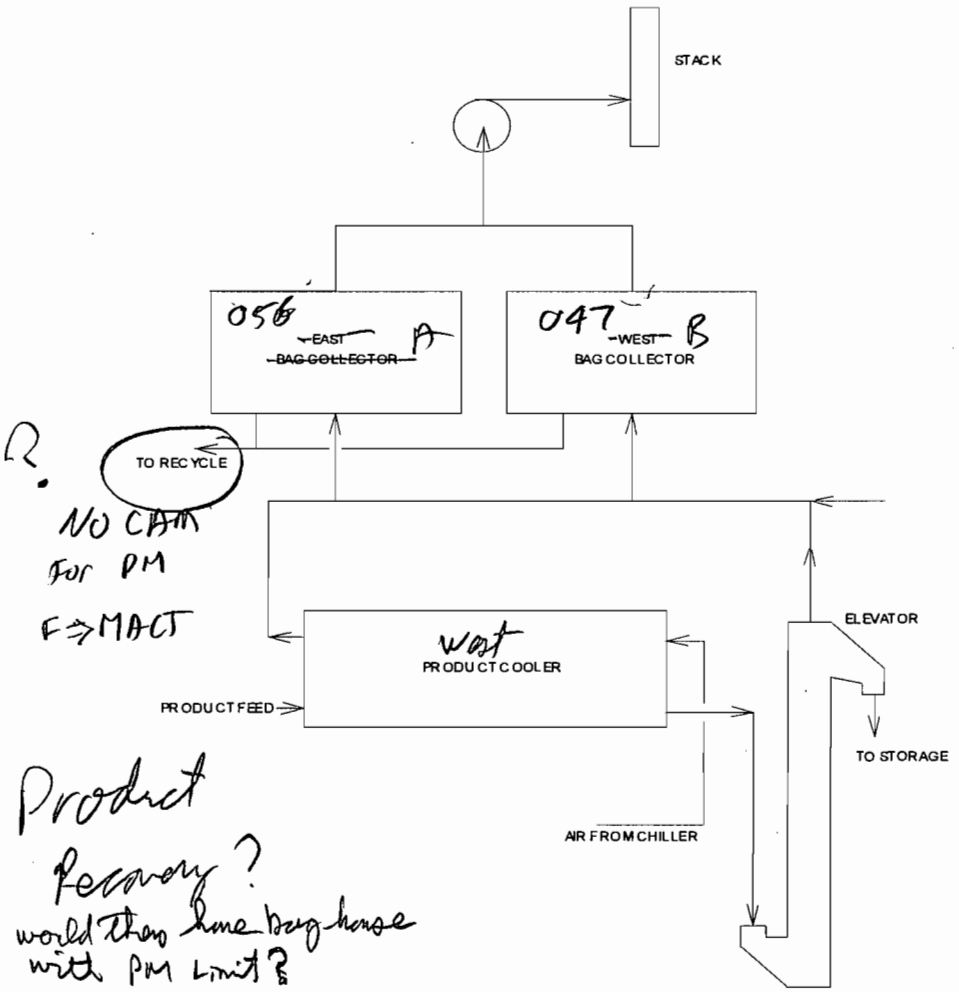
NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

07A PM & SO2

make up min 15

3 ok

Flow Diagram



Control Equipment Discription

The emissions are controlled by two parallel pulse type bag collectors vented by a common fan.

Emission Unit: **DAP Plant No 2 West Product Cooler** ID No.: **047**

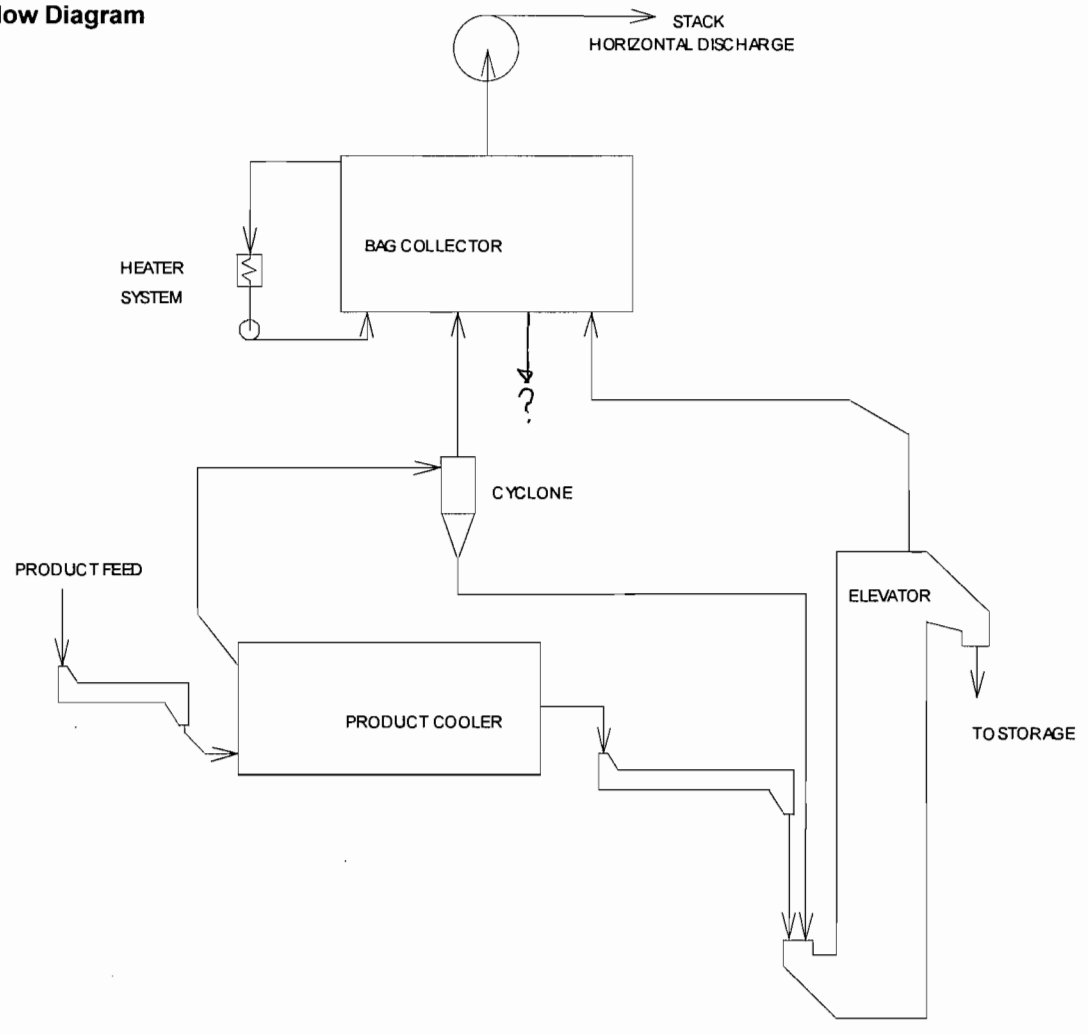
Facility: **IMC Phosphates New Wales Plant** ID No.: **1050059**

New Wales DAP Plant No 2 West Product Cooler (047)
Compliance Test Results

Test Date	Rate TPH	170 TPH max	PM lb/hr	PM limit lb/hr	% limit	F lb/hr	Plant F limit lb/hr *	% limit	VE	VE limit	% limit	East Bag Collector dP	West Bag Collector dP
03/13/98	139	82%	2.7	4.2	64%	0.13	2.67	5%	0	5	0%	3.2	3.4
04/14/98	150	88%	1.5	4.2	35%	0.07	2.88	2%	0	5	0%	no data	no data
08/10/98	153	90%							0	5	0%	no data	no data
07/14/99	150	88%							0	5	0%	11.6	5.3
09/25/00	157	92%							0	5	0%	8.0	7.0
09/10/01	148	87%							0	5	0%	9.5	8.0
05/22/02	149	88%							0	5	0%	1.2	1.3
09/04/03	143	84%							0	5	0%	0.7	0.4
03/19/04	138	81%				0.14	2.65	5%	0	5	0%	3.9	4.1
							* Limit for total plant emissions						
							(Plant (046) and Cooler (047))						
											min	0.7	0.4
											max	11.6	8.0

NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

Flow Diagram



Control Equipment Discription

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

Emission Unit: **MAP Plant Cooler** ID No.: **055**

Facility: **IMC Phosphates New Wales Plant** ID No.: **1050059**

New Wales MAP Plant Cooler (055)
Compliance Test Results

Test Date	Rate TPH	50 TPH max	PM lb/hr	PM limit lb/hr	% limit	vemax	veall	% limit	Bag Collector dP
03/04/98	49	97%	0.4	2.8	15%	0	5	0%	2.8
08/20/98	50	100%				0	5	0%	3.0
02/26/99	50	100%				0	5	0%	5.0
06/26/00	50	100%				2	5	40%	10.0
03/28/01	50	100%				0	5	0%	7.0
06/20/02	50	100%				0	5	0%	11.6
12/18/02	50	100%				5	5	100%	4.1
01/30/04	49	99%				0	5	0%	13.8
								min	2.8
								max	13.8

NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

ash
alt
Prod
Recov

No diagram

UNITS SUBJECT TO CAM and MACT

A list of the emission units subject to CAM provisions and the MACT monitoring requirements is presented below, along with the applicable pollutants and the pertinent pollution control equipment.

In the case of the following emissions units, the MACT F monitoring requirements can be used for PM CAM purposes. In certain situations, if the fluoride emissions are controlled and in compliance, it can be assumed that the PM emissions will also be in compliance. Therefore, the implementation of the MACT monitoring requirements for such units will suffice for CAM.

How do we know? ST: Still need CAM plan.

For the packed scrubbers, a request to establish MACT ranges for the pressure drops for these units was previously submitted to the FDEP. The emission tests related to this request are included in the tables. The requested pressure drop ranges are indicated in the tables. More recent test results are included also.

009- DAP Plant No. 1: PM and F controlled by three venturi scrubbers in parallel followed by a single impact spray/cyclonic scrubber system in series.

011 - MAP Plant: PM and F controlled by a single venturi scrubber.

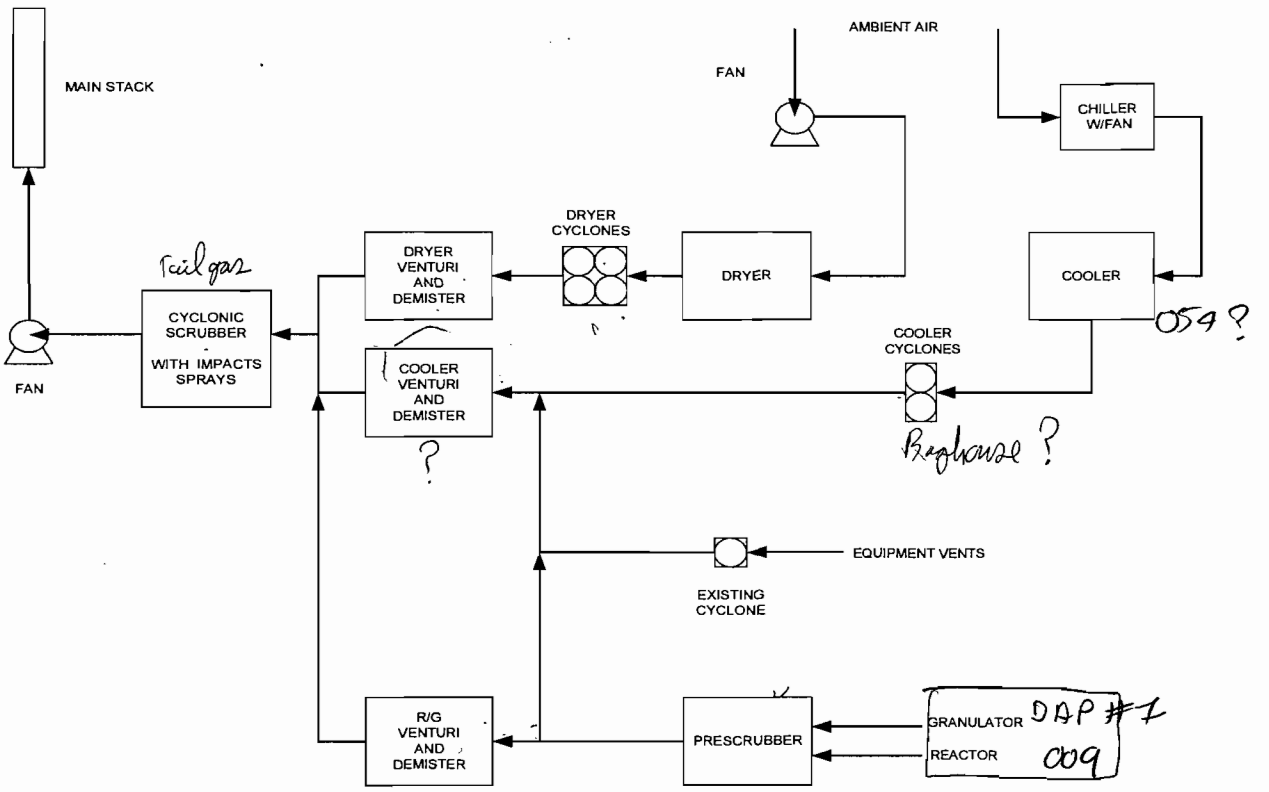
045 - DAP Plant No 2 - East Train: PM and F controlled by two systems in parallel each consisting of a venturi scrubber followed by a packed scrubber. While there is no add-on control equipment for SO2, the emissions are nonetheless reduced inherently by the scrubbing liquid when the plant uses fuel oil. There are virtually no SO2 emissions when the plant fires natural gas.

046 - DAP Plant No 2 - West Train: PM and F controlled by two systems in parallel each consisting of a venturi scrubber followed by a packed scrubber. While there is no add-on control equipment for SO2, the emissions are reduced inherently by the scrubbing liquid when the plant uses fuel oil. There are virtually no SO2 emissions when the plant fires natural gas.

056 - DAP Plant No 2 East Product Cooler: PM and F controlled by a single venturi scrubber.

078 - GMAP Plant: PM and F controlled by two systems in parallel consisting of a main plant system using a venturi scrubber followed by impact sprays and a packed scrubber, and an equipment system using impact sprays and a venturi scrubber.

Flow Diagram



Control Equipment Discription

The plant emissions are controlled a pre-scrubber, three venturi scrubbers in parallel which vent through impact sprays to a cyclonic scrubber. The impact system uses recirculating water.

Emission Unit: **DAP Plant No. 1**

ID No.: **009**

Facility: **IMC Phosphates New Wales Plant**

ID No.: **1050059**

054 ? not mentioned anywhere

which for PM & which for F?

New Wales DAP Plant No. 1 (009)
Compliance Test Results

Pre-scrubber

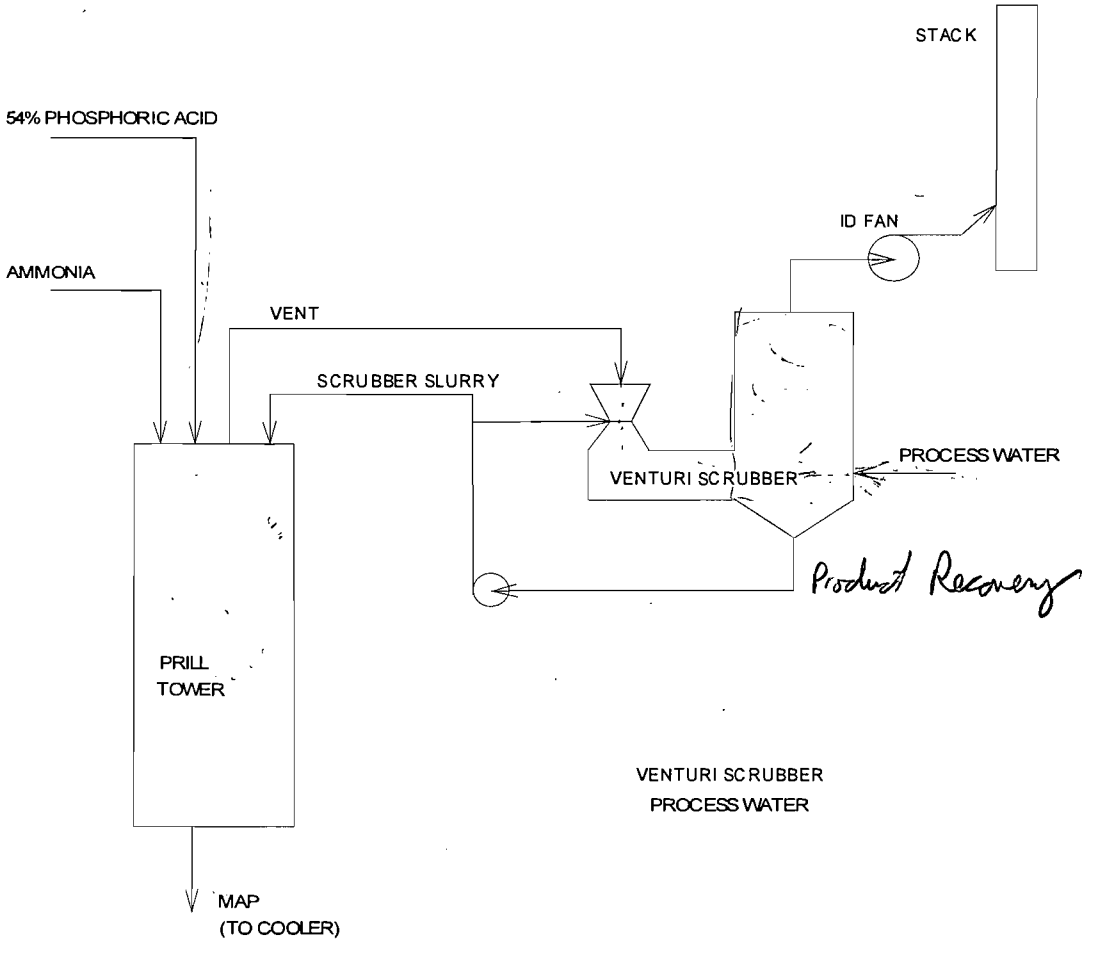
Run	Test Date	Rate TPH	150 TPH max	fuel	mmBtu /hr	PM lb/hr	PM limit lb/hr	% limit	F lb/hr	F limit lb/hr	% limit	VE 20 max	% limit	Dryer Venturi GPM	Dryer Venturi dP	R/G Venturi GPM	R/G Venturi dP	Cyclonic Scrubber GPM	Cyclonic Scrubber dP	Equip Scrubber GPM	Equip Scrubber dP
1	03/07/01	119	79%			11.1			0.48					808	16.0	938	15.0	873	8.0	199	7.2
2	03/07/01	119	79%			14.7			0.37					842	16.0	969	15.0	848	7.6	234	7.6
3	03/07/01	117	78%			6.1			0.26					805	16.0	941	15.0	830	7.5	232	7.9
Test Average	03/07/01	118	79%	No. 6 Oil	3.5	10.7	28.6	37%	0.37	2.9	13%	0	0%	818	16.0	949	15.0	850	7.7	222	7.6
1	03/08/01	115	77%			12.8			0.43					874	18.0	1039	17.0	894	7.8	277	9.2
2	03/08/01	115	77%			8.6			0.41					858	16.0	1017	17.0	880	8.1	260	7.8
3	03/08/01	116	77%			11.6			0.48					695	17.0	802	16.0	874	8.1	177	8.1
Test Average	03/08/01	115	77%	No. 6 Oil	3.8	11.0	28.6	38%	0.44	2.9	15%	4	21%	809	17.0	953	16.7	883	8.0	238	8.4
1	06/27/02	117	78%			2.9			0.41					1524	19.7	1914	21.2	1430	9.8	410	22.8
2	06/27/02	119	79%			2.9			0.40					1723	21.8	2160	23.5	1182	9.1	409	25.0
3	06/27/02	122	81%			3.9			0.55					1396	21.3	1763	23.1	1173	9.5	403	26.1
Test Average	06/27/02	119	80%	Nat Gas	2.6	3.2	28.6	11%	0.45	2.9	16%	5	25%	1548	20.9	1946	22.6	1262	9.5	407	24.6
1	01/29/03	115	77%			3.5			1.66					1373	15.1	1614	18.2	1117	10.0	451	17.5
2	01/29/03	114	76%			4.0			1.49					1375	15.2	1618	17.9	1119	9.9	449	17.6
3	01/29/03	116	77%			5.1			1.28					1376	15.1	1616	17.5	1116	9.9	449	17.6
Test Average	01/29/03	115	77%	Nat Gas	4.8	4.2	28.6	15%	1.48	2.9	51%	0	0%	1375	15.1	1616	17.9	1118	9.9	450	17.6
1	03/30/04	106	71%			8.5			1.67					1319	17.6	1556	21.1	1035	9.8	436	21.7
2	03/30/04	108	72%			8.0			1.55					1330	17.3	1573	21.2	1070	9.2	433	21.4
3	03/30/04	104	69%			7.6			1.68					1323	18.0	1566	22.2	1035	9.2	439	22.2
Test Average	03/30/04	106	71%	Nat Gas	2.4	8.0	28.6	28%	1.63	2.9	56%	0	0%	1324	17.6	1565	21.5	1047	9.4	436	21.8
								Applicable MACT Limits				Maximum		+20%	+20%	+20%	+20%	+20%	+20%	+20%	+20%
												Minimum		-20%	-20%	-20%	-20%	-20%	-20%	-20%	-20%
												DATA min		695	15.1	802	15.0	830	7.5	177	7.2
												DATA max		1723	21.8	2160	23.5	1430	10.0	451	26.1

ok

NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

All designs

Flow Diagram



Control Equipment Discription

The emissions are controlled by a venturi scrubber with a recirculating water system. It is vented by a fan located upsteam from the cyclonic demister. The fan discharges to a stack.

Emission Unit: **MAP Plant** ID No.: **011**

Facility: **IMC Phosphates New Wales Plant** ID No.: **1050059**

46
1/3
49

New Wales MAP Plant (011)
Compliance Test Results

Run	Test Date	Rate TPH	50 TPH max	PM lb/hr	PM limit lb/hr	% limit	F lb/hr	F limit lb/hr	% limit	VE 20 max	% limit	Venturi GPM	Venturi dP
1	02/10/00	48	95%	1.43			0.26					160	11.0
2	02/10/00	48	95%	1.14			0.24					160	11.0
3	02/10/00	48	95%	1.42			0.25					163	11.0
Test Average	02/10/00	48	96%	1.33	14.4	9%	0.25	0.83	30%	0	0%	161	11.0
1	03/28/01	50	100%	0.70			0.19					160	10.9
2	03/28/01	50	100%	0.80			0.72					127	11.0
3	03/28/01	50	100%	1.60			0.48					142	11.0
Test Average	03/28/01	50	100%	1.01	15.0	7%	0.47	0.83	57%	0	0%	143	11.0
1	06/20/02	49	99%	0.56			0.73					252	16.5
2	06/20/02	49	99%	0.56			0.80					280	16.8
3	06/20/02	49	99%	0.54			0.69					280	17.2
Test Average	06/20/02	49	99%	0.55	14.8	4%	0.74	0.83	89%	5	25%	271	16.8
1	12/19/02	50	100%	0.54			0.63					260	15.5
2	12/19/02	50	100%	0.38			0.62					260	15.4
3	12/19/02	50	100%	1.19			0.61					260	15.3
Test Average	12/19/02	50	100%	0.70	15.0	5%	0.62	0.83	75%	4	19%	260	15.4
1	12/19/03	49	99%	0.53			0.32					270	18.3
2	12/19/03	49	99%	0.24			0.39					270	18.0
3	12/19/03	49	99%	0.40			0.34					270	18.0
Test Average	12/19/03	49	99%	0.39	14.8	3%	0.35	0.83	42%	3	13%	270	18.1
							Applicable MACT Limits				Maximum	+20%	+20%
											Minimum	-20%	-20%
							DATA min					127	10.9
							DATA max					280	18.3

NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

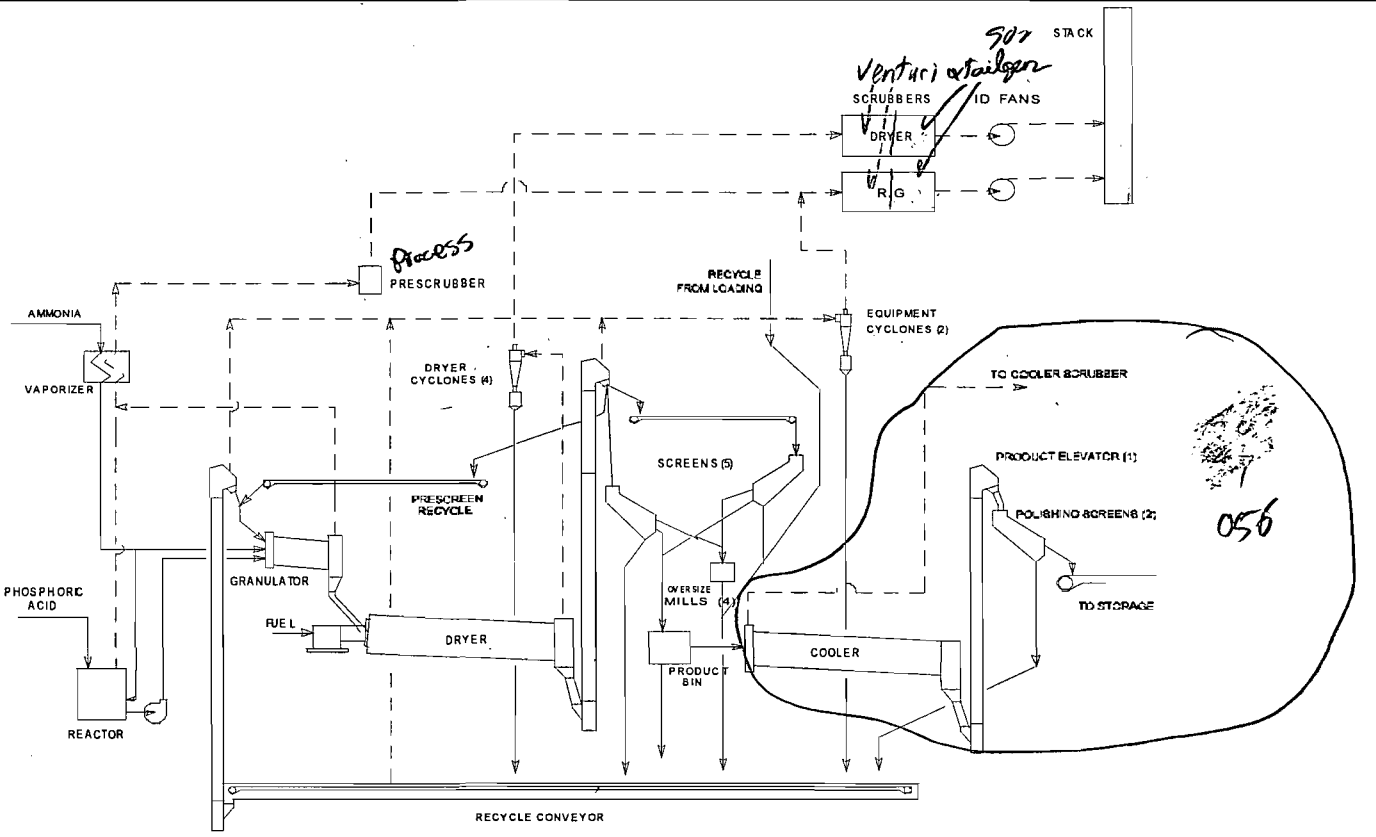
No diagram

obtain Not Product Record

GPM min 125

dP min 10.

Flow Diagram



Control Equipment Discription

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

Emission Unit: **DAP Plant No 2 - East Train**

ID No.: **045**

Facility: **IMC Phosphates New Wales Plant**

ID No.: **1050059**

PM SO2

New Wales DAP Plant No 2 - East Train (045)
Compliance Test Results

Run	Test Date	Rate TPH	PM lb/hr	PM limit lb/hr	% limit	F lb/hr	Plant F limit lb/hr *	% limit	SO2 lb/hr **	SO2 limit lb/hr	% limit	VE	VE limit	% limit	NOx lb/hr 12.6 max	R/G Venturi GPM	R/G Venturi dP	Dryer Venturi GPM	Dryer Venturi dP	R/G Tailgas GPM	R/G Tailgas dP	Dryer Tailgas GPM	Dryer Tailgas dP
Test Average	01/25/95	139	3.3	14.1	23%	0.37	2.8	13%	0.2	22	1%	5	20	25%	5.1		14.0		14.5		6.2		6.2
Test Average	01/30/96	140	1.9	14.1	13%	0.91	2.8	32%				0	20	0%	4.4		18.5		20.0		3.0		2.0
Test Average	03/12/97	140	1.3	14.1	9%	2.55	2.8	90%				0	20	0%	0.8		16.5		19.0		3.4		3.4
Test Average	02/03/98	137	3.5	14.1	25%	2.08	2.7	77%	3.3	22	15%	0	20	0%	3.6		24.0		19.2		5.4		2.9
Test Average	05/12/98	150	2.1	5.7	37%	1.51	3.0	51%				0	15	0%	1.3		17.0		21.0		6.2		5.7
Test Average	02/23/99	154	2.1	5.8	36%	1.51	3.0	50%	3.4	22	15%	0	15	0%	6.2		18.0		19.5		5.0		2.0
Test Average	08/29/00	168	4.0	6.0	66%	2.40	3.1	76%	8.5	22	39%	0	15	0%	5.2	1000	15.7	1000	21.3	1500	5.0	1000	3.8
1	09/24/01	154	2.8			0.82			4.51						3.0	1608	19.5	1654	23.9	2000	5.1	1700	4.1
2	09/24/01	152	3.5			0.97									2.5	1609	19.1	1651	23.9	2000	6.1	1650	3.9
3	09/24/01	150	2.0			0.88									2.6	1608	19.0	1651	23.8	2000	6.0	1600	4.0
Test Average	09/24/01	152	2.8	5.8	48%	0.89	3.0	30%	4.5	22	21%	0	15	0%	2.7	1608	19.2	1652	23.9	2000	5.7	1650	4.0
1	10/10/01	152	3.1			0.90									2.2	1536	17.1	1610	15.8	1891	5.2	1603	4.1
2	10/10/01	153	3.0			1.20									2.0	1538	17.3	1507	17.5	1917	5.0	1603	3.9
3	10/10/01	154	3.7			1.35									0.9	1528	17.2	1665	15.5	1873	5.1	1576	4.2
Test Average	10/10/01	154	3.3	5.8	56%	1.15	3.0	38%				5	15	33%	1.7	1534	17.2	1561	16.3	1894	5.1	1594	4.1
1	10/30/02	142	4.6			0.86									0.8	1543	18.8	1550	23	1936	5.4	1899	3.7
2	10/30/02	135	3.3			0.96									1.0	1546	18.8	1550	24.6	1943	5.4	1905	3.4
3	10/30/02	139	4.2			1.14									1.1	1548	18.9	1550	23.7	1929.5	5.3	1879	3.5
Test Average	10/30/02	139	4.0	5.2	77%	0.99	2.7	37%				12	15	80%	1.0	1546	18.8	1550	23.8	1936	5.4	1894	3.5
1	03/26/03		4.9			2.44									1.1	1496	20.0	1493	21.6	2247	6.5	1986	3.9
2	03/26/03		2.9			1.70									0.9	1498	20.2	1494	21.2	2233	6.3	1990	3.9
3	03/26/03		1.4			1.32									0.7	1508	20.0	1504	21.7	2229	6.4	1991	3.8
Test Average	03/26/03	142	3.1	5.4	56%	1.82	2.8	65%				2	15	14%	0.9	1501	20.1	1497	21.5	2236	6.4	1989	3.9
1	01/28/04	152	0.9			0.04									2.5	1632	22.9	1639	24	2098	6.1	1893	3.8
2	01/28/04	152	1.1			0.02									2.5	1655	22.5	1951	23.8	2081	6.2	1884	3.8
3	01/28/04	152	0.9			0.02									2.5	1645	22.6	1650	23.9	2076	6.1	1890	3.9
Test Average	01/28/04	152	1.0	5.8	17%	0.03	3.0	1%				5	15	33%	2.5	1644	22.7	1647	23.9	2085	6.1	1889	3.8
															Applicable/Requested MACT Limits	Maximum	+20%	24.0	+20%	23.9	+20%	6.4	+20%	6.2
																Minimum	-20%	**15.0**	-20%	**15.0**	-20%	3.0	-20%	2.0
					9 % 77%										DATA min		1000	14.0	1000	14.5	1500	3.0	1000	2.0
															DATA max		1655	24.0	1951	24.6	2247	6.5	1991	6.2

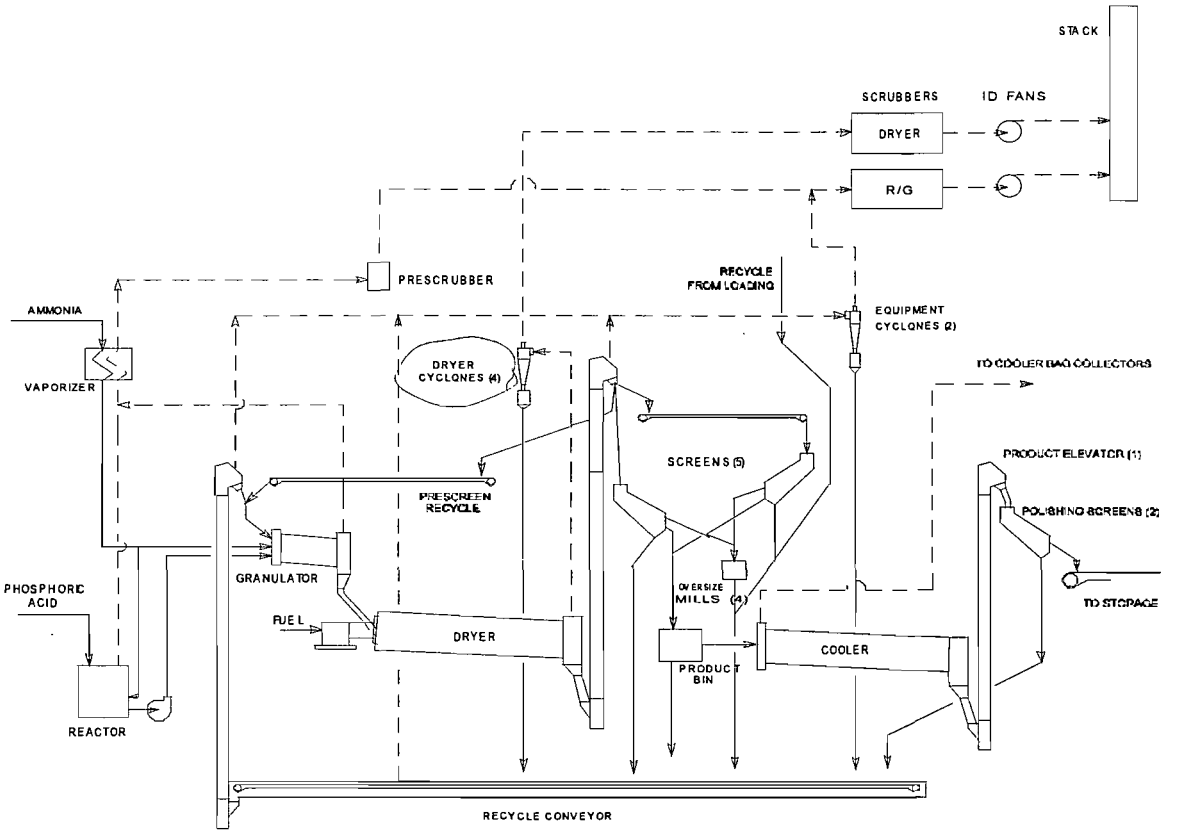
* Limit for total plant emissions (Plant (045) and Cooler (056))

** Sulfur dioxide testing done plant firing oil only.

Note the 15 in HOH minimum is a construction permit condition

NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

Flow Diagram



Control Equipment Discription

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

Emission Unit: **DAP Plant No 2 - West Train**

ID No.: **046**

Facility: **IMC Phosphates New Wales Plant**

ID No.: **1050059**

New Wales DAP Plant No 2 - West Train (046)
Compliance Test Results

Run	Test Date	Rate TPH	170 TPH max	PM lb/hr	PM limit lb/hr	% limit	F lb/hr	Plant F limit lb/hr *	% limit	SO2 lb/hr **	SO2 limit lb/hr	% limit	VE	VE limit	% limit	NOx lb/hr 12.6 max	R/G Venturi GPM	R/G Venturi dP	Dryer Venturi GPM	Dryer Venturi dP	R/G Tailgas GPM	R/G Tailgas dP	Dryer Tailgas GPM	Dryer Tailgas dP
Test Average	01/17/95	153	90%	4.1	14.1	29%	1.22	3.1	39%	18.9	22	86%	6	20	30%	3.6		17.4		15.7		7.6		2.9
Test Average	02/13/96	140	82%	2.1	14.1	15%	1.18	2.8	42%				15	20	75%			18.0		19.0		3.0		3.0
Test Average	01/26/98	140	82%	8.7	14.1	62%	2.49	2.8	90%	5.0	22	23%	5	20	25%	3.9		16.7		15.5		3.1		1.9
Test Average	04/14/98	150	88%	3.1	5.7	55%	2.53	3.0	85%				5	15	33%	2.7		16.1		20.7		3.1		1.5
Test Average	02/10/99	154	91%	2.7	5.8	46%	2.59	3.0	85%	5.5	22	25%	5	15	33%	3.7		17.0		15.5		7.0		1.5
Test Average	09/25/00	157	92%	5.1	6.0	86%	2.61	3.1	84%	14.2	22	64%	6	15	39%	5.8	1100	18.6	1100	17.1	2200	6.0	1200	4.0
1	09/10/01	145	86%	3.6			2.03			26						0.7	1560	20.4	1500	19.5	1900	5.2	1700	4.1
2	09/10/01	148	87%	4.5			1.45			9.2						1.0	1500	20.4	1500	19.5	2000	5.4	1700	4.1
3	09/10/01	150	88%	3.1			1.51			6.8						0.9	1500	20.8	1500	19.6	2000	5.1	1700	4.1
Test Average	09/10/01	148	87%	3.7	5.6	66%	1.66	2.9	56%	14.0	22	64%	5	15	33%	0.8	1520	20.5	1500	19.5	1967	5.2	1700	4.1
1	05/22/02	145	85%	5.0			2.05									0.2	1632	21.0	1662	22.0	2240	5.3	1737	4.0
2	05/22/02	152	89%	2.2			2.24									0.2	1690	21.5	1737	21.8	2205	5.1	1822	3.6
3	05/22/02	150	88%	4.1			0.96									0.2	1735	21.4	1738	22.0	2248	5.2	1815	3.6
Test Average	05/22/02	149	88%	3.8	5.7	66%	1.82	3.0	61%				10	15	67%	0.2	1686	21.3	1712	21.9	2231	5.2	1791	3.7
1	04/01/03	140	83%	2.9			1.30									2.7	1550	21.2	1550	22.0	2180	7.0	1985	4.3
2	04/01/03	141	83%	2.0			1.80									2.7	1548	21.3	1552	22.2	2205	7.0	2000	4.2
3	04/01/03	142	84%	3.1			2.23									2.3	1550	21.3	1550	22.0	2185	7.0	1992	4.2
Test Average	04/01/03	141	83%	2.7	5.4	49%	1.78	2.8	64%				14	15	94%	2.6	1549	21.3	1551	22.1	2190	7.0	1992	4.2
1	09/04/03	143	84%	2.1			0.92									3.2	1571	21.7	1572	18.4	2224	5.4	2088	4.0
2	09/04/03	143	84%	3.9			1.24									1.9	1577	21.7	1576	18.4	2239	5.4	2095	4.0
3	09/04/03	143	84%	0.9			1.03									1.8	1570	21.7	1573	18.5	2226	5.5	2093	3.9
Test Average	09/04/03	143	84%	2.3	5.4	43%	1.06	2.8	38%				9	15	62%	2.3	1573	21.7	1574	18.4	2230	5.4	2092	4.0
1	04/06/04	148	87%	1.8			2.17									5.8	1553	22.6	1553	21.0	2190	5.2	1992	3.1
2	04/06/04	148	87%	2.0			1.92									4.5	1578	22.7	1584	21.2	2200	5.1	1991	3.1
3	04/06/04	147	87%	2.1			2.29									3.9	1594	22.7	1599	20.8	2160	5.1	1949	3.1
Test Average	04/06/04	148	87%	2.0	5.6	35%	2.13	2.9	73%				5	15	33%	4.7	1575	22.7	1579	21.0	2183	5.1	1977	3.1
Applicable/Requested MACT Limits	Maximum																+20%	21.3	+20%	22.1	+20%	7.6	+20%	4.2
	Minimum																-20%	**15.0**	-20%	**15.0**	-20%	3.0	-20%	2.0
DATA min																	1100	16.1	1100	15.5	1900	3.0	1200	1.5
DATA max																	1735	22.7	1738	22.2	2248	7.6	2095	4.3

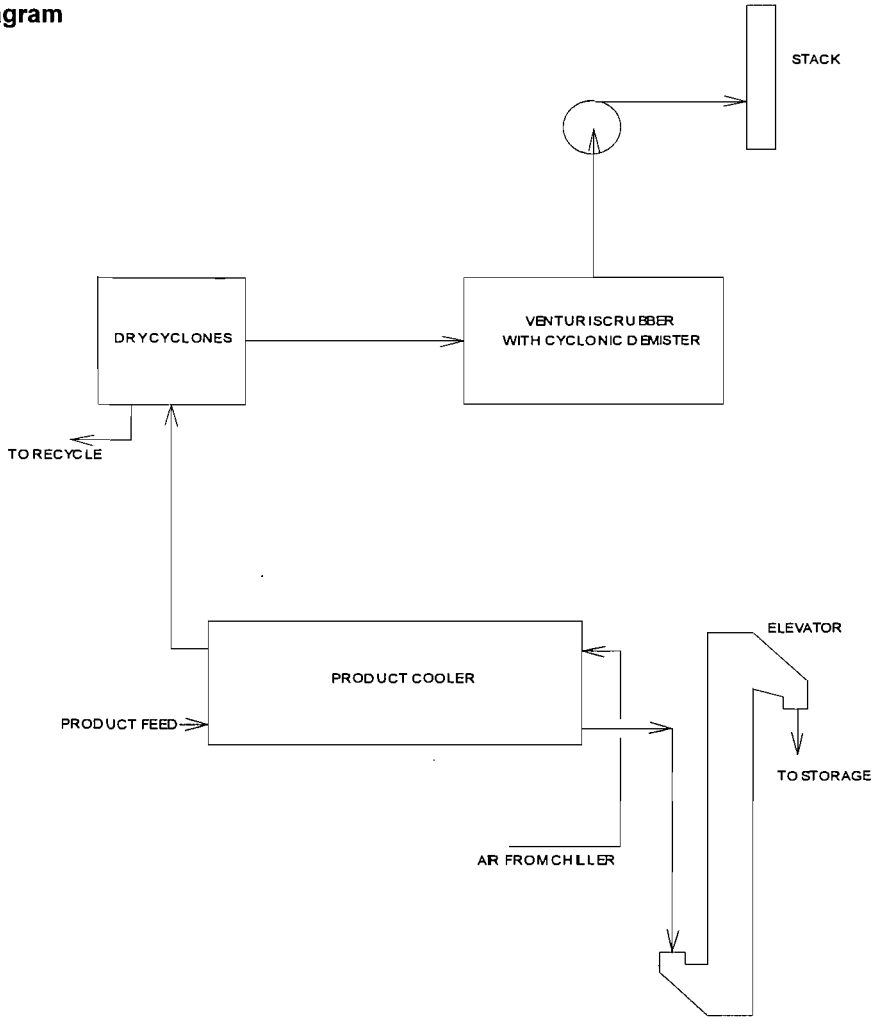
* Limit for total plant emissions (Plant (046) and Cooler (047))

** Sulfur dioxide testing done plant firing oil only.

Note the 15 in HOH minimum is a construction permit condition

NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

Flow Diagram



Control Equipment Discription

The emissions are controlled by a venturi scrubber with a recirculating water system. The make-up water can be either fresh or process water.

Emission Unit: **DAP Plant No 2 East Product Cooler** ID No.: **056**

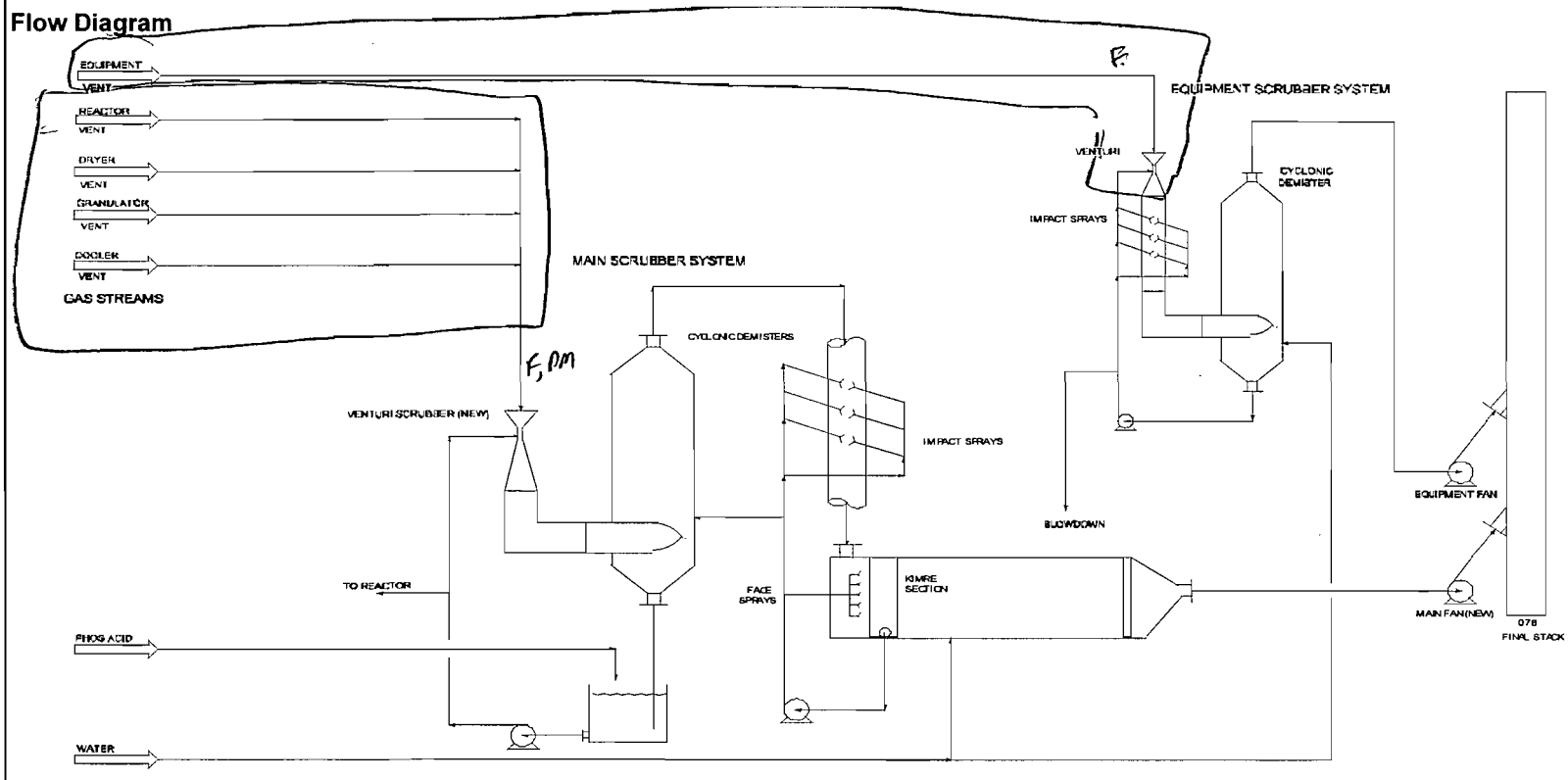
Facility: **IMC Phosphates New Wales Plant** ID No.: **1050059**

New Wales DAP Plant No 2 East Product Cooler (056)
Compliance Test Results

Run	Test Date	Rate TPH	170 TPH max	PM lb/hr	PM limit lb/hr	% limit	F lb/hr	Plant F limit lb/hr *	% limit	VE 15 max	% limit	Cooler Venturi GPM	Cooler Venturi dP
1	08/30/00	156	91%	3.5			0.08					250	15
2	08/30/00	156	91%	3.1			0.10					250	15
3	08/30/00	156	91%	3.6			0.07					250	15
	08/30/00	168	99%	3.4	6.1	56%	0.08	3.2	2%	0	0%	250	15.0
1	09/18/01	158	93%	0.9			0.23					350	17.2
2	09/18/01	154	90%	3.9			0.30					360	17.3
3	09/18/01	157	92%	4.2			0.33					380	17.3
	09/18/01	156	92%	3.0	6.1	50%	0.29	3.0	10%	0	0%	363	17.3
1	12/06/01	150	88%	3.2			0.51					500	16.5
2	12/07/01	149	88%	2.8			0.28					300	16.0
3	12/07/01	148	87%	2.6			0.26					300	16.0
	12/06/01	149	88%	2.8	6.1	47%	0.35	2.9	12%	0	0%	367	16.2
1	12/17/02	133	78%	3.0			0.21					366	15.6
2	12/17/02	134	79%	2.6			0.10					376	15.5
3	12/17/02	135	79%	2.7			0.10					375	15.4
	12/17/02	134	79%	2.7	6.1	45%	0.14	2.6	5%	5	33%	372	15.5
1	05/04/04	144	85%	3.3			0.16					346	17.1
2	05/04/04	151	89%	0.8			0.15					344	16.8
3	05/04/04	142	84%	0.6			0.16					346	17.0
	05/04/04	146	86%	1.6	6.1	26%	0.16	2.8	6%	5	33%	345	17.0
								* Limit for total plant emissions					
								(Plant (045) and Cooler (056))					
							Applicable MACT Limits			Maximum	+20%	+20%	
										Minimum	-20%	**15.0**	
					Note the 15 in HOH minimum is a construction permit condition								
								DATA min				250	15.0
								DATA max				500	17.3

NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

Flow Diagram



Control Equipment Discription

The plant emissions are controlled by two systems. The main system is a venturi scrubber with dual cyclonic demisters followed by impact sprays and then by a tailgas scrubber with Kimre pads. The other system controls the emissions from equipment vents. It consists of venturi scrubber followed with impact sprays

Emission Unit: **GMAP Plant**

ID No.: **078**

Facility: **IMC Phosphates New Wales Plant**

ID No.: **1050059**

New Wales GMAP Plant (078)
Compliance Test Results

Run	Test Date	Rate TPH	150 TPH max	PM lb/hr *	PM limit lb/hr	% limit	F lb/hr	F limit lb/hr	% limit	VE	VE limit	% limit	Venturi GPM	Venturi dP	Impact Spray GPM	Kimre Face GPM	Kimre dP	Equip Venturi GPM	Equip Venturi dP	Equip Impact Spray GPM
1	07/13/01	98	65%	6.1			0.32						1696	22.6	1422	1065	2.6	380	15.3	229
2	07/13/01	103	69%	5.8			0.19						1690	22.6	1418	1059	2.6	377	15.5	242
3	07/13/01	84	56%	4.7			0.33						1681	22.4	1423	1064	2.6	377	15.4	244
Test average	07/13/01	95	63%	5.5	6.1	90%	0.28	1.4	19%	10	20	50%	1689	22.5	1421	1063	2.6	378	15.4	238
1	05/08/02	138	92%	5.8			0.60						1875	21.7	1571	1233	3.8	398	17.4	249
2	05/09/02	139	93%	6.6			0.67						1812	21.8	1567	1230	3.9	390	18.0	247
3	05/09/02	140	93%	3.4			0.63						1874	22.0	1565	1230	3.9	389	18.0	246
Test average	05/09/02	139	93%	5.2	9.0	58%	0.64	2.4	27%	15	20	75%	1854	21.8	1568	1231	3.9	393	17.8	247
Test average	05/24/02	118	78%				0.61	2.0	31%				1880	22.8	1585	1216	3.6	418	17.9	241
Test average	09/25/02	115	77%				0.51	2.0	26%				1878	22.0	1481	1	2.4	394	17.0	299
Test average	09/25/02	114	76%				0.44	2.0	22%				1891	21.2	837	1167	3.8	393	17.1	298
Test average	03/05/03	124	83%				0.21	2.1	10%				1758	20.8	904	1150	9.8	436	16.0	236
Test average	07/14/03	127	85%				0.63	1.9	34%	0	20	0%	1814	22.6	971	1224	2.4	372	17.8	193
Test average	12/10/03	124	83%				0.28	2.1	13%	10	20	50%	1688	23.4	957	1205	1.0	354	18.3	183
				* PM testing only required on a 5 year basis.																
	09/25/02 Special test conducted to determine if Kimre pads could be eliminated.																			
							Applicable MACT Limits				Maximum		+20%	+20%	+20%	+20%	9.8	+20%	+20%	+20%
											Minimum		-20%	-20%	-20%	-20%	**2.6**	-20%	-20%	-20%
													~~1812~~	The 2.6 should be changed to 1.0 based on 12/10/03 test.						
										DATA min			~~1861~~	20.8	837	1	1.0	354	15.3	183
										DATA max			1891	23.4	1585	1233	9.8	436	18.3	299

NOTE: These are the available data, from tests conducted to establish minimum allowable values for the subject parameters, with reference to the existing Title V permit provisions.

which of these are for PM and which for F.

ATTACHMENT 2

P.E. AND R.O. CERTIFICATION

Professional Engineer Certification

1. Professional Engineer Name: **John B. Koogler, Ph.D, P.E.**
   Registration Number: **12925**
2. Professional Engineer Mailing Address...
   Organization/Firm: **Koogler and Associates**
   Street Address: **4014 NW 13th Street**
   City: **Gainesville** State: **FL** Zip Code: **32609**
3. Professional Engineer Telephone Numbers...
   Telephone: **(352) 377-5822** ext. Fax: **(352) 377-7158**
4. Professional Engineer Email Address: **jkoogler@kooglerassociates.com**
5. Professional Engineer Statement:

   I, the undersigned, hereby certify, except as particularly noted herein*, that:

   (1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

   (2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

   (3) If the purpose of this application is to obtain a Title V air operation permit (check here ☐, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.

   (4) If the purpose of this application is to obtain an air construction permit (check here ☐, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here ☒, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

   (5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here ☐, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

   Signature (seal) — **Date** 7/8/04

*** Attach any exception to certification statement.**

APPLICATION INFORMATION

Application Responsible Official Certification

Complete if applying for an initial/revised/renewal Title V permit or concurrent processing of an air construction permit and a revised/renewal Title V permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name:
   M. A. Daigle
   Vice President, Florida Concentrates

2. Application Responsible Official Qualification (Check one or more of the following options, as applicable):
   - [X] For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.
   - [ ] For a partnership or sole proprietorship, a general partner or the proprietor, respectively.
   - [ ] For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.
   - [ ] The designated representative at an Acid Rain source.

3. Application Responsible Official Mailing Address...
   Organization/Firm: **IMC Phosphates MP Inc.**
   Street Address: **P.O. Box 2000**
   City: **Mulberry** State: **FL** Zip Code: **33860**

4. Application Responsible Official Telephone Numbers...
   Telephone: (**863**) **428-2500** ext. Fax: (**863**) **428-7190**

5. Application Responsible Official Email Address: **madaigle@imcglobal.com**

6. Application Responsible Official Certification:

   I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.

   Signature: MADaigle Date: 7/2/04

Table 1. CAM Applicability Determination for IMC Phosphates, New Wales

Emission Source	Title V EU ID	Control Equipment	Pollutants with Permitted Emission Limits	Uncontrolled Emission Rates (TPY) [a]					CAM Plan Required? (Yes/No)	Comments
				SO_2	SAM	NO_x	PM/PM_{10}	F		
Sulfuric Acid Plant No. 1	002	none	SO_2, SAM, NO_x	--	--	--	--	--	No	No control equipment for SAM, SO_2 and NO_x.
Sulfuric Acid Plant No. 2	003	none	SO_2, SAM, NO_x	--	--	--	--	--	No	No control equipment for SAM, SO_2 and NO_x.
Sulfuric Acid Plant No. 3	004	none	SO_2, SAM, NO_x	--	--	--	--	--	No	No control equipment for SAM, SO_2 and NO_x.
Sulfuric Acid Plant No. 4	042	none	SO_2, SAM, NO_x	--	--	--	--	--	No	No control equipment for SAM, SO_2 and NO_x.
Sulfuric Acid Plant No. 5	044	none	SO_2, SAM, NO_x	--	--	--	--	--	No	No control equipment for SAM, SO_2 and NO_x.
Phosphoric Acid Plant (East)	008	Cross-flow scrubber	F	--	--	--	--	185	Yes	CAM required for F.
Phosphoric Acid Plant (West)	017	Cross-flow scrubber	F	--	--	--	--	185	Yes	CAM required for F.
Phosphoric Acid Plant No. 3	039	Cross-flow scrubber, Cyclonic Demister	F	--	--	--	--	226	Yes	CAM required for F.
Phosphoric Acid Clarification and Storage Area	053	Venturi scrubber, packed-bed scrubber	F	--	--	--	--	52	No	F uncontrolled < 100 TPY.
DAP Plant No. 1	009	Venturi scrubbers, tailgas scrubber, cyclonic wet scrubbers	F, PM	--	--	--	>100	164	Yes	CAM required for PM and F.
DAP Plant II--East Train	045	Venturi scrubber, Tailgas adsorption scrubber	F, PM, SO_2, NO_x	412	--	--	1,730	> 100	Yes	CAM required for F, SO_2, PM. No control equipment for NO_x.
DAP Plant II--West Train	046	Venturi scrubber, Tailgas adsorption scrubber	F, PM, SO_2, NO_x	412	--	--	1,730	> 100	Yes	CAM required for F, SO_2, PM. No control equipment for NO_x.
DAP Plant II West Product Cooler	047	Baghouse	F, PM	--	--	--	1,705	69	Yes	CAM required for PM. F uncontrolled emissions < 100 TPY.
DAP Plant II East Product Cooler	056	4-cluster cyclone, venturi scrubber	F, PM	--	--	--	1,705	69	Yes	CAM required for PM. F uncontrolled emissions < 100 TPY.
GMAP Plant	078	Wet cyclonic scrubbers, tailgas scrubber	F, PM	--	--	--	>100	90	Yes	CAM required for PM. F uncontrolled emissions < 100 TPY.
MAP Prill Plant	011	Venturi scrubber, cyclonic demister	F, PM	--	--	--	942	30	Yes	CAM required for PM. F uncontrolled emissions < 100 TPY.
Auxiliary Boiler	013	none	PM	--	--	--	--	--	No	No control equipment.
Animal Feed Ingredient Shipping/Truck Loadout	015	Baghouse	PM	--	--	--	4	--	No	PM uncontrolled emissions < 100 TPY.
Animal Feed Ingredient Storage Silos (3)-North Side	023	Baghouse	PM	--	--	--	2	--	No	PM uncontrolled emissions < 100 TPY.
Animal Feed Ingredient Storage/Shipping/Railcar Loadout	024	Baghouse	PM	--	--	--	4	--	No	PM uncontrolled emissions < 100 TPY.
Animal Feed Ingredient--(2) Limestone Storage Silos	025	Baghouse	PM	--	--	--	1	--	No	PM uncontrolled emissions < 100 TPY.
Animal Feed Ingredient--Silica Storage Bin	026	Filter/Receiver	PM	--	--	--	0.2	--	No	PM uncontrolled emissions < 100 TPY.
Animal Feed Ingredient Storage Silos (3)-South Side	028	Baghouse	PM	--	--	--	2	--	No	PM uncontrolled emissions < 100 TPY.
Animal Feed Ingredient--Limestone Feed Bin	052	none	PM	--	--	--	--	--	No	No control equipment.
Animal Feed Ingredient Granulation Plant	027	Venturi/crossflow scrubbers, venturi scrubbers, cyclones	PM	--	--	--	>100	--	Yes	CAM required for PM.
Fertilizer Truck/Rail Loadout No. 1	029	Venturi scrubber, cyclonic demister	PM	--	--	--	--	--	No	Dust suppresant used in lieu of baghouse, therefore no control equipment.
Multifos Soda Ash Rail Hopper Car Unloading System	030	Baghouse	none	--	--	--	--	--	No	No emission limit.
Multifos Soda Ash Conveying System	031	Baghouse	none	--	--	--	--	--	No	No emission limit.
Multifos "A" Kiln Cooler	032	Baghouse	none	--	--	--	--	--	No	No emission limit.
Multifos "B" Kiln Cooler	033	Baghouse	none	--	--	--	--	--	No	No emission limit.
Multifos A and B Kilns Milling and Sizing System--West Baghouse	034	Baghouse	none	--	--	--	--	--	No	No emission limit.
Multifos A and B Kilns Milling and Sizing System--East Baghouse	035	Baghouse	none	--	--	--	--	--	No	No emission limit.
Multifos A and B Kilns, Dryer and Blending Operation	036	Packed-bed scrubbers	F, PM	--	--	--	>100	>100	Yes	CAM required for PM and F.
Multifos A and B Kilns Milling and Sizing System--Surge Bin	038	Baghouse	none	--	--	--	--	--	No	No emission limit.
Multifos C Kiln	074	Packed-bed scrubbers	F, PM, SO_2, NO_x	1,901.6	--	--	10,622	>100	Yes	CAM required for PM, F, and SO_2.
Multifos Kiln C Cooler Baghouse	075	Baghouse	none	--	--	--	--	--	No	No permitted emissions limits.
Multifos Kiln C Milling and Sizing Baghouse	076	Baghouse	none	--	--	--	--	--	No	No permitted emissions limits.
Fertilizer Truck Loadout No. 2	037	Baghouse	PM	--	--	--	--	--	No	Dust suppresant used in lieu of baghouse, therefore no control equipment.

Table 1. CAM Applicability Determination for IMC Phosphates, New Wales

Emission Source	Title V EU ID	Control Equipment	Pollutants with Permitted Emission Limits	Uncontrolled Emission Rates (TPY) [a]					CAM Plan Required? (Yes/No)	Comments
				SO_2	SAM	NO_x	PM/PM_{10}	F		
Fertilizer Truck Loadout No. 3	041	Baghouse	PM	--	--	--	--	--	No	Dust suppresant used in lieu of baghouse, therefore no control equipment.
Fertilizer Rail Loadout No. 2	043	Baghouse	PM	--	--	--	--	--	No	Dust suppresant used in lieu of baghouse, therefore no control equipment.
Fertilizer Rail Loadout No. 3	059	Baghouse	PM	--	--	--	--	--	No	Dust suppresant used in lieu of baghouse, therefore no control equipment.
30% Clarification Area	048	Packed-bed scrubber	F, PM	--	--	--	14.3	1.3	No	PM and F uncontrolled emissions < 100 TPY.
MAP Plant Cooler	055	Cyclone, baghouse	F, PM	--	--	--	575	23	Yes	CAM required for PM. F uncontrolled emissions < 100 TPY.
Molten Sulfur Handling/Storage System	060 - 069	none	PM	--	--	--	--	--	No	No control equipment.
Limestone Storage Silo/Rock Grinding	070	none	PM	--	--	--	--	--	No	No control equipment.
Phosphogypsum Stack	071	none	none	--	--	--	--	--	No	No permitted emissions limits or control equipment.

[a] Refer to Tables 2 through 4 for calculations.

Note: The major source thresholds for all pollutants shown is 100 TPY.

Table 2. Summary of Uncontrolled SO_2 and SAM Emission Calculations for Sources Potentially Applicable to the CAM Plan Requirements, IMC Phosphates, New Wales

			Uncontrolled SO_2 Emissions			Uncontrolled SAM Emissions		
Emission Source	Title V EU ID	Production/ Process Rate	Emission Factor	Ref.	Emission Rate (TPY)	Emission Factor	Ref.	Emission Rate (TPY)
DAP Plant II--East Train	045	36 MMBtu/hr	157(S) lb/10^3 gal	(1)	412	--		--
DAP Plant II--West Train	046	36 MMBtu/hr	157(S) lb/10^3 gal	(1)	412	--		--
Multifos C Kiln	074	10 TPH P_2O_5	45.7 lb/ton P_2O_5	(2)	1,902	--		--

References:

(1) Emission factor based on AP-42, Table 1.3-1 (9/98), where S = 2.5% for No. 6 fuel oil and annual limitation of 2.1 million gallons of fuel oil (based on Title V Permit No. 1050059-038-AV).

(2) Emission factor based on BACT determination (Permit No. 1050059-024-AC/PSD-FL-244).

Table 3. Summary of Uncontrolled PM Emission Calculations for Sources Potentially Applicable to the CAM Plan Requirements, IMC Phosphates, New Wales

Emission Source	Title V EU ID	Production/ Process Rate	Uncontrolled PM Emissions		
			Emission Factor	Ref.	Emission Rate (TPY)
DAP Plant No. 1	009	150 TPH DAP/MAP	--	(1)	>100
DAP Plant II--East Train	045	80 TPH P_2O_5 input	4.94 lb/ton P_2O_5	(4)	1,730
DAP Plant II--West Train	046	80 TPH P_2O_5 input	4.94 lb/ton P_2O_5	(4)	1,730
DAP Plant II West Product Cooler	047	80 TPH P_2O_5 input	4.86 lb/ton P_2O_5	(3)	1,705
DAP Plant II East Product Cooler	056	80 TPH P_2O_5 input	4.86 lb/ton P_2O_5	(3)	1,705
GMAP Plant	078	75 TPH P_2O_5 input	8.70 lb/ton P_2O_5	(2)	2,859
MAP Prill Plant	011	50 TPH MAP	4.30 lb/ton P_2O_5	(4)	942
Animal Feed Ingredient Shipping/Truck Loadout	015	200 TPH	0.0041 lb/ton	(5)	3.59
Animal Feed Ingredient Storage Silos (3)-North Side	023	120 TPH	0.0041 lb/ton	(5)	2.15
Animal Feed Ingredient Storage/Shipping/Railcar Loadout	024	200 TPH	0.0041 lb/ton	(5)	3.59
Animal Feed Ingredient--(2) Limestone Storage Silos	025	80 TPH	0.0041 lb/ton	(5)	1.44
Animal Feed Ingredient--Silica Storage Bin	026	10 TPH	0.0041 lb/ton	(5)	0.18
Animal Feed Ingredient Storage Silos (3)-South Side	028	120 TPH	0.0041 lb/ton	(5)	2.15
Animal Feed Ingredient Granulation Plant	027	120 TPH	--	(1)	>100
Multifos A and B Kilns, Dryer and Blending Operation	036	5.7 TPH P_2O_5	--	(1)	>100
Multifos C Kiln	074	25 TPH	97 lb/ton product	(6)	10,622
30% Clarification Area	048	265 TPH P_2O_5 input	0.012 lb/ton P_2O_5	(7)	14.3
MAP Plant Cooler	055	50 TPH MAP	2.63 lb/ton product	(3)	575

References:

(1) Controlled emissions (from Permit No. 1050059-038-AV) are > 100 TPY, therefore uncontrolled emissions > 100 TPY.

(2) Emission factor based on AP-42, Table 8.5.3-1 (7/93), for the controlled emissions for ammoniated phosphate dryer/cooler. Uncontrolled emissions calculated by using the controlled emission factor of 0.68 lb/ton product for total plant emissions, and assuming an average control efficiency of 87.4% for PM (AP-42 page 8.5.3-4). MAP is 62% P_2O_5.

(3) Emission factor based on AP-42, Table 8.5.3-1 (7/93), for the controlled emissions for ammoniated phosphate dryer/cooler.

Table 3. Summary of Uncontrolled PM Emission Calculations for Sources Potentially Applicable to the CAM Plan Requirements, IMC Phosphates, New Wales

Emission Source	Title V EU ID	Production/ Process Rate	Uncontrolled PM Emissions: Emission Factor	Ref.	Emission Rate (TPY)

Uncontrolled emissions calculated by using the controlled emission factor of 0.68 lb/ton product for total plant emissions, applying a ratio of dryer/cooler emissions to the total plant emissions (48.7% based on individual factors presented in Table 8.5.3-1), and assuming an average control efficiency of 87.4% for PM (AP-42 page 8.5.3-4). DAP is 54% P_2O_5.

(4) Emission factor based on AP-42, Table 8.5.3-1 (7/93), for the controlled emissions for production of ammonium phosphates.
Uncontrolled emissions calculated by using the controlled emission factor of 0.68 lb/ton product for total plant emissions, applying a ratio of reactor/granulator emissions to the total plant emissions (49.4% based on individual factors presented in Table 8.5.3-1), and assuming an average control efficiency of 87.4% for PM (AP-42 page 8.5.3-4). MAP is 62% P_2O_5 and DAP is 54% P_2O_5.

(5) Emission factor based on the drop equation (AP-42, Section 13.2.4, Aggregate Handling and Storage Piles), where:

$E = k * (0.0032) [(U/5)^{1.3}/(M/2)^{1.4}] = 0.0041$ lb/ton

k = 0.74

U = 8 mph (average wind speed for Tampa)

M = 2.1 % [mean moisture content for various limestone products (AP-42, Table 13.2.4-1)]

(6) Emission factor based on AP-42, Table 11.17-2, Emissions factors for Lime Manufacturing Calcining, Cooling, and Hydrating, gas-fired calcimatic kiln.

(7) Based on average PM emission rate from last 4 years of stack test data (0.00037 lb/ton P_2O_5) and assuming a 97% control efficiency for the scrubber.

Table 4. Summary of Uncontrolled F Emission Calculations for Sources Potentially Applicable to the CAM Plan Requirements, IMC Phosphates, New Wales

Emission Source	Title V EU ID	Production/ Process Rate	Uncontrolled F Emissions		
			Emission Factor	Ref.	Emission Rate (TPY)
Phosphoric Acid Plant (East)	008	2,198 TPD P_2O_5 input	0.46 lb/ton P_2O_5	(1)	185
Phosphoric Acid Plant (West)	017	2,198 TPD P_2O_5 input	0.46 lb/ton P_2O_5	(1)	185
Phosphoric Acid Plant No. 3	039	2,688 TPD P_2O_5 input	0.46 lb/ton P_2O_5	(1)	226
Phosphoric Acid Clarification and Storage Area	053	6,572 TPD P_2O_5 input	0.043 lb/ton P_2O_5	(7)	52.0
DAP Plant No. 1	009	150 TPH product	0.25 lb/ton product	(2)	164.3
DAP Plant II--East Train	045	80 TPH P_2O_5 input	--	(5)	>100
DAP Plant II--West Train	046	80 TPH P_2O_5 input	--	(5)	>100
DAP Plant II West Product Cooler	047	80 TPH P_2O_5 input	0.20 lb/ton P_2O_5	(4)	68.9
DAP Plant II East Product Cooler	056	80 TPH P_2O_5 input	0.20 lb/ton P_2O_5	(4)	68.9
GMAP Plant	078	150 TPH product	0.14 lb/ton product	(3)	90.3
MAP Prill Plant	011	50 TPH product	0.14 lb/ton product	(3)	30.1
Multifos A and B Kilns, Dryer and Blending Operation	036	5.7 TPH P_2O_5 input	--	(5)	>100
Multifos C Kiln	074	9.5 TPH P_2O_5 input	--	(5)	>100
30% Clarification Area	048	265 TPH P_2O_5 input	0.0011 lb/ton P_2O_5	(6)	1.3
MAP Plant Cooler	055	50 TPH product	0.106 lb/ton product	(4)	23.3

References:

(1) Emission factor based on AP-42, Table 8.9-2 (7/93), for a wet phosphoric acid plant and includes emissions from the reactor, evaporator, belt filter, and belt filter vacuum pump.

(2) Emission factor based on AP-42, Table 8.5.3-1 (7/93), for the controlled emissions for production of ammonium phosphates (reactor/ammoniator/granulator). Uncontrolled emissions calculated by using the controlled emission factor of 0.04 lb/ton product for total plant emissions, and assuming an 84% control efficiency (AP-42 page 8.5.3-4) for the scrubber. MAP is 62% P_2O_5 and DAP is 54% P_2O_5.

(3) Emission factor based on AP-42, Table 8.5.3-1 (7/93), for the controlled emissions for production of ammonium phosphates

(reactor/ammoniator/granulator). Uncontrolled emissions calculated by using the controlled emission factor of 0.04 lb/ton product for total plant emissions, applying a ratio of reactor/granulator emissions to the total plant emissions (54.3% based on individual factors presented in Table 8.5.3-1), and assuming an 84% control efficiency (AP-42 page 8.5.3-4) for the scrubber. MAP is 62% P_2O_5 and DAP is 54% P_2O_5.

(4) Emission factor based on AP-42, Table 8.5.3-1 (7/93), for the controlled emissions for production of ammonium phosphates (dryer/cooler). Uncontrolled emissions calculated by using the controlled emission factor of 0.04 lb/ton product for total plant emissions, applying a ratio of dryer/cooler emissions to the total plant emissions (43.5% based on individual factors presented in Table 8.5.3-1), and assuming an 84% control efficiency (AP-42 page 8.5.3-4) for the scrubber. MAP is 62% P_2O_5 and DAP is 54% P_2O_5.

(5) IMC believes that the maximum potential uncontrolled F emissions are greater than 100 TPY based on knowledge of the process and operational experience.

(6) Based on average F emission rate from last 4 years of stack test data (0.000034 lb/ton P_2O_5) and assuming a 97% control efficiency for the scrubber.

(7) Based on average F emission rate from last 4 years of stack test data (0.0013 lb/ton P_2O_5) and assuming a 97% control efficiency for the scrubber.

Table 5. Summary of Proposed Monitoring Parameters and Indicator Ranges, IMC Phosphates, New Wales

Emission Source	Title V EU ID	Pollutant(s) Controlled	Indicator	Indicator Range
Phosphoric Acid Plants--East and No. 3	008, 039	~~F~~	Pressure drop across scrubber	0.2 to 10.5 " H_2O
			Scrubber liquid flow rate	± 20% of the baseline average value determined during compliance testing.
Phosphoric Acid Plant--West	017	~~F~~	Pressure drop across scrubber	0.2 to 5.0 " H_2O
			Scrubber liquid flow rate	± 20% of the baseline average value determined during compliance testing.
DAP Plant No. 1	009	PM, ~~F~~, SO_2	Pressure drop across scrubber	± 20% of the baseline average value determined during compliance testing.
			Scrubber liquid flow rate	± 20% of the baseline average value determined during compliance testing.
DAP Plant No. 2--East Train--RG Venturi Scrubber	045	PM, SO_2	Pressure drop across scrubber	15.0 to 24.0 " H_2O
			Scrubber liquid flow rate	± 20% of the baseline average value determined during compliance testing.
DAP Plant No. 2--East Train--Dryer Venturi Scrubber	045	PM, SO_2	Pressure drop across scrubber	15.0 to 23.8 " H_2O
			Scrubber liquid flow rate	± 20% of the baseline average value determined during compliance testing.
DAP Plant No. 2--East Train--RG Tailgas Scrubber	045	PM, SO_2	Pressure drop across scrubber	3.0 to 6.4 " H_2O
			Scrubber liquid flow rate	± 20% of the baseline average value determined during compliance testing.
DAP Plant No. 2--East Train--Dryer Tailgas Scrubber	045	PM, SO_2	Pressure drop across scrubber	2.0 to 6.2 " H_2O
			Scrubber liquid flow rate	± 20% of the baseline average value determined during compliance testing.
DAP Plant No. 2--West Train--RG Venturi Scrubber	046	PM, SO_2	Pressure drop across scrubber	15.0 to 21.3 " H_2O
			Scrubber liquid flow rate	± 20% of the baseline average value determined during compliance testing.
DAP Plant No. 2--West Train--Dryer Venturi Scrubber	046	PM, SO_2	Pressure drop across scrubber	15.0 to 22.1 " H_2O
			Scrubber liquid flow rate	± 20% of the baseline average value determined during compliance testing.
DAP Plant No. 2--West Train--RG Tailgas Scrubber	046	PM, SO_2	Pressure drop across scrubber	3.0 to 7.6 " H_2O
			Scrubber liquid flow rate	± 20% of the baseline average value determined during compliance testing.
DAP Plant No. 2--West Train--Dryer Tailgas Scrubber	046	PM, SO_2	Pressure drop across scrubber	1.9 to 4.2 " H_2O
			Scrubber liquid flow rate	± 20% of the baseline average value determined during compliance testing.

Table 5. Summary of Proposed Monitoring Parameters and Indicator Ranges, IMC Phosphates, New Wales

Emission Source	Title V EU ID	Pollutant(s) Controlled	Indicator	Indicator Range
DAP Plant No. 2 Product Cooler--East	047	PM	Pressure drop across scrubber	± 20% of the baseline average value determined during compliance testing.
			Scrubber liquid flow rate	± 20% of the baseline average value determined during compliance testing.
GMAP Plant--Kimre Demister Pad	078	PM	Pressure drop across Kimre face	2.6 to 9.8 " H_2O
			Scrubber liquid flow rate	± 20% of the baseline average value determined during compliance testing.
GMAP Plant--All Other Scrubbers	078	PM	Pressure drop across scrubber	± 20% of the baseline average value determined during compliance testing.
			Scrubber liquid flow rate	± 20% of the baseline average value determined during compliance testing.
MAP Prill Plant	011	PM	Pressure drop across scrubber	± 20% of the baseline average value determined during compliance testing.
			Scrubber liquid flow rate	± 20% of the baseline average value determined during compliance testing.
AFI Granulation Plant	027	PM	Pressure drop across scrubber	< 90% of the pressure drop reported during the most recent satisfactory compliance test.
			Scrubber liquid flow rate	< 90% of the liquid flow rate reported during the most recent satisfactory compliance test.
Multifos Kilns A and B, Dryer and Blending Operations	036	PM, F	Pressure drop across scrubber	< 90% of the pressure drop reported during the most recent satisfactory compliance test.
			Scrubber liquid flow rate	< 90% of the liquid flow rate reported during the most recent satisfactory compliance test.
Multifos Kiln C	074	PM, F, SO_2	Pressure drop across scrubber	< 90% of the pressure drop reported during the most recent satisfactory compliance test.
			Scrubber liquid flow rate	< 1,200 gpm

Notes: " H_2O = inches of water

2.0 FLUORIDE EMISSIONS FROM PHOSPHORIC ACID PLANTS—EAST, WEST, AND NO. 3

2.1 Background

2.1.1 Emissions Unit

Description:	Phosphoric Acid Plants, East, West, and No. 3
Emission Unit ID:	008, 017, and 039

2.1.2 Applicable Regulations, Emission Limits, and Monitoring Requirements

Regulations:	Permit No. 1050059-014-AV
Emissions Limits:	
Fluoride:	0.02 lb/ton P_2O_5, 36.6 lb/day each for the East and West Trains [Rule 62-296.403(1)(a), F.A.C., and requested by permittee, October 27, 1995, 40 CFR 63.602(a)]
	0.02 lb/ton P_2O_5, 43 lb/day for the No. 3 Train [40 CFR 60.202, AC53-228026 BACT, and as requested by the permittee, October 27, 1995, based on EPA letter, September 15, 1995, on revised component applicability for an affected facility per NSPS Subpart T, 40 CFR 60.200(a), 40 CFR 63.602 (a)]
Monitoring Requirements:	Currently required to monitor mass-flow of phosphorous-bearing feed to the process, pressure drop, and scrubbing liquid flow rate.

2.1.3 Control Technology

Emissions from the East and West trains are controlled by a cross-flow scrubber, using process water. Emissions from the No. 3 train are controlled by a cross-flow packed-bed scrubber using process water, followed by a cyclonic demister.

6,17,39

2.2 *Monitoring Approach*

	Indicator No. 1	Indicator No. 2
Indicator	Pressure drop across each scrubber.	Scrubber liquid flow rate to each scrubber.
Measurement Approach	The pressure drop is monitored with a differential pressure transducer.	The scrubber liquid flow rate is measured using magnetic flow tube elements.
Indicator Range	An excursion is defined as operation at a daily average pressure drop outside of the indicator range (refer to Table 5). 0.2-10.5 10.2-5 Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as operation at a daily average liquid flow outside of indicator range (refer to Table 5). Excursions trigger an inspection, corrective action, and a reporting requirement.
Data Representativeness	The minimum accuracy of each device is ±5%.	The minimum accuracy of each device is ±5%.
Verification of Operational Status	NA	NA
QA/QC Practices and Criteria	The differential pressure transducer is calibrated annually.	The flow sensor is calibrated annually.
Monitoring Frequency	The pressure drop is monitored continuously.	The scrubber liquid flow is monitored continuously.
Data Collection Procedures	Scrubber pressure drop is electronically recorded at least every 15-minutes. Daily averages are computed.	Scrubber liquid flow rate is electronically recorded at least every 15-minutes. Daily averages are computed.
Averaging Period	Daily averages based on 15-minute readings.	Daily averages based on 15-minute readings.

2.3 Justification

2.3.1 Rationale for Selection of Performance Indicators

IMC has chosen to comply with the MACT monitoring requirements for Phosphoric Acid Plants (40 CFR Part 63.604 and 63.605). The MACT requires monitoring of scrubber pressure drop and scrubber liquid flow rate. The 15-minute monitoring and daily average was selected because they are consistent with the MACT requirements.

2.3.2 Rationale for Selection of Performance Indicator Ranges

The indicator ranges proposed for pressure drop across the scrubbers are based on previous compliance testing. An excursion is defined as operation of a daily average pressure drop outside of the indicator range (contained in Table 5). The indicator ranges for liquid flow rate will be determined during annual compliance testing. An excursion is defined as operation of a daily average liquid flow outside of the indicator range (plus or minus 20-percent of the baseline average value determined during annual compliance testing). When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported.

Is this supported by test data.

3.0 PARTICULATE AND FLUORIDE EMISSIONS FROM DAP PLANT NO. 1

3.1 Background

3.1.1 Emissions Unit

Description:	DAP Plant No. 1
Emission Unit ID:	009

3.1.2 Applicable Regulations, Emission Limits, and Monitoring Requirements

Regulations:	Permit No. 1050059-014-AV, 1050059-029-AC
Emissions Limits:	
Particulate Matter:	28.6 lb/hr [Rule 62-296.700(2)(b), F.A.C., and Permit No. 1050059-013-AC]
Fluoride:	0.06 lb/ton P_2O_5, 2.92 lb/hr from the DAP Plant No. 1 [Permit No. 1050059-013-AC; 40 CFR 63.622(a)]
Opacity:	20% from the No. 1 DAP Plant [Rule 62-296.320(4)(b)(1)]
Monitoring Requirements:	Currently required to monitor raw material input to each plant, total liquid flow rate and pressure drop across the scrubbing systems.

3.1.3 Control Technology

Emissions from the No. 1 DAP Plant are controlled by three venturi scrubbers in parallel followed in series by one cyclonic wet scrubber. The venturi scrubbers primarily control PM, while the cyclonic wet scrubber primarily controls gaseous pollutants.

3.2 Monitoring Approach

	Indicator No. 1	Indicator No. 2
Indicator	Pressure drop across each scrubber.	Scrubber liquid flow rate to each scrubber.
Measurement Approach	Each pressure drop is monitored with a differential pressure transducer.	Each scrubber liquid flow rate is measured using a magnetic flow tube element.
Indicator Range	An excursion is defined as operation at a daily average pressure drop outside of the indicator range (refer to Table 5). Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as operation at a daily average liquid flow outside of the indicator range (refer to Table 5). Excursions trigger an inspection, corrective action, and a reporting requirement.
Data Representativeness	The minimum accuracy of each device is ±5 percent.	The minimum accuracy of each device is ±5 percent.
Verification of Operational Status	NA	NA
QA/QC Practices and Criteria	Each differential pressure transducer is calibrated at least annually.	Each flow sensor is calibrated at least annually.
Monitoring Frequency	Each pressure drop is monitored continuously.	Each scrubber liquid flow is monitored continuously.
Data Collection Procedures	Scrubber pressure drop is electronically recorded at least every 15-minutes. Daily averages are computed.	Scrubber liquid flow rate is electronically recorded at least every 15-minutes. Daily averages are computed.
Averaging Period	Daily average based on 15-minute readings.	Daily average based on 15-minute readings.

Need #'s

3.3 Justification

3.3.1 Rationale for Selection of Performance Indicators

PARTICULATE MATTER

The performance indicators selected are liquid flow rate and total gas pressure drop. To achieve the required emission reduction, a minimum liquid flow rate must be supplied to remove the given amount of PM in the gas stream. The L/G ratio is a key operating parameter of the scrubber. If the L/G ratio decreases below the minimum, PM removal will not occur. The minimum liquid flow rate required to maintain the proper L/G ratio at the maximum gas flow and PM loading through the scrubber are determined during annual compliance testing. Maintaining this minimum liquid flow, even during periods of reduced gas flow, will ensure the required L/G ratio is achieved at all times.

Pressure drop was selected as a performance indicator because it indicates the level of impaction energy in the throat of the venturi scrubber. The energy in the throat indicates PM removal efficiency. If pressure drop is too low, proper PM removal will not occur.

FLUORIDES

IMC has chosen to comply with the MACT monitoring requirements for Phosphate Fertilizers Production Plants (40 CFR Part 63.624 and 63.625). The MACT requires monitoring of scrubber pressure drop and scrubber liquid flow rate. The 15-minute monitoring and daily average was selected because they are consistent with the MACT requirements.

3.3.2 Rationale for Selection of Performance Indicator Ranges

The indicator ranges will be determined during annual compliance testing. An excursion is defined as operation of a daily average pressure drop or liquid flow outside of the indicator range (plus or minus 20-percent of the baseline average value determined during annual compliance testing). The indicators are appropriate for both fluoride and PM emissions. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported.

4.0 PARTICULATE, FLUORIDE, AND SULFUR DIOXIDE EMISSIONS FROM DAP PLANT NO. 2 AND THE DAP PLANT NO. 2 EAST PRODUCT COOLER

4.1 Background

4.1.1 Emissions Unit

Description:	DAP Plant No. 2—East and West Trains; DAP Plant No. 2 East Product Cooler
Emission Unit ID:	045, 046, and 047

4.1.2 Applicable Regulations, Emission Limits, and Monitoring Requirements

Regulations: Permit No. 1050059-014-AV

Emissions Limits:

Particulate Matter: 0.08 lb/ton P_2O_5, 6.40 lb/hr, 28.0 TPY for each train [Rule 62-212.410, F.A.C., Permit No. 1050059-020-AC/PSD-FL-241]

6.06 lb/hr, 26.5 TPY from the East Product Cooler [Rule 62-212.410, F.A.C., Permit No. 1050059-020-AC/PSD-FL-241]

Fluoride: 0.0417 lb/ton P_2O_5, 3.34 lb/hr, 14.6 TPY for each train [Rule 62-212.410, F.A.C., Permit No. 1050059-020-AC/PSD-FL-241]

Sulfur Dioxide: 22.0 lb/hr, 87.0 TPY for each train [BACT determination of May 5, 1980 for Permit No. AC53-23456; Permit No. 1050059-020-AC/PSD-FL-241]

Nitrogen Oxides: 12.6 lb/hr, 55.2 TPY for each train [BACT determination of April 27, 1987 for Permit No. AC53-118671; Permit No. 1050059-020-AC/PSD-FL-241]

Opacity:	15% from each stack [Rule 62-212.410, F.A.C., Permit No. 1050059-020-AC/PSD-FL-241]
Monitoring Requirements:	Currently required to monitor raw material input to each train, total liquid flow rate and pressure drop across the scrubbing systems. Currently required to monitor scrubber recirculating water flow rate and pressure drop for the East Product Cooler.

4.1.3 Control Technology

Emissions from the No. 2 DAP Plant are controlled by two parallel control systems, each consisting of a venturi scrubber followed by a packed-bed tailgas scrubber with a fan. The systems vent to a common stack.

Emissions from the East Product Cooler are controlled by a venturi scrubber. This system has its own stack.

4.2 Monitoring Approach

	Indicator No. 1	Indicator No. 2
Indicator	Pressure drop across each scrubber.	Scrubber liquid flow rate to each scrubber.
Measurement Approach	Each pressure drop is monitored with a differential pressure transducer.	Each scrubber liquid flow rate is measured using a magnetic flow tube element.
Indicator Range	An excursion is defined as operation at a daily average pressure drop outside of the indicator range (refer to Table 5). Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as operation at a daily average liquid flow outside of the indicator range (refer to Table 5). Excursions trigger an inspection, corrective action, and a reporting requirement.
Data Representativeness	The minimum accuracy of each device is ±5 percent.	The minimum accuracy of each device is ±5 percent.
Verification of Operational Status	NA	NA
QA/QC Practices and Criteria	Each differential pressure transducer reading is calibrated at least annually.	Each flow sensor is calibrated at least annually.
Monitoring Frequency	Each pressure drop is monitored continuously.	Each scrubber liquid flow is monitored continuously.
Data Collection Procedures	Scrubber pressure drop is electronically recorded at least every 15-minutes. Daily averages are computed.	Scrubber liquid flow rate is electronically recorded at least every 15-minutes. Daily averages are computed.
Averaging Period	Daily average based on 15-minute readings.	Daily average based on 15-minute readings.

4.3 Justification

4.3.1 Rationale for Selection of Performance Indicators

PARTICULATE MATTER

The performance indicators selected are liquid flow rate and total gas pressure drop. To achieve the required emission reduction, a minimum liquid flow rate must be supplied to remove the given amount of PM in the gas stream. The L/G ratio is a key operating parameter of the scrubber. If the L/G ratio decreases below the minimum, PM removal will not occur. The minimum liquid flow rate required to maintain the proper L/G ratio at the maximum gas flow and PM loading through the scrubber are determined during compliance testing. Maintaining this minimum liquid flow, even during periods of reduced gas flow, will ensure the required L/G ratio is achieved at all times.

Pressure drop was selected as a performance indicator because it indicates the level of impaction energy in the throat of the venturi scrubber. The energy in the throat indicates PM removal efficiency. If pressure drop is too low, proper PM removal will not occur.

SULFUR DIOXIDE

SO_2 emissions are reduced by the recirculating liquid in the venturi scrubbers. The performance indicators selected are liquid flow rate and total gas pressure drop. To achieve the required emission reduction, a minimum liquid flow rate must be supplied to absorb the given amount of SO_2 in the gas stream. The L/G ratio is a key operating parameter of the scrubber. If the L/G ratio decreases below the minimum, sufficient mass transfer of the pollutant from the gas phase to the liquid phase will not occur. The minimum liquid flow rate required to maintain the proper L/G ratio at the maximum gas flow and vapor loading through the scrubber can be determined. Maintaining this minimum liquid flow, even during periods of reduced gas flow, will ensure the required L/G ratio is achieved at all times.

FLUORIDES

IMC has chosen to comply with the MACT monitoring requirements for Phosphate Fertilizers Production Plants (40 CFR 63.624 and 63.625). The MACT requires monitoring of scrubber pressure drop and scrubber liquid flow rate. The 15-minute monitoring and daily average was selected because they are consistent with the MACT requirements.

4.3.2 Rationale for Selection of Performance Indicator Ranges

The indicator ranges proposed for pressure drop across the scrubbers is based on previous compliance testing. An excursion is defined as operation of a daily average pressure drop outside of the indicator range (contained in Table 5). The indicator ranges for liquid flow rate will be based on annual compliance testing. An excursion is defined as operation of a daily average liquid flow outside of the indicator range (plus or minus 20-percent of the baseline average value determined during annual compliance testing). The indicators are appropriate for the listed emissions. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported.

5.0 PARTICULATE EMISSIONS FROM DAP PLANT NO. 2 PRODUCT COOLER WEST

5.1 Background

5.1.1 Emissions Unit

Description:	DAP Plant No. 2—West Product Cooler
Emission Unit ID:	056

5.1.2 Applicable Regulations, Emission Limits, and Monitoring Requirements

Regulations:	Permit No. 1050059-014-AV
Emissions Limits:	✓ ✓
Particulate Matter:	4.22 lb/hr, 8.5 TPY from the West Product Cooler [Rule 62-212.410, F.A.C., Permit No. 1050059-020-AC/PSD-FL-241]
Opacity:	5% from the West Product Cooler [Rule 62-212.410, F.A.C., Permit No. 1050059-020-AC/PSD-FL-241]
Monitoring Requirements:	Currently required to monitor the pressure drop across each bag collector at the West Product Cooler.

5.1.3 Control Technology

Emissions from the West Product Cooler are controlled by two parallel bag collectors.

5.2 Monitoring Approach

	Indicator No. 1
Indicator	Pressure drop across each bag collector.
Measurement Approach	Pressure drop across each bag collector measured with differential pressure transducers.
Indicator Range	An excursion is defined as a pressure drop greater than 15 inches water. Excursions trigger an inspection, corrective action, and a reporting requirement.
Data Representativeness	The minimum accuracy of each device is ±5%.
Verification of Operational Status	NA
QA/QC Practices and Criteria	Each pressure transducer is calibrated at least annually.
Monitoring Frequency	Each pressure drop is monitored continuously.
Data Collection Procedures	Pressure drop is electronically recorded at least daily in a computer. Daily averages are computed.
Averaging Period	Daily average.

5.3 Justification

5.3.1 Rationale for Selection of Performance Indicators

In general, bag collectors are designed to operate at a relatively constant pressure drop. Monitoring pressure drop provides a means of detecting a change in operation that could lead to an increase in emissions. An increase in pressure drop can indicate that the cleaning cycle is not frequent enough, cleaning equipment is damaged, the bags are being blinded, or the airflow has increased. A pressure drop across the bag collector also serves to indicate that there is airflow through the control device.

5.3.2 Rationale for Selection of Performance Indicator Values

The indicator maximum chosen for each bag collector daily average pressure drop is greater than 15 in. H_2O. The indicator range was selected based on operational data and experience. An excursion triggers an inspection, corrective action, and a reporting requirement.

6.0 PARTICULATE EMISSIONS FROM GMAP PLANT

6.1 Background

6.1.1 Emissions Unit

Description:	GMAP Plant
Emission Unit ID:	078

6.1.2 Applicable Regulations, Emission Limits, and Monitoring Requirements

Regulations:	Permit No. 1050059-014-AV, Permit No. 1050059-030-AC, 1050059-037-AC
Emissions Limits:	
Particulate Matter:	0.0645 lb/ton product, 9.68 lb/hr, 42.4 TPY [Rule 62-210.200 (PTE), F.A.C.]
Fluoride:	0.032 lb/ton P_2O_5, 2.40 lb/hr, 10.5 TPY [Rule 62-210.200 (PTE), F.A.C., BACT Determination]
Monitoring Requirements:	Currently required to continuously monitor mass flow of phosphorous-bearing material, monitor pressure drop and liquid flow rate across the scrubbing system. Currently required to monitor scrubber pH once per day.

6.1.3 Control Technology

Emissions from the dryer, product cooler, and material handling equipment are directed to cyclones for product recovery. Emissions from the reactor, granulator, dryer cyclones and cooler cyclone are directed to the Main scrubber system. The Main scrubber system includes a venturi and dual cyclonic demisters, which are used to recover ammonia and to control particulate matter and fluoride emissions. The scrubbing medium is recirculated phosphoric acid. Remaining PM and F emissions are further controlled by 3 (or 4) impact sprays and irrigated Kimre pads. The scrubbing medium is recirculated fresh water. Emissions from various granular process equipment are controlled by to the Equipment Scrubber System, consisting of a venturi, 4 impact sprays, and a cyclonic demister for control of PM and F emissions. The scrubbing medium is recirculated fresh water. The Main

scrubber system and the Equipment scrubber system are ducted to a common stack for exhaust to the atmosphere.

6.2 Monitoring Approach

	Indicator No. 1	Indicator No. 2
Indicator	Pressure drop across the Kimre face and each scrubber.	Scrubber liquid flow rate to the Kimre demister pad and each scrubber.
Measurement Approach	Each pressure drop is monitored with differential pressure transducers.	Each scrubber liquid flow rate is measured using magnetic flow tube elements.
Indicator Range	An excursion is defined as operation at a daily average pressure drop outside of the indicator range (refer to Table 5). Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as operation at a daily average liquid flow outside of the indicator range (refer to Table 5). Excursions trigger an inspection, corrective action, and a reporting requirement.
Data Representativeness	The minimum accuracy of each device is ±5%.	The minimum accuracy of each device is ±5%.
Verification of Operational Status	NA	NA
QA/QC Practices and Criteria	Each differential pressure transducer is calibrated at least annually.	Each flow sensor is calibrated at least annually.
Monitoring Frequency	Each pressure drop is monitored continuously.	Each scrubber liquid flow is monitored continuously.
Data Collection Procedures	Scrubber pressure drop is electronically recorded at least once every 15-minutes. Daily averages are computed.	Scrubber liquid flow rate is electronically recorded at least once every 15-minutes. Daily averages are computed.
Averaging Period	Daily average based on 15-minute readings.	Daily average based on 15-minute readings.

6.3 Justification

6.3.1 Rationale for Selection of Performance Indicators

The performance indicators selected are liquid flow rate and total gas pressure drop as specified in the Construction Permit No. 1050059-037-AC, Condition No. 20.

IMC has chosen to comply with the MACT monitoring requirements for Phosphate Fertilizers Production Plants (40 CFR 63.624 and 63.625). The MACT requires monitoring of scrubber pressure drop and scrubber liquid flow rate. The 15-minute monitoring and daily average was selected because they are consistent with the MACT requirements.

6.3.2 Rationale for Selection of Performance Indicator Ranges

The indicator ranges proposed for pressure drop across the scrubbers are based on previous compliance testing. An excursion is defined as operation of a daily average pressure drop outside of the indicator range (contained in Table 5). The indicator ranges for liquid flow rate will be based on annual compliance testing. An excursion is defined as operation of a daily average liquid flow outside of the indicator range (plus or minus 20-percent of the baseline average value determined during annual compliance testing). The indicators are appropriate for PM emissions. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported.

7.0 PARTICULATE EMISSIONS FROM MAP PRILL PLANT

7.1 Background

7.1.1 Emissions Unit

Description:	MAP Prill Plant
Emission Unit ID:	011

7.1.2 Applicable Regulations, Emission Limits, and Monitoring Requirements

Regulations:	Permit No. 1050059-014-AV
Emissions Limits:	
Particulate Matter:	0.3 lb/ton product, 15 lb/hr [BACT issued July 9, 1980, Permit No. AC53-31215, 40 CFR 63.622(a)]
Fluoride:	0.06 lb/ton P_2O_5, 0.83 lb/hr
Opacity:	20% [Permit No. AC53-31215]
Monitoring Requirements:	Currently required to monitor mass flow of phosphorous-bearing material, pressure drop, and scrubbing liquid flow rate.

7.1.3 Control Technology

Emissions from the prill tower are vented through a venturi scrubber then through a cyclonic demister to control F and PM.

7.2 Monitoring Approach

	Indicator No. 1	Indicator No. 2
Indicator	Pressure drop across scrubber.	Scrubber liquid flow rate.
Measurement Approach	The pressure drop is monitored with a differential pressure transducer.	The scrubber liquid flow rate is measured using a magnetic flow tube element.
Indicator Range	An excursion is defined as operation at a daily average pressure drop outside of the indicator range (refer to Table 5). Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as operation at a daily average liquid flow outside of the indicator range (refer to Table 5). Excursions trigger an inspection, corrective action, and a reporting requirement.
Data Representativeness	The minimum accuracy of the device is ±5%.	The minimum accuracy of the device is ±5%.
Verification of Operational Status	NA	NA
QA/QC Practices and Criteria	The differential pressure transducer is calibrated at least annually.	The flow sensor is calibrated at least annually.
Monitoring Frequency	The pressure drop is monitored continuously.	The scrubber liquid flow is monitored continuously.
Data Collection Procedures	Scrubber pressure drop is recorded once every 15-minutes. Daily averages are computed.	Scrubber liquid flow rate is recorded once every 15-minutes. Daily averages are computed.
Averaging Period	Daily average based on 15-minute readings.	Daily average based on 15-minute readings.

7.3 Justification

7.3.1 Rationale for Selection of Performance Indicators

The performance indicators selected are liquid flow rate and total gas pressure drop. To achieve the required emission reduction, a minimum liquid flow rate must be supplied to remove the given amount of PM in the gas stream. The L/G ratio is a key operating parameter of the scrubber. If the L/G ratio decreases below the minimum, PM removal will not occur. The minimum liquid flow rate required to maintain the proper L/G ratio at the maximum gas flow and PM loading through the scrubber are determined during annual compliance testing. Maintaining this minimum liquid flow, even during periods of reduced gas flow, will ensure the required L/G ratio is achieved at all times.

Pressure drop was selected as a performance indicator because it indicates the level of impaction energy in the throat of the venturi scrubber. The energy in the throat indicates PM removal efficiency. If pressure drop is too low, proper PM removal will not occur.

IMC has chosen to comply with the MACT monitoring requirements for Phosphate Fertilizers Production Plants (40 CFR 63.624 and 63.625). The MACT requires monitoring of scrubber pressure drop and scrubber liquid flow rate. The 15-minute monitoring and daily average was selected because they are consistent with the MACT requirements.

7.3.2 Rationale for Selection of Performance Indicator Ranges

The indicator ranges proposed for pressure drop across the scrubbers are based on historical test data. An excursion is defined as operation of a daily average pressure drop outside of the indicator range (contained in Table 5). The indicator ranges for liquid flow rate will be based on annual compliance testing. An excursion is defined as operation of a daily average liquid flow outside of the indicator range (at less than plus or minus 20-percent of the baseline average value determined during annual compliance testing). The indicators are appropriate for PM emissions. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported.

8.0 PARTICULATE EMISSIONS FROM AFI GRANULATION PLANT

8.1 Background

8.1.1 Emissions Unit

Description:	Animal Feed Ingredient (AFI) Granulation Plant
Emission Unit ID:	027

8.1.2 Applicable Regulations, Emission Limits, and Monitoring Requirements

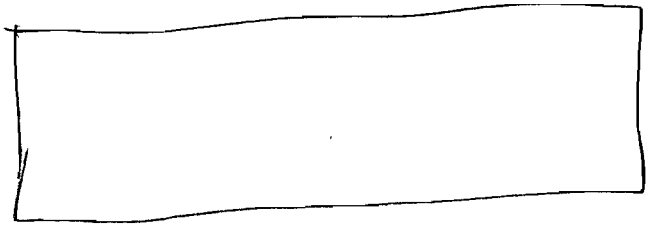
Regulations:	Permit No. 1050059-038-AV
Emissions Limits:	
Particulate Matter:	36.8 lb/hr [Rule 62-296.700(2)(b), F.A.C.]
Opacity:	20% [Rule 62-296.320(4)(b), F.A.C.]
Monitoring Requirements:	Currently required to monitor volumetric liquid flow rate and gas pressure drop.

8.1.3 Control Technology

PM emissions are controlled by four venturi scrubbers in parallel that vent to a common stack.

8.2 Monitoring Approach

	Indicator No. 1	Indicator No. 2
Indicator	Pressure drop across each scrubber.	Scrubber liquid flow rate to each scrubber.
Measurement Approach	Each pressure drop is monitored with a differential pressure transducer.	Each scrubber liquid flow rate is measured using a magnetic flow tube element.
Indicator Range	An excursion is defined as operation at a daily average pressure drop outside of the indicator range (refer to Table 5). Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as operation at a daily average liquid flow outside of the indicator range (refer to Table 5). Excursions trigger an inspection, corrective action, and a reporting requirement.
Data Representativeness	The minimum accuracy of each device is ±5%.	The minimum accuracy of each device is ±5%.
Verification of Operational Status	NA	NA
QA/QC Practices and Criteria	Each differential pressure transducer is calibrated at least annually.	Each flow sensor is calibrated at least annually.
Monitoring Frequency	Each pressure drop is monitored continuously.	Each scrubber liquid flow is monitored continuously.
Data Collection Procedures	Scrubber pressure drop is electronically recorded at least once every 15-minutes. Daily averages are computed.	Scrubber liquid flow rate is electronically recorded at least once every 15-minutes. Daily averages are computed.
Averaging Period	~~Daily~~ average based on 15-minute readings.	~~Daily~~ average based on 15-minute readings.



8.3 Justification

8.3.1 Rationale for Selection of Performance Indicators

The performance indicators selected are liquid flow rate and total gas pressure drop as specified in Condition II.14 of the Title V Permit No. 1050059-008-AV. To achieve the required emission reduction, a minimum liquid flow rate must be supplied to remove the given amount of PM in the gas stream. The L/G ratio is a key operating parameter of the scrubber. If the L/G ratio decreases below the minimum, PM removal will not occur. The minimum liquid flow rate required to maintain the proper L/G ratio at the maximum gas flow and PM loading through the scrubber are determined during annual compliance testing. Maintaining this minimum liquid flow, even during periods of reduced gas flow, will ensure the required L/G ratio is achieved at all times.

Pressure drop was selected as a performance indicator because it indicates the level of impaction energy in the throat of the venturi scrubber. The energy in the throat indicates PM removal efficiency. If pressure drop is too low, proper PM removal will not occur.

8.3.2 Rationale for Selection of Performance Indicator Ranges

The indicator ranges will be determined during annual compliance testing. This is based on the Facility-wide Condition 14 of the current Title V Permit (Permit No. 1050059-014-AV). An excursion is defined as operation of a daily average pressure drop or liquid flow outside of the indicator range (at less than 90-percent of the rate reported during the most recent satisfactory compliance test). When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported.

The daily average was selected because it is consistent with Facility-wide Condition No. 14 of the current Title V Permit (Permit No. 1050059-014-AV).

9.0 PARTICULATE AND FLUORIDE EMISSIONS FROM MULTIFOS KILNS A AND B, DRYER AND BLENDING OPERATION

9.1 Background

9.1.1 Emissions Unit

Description:	Multifos A and B Kilns, Dryer and Blending Operation
Emission Unit ID:	036

9.1.2 Applicable Regulations, Emission Limits, and Monitoring Requirements

Regulations:	Permit No. 1050059-014-AV, Permit No. 1050059-024-AC
Emissions Limits:	
Particulate Matter:	29.83 lb/hr from Multifos A and B Kilns, Dryer and Blending Operation [Rule 62-296.700(2)(b), F.A.C.; BACT Determination, September 10, 1998; Permit No. AC53-267287; Permit No. 1050059-024-AC/PSD-FL-244]
Fluoride:	0.37 lb/ton P_2O_5, 4.2 lb/hr from the A and B Kilns, Dryer and Blending Operation [Permit No. AC53-267287; Rule 62-296.403(1)(h), F.A.C.]
Opacity:	20% from the Kilns A and B, Dryer and Blending Operation [Permit No. AC53-267287 and 1050059-024-AC/PSD-FL-244, Rule 62-296.320(4)(b), F.A.C.]
Monitoring Requirements:	Currently required to monitor the mass flow of phosphorous-bearing feed material, scrubber liquid flow rate, scrubber gas pressure drop, and fan motor amperage.

9.1.3 Control Technology

Emissions from the dryer, the blending operation, and Kilns A and B are controlled by three separate packed-bed scrubbers connected to a common stack.

9.2 Monitoring Approach

	Indicator No. 1	Indicator No. 2
Indicator	Pressure drop across each scrubber.	Liquid flow rate to each scrubber.
Measurement Approach	Each pressure drop is monitored with a differential pressure transducer.	Each scrubber liquid flow rate is measured using a magnetic flow tube element.
Indicator Range	An excursion is defined as operation at a daily average pressure drop outside of the indicator range (refer to Table 5). Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as operation at a daily average liquid flow outside of the indicator range (refer to Table 5). Excursions trigger an inspection, corrective action, and a reporting requirement.
Data Representativeness	The minimum accuracy of each device is ±5%.	The minimum accuracy of each device is ±5%.
Verification of Operational Status	NA	NA
QA/QC Practices and Criteria	Each differential pressure transducer is calibrated at least annually.	Each flow sensor is calibrated at least annually.
Monitoring Frequency	Each pressure drop is monitored continuously.	Each scrubber liquid flow is monitored continuously.
Data Collection Procedures	Scrubber pressure drop is recorded once every 15-minutes. Daily averages are computed.	Scrubber liquid flow rate is recorded once every 15-minutes. Daily averages are computed.
Averaging Period	~~Daily~~ 3hr average based on 15-minute readings.	~~Daily~~ 3hr average based on 15-minute readings.

Or about 24 hr Avg.

9.3 Justification

9.3.1 Rationale for Selection of Performance Indicators

The performance indicators selected are liquid flow rate and total gas pressure drop as specified in Construction Permit No. 1050059-024-AC, Condition No. III.10.

9.3.2 Rationale for Selection of Performance Indicator Ranges

The indicator ranges will be determined during annual compliance testing. The monitoring approach is based on the Facility-wide Condition 14 of the current Title V Permit (Permit No. 1050059-014-AV). An excursion is defined as operation of a daily average pressure drop or liquid flow outside of the indicator range (at less than 90-percent of the rate reported during the most recent satisfactory compliance test). When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported.

The daily average was selected because it is consistent with Facility-wide Condition No. 14 of the current Title V Permit (Permit No. 1050059-014-AV).

10.0 PARTICULATE, FLUORIDE, AND SULFUR DIOXIDE EMISSIONS FROM MULTIFOS KILN C

10.1 Background

10.1.1 Emissions Unit

Description:	Multifos C Kiln
Emission Unit ID:	074

10.1.2 Applicable Regulations, Emission Limits, and Monitoring Requirements

Regulations:	Permit No. 1050059-014-AV, Permit No. 1050059-024-AC

Emissions Limits:

Particulate Matter:	14.3 lb/hr from Multifos C Kiln [Rule 62-296.700(2)(b), F.A.C.; BACT Determination, September 10, 1998; Permit No. AC53-267287; Permit No. 1050059-024-AC/PSD-FL-244]
Fluoride:	0.038 lb/ton P_2O_5, 0.36 lb/hr from the Kiln C (F limit to be revised by permit application submitted 09/26/03) [Permit No. 1050059-024-AC/PSD-FL-244]
Sulfur Dioxide:	8.7 lb/hr from the Kiln C [Permit No. 1050059-024-AC/PSD-FL-244]
Nitrogen Oxides:	40 TPY (NO_x limit to be revised by permit application submitted 09/26/03) [Permit No. 1050059-024-AC/PSD-FL-244]
Opacity:	15% from the Kiln C [BACT Determination, September 10, 1998; Permit No. AC53-267287 and 1050059-024-AC/PSD-FL-244, Rule 62-296.320(4)(b), F.A.C.]

Monitoring Requirements: Currently required to monitor the mass flow of phosphorous-bearing feed material, scrubber liquid flow rate, scrubber gas pressure drop, and fan motor amperage.

10.1.3 Control Technology

Kiln C emissions are controlled by two packed-bed scrubbers in series.

10.2 Monitoring Approach

	Indicator No. 1	Indicator No. 2
Indicator	Pressure drop across each scrubber.	Scrubber liquid flow rate to each scrubber
Measurement Approach	Each pressure drop is monitored with a differential pressure transducer.	Each scrubber liquid flow rate is measured using a magnetic flow tube element.
Indicator Range	An excursion is defined as operation at a daily average pressure drop outside of the indicator range (refer to Table 5). Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as operation at a daily average liquid flow outside of the indicator range (refer to Table 5). Excursions trigger an inspection, corrective action, and a reporting requirement.
Data Representativeness	The minimum accuracy of each device is ±5%.	The minimum accuracy of each device is ±5%.
Verification of Operational Status	NA	NA
QA/QC Practices and Criteria	Each differential pressure transducer is calibrated at least annually.	Each flow sensor is calibrated at least annually.
Monitoring Frequency	Each pressure drop is monitored continuously.	Each scrubber liquid flow is monitored continuously.
Data Collection Procedures	Scrubber pressure drop is recorded hourly. Daily averages are computed.	Scrubber liquid flow rate is recorded hourly. Daily averages are computed.
Averaging Period	Daily average	Daily average

10.3 Justification

10.3.1 Rationale for Selection of Performance Indicators

The performance indicators selected are liquid flow rate and total gas pressure drop as specified in Construction Permit No. 1050059-024-AC, Condition No. III.10.

10.3.2 Rationale for Selection of Performance Indicator Ranges

The indicator ranges will be determined during annual compliance testing. The monitoring approach is based on the Facility-wide Condition 14 of the current Title V Permit (Permit No. 1050059-014-AV). An excursion is defined as operation of a daily average pressure drop or liquid flow outside of the indicator range (at less than 90-percent of the rate reported during the most recent satisfactory compliance test). When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported.

The daily average was selected because it is consistent with Facility-wide Condition No. 14 of the current Title V Permit (Permit No. 1050059-014-AV).

11.0 PARTICULATE EMISSIONS FROM MAP PLANT COOLER

11.1 Background

11.1.1 Emissions Unit

Description:	MAP Plant Cooler
Emission Unit ID:	055

11.1.2 Applicable Regulations, Emission Limits, and Monitoring Requirements

Regulations:	Permit No. 1050059-014-AV
Emissions Limits:	
Particulate Matter:	0.02 gr/dscf [BACT dated July 9, 1980; Permit No. AC53-31215]
Opacity:	5%, 6-minute average basis [BACT dated July 9, 1980; Permit No. AC53-31215]
Monitoring Requirements:	Currently required to monitor the pressure drop across the bag collector and record daily.

11.1.3 Control Technology

Emissions from the MAP rotary cooler are vented through a cyclone and then to a bag collector to control PM emissions.

11.2 Monitoring Approach

	Indicator No. 1
Indicator	Pressure drop across bag collector.
Measurement Approach	Pressure drop across the bag collector measured with a differential pressure transducer.
Indicator Range	An excursion is defined as a pressure drop greater than 16 inches water. Excursions trigger an inspection, corrective action, and a reporting requirement.
Data Representativeness	The minimum accuracy of the device is ±5%.
Verification of Operational Status	NA
QA/QC Practices and Criteria	The pressure transducer is calibrated at least annually.
Monitoring Frequency	Pressure drop is monitored continuously.
Data Collection Procedures	Pressure drop is manually recorded daily in a log.
Averaging Period	None.

11.3 Justification

11.3.1 Rationale for Selection of Performance Indicators

In general, bag collectors are designed to operate at a relatively constant pressure drop. Monitoring pressure drop provides a means of detecting a change in operation that could lead to an increase in emissions. An increase in pressure drop can indicate that the cleaning cycle is not frequent enough, cleaning equipment is damaged, the bags are being blinded, or the airflow has increased. A pressure drop across the bag collector also serves to indicate that there is airflow through the control device.

11.3.2 Rationale for Selection of Performance Indicator Values

The indicator maximum chosen for the bag collector daily average pressure drop is a pressure drop greater than 16 in. H_2O. The indicator range was selected by based on operational experience. An excursion triggers an inspection, corrective action, and a reporting requirement.

12.0 PE SIGNATURE

4. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check here [X], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [ ], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

David A. Buff — Signature

9/25/03 — Date

(seal)

* Attach any exception to certification statement.

Department of Environmental Protection

Jeb Bush
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

David B. Struhs
Secretary

FACSIMILE TRANSMISSION SHEET

DATE 6/30/03

TO: Jonathan Holtom

Department DARM

Phone _____ Fax _____

FROM: Jason Waters

DEP Southwest District Office - Air Program
Phone: (813) 744-6100 (SunCom 512-1042) Ext. 105

OPERATOR: JW

SUBJECT: CAM FMC New Wales

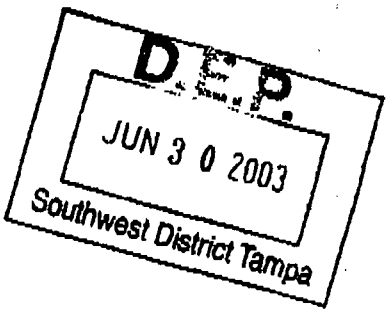
JW

Total Number of Pages, Including Cover Page: 9

DEP SWD AIR PROGRAM FAX NUMBERS: (813) 744-6458
(Suncom) 512-1073

IMC

Certified Mail 7002 0460 0002 8878 5908
Return Receipt Requested



June 25, 2003

Mr. Eric Peterson, P.E.
District Air Permitting Supervisor
Southwest District
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, FL 33619

Re: Response to Request for Additional Information
Monitoring Method Proposal, NESHAP, 40 CFR 63, Subpart AA and BB
Facility ID No. 1050059
Title V Permit Revision Project No. 1050059-038-AV
Initial Title V Permit No. 1050059-014-AV
New Wales Plant

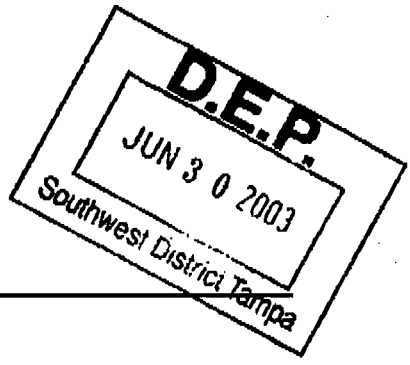
Dear Mr. Peterson:

The Request for Additional Information referenced above was received on May 30, 2003. The questions are repeated below in bold with each response following.

1. **All Emission Units. No pressure drop units were provided in the tables. Reviewing the Title V permit (1050059-014-AV) would indicate that the pressure drop is recorded in inches of water. Please confirm and include the units with the information provided.**

   Response:
   Pressure drop is recorded in inches of water.

2. **DAP Plant No. 2 East Train (EU No. 045). The pressure drop range proposed for the Dryer Venturi Scrubber was 15.0 – 23.8 inches of water (see item 1 of this correspondence). However, a pressure drop of 23.9 was indicated for the 9/24/01 test. Please confirm that the high end of the range requested is 23.8 or 23.9. If the applicant chooses 23.8, please provide a rationale for that choice.**



Response:
The high end of the proposed pressure drop range should have been 23.9 inches of water. Thanks for catching our oversight.

3. **<u>All Emissions Units.</u> Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. Therefore, please have your response and proposed pressure drop range request certified by a professional engineer.**

   Response:
   This response has been certified by a professional engineer registered in the State of Florida. Attachments 1 and 2 from the proposed pressure drop range request being re-submitted under this certification are also enclosed.

Should any additional information be required to process the proposed monitoring method, please contact Phil Steadham (863-428-7106) or Dave Turley (863-428-7153). Thank you.

Sincerely,

M. A. Daigle
Vice President
Concentrates - Florida

MAD:jp
attachments

cc: C. D. Turley
P. A. Steadham

NESHAP Request for add inf 053003

ATTACHMENT 1

IMC Phosphates Company – New Wales Plant – Facility ID No. 1050059
Phosphoric Acid Plant (East) EU ID No. 008

Test Results:

Test Date:	5/11/2000	8/09/2001	4/09/2002	3/18/2003
TPD P_2O_5 input:	1872	1847	1968	1950
Actual F lb/hr:	1.06	0.81	1.14	0.49
Allowable, lb/hr:	1.53	1.53	1.53	1.53
Total GPM:	641	657	676	589
Scrubber Pressure Drop:	0.3	1.7	0.5	10.5

Proposed Pressure Drop Range: 0.2 – 10.5

IMC Phosphates Company – New Wales Plant – Facility ID No. 1050059
Phosphoric Acid Plant (West) EU ID No. 017

Test Results:

Test Date:	5/18/2000	5/24/2001	3/26/2002	3/31/2003
TPD P_2O_5 input:	2056	1942	2062	2068
Actual F lb/hr:	0.89	0.73	0.69	0.39
Allowable, lb/hr:	1.53	1.53	1.71	1.53
Total GPM:	636	701	669	583
Scrubber Pressure Drop:	0.4	2.3	3.9	5

Proposed Pressure Drop Range: 0.2 – 5.0

IMC Phosphates Company – New Wales Plant – Facility ID No. 1050059
Phosphoric Acid Plant No. 3 EU ID No. 039

Test Results:

Test Date:	5/25/2000	5/18/2001	4/17/2002	3/17/2003
TPD P_2O_5 input:	2673	2375	2436	2407
Actual F lb/hr:	0.58	1.42	0.25	0.23
Allowable, lb/hr:	1.79	1.79	1.79	1.79
Total GPM:	683	695	708	597
Scrubber Pressure Drop:	0.3	0.3	0.5	10.5

Proposed Pressure Drop Range: 0.2 – 10.5

ATTACHMENT 2

IMC Phosphates Company – New Wales Plant – Facility ID No. 1050059
DAP Plant No. 2 – East Train EU ID No. 045

Test Results:

Test Date:	1/25/95	1/30/96	3/12/97	2/03/98	5/12/98	2/23/99	8/29/00	9/24/01	10/10/01	10/30/2002	3/26/2003
TPH	139	140	140	137	150	154	168	152	154	139	142
TPH P_2O_5 input:	67.1	68.0	67.8	64.6	71.0	72.0	75.5	72.1	72.7	64.9	67.5
Fuel Type:	No. 6 Oil		Natural Gas	No. 6 Oil	No. 6 Oil	No. 6 Oil	No. 6 Oil	No. 6 Oil	Natural Gas	Natural Gas	Natural Gas
Allowable, mmBtu/hr:	5.4		4	9	6.2	10	20.1	9.9	1.3	1.2	3.3
Actual PM lb/hr:	3.3	1.9	1.3	3.5	2.1	2.1	4.0	2.8	3.3	4.0	3.1
Allowable, lb/hr:	14.1	14.1	14.1	14.1	5.7	5.8	6.0	5.8	5.8	5.2	5.4
Actual F lb/hr:	0.4	0.9	2.6	2.1	1.5	1.5	2.4	0.9	1.2	1.0	1.8
Allowable, lb/hr:	3.5	3.5	3.5	3.5	3.5	3.5	3.2	3.0	3.0	2.7	2.8
Actual SO_2 lb/hr:	0.2			3.3		3.4	8.5	4.5			
Allowable, lb/hr:	22			22		22	22	22			
Actual NOx lb/hr:	5.1		0.8	3.6	1.3	6.2	5.2	2.7	1.7	1.0	0.9
Allowable, lb/hr:	12.6		12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6
R/G Venturi GPM:							1000	1608	1534	1546	1501
R/G Venturi Pressure Drop:	14.0	18.5	16.5	24.0	17.0	18.0	15.7	19.2	17.2	18.8	20.1
Dryer Venturi GPM:							1000	1652	1561	1550	1497
Dryer Venturi Pressure Drop:	14.5	20	19	19.2	21.0	19.5	21.3	23.9	16.3	23.8	21.5
R/G Tailgas GPM:							1500	2000	1894	1936	2236
R/G Tailgas Pressure Drop:	6.2	3.0	3.4	5.4			5.0	5.7	5.1	5.4	6.4
Dryer Tailgas GPM:							1000	1650	1594	1894	1989
Dryer Tailgas Pressure Drop:	6.2	2.0	3.4	2.9			3.8	4.0	4.1	3.5	3.9

Proposed Pressure Drop Range
R/G Venturi: 15.0 – 24.0
Dryer Venturi: 15.0 – 23.8
R/G Tailgas: 3.0 – 6.4
Dryer Tailgas: 2.0 – 6.2

IMC Phosphates Company – New Wales Plant – Facility ID No. 1050059
DAP Plant No. 2 – West Train EU ID No. 046

Test Date:	1/17/95	2/13/96	1/26/98	4/14/98	2/10/99	9/25/00	9/10/01	5/22/02	4/01/03
TPH	153.02	140	140	150	154	157	148	149	141
TPH P_2O_5 input:	74.1	68.2	66.0	71.0	73.0	74.8	70.6	71.6	67.0
Fuel Type:	No. 6 Oil		No. 6 Oil	No. 6 Oil	No. 6 Oil	No. 6 Oil	No. 6 Oil	Natural Gas	Natural Gas
Allowable, mmBtu/hr:	11.52		7.5	13.1	8.15	19.8	9	1.4	1.8
Actual PM lb/hr:	4.1	2.1	8.7	3.1	2.7	5.1	3.7	3.8	2.7
Allowable, lb/hr:	14.1	14.1	14.1	5.7	5.8	6.0	5.7	5.7	5.4
Actual F lb/hr:	1.2	1.2	2.5	2.5	2.6	2.6	1.7	1.8	1.8
Allowable, lb/hr:	3.5	3.5	3.5	3.0	3.0	3.1	2.9	3.0	2.8
Actual SO_2 lb/hr:	18.9		4.99		5.5	14.2	14.0		
Allowable, lb/hr:	22		22		22	22	22		
Actual NOx lb/hr:	3.6		3.9	2.7	3.7	5.8	0.8	0.2	2.6
Allowable, lb/hr:	12.6		12.6	12.6	12.6	12.6	12.6	12.6	12.6
R/G Venturi GPM:						1100	1520	1686	1549
R/G Venturi Pressure Drop:	17.4	18.0	16.7	16.1	17.0	18.6	20.5	21.3	21.3
Dryer Venturi GPM:						1100	1500	1712	1551
Dryer Venturi Pressure Drop:	15.7	19.0	15.5	20.7	15.5	17.1	19.5	21.9	22.1
R/G Tailgas GPM:						2200	1967	2231	2190
R/G Tailgas Pressure Drop:	7.6	3.0	3.1			6.0	5.2	5.2	7.0
Dryer Tailgas GPM:						1200	1700	1791	1992
Dryer Tailgas Pressure Drop:	2.9	3.0	1.9			4	4.1	3.7	4.2

Proposed Pressure Drop Range
R/G Venturi: 15.0 – 21.3
Dryer Venturi: 15.0 – 22.1
R/G Tailgas: 3.0 – 7.6
Dryer Tailgas: 1.9 – 4.2

IMC Phosphates Company – New Wales Plant – Facility ID No. 1050059
GMAP 3 Plant EU ID No. 078

Test Results:

Test Date:	7/13/2001	5/09/2002	5/24/2002	3/05/2003
TPH	95	139	117.5	124
TPH P_2O_5 input:	45.3	74.7	62.3	67.1
Fuel Type:	Natural Gas	No. 6 Oil	Natural Gas	Natural Gas
Allowable, mmBtu/hr:	15.4	9.6	10.2	6.1
Actual PM lb/hr:	5.54	5.24		
Allowable, lb/hr:	6.1	9		
Actual F lb/hr:	0.28	0.64	0.61	0.21
Allowable, lb/hr:	1.7	2	2	2.1
Venturi GPM:	1689	1854	1880	1758
Venturi Pressure Drop:	22.5	21.8	22.8	20.8
Impact Spray GPM:	1421	1568	1585	904
Kimre Face GPM:	1063	1231	1216	1150
Kimre Pressure Drop:	2.6	3.9	3.6	9.8
Equipment Venturi GPM:	378	393	418	436
Equipment Venturi Pressure Drop:	15.4	17.8	17.9	16
Equipment Impact Spray GPM:	238	247	241	236

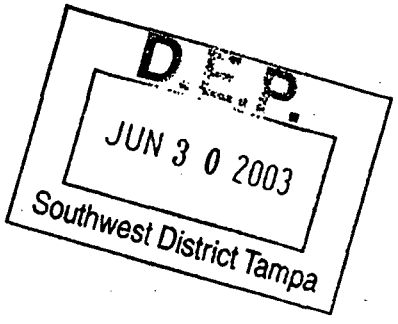
Proposed Pressure Drop Range

Kimre Face: 2.6 – 9.8

Revised April 24, 2003

IMC

Certified Mail 7002 0460 0002 8878 5908
Return Receipt Requested



June 25, 2003

Mr. Eric Peterson, P.E.
District Air Permitting Supervisor
Southwest District
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, FL 33619

Re: Response to Request for Additional Information
Monitoring Method Proposal, NESHAP, 40 CFR 63, Subpart AA and BB
Facility ID No. 1050059
Title V Permit Revision Project No. 1050059-038-AV
Initial Title V Permit No. 1050059-014-AV
New Wales Plant

Dear Mr. Peterson:

The Request for Additional Information referenced above was received on May 30, 2003. The questions are repeated below in bold with each response following.

1. **All Emission Units. No pressure drop units were provided in the tables. Reviewing the Title V permit (1050059-014-AV) would indicate that the pressure drop is recorded in inches of water. Please confirm and include the units with the information provided.**

   Response:
   Pressure drop is recorded in inches of water.

2. **DAP Plant No. 2 East Train (EU No. 045). The pressure drop range proposed for the Dryer Venturi Scrubber was 15.0 – 23.8 inches of water (see item 1 of this correspondence). However, a pressure drop of 23.9 was indicated for the 9/24/01 test. Please confirm that the high end of the range requested is 23.8 or 23.9. If the applicant chooses 23.8, please provide a rationale for that choice.**

Response:
The high end of the proposed pressure drop range should have been 23.9 inches of water. Thanks for catching our oversight.

3. **<u>All Emissions Units.</u> Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. Therefore, please have your response and proposed pressure drop range request certified by a professional engineer.**

   Response:
   This response has been certified by a professional engineer registered in the State of Florida. Attachments 1 and 2 from the proposed pressure drop range request being re-submitted under this certification are also enclosed.

Should any additional information be required to process the proposed monitoring method, please contact Phil Steadham (863-428-7106) or Dave Turley (863-428-7153). Thank you.

Sincerely,

M. A. Daigle
Vice President
Concentrates - Florida

MAD:jp
attachments

cc: C. D. Turley
P. A. Steadham

NESHAP Request for add inf 053003

ATTACHMENT 1

IMC Phosphates Company – New Wales Plant – Facility ID No. 1050059
Phosphoric Acid Plant (East) EU ID No. 008

Test Results:

Test Date:	5/11/2000	8/09/2001	4/09/2002	3/18/2003	
TPD P_2O_5 input:	1872	(1847)	(1968)	1950	
Actual F lb/hr:	1.06	0.81	1.14	0.49	
Allowable, lb/hr:	1.53	1.53	1.53	1.53	±20%
Total GPM:	641	657	(676)	(589)	471 - 70
IN H_2O Scrubber Pressure Drop:	(0.3)	1.7	0.5	(10.5)	8.4 - 12.6

Proposed Pressure Drop Range: (0.2) – 10.5 GPM 589 - 676

0.3

IMC Phosphates Company – New Wales Plant – Facility ID No. 1050059
Phosphoric Acid Plant (West) EU ID No. 017

Test Results:

Test Date:	5/18/2000	5/24/2001	3/26/2002	SPECIAL SAMPLING 3/31/2003	
TPD P_2O_5 input:	2056	(1942)	2062	(2068)	
Actual F lb/hr:	0.89	0.73	0.69	0.39	
Allowable, lb/hr:	1.53	1.53	1.71	1.53	±20%
Total GPM:	636	(701)	669	(583)	467 - 70
Scrubber Pressure Drop:	(0.4)	2.3	3.9	(5.0)	4 - 6

Proposed Pressure Drop Range: (0.2) – 5.0 GPM 583 - 701

0.4

IMC Phosphates Company – New Wales Plant – Facility ID No. 1050059
Phosphoric Acid Plant No. 3 EU ID No. 039

Test Results:

Test Date:	5/25/2000	5/18/2001	4/17/2002	3/17/2003	
TPD P_2O_5 input:	(2673)	(2375)	2436	2407	
Actual F lb/hr:	0.58	1.42	0.25	0.23	± 20%
Allowable, lb/hr:	1.79	1.79	1.79	1.79	
Total GPM:	683	695	(708)	(597)	478 - 716
Scrubber Pressure Drop:	(0.3)	0.3	0.5	(10.5)	8.4 - 12.6

Proposed Pressure Drop Range: (0.2) – 10.5 GPM 597 - 708

0.3

ATTACHMENT 2

IMC Phosphates Company – New Wales Plant – Facility ID No. 1050059
DAP Plant No. 2 – West Train EU ID No. 046

SPECIAL SAMPLING

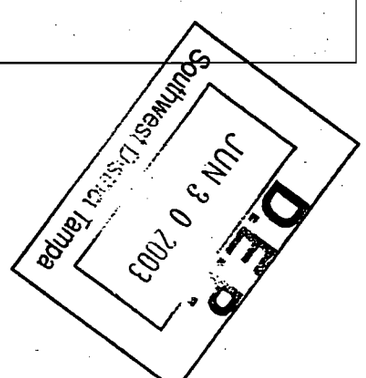
Test Date:	1/17/95	2/13/96	1/26/98	4/14/98	2/10/99	9/25/00	9/10/01	5/22/02	4/01/03
TPH	153.02	140	140	150	154	157	148	149	141
TPH P_2O_5 input:	74.1	68.2	66.0	71.0	73.0	74.8	70.6	71.6	67.0
Fuel Type:	No. 6 Oil		No. 6 Oil	No. 6 Oil	No. 6 Oil	No. 6 Oil	No. 6 Oil	Natural Gas	Natural Gas
Allowable, mmBtu/hr:	11.52		7.5	13.1	8.15	19.8	9	1.4	1.8
Actual PM lb/hr:	4.1	2.1	8.7	3.1	2.7	5.1	3.7	3.8	2.7
Allowable, lb/hr:	14.1	14.1	14.1	5.7	5.8	6.0	5.7	5.7	5.4
Actual F lb/hr:	1.2	1.2	2.5	2.5	2.6	2.6	1.7	1.8	1.8
Allowable, lb/hr:	3.5	3.5	3.5	3.0	3.0	3.1	2.9	3.0	2.8
Actual SO_2 lb/hr:	18.9		4.99		5.5	14.2	14.0		
Allowable, lb/hr:	22		22		22	22	22		
Actual NOx lb/hr:	3.6		3.9	2.7	3.7	5.8	0.8	0.2	2.6
Allowable, lb/hr:	12.6		12.6	12.6	12.6	12.6	12.6	12.6	12.6 ± 20%
R/G Venturi GPM:						~~1100~~	1520	1686	1549 1239-1859
R/G Venturi Pressure Drop:	17.4	18.0	16.7	16.1	17.0	18.6	20.5	21.3	21.3 17.0-25.6
Dryer Venturi GPM:						~~1100~~	1500	1712	1551 1241-1861
Dryer Venturi Pressure Drop:	15.7	19.0	15.5	20.7	15.5	~~17.1~~	19.5	21.9	22.1 17.7-26.5
R/G Tailgas GPM:						2200	1967	2231	2190 1758-2628
R/G Tailgas Pressure Drop:	7.6	3.0	3.1			6.0	5.2	5.2	7.0 5.6-8.4
Dryer Tailgas GPM:						~~1200~~	1700	1791	1992 1594-2390
Dryer Tailgas Pressure Drop:	2.9	3.0	1.9			4	4.1	3.7	4.2 3.4-5.0

ALL TESTS
(16.1) – 21.3
(15.5) – 22.1
3.0 – 7.6
1.9 – 4.2

Proposed Pressure Drop Range 2000-2003

R/G Venturi: (15.0) – 21.3 18.6 – 21.3
Dryer Venturi: (15.0) – 22.1 17.1 – 22.1
R/G Tailgas: 3.0 – 7.6 5.2 – 7.0
Dryer Tailgas: 1.9 – 4.2 3.7 – 4.2

GPM 2000-2003
1100 – 1686
1100 – 1712
1967 – 2231
1200 – 1992



IMC Phosphates Company – New Wales Plant – Facility ID No. 1050059
DAP Plant No. 2 – East Train EU ID No. 045

Test Results:

Test Date:	1/25/95	1/30/96	3/12/97	2/03/98	5/12/98	2/23/99	8/29/00	9/24/01	10/10/01	10/30/2002	SPECIAL SAMPLING 3/26/2003
TPH	139	140	140	137	150	154	168	152	154	139	142
TPH P_2O_5 input:	67.1	68.0	67.8	64.6	71.0	72.0	75.5	72.1	72.7	64.9	67.5
Fuel Type:	No. 6 Oil		Natural Gas	No. 6 Oil	No. 6 Oil	No. 6 Oil	No. 6 Oil	No. 6 Oil	Natural Gas	Natural Gas	Natural Gas
Allowable, mmBtu/hr:	5.4		4	9	6.2	10	20.1	9.9	1.3	1.2	3.3
Actual PM lb/hr:	3.3	1.9	1.3	3.5	2.1	2.1	4.0	2.8	3.3	4.0	3.1
Allowable, lb/hr:	14.1	14.1	14.1	14.1	5.7	5.8	6.0	5.8	5.8	5.2	5.4
Actual F lb/hr:	0.4	0.9	2.6	2.1	1.5	1.5	2.4	0.9	1.2	1.0	1.8
Allowable, lb/hr:	3.5	3.5	3.5	3.5	3.5	3.5	3.2	3.0	3.0	2.7	2.8
Actual SO_2 lb/hr:	0.2			3.3		3.4	8.5	4.5			
Allowable, lb/hr:	22			22		22	22	22			
Actual NOx lb/hr:	5.1		0.8	3.6	1.3	6.2	5.2	2.7	1.7	1.0	0.9
Allowable, lb/hr:	12.6		12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6 ± 20%
R/G Venturi GPM:							1000	1608	1534	1546	1501 1200-1800
R/G Venturi Pressure Drop:	14.0	18.5	16.5	24.0	17.0	18.0	13.7	19.2	17.2	18.8	20.1 16.1-24.0
Dryer Venturi GPM:							1000	1652	1561	1550	1497 1198-1797
Dryer Venturi Pressure Drop:	14.5	20	19	19.2	21.0	19.5	21.3	23.9	16.3	23.8	21.5 17.2-25.8
R/G Tailgas GPM:							1500	2000	1894	1936	2236 1789-2683
R/G Tailgas Pressure Drop:	6.2	3.0	3.4	5.4			5.0	5.7	5.1	5.4	6.4 5.1-7.7
Dryer Tailgas GPM:							1000	1650	1594	1894	1989 1591-2387
Dryer Tailgas Pressure Drop:	6.2	2.0	3.4	2.9			3.8	4.0	4.1	3.5	3.9 3.1-4.7

17%

ALL TESTS	*Proposed Pressure Drop Range 2000-2003*	GPM 2000-2003
14.0-24.0	*R/G Venturi:* 15.0 – 24.0	1000-1608
14.5-23.9	*Dryer Venturi:* 15.0 – 23.8	1000-1652
3.0-6.4	*R/G Tailgas:* 3.0 – 6.4	1500-2236
2.0-6.2	*Dryer Tailgas:* 2.0 – 6.2	1000-1989

IMC Phosphates Company – New Wales Plant – Facility ID No. 1050059
GMAP 3 Plant EU ID No. 078

Test Results:

Test Date:	7/13/2001	5/09/2002	5/24/2002	3/05/2003 (5 PERIOD SAMPLING)
TPH	95	139	117.5	124
TPH P_2O_5 input:	45.3	74.7	62.3	67.1
Fuel Type:	Natural Gas	No. 6 Oil	Natural Gas	Natural Gas
Allowable, mmBtu/hr:	15.4	9.6	10.2	6.1
Actual PM lb/hr:	5.54	5.24		
Allowable, lb/hr:	6.1	9		
Actual F lb/hr:	0.28	0.64	0.61	0.21 ± 20%
Allowable, lb/hr:	1.7	2	2	2.1
Venturi GPM: 1689-1854	1689	1854	1880	1758 1406-211
Venturi Pressure Drop: 20.8-22.8	22.5	21.8	22.8	20.8 16.6-25.
Impact Spray GPM: 904-1585	1421	1568	1585	904 723-108
Kimre Face GPM: 1063-1231	1063	1231	1216	1150 920-138
Kimre Pressure Drop: 2.6-9.8	2.6	3.9	3.6	9.8 7.8-11.8
Equipment Venturi GPM: 378-436	378	393	418	436 349-52
Equipment Venturi Pressure Drop: 15.4-17.9	15.4	17.8	17.9	16 12.8-19.
Equipment Impact Spray GPM: 236-247	238	247	241	236 189-283

Proposed Pressure Drop Range

Kimre Face: 2.6 – 9.8

Revised April 24, 2003

ATTACHMENT 3

Certification by Professional Engineer

Based on my review of the above information submitted, I certify, to the best of my knowledge, that there is reasonable assurance the air pollutant emission unit and the air pollution control equipment described herein, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in Florida statutes and rules of the Department. Furthermore, I certify that, to the best of my knowledge, the emission estimates and cost estimates reported or relied upon in these documents are true, accurate and complete and are based on reasonable techniques available for calculating emissions.

Charles D. Turley

C. D. Turley, P.E.
No. 0023344

6/25/03
Date