

IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF LOUISIANA

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UNITED STATES OF AMERICA		)	
And		)	No. 2:15-cv-4889
LOUISIANA DEPARTMENT OF		)	
ENVIRONMENTAL QUALITY		)	
		)	
	Plaintiffs,	)	
	v.	)	
		)	CIVIL COMPLAINT
		)	
MOSAIC FERTILIZER, LLC,		)	
		)	
	Defendant.	)	
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The United States of America, by authority of the Attorney General of the United States and through the undersigned attorneys acting at the request of the Administrator of the United States Environmental Protection Agency (EPA), together with the Louisiana Department of Environmental Quality (LDEQ), by the authority of the Attorney General of the State of Louisiana and through the undersigned attorneys acting at the request of the Secretary of the LDEQ, file this Complaint and allege as follows:

**NATURE OF THIS ACTION**

1. This is a civil action brought pursuant to Section 3008(a) and (g) of the Resource Conservation and Recovery Act (RCRA), 42 United States Code (U.S.C.) § 6928(a) and (g), and pursuant to the Louisiana Environmental Quality Act (EQA), La.R.S.30:2025, La R.S.30:2050.7 and the Louisiana Administrative Code, LAC 33:V.107 against Mosaic Fertilizer, LLC, (Mosaic or Defendant). The United States and LDEQ (Plaintiffs) seek

injunctive relief and the assessment of civil penalties for environmental violations at Mosaic's Uncle Sam and Faustina Plants that are located in Louisiana, (respectively the "Uncle Sam Facility" or the "Faustina Facility" and collectively "the Facilities").

2. As set forth below, and as is set forth in Plaintiffs' RCRA inspection reports or RCRA notices of violation, Defendant has violated the statutory and regulatory requirements applicable to the management and disposal of solid and/or hazardous waste, found at Title 33 of the Louisiana Administrative Code (LAC) Part V, Chapters 1 through 51, (the corresponding federal citations are Sections 3004 and 3005 of RCRA, 42 U.S.C. §§ 6924, 6925, and the regulations promulgated thereunder, including 40 C.F.R. Parts 261, 262, 264, 265, 268 and 270).

### **PARTIES**

3. Plaintiffs are the United States of America and Louisiana Department of Environmental Quality.

4. Defendant Mosaic is incorporated in the State of Delaware, and is licensed to do business in Louisiana.

5. Mosaic is, and at all times relevant to this lawsuit has been, the owner and operator of the Uncle Sam Facility and the Faustina Facility.

### **JURISDICTION AND VENUE**

6. This Court has jurisdiction over the parties and the subject matter of this action pursuant to RCRA Section 3008(a), 42 U.S.C. § 6928(a), and 28 U.S.C.

§§ 1331 (federal question jurisdiction), 1332 (diversity), 1345 (jurisdiction when the United States is a plaintiff), 1355 (jurisdiction over penalties arising under federal claims), and 1367 (supplemental jurisdiction).

7. Venue is proper in this judicial district pursuant to 28 U.S.C. §§ 1391(b) and 1395(a), and RCRA Section 3008(a)(1), 42 U.S.C. § 6928(a)(1), because Defendant is located and is doing business in this District and the violations occurred in this District.

8. Authority to bring this civil action is vested in the Attorney General of the United States and the Administrator of EPA pursuant to Section 3008(a) of RCRA, 42 U.S.C. § 6928(a), and 28 U.S.C. §§ 516 and 519.

9. Authority to bring this civil action is vested in LDEQ pursuant to La.R.S.30:2025, La.R.S.30:2025.7 and LAC 33:V.107.

10. The United States has provided notice to the State of Louisiana prior to the commencement of this action in accordance with RCRA Section 3008(a)(2), 42 U.S.C. § 6928(a)(2).

#### **STATUTORY AND REGULATORY BACKGROUND**

11. Federal regulation of hazardous waste is primarily based on RCRA, enacted on October 21, 1976 to amend the Solid Waste Disposal Act, and on the Hazardous and Solid Waste Amendments (“HSWA”) enacted by Congress in 1984 to further amend the Solid Waste Disposal Act. RCRA establishes a “cradle-to-grave” program to be administered by the Administrator of EPA and authorized states for regulating the generation, transportation, treatment, storage, and disposal of hazardous waste. See 42 U.S.C. § 6901 *et seq.*

12. RCRA’s Subchapter III (RCRA §§ 3001-3023, 42 U.S.C. §§ 6921-6940, known as “Subtitle C”) required EPA to promulgate regulations establishing performance standards applicable to facilities that generate, transport, treat, store, or dispose of

hazardous wastes. Together, RCRA Subtitle C and its implementing regulations, set forth at 40 C.F.R. Parts 260 – 279, comprise EPA’s RCRA hazardous waste program.

13. RCRA Section 3006, 42 U.S.C. § 6926, allows the Administrator to authorize a state to administer its own hazardous waste program in lieu of the federal program when the Administrator deems the state program to be equivalent to and consistent with the federal program.

14. Pursuant to Section 3006(b) of RCRA, 42 U.S.C. § 6926(b), the state of Louisiana was granted final authorization by EPA to administer and enforce a hazardous waste program on February 7, 1985 (50 Fed. Reg. 3348), LDEQ was authorized to implement a corrective action program under the Hazardous and Solid Waste Amendments of 1984 (HSWA) and there has been subsequent authorized revisions to said base program. LDEQ is the State Agency designated to implement the authorized RCRA program in Louisiana.

15. Pursuant to its authority under Subtitle C of RCRA, 42 U.S.C. § 6922(a), EPA has promulgated regulations applicable to solid and hazardous waste generators at 40 C.F.R. Parts 261 and 262; to owner/operators of hazardous waste facilities at 40 C.F.R. Parts 264 and 265; and to land disposal of solid and hazardous waste at 40 C.F.R. Part 268. LDEQ, like EPA, has promulgated regulations applicable to these persons and practices, which are found at Title 33 of the Louisiana Administrative Code (LAC) Part V, Chapters 1 through 51. Unless specified otherwise, LDEQ has incorporated by reference all federal regulations cited in this Complaint.

16. Although EPA has granted the State authority to enforce its own hazardous waste program, EPA retains jurisdiction and authority to initiate an independent enforcement action, pursuant to Section 3008(a)(2) of RCRA, 42 U.S.C. § 6928(a)(2).

17. As the authorized provisions of the Louisiana's hazardous waste program operate in lieu of the federal RCRA program, the citations for the violations of those authorized provisions alleged herein will be the authorized Louisiana program; however, for ease of reference, the federal citations will follow in parentheses.

18. LAC 33: V. 109, (40 C.F.R. § 261.2), define a "solid waste" as any discarded material that is not otherwise excluded under LAC 33:V.105.D, (40 C.F.R. § 261.4(a)), or that is not excluded by variance. A discarded material is any material which is abandoned, recycled, inherently waste-like, or a military munitions. Materials are solid waste, as defined in LAC 33:V.109, (40 C.F.R. § 261.2), if they are abandoned by being disposed of, burned or incinerated, or accumulated, stored, or treated (but not recycled) before, or in lieu of, being abandoned by being disposed of, burned, or incinerated.

19. A solid waste is a hazardous waste if it is not excluded from regulation as a hazardous waste under LAC 33:V.109, (40 C.F.R. § 261.4(b)), and it exhibits any of the characteristics of hazardous waste identified in LAC 33:V.109, (40 C.F.R. Part 261, Subpart C) ,or it is listed in LAC 33:V.109, (C.F.R. Part 261, Subpart D).

20. Characteristic hazardous wastes are assigned "D" codes in LAC 33:V. 4903, (40 C.F.R. Part 261, Subpart C) depending on the specific hazardous characteristic that the waste exhibits. A hazardous waste with a pH of less than or equal to 2.0 or greater than or equal to 12.5 exhibits the characteristic of corrosivity and is assigned the D002 hazardous waste code pursuant to LAC 33:V.4903.C., (40 C.F.R. § 261.22).

21. Certain solid wastes from the extraction, beneficiation, and processing of ores and minerals to generate a saleable product are excluded from the definition of hazardous wastes pursuant to LAC 33:V.105.D.2(h), (40 C.F.R. § 261.4(b)(7)) (the “Bevill Exclusion”).

22. “Materials that are saleable, either as raw materials to other types of industrial processes (e.g. chemical manufacturing such as monoammonium phosphate/diammonium phosphate (“MAP”/”DAP”, respectively)) or as finished products, are considered final products.” [54 Fed. Reg. 36,620, September 1, 1989].

23. While the first saleable product for the phosphoric acid industry is typically clarified 52% to 54% merchant grade acid (“MGA”), EPA made it clear during the 1990 rule-making that the Bevill Exclusion can end before MGA is produced if intermediate mineral products are used as feedstocks to other industrial processes, such as MAP and DAP production [*Id.*]

24. For a mineral processing waste to be excluded under the Bevill Exclusion, it must fall into one of the twenty specific categories of excluded wastes listed at LAC 33:V.105.D.2(h)(ii), (40 C.F.R. § 261.4(b)(7)(ii)).

25. The Bevill Exclusion applies to two and only two wastes generated from phosphoric acid mineral processing operations: “(p)hosphogypsum from phosphoric acid production,” LAC 33:V.105.D.2(h)(ii)(d), (40 C.F.R. § 261.4(b)(7)(ii)(D)), and “process wastewater from phosphoric acid production” operations through concentration to merchant grade acid (MGA), (mineral processing). 40 LAC 33:V.105.D.2(h)(ii)(p),(40 C.F.R. § 261.4(b)(7)(ii)(P)).

26. Chemical manufacturing wastes, cleaning wastes, scrubber wastes, and wastes generated after the first saleable product are not “process wastewater from phosphoric acid production” and do not qualify for the Bevill Exclusion.

27. When Bevill-exempt phosphogypsum and process wastewater from phosphoric acid production are mixed with hazardous non-exempt wastes, if the resulting mixture continues to exhibit a hazardous characteristic of the non-exempt waste, then the entire mixture is a hazardous waste pursuant to the Bevill Mixture Rule, promulgated at LAC 33:V.109, (40 C.F.R. § 261.3(a)(2)(i)).

28. In addition, if a Bevill-excluded waste is mixed with a listed hazardous waste, the resultant mixture is a listed hazardous waste pursuant to LAC 33:V.109, (40 C.F.R. § 261.3(a)(2)(i)).

29. LAC 33: V. Chapters 15 and 43, (C.F.R. Parts 264 and/or 265) applies to owners and operators of facilities that treat, store and/or dispose of hazardous waste.

30. EPA’s and LDEQ’s regulations (as relevant to this lawsuit) require that generators of solid waste and hazardous waste must, among other things:

- a. Determine whether generated solid wastes are hazardous, LAC 33: V.1103, (40 C.F.R. § 262.11);
- b. Keep records of hazardous waste determinations, LAC 33:V.1111.A.3, (40 C.F.R. § 262.40(c));
- c. Treat, store, and dispose of hazardous waste in compliance with a permit and other applicable regulatory requirements, or, if they qualify for interim status, with interim status requirements, including obtaining financial

assurance where applicable, LAC 33:V.Chapter 3, (Section 3005(a) of RCRA, 42 U.S.C. § 6925(a), 40 C.F.R. § 270), and;

- d. Meet certain requirements for waste treatment prior to placement or disposal of hazardous waste on the land, LAC 33:V. 2223, (40 C.F.R. Part 268).

31. Pursuant to Sections 3008(a) and (g) and 3006(g) of RCRA, 42 U.S.C. §§ 6928(a) and (g) and 6926(g), the United States may enforce the federally-approved Louisiana hazardous waste program, as well as the federal regulations that remain effective in Louisiana, by filing a civil action in United States District Court seeking civil penalties not to exceed \$25,000 per day per violation; (prior to January 30, 1997) and injunctive relief.

32. Pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2471, as amended by 31 U.S.C. § 3701, and as provided in 40 C.F.R. Part 19, the amount specified in the foregoing Paragraph increases to \$27,500 per day for each violation occurring on and after January 31, 1997, further increases to \$32,500 per day for each violation occurring on or after March 15, 2004 and further increases to \$37,500 per day for each violation occurring after January 12, 2009. Each day of such violation constitutes a separate violation pursuant to Section 3008(g) of RCRA, 42 U.S.C. § 6928(g).

33. Pursuant to La.R.S.30:2025(E)(1)(a), LDEQ is authorized to enforce its hazardous waste regulations and to seek judicial imposition of penalties of up to \$32,500 per day for each violation.



**THE UNCLE SAM FACILITY AND PROCESS DESCRIPTION**

34. The Uncle Sam Facility has been in operation at the current approximate 3,300-acre site since 1967. The Uncle Sam Facility was originally owned by Freeport Chemical Company, then IMC Global from 1993 – 2004, and Mosaic Fertilizer since October 22, 2004.

35. Originally, the plant produced only phosphoric acid and sulfuric acid. Swift towers were added later to recover Hydrofluosilicic Acid (also known as Fluosilicic Acid or “FSA”) and in 1988 Ethyl Corporation put in a facility to convert some FSA into silicon tetrafluoride. The Uncle Sam Facility is located in Uncle Sam, Louisiana.

36. At all times relevant to this Complaint, the Uncle Sam Facility manufactured sulfuric acid, phosphoric acid, and FSA as fully described in Paragraphs 38 through 48.

37. Operations at Uncle Sam fall into several categories, only some of which are mineral processing.

**Sulfuric Acid Production**

38. At Uncle Sam, three plants (designated A, D & E) are used to supply 7,400 tons per day of sulfuric acid and to generate the steam necessary to produce concentrated phosphoric acid. Sulfuric acid is used to dissolve, or digest phosphate-containing ore and produce weak phosphoric acid. To produce sulfuric acid, sulfur is combusted in the presence of dry air. The heat produced by the combustion process is removed and used to evaporate water from weak phosphoric acid in order to make concentrated phosphoric acid.

39. Sulfuric acid is also used to clean production and storage equipment, mainly pipes and tanks.

40. Sulfuric acid which is used as a cleaning agent is not a mineral processing activity and is not subject to the Bevill Exclusion.

#### Phosphoric Acid Production

41. Two parallel, conventional Prayon wet process systems (trains) produce the phosphoric acid at Uncle Sam. Crushed phosphate-containing rock is mixed with sulfuric acid in the attack tanks. Each attack tank consists of multiple compartments for staging and retention time for growing highly filterable gypsum (calcium sulfate) crystals. Heat produced in the reaction is removed by flash coolers.

42. The slurry produced in the attack tanks is filtered using large Prayon rotating, tilting pan filters. The cake from the filters is slurried with water and pumped to the phosphogypsum stacking system. The filtrate is sent to two 30% phosphoric acid storage tanks. The acid is concentrated using a four-stage evaporation process and a clarification system. Solids from the clarifiers are returned to the attack tanks. The final product of 54% phosphoric acid is sent to the barge loading tank until loaded on barges for shipment to Mosaic-Faustina, where it is used in the production of fertilizer.

43. Uncle Sam produces 2,800 tons of phosphoric acid per day.

44. Production processes leading to the manufacture of 54% phosphoric acid are mineral processing and are subject to the Bevill Exclusion.

45. Contaminants are accumulated in the water used throughout production of 54% phosphoric acid, resulting in aqueous wastes referred to as “process wastewater.” Prior to reuse in the various processes, the process wastewater must be cooled and

contaminants must be removed. A majority of the contaminants precipitate (settle) from the water as it cools in the phosphogypsum stack system. Approximately 1.5 billion gallons of process wastewater is stored in, and re-circulates throughout the Uncle Sam Facility process water system. Approximately 5,200 gallons per minute (gpm) of process wastewater is sent from the phosphoric acid production plant to the phosphogypsum stack system for cooling and contaminant settling.

#### Fluorine Recovery & Production of FSA

46. The phosphoric acid evaporation system contains Swift Towers. These units scrub fluorine from the off-gases and subsequently produce FSA. The FSA is stored in tanks until sold to water fluoridation facilities.

47. FSA must meet certain product specifications and quality targets. When FSA does not meet quality targets, Defendant routes the off-specification FSA along with process wastewater from phosphoric acid production to the phosphogypsum stack system.

48. FSA production is not a mineral processing activity and is not subject to the Beville Exclusion.

#### Air Pollution Control Devices (APCDs) & Wastes

49. Air particulates emitted from the phosphoric acid production process are captured (“scrubbed”) from the reactors, filters, and other production equipment (*e.g.*, clarifiers and storage tanks) using air pollution control devices commonly referred to as “scrubbers.”

50. APCDs within the phosphoric acid production plant use once-through river water (from the Mississippi River) or re-circulating process wastewater to scrub vapors from

specific units. Once-through river water is discharged back into the Mississippi River under Louisiana Pollutant Discharge Elimination System (LPDES) Permit. Re-circulating process wastewater is returned to the gyp stacks.

51. The operation of air pollution control devices is not part of mineral processing, and the wastewater from such scrubbers is not subject to the Bevill Exclusion.

#### Pipe & Tank Cleaning

52. Mosaic cleans its pipes, tanks, evaporators, and other process equipment throughout the entire Uncle Sam Facility on a regular basis, using a mixture of sulfuric acid and water or process wastewater as the cleaning agent. After use, the spent cleaning agent is discharged to the phosphogypsum stack system. Cleaning wastes are generated during normal plant operations and during scheduled maintenance periods.

53. Pipe and tank cleaning operations are not part of mineral processing, and the wastewaters from such cleaning operations are not subject to the Bevill Exclusion.

#### Spills & Leaks of Phosphoric Acid

54. At its Uncle Sam Facility, Mosaic pumps commingled spills and leaks of phosphoric acid and process wastewater from the production areas via ditches to the phosphogypsum stack system.

55. Spills and leaks of phosphoric acid are not part of mineral processing, and are therefore not subject to the Bevill Exclusion.

#### Phosphogypsum Stacking System (gyp stacks)

56. The byproduct of phosphoric acid production is calcium sulfate – gypsum. Mosaic produces 5.5 tons of phosphogypsum for every ton of product (phosphoric acid) produced. The gypsum is stored in a 1275-acre system located east of the facility and is

operated under Louisiana Solid Waste Permit GD-093-0889/P-103, issued in February 2006 by LDEQ.

57. The Solid Waste Permit allows Mosaic to dispose non-hazardous industrial solid wastes and wastes from phosphoric acid production on the active gyp stack. These wastes include non-recoverable sulfur (sulfur from the loading plant), visqueen (plastic sheeting), wood, rubber, paper, sludge, scale, empty drums or drums full of scale or sludge, non-asbestos insulation, piping, bricks, plastic, contaminated soil from various areas of the facility, process scale from the power plant (utilities process area), plastic hoses from the ball mill area, scrap metal, concrete and asphalt, contaminated scaffolding and boards from the “acid area”, demolition debris, sludges from the facility’s wastewater flume, “30% clarifier” from the power plant, “residue caustic solution” from the sulfuric acid plant, “acid-contaminated pipe” from the 03 area, sulfuric acid plant absorber tower pads, charcoal from the wastewater treatment plant, and filter cloth from the Prayon Filter floor. During the period 2003-2004, Mosaic disposed of 496 tons of industrial wastes on the phosphogypsum stacking system at its Uncle Sam Facility.

58. The phosphogypsum stacks do not have engineered liners or leachate collection systems and sit directly upon natural levee deposits of the Mississippi River alluvial plain. The levee deposits are composed of low permeability silty clay interspersed with zones of more permeable discontinuous silt.

59. A soil bentonite cut-off wall has been construed along the south side of covered stacks 1-3 to prevent lateral migration of leachate water into an adjacent surface water drainage system.

60. Defendant also operates a solid waste management unit known as the 04 Basin. The 04 Basin is an unlined surface impoundment and is an integral component of phosphogypsum and process wastewater management system. The 04 Basin is interconnected with the Phosphogypsum Storage Stacks and the plant processes through a series of conveyances, trenches, ditches, and pumping stations – recirculating ditch system.

61. The Uncle Sam Facility has a solid waste permit, an air permit, and surface water permit. These permits are issued by the Louisiana Department of Environmental Quality (LDEQ). The Uncle Sam Facility also maintains a nuclear license issued by LDEQ.

62. The only solid waste permitted unit at the Uncle Sam Facility is the phosphogypsum management area covered under Permit Number P-0103R 1.

63. The Uncle Sam Facility has one NPDES water discharge permit, Permit Number LA0004847. The NPDES permits are renewed on 5-year intervals. Mosaic submitted a renewal application to LDEQ on May 5, 2008. The phosphogypsum management area at the Uncle Sam Facility consists of the following elements, all of which are covered under Solid Waste Permit Number P-0103R1:

- a. Gypsum Management Area- includes Stacks (originally Ponds) Nos.1-4;
- b. Inactive Water Reservoir (110 Acre Reservoir);
- c. Active Water Reservoir (30 Acre Reservoir);
- d. Active Water Return Ditch System;
- e. 04 Basin; and
- f. Phosphoric Acid Process Area Ditch System Drainage Shed.

64. The original phosphogypsum management area at the Uncle Sam Facility, Pond No. 1, (Stack 1) was activated in 1975. When the initial stack reached its design height, progressive lateral expansions were subsequently implemented, i.e., Pond No.2 (Stack 2)

followed by Pond No.3 (Stack3). The base area covered by Pond Nos. 1 through 3 (Stacks 1-3) is approximately 770 acres. These ponds were temporarily deactivated in early 1994. The side slopes and top areas were graded and covered with a low permeability clayey soil and grassed to minimize erosion and enhance the aesthetics of the closure.

65. Pond No. 4 (Stack 4) was constructed as a northward lateral expansion of Ponds 1 through 3 (Stacks 1-3) and encompasses a base area of approximately 310 acres. Pond No. 4 (Stack 4) was activated for phosphogypsum management in May 1993 and remains active to-date.

66. Phosphogypsum produced as a by-product in the phosphoric acid plant is slurried with active water obtained from the 04 Basin into vessels called "gypsum tanks". Pumps then transfer the gypsum slurry to the phosphogypsum management area through either PVC/polyethylene or rubber-lined steel pipelines. Solids from the slurry settle onto the stack and slurry water either decants directly or drains through the underdrain system into the water surge area. Temporary levee work is constructed at various locations along the stack to assure that the solids settle uniformly and in the proper areas.

67. Solid Waste Permit P-0103R1 includes a stacking plan that will ultimately form a single stack covering the entire phosphogypsum management area (i.e., Ponds No. 1, 2, 3, and 4) to a maximum permitted height of 300 feet.

68. Phosphogypsum is pumped from the phosphoric acid plant to the phosphogypsum management area through slurry pipelines. At the phosphogypsum management area, the slurry is pumped into the current working area of the phosphogypsum stack (Pond No.4) where the water decants as the solids settle out. The decanted water is pumped into

ditches located around the perimeter of the phosphogypsum management area. The water then flows by gravity to the "cooling pond", an enlarged area of the return flow ditch located on the western side of Pond No.4. From the cooling pond, the water is routed through the remainder of the return ditch to the process area for reuse in the phosphoric acid plant.

69. The area where the return flow ditch terminates within the plant site is termed the "04 Basin". The term 04 refers to the area of the Uncle Sam Plant where the phosphoric acid plant is located. The 04 Basin is the end of the return ditch used to transport water returning from the phosphogypsum management area. Water is pumped from the "04 Basin" back to various locations within the phosphoric acid plant for use in the plant processes.

70. In addition to the water returning from the phosphogypsum management area, the "04 Basin" receives run-off water routed through earthen ditches from the phosphoric acid plant and adjacent phosphoric acid and FSA storage tank areas, and scrubber underflow from the FSA storage tanks. Solids that may accumulate in the "04" Basin" are removed using a backhoe. The material is transported by dump truck and deposited in the active phosphogypsum stack.

71. An impoundment referred to as the "" Inactive Water Reservoir (110 Acre Reservoir) is located on the eastern side of covered Ponds (Stacks) No. 1 through 3. This reservoir was originally used as a surge pond for process water from Ponds No 1 through 3. This reservoir was never closed under the Solid Waste Permit. It is currently used to manage leachate generated from Stacks 1 through 4 via a designated seepage collection drain system, and also rainwater runoff from the covered ponds. The Inactive Water



Reservoir is also designed to serve as an Emergency Diversion Impoundment when process water from the North Seepage Collection Ditch overflows the Partition Dam and flows, via the East Seepage Collection Ditch, into the reservoir. The water is discharged via internal NPDES Outfall 004, ultimately discharging to the Mississippi River via external Outfall 001.

72. Surface drainage within the process areas of the Uncle Sam Plant is designed to flow into a system of in-plant ditches. Water collected in the ditches is routed to the facility's NPDES discharge system. The NPDES discharge system has four external discharge points and several internal monitoring points.

73. The NPDES discharge system has four external discharge points (Outfalls 001, 105, 205 and 305) and several internal monitoring points (i.e., outfalls). The following descriptions are taken from NPDES Permit Number LA0004847:

- a. Outfall 001 - Final, combined NPDES wastewater that is collected and conveyed in the concrete-lined Flume for discharge to the Mississippi River. All internal outfalls at the Uncle Sam Plant pass through Final Outfall 001;
- b. Outfalls 105, 205 and 305 - Final stormwater outfalls from open areas, equipment and material storage areas, employee parking lots, and railcar activity areas to Bayou des Acadiens (Outfall 105) and LA Hwy 3125 right-of-way (Outfalls 205 and 305);
- c. Outfall 002 - Internal outfall consisting of combined wastewater from Internal Outfalls 102, 202, 302, 402 and 502;
- d. Outfalls 102, 202 and 302 - Internal outfall for once through non-contact cooling water from A-Train, D-Train and E-Train and power plant utility wastewater;

- e. Outfall 402 - Internal outfall for clarifier underflow from utilities area;
  - f. Outfall 502 - Internal outfall for treated sanitary sewage;
  - g. Outfall 003 - Internal outfall consisting of double lime treated excess storm water runoff from the active calcium sulfate pile, and contaminated phosphate fertilizer area non-process wastewater;
  - h. Outfall 004 - Internal outfall consisting of stormwater runoff from the inactive calcium sulfate pile;
  - i. Outfall 101 and 201 - Internal outfall for combined once-through barometric cooling water, fume scrubber water and utility wastewater; and
  - j. Outfall 301 - Internal outfall for phosphate fertilizer area non-process wastewater and process area stormwater.
74. A comprehensive Solid Waste groundwater monitoring network is maintained at the Uncle Sam Plant. The groundwater monitoring network currently consists of 55 monitoring wells screened across the two water-bearing zones discussed above. Of these 55 wells, 28 are screened in the Shallow Zone and the other 27 are screened in the Deep Zone. Four monitoring wells are designated as upgradient (background) monitoring wells. The remaining 53 monitoring wells are located in the area of the phosphogypsum management area.
75. All Solid Waste wells are sampled on a semiannual basis. Following each semiannual monitoring event, a report is prepared for submittal to LDEQ in accordance with the facility's Solid Waste permit.
76. In accordance with LDEQ Solid Waste regulations, any newly installed monitoring well is sampled on a quarterly basis during the first year in order to reflect

any seasonal variations in groundwater quality. Thereafter, such wells are sampled on a semiannual basis consistent with the remainder of the monitoring wells at the Uncle Sam Plant. There are three additional monitoring wells located in the sulfuric acid plant. These wells, GW-1, GW-2 and GW-3, were installed in the early 1990's as part of a groundwater assessment program. The wells are not part of the Solid Waste monitoring network, but are sampled on a quarterly basis. The monitoring results from these wells are provided to LDEQ.

### **THE FAUSTINA FACILITY AND PROCESS DESCRIPTION**

77. Respondent's Facility is approximately 2850 acres and is located on Louisiana Highway 18 in St. James, Louisiana. The Facility was owned by Gulf Oil Corporation from 1967 – 1972, the Williams Company from 1972-1986, Freeport McMoran Corporation from 1986-1993, IMC Global from 1993-2004, and Mosaic Fertilizer since October 22, 2004.

78. Facility operations currently include the production of anhydrous ammonia and diammonium phosphate (DAP) and monoammonium phosphate (MAP) granulated fertilizers. Although sulfuric acid and phosphoric acid were produced at the Faustina Facility in past years, production has been suspended since 1999 and Mosaic decided in mid-year 2005 to permanently idle these units. Additional operations include a Phosphogypsum Stack System (PGSS), raw material storage and handling, wastewater storage and handling, and product shipping.

79. The primary operations at the Faustina Facility are the production of anhydrous ammonia and granulated DAP and MAP fertilizers.

80 According to Defendant, the Granular MAP and DAP production units utilize a MAP/DAP Pond for storage of process water, rain water, and wash water from various in-plant operations.

81. According to Defendant, since the shut-down of the phosphoric acid plant in 1999, no new phosphogypsum has been placed in the phosphogypsum stacks at the facility. However, the PGSS remains in service for the active management of process water.

82. On or about October 26, 2004, Defendant submitted a revised Notification of Hazardous Waste Activity as required by Section 3010(a) of RCRA, 42 U.S.C 6930(a) that stated it:

a. Is a small quantity generator of 100 to 1,000 kg/mo (220 to 2,200 lbs/mo) of non-acute hazardous waste; and

b. May generate the following RCRA hazardous waste:

- i. ignitable (D001);
- ii. corrosive (D002);
- iii. reactive (D003);
- iv. cadmium (D006);
- v. mercury (D009);
- vi. benzene (D018);
- vii. chlorobenzene (D021);
- viii. 1,4-dichlorobenzene (D027);
- ix. methyl ethyl ketone (D035);
- x. tetrachloroethylene (D039);
- xi. trichloroethylene (D040);
- xii. spent non-halogenated solvents listed in 40 CFR 261.31 (F003);  
and
- xiii. spent non-halogenated solvents listed in 40 CFR 261.31 (F005).

83. Chemical manufacturing wastes, cleaning wastes, and scrubber wastes from current MAP/DAP and ammonia operations are not “process wastewater from phosphoric acid production” and do not qualify for the Bevill Exclusion.

84. According to Defendant, the cooling pond is being used to route process water from Pond 11 to the double lime treatment system and to store lime solids/sludge from the double lime treatment process.

85. The cooling pond is unlined and is subject to the requirements of LAC 33:V. Chapter 29, (40 C.F.R. Parts 264 and 265, Subpart Ks) (Surface Impoundments).

86. Defendant's Faustina Facility has one PGSS, which is authorized under Louisiana Solid Waste Permit issued in December 1985.

87. Stacks 1 through 9, which encompass approximately 500 acres, have been covered with clay soil and grassed. Pond 10, which encompasses approximately 100 acres, has a liner on the top surface; the side slopes have been covered with clay soil and grassed.

88. Rainwater runoff from covered stacks 1 through 9 and the covered side slopes of stack 10 is routed into the inactive water perimeter ditch retention system and is discharged as authorized through its NPDES Permit.

89. Pond 11, which encompasses approximately 200 acres, contains process water that is routed to the double lime treatment system. After treatment, the water may be discharged as authorized by its NPDES Permit.

90. A Closure Plan was submitted to LDEQ in December 2005 for the PGSS as a result of Respondent's decision to permanently idle the phosphoric acid production unit.

91. Respondent has a groundwater monitoring system subject to the requirements of Louisiana Solid Waste Permit.

92. Information from the National Response Center (NRC) shows that on occasion between 1995 and 2005, acids stored and used at the Facility were accidentally released onto land or to the unlined drainage ditch system on-site.

93. Operations at the Faustina Facility phosphoric acid plant were discontinued in 1999. Therefore, phosphogypsum is no longer generated. In 2005, Mosaic informed LDEQ that the phosphogypsum management area would be closed. A closure plan for the phosphogypsum management area was submitted to LDEQ in December 2005. LDEQ provided comments on the closure plan to Mosaic in January 2007. Mosaic submitted technical responses to LDEQ's comments in April 2007.

94. Individual solid waste permits, P-0092 through P-0096, were issued for each of the five solid waste permitted surface impoundments at the Faustina Facility:

- a. Effluent Ponds No.1, No.2, and No.3 (P-0092);
- b. First and Second Stage Liming Ponds (P-0093);
- c. DAP Recycle Pond (P-0094);
- d. Auxiliary Water Treatment Ponds (P-0095); and
- e. Filter Backwash Pond (P-0096).

95. In 2005, prior to the preparation of permit renewal applications for each of these five active permits, LDEQ agreed to allow all five surface impoundments to be incorporated into one comprehensive solid waste permit under Permit Number P-0092. A permit renewal application for Permit Number P-0092 was submitted to LDEQ in October 2005. LDEQ provided technical comments on the permit renewal application to Mosaic in January 2007, February 2008 and July 2008. Mosaic submitted technical responses to LDEQ comments in April 2007, May 2008 and July 2008.

96. The phosphogypsum management area at the Faustina Facility consists of the following elements, all of which are covered under Solid Waste Permit Number P-0063:

- a. North Phosphogypsum Stack (including closed 50-acre pond, 100-acre pond and Ponds 1 through 9);
- b. South Phosphogypsum Stack (including Ponds No. 10 and 11); and
- c. Return Flow Ditch and Cooling Pond (including Sludge Pond).

97. No phosphogypsum has been sent to the phosphogypsum management area since that time. The phosphogypsum stack system footprint now covers approximately 915 acres and the current rainfall catchments area is about 1,230 acres.

98. The permitted facilities include 420 acres of grassed slopes, 100 acres of grassed top area, 395 acres of lined ponds, an 88 acre cooling pond containing solids from lime treatment of process water, and approximately 70 acres of ditches for water conveyance. In addition, the approximate 160-acre area of Pond No. 12 was prepared for phosphogypsum management prior to the suspension of production, but was only used for water storage. The southern portion of the Pond No. 12 footprint has more recently been used as a borrow area to provide clay used in the closure of Ponds Nos. 10 and 11.

99. The eastern end of the older phosphogypsum stack included the original 100-Acre Pond, the 50-Acre Pond, and subsequent Ponds No. 1 through 3. The eastern ponds were permanently deactivated in March 1994. The side slopes and top areas were graded and capped with a grassed clayey soil cover. The western end of the older phosphogypsum stack, which included Ponds No.4 through 9, was permanently deactivated in August 1997. By the end of December 1997, all remaining exposed phosphogypsum side slope

areas of the older phosphogypsum stack had been graded and capped with a low permeability clayey soil and grassed to minimize erosion and enhance the aesthetics of the closure. Several lined ponds were installed on the slope bench areas and on top of the western end of the older phosphogypsum stack area in conjunction with the soil cover installation. These "bench ponds" assist with the management of storm water prior to discharge via the facility's NPDES permit.

100. A comprehensive Solid Waste groundwater monitoring network is maintained at the Faustina Plant. The groundwater monitoring network currently consists of 46 monitoring wells and several piezometers. Each well is screened across the uppermost permeable zone capable of producing groundwater as encountered at each monitoring location. Four wells; MW-5, GM-47, GM-48 and GM-49, serve as site background monitoring wells. Wells MW-5 and GW-47 are screened in Zone II, Well GM-48 is screened in Zone III and Well GM-49 is screened in Zone IV.

101. A total of forty-four (44) wells that monitor groundwater quality at locations hydraulically downgradient of the following Solid Waste regulated units at the Faustina Plant: The downgradient monitoring wells are screened in the first permeable, water-bearing zone encountered at each monitoring location. The majority of the wells are screened in Zone II. A few of the downgradient wells around Pond Nos. 10, 11, and 12 are screened in Zone III or IV due to the absence of Zone II in this area.

102. All Solid Waste wells are sampled on a semiannual basis. Following each semiannual monitoring event, a report is prepared for submittal to LDEQ in accordance with the facility's Solid Waste permits. Section 9.5.1 presents discussions concerning groundwater monitoring results for the Faustina Plant Solid Waste groundwater



monitoring network. In accordance with LDEQ Solid Waste regulations, any newly installed monitoring well is sampled on a quarterly basis during the first year in order to reflect any seasonal variations in groundwater quality. Thereafter, such wells are sampled on a semiannual basis consistent with the remainder of the monitoring wells at the Faustina Facility.

103. There are two additional monitoring wells located in the granulation plant. These wells, GM34A and GM-35A, were installed in the early 1990's as part of a groundwater assessment program. The wells are not part of the Solid Waste monitoring network, but are sampled on a semiannual basis. The monitoring results from these wells were provided to LDEQ.

#### **GENERAL RCRA ALLEGATIONS**

104. Defendant Mosaic is a “person” within the meaning of Section 1004(15) of RCRA, 42 U.S.C. § 6903(15), which includes corporations; and within the meaning of LAC 33:V.109, (40 C.F.R. § 260.10).

105. Defendant Mosaic is an “owner” and “operator” of the Facilities within the meaning of LAC 33:V.109, (40 C.F.R. § 260.10).

106. The phosphogypsum generated at the Mosaic Facilities meets the definition of “(p)hosphosypsum from phosphoric acid production” at LAC 33:V.105.D, (40 C.F.R. § 261.4(b)(7)(ii)(D)), and is therefore a Bevill-excluded waste. Wastewater generated at the Mosaic Facilities from phosphoric acid production processes, including non-ammoniated animal feed ingredients are also Bevill-excluded pursuant at LAC 33:V.105.D, (40 C.F.R. § 261.4(b)(7)(ii)(P)).

107. Wastewaters generated at Mosaic from processes associated with MAP/DAP production (chemical manufacturing), air pollution control scrubbers, and pipe, tank, or other process equipment cleaning and maintenance, are not Bevill-exempt wastewaters. When these wastes at Mosaic Facilities exhibit a hazardous characteristic pursuant to LAC 33:V.4903.C, (40 C.F.R. Part 261, Subpart C) they are hazardous wastes.

GENERAL UNCLE SAM RCRA ALLEGATIONS

108. Since 2004, Defendant has owned, and/or operated, and continues to own and/or operate a “solid waste management facility” at the Uncle Sam Facility within the meaning of LAC 33:V.109, (Section 1004(29) of RCRA, 42 U.S.C. § 6903(29)).

109. On April 6-7, 2005, EPA conducted a Compliance Evaluation Inspection (CEI) at the Uncle Sam Facility to determine Defendant’s compliance with applicable State and Federal RCRA requirements.

GENERAL FAUSTINA RCRA ALLEGATIONS

110. Since October 2004, Defendant has owned, and/or operated, and continues to own and/or operate a “solid waste management facility” at the Faustina Facility within the meaning of LAC 33:V.109, (Section 1004(29) of RCRA, 42 U.S.C. § 6903(29)).

111. On April 5-6, 2005 and February 22–23, 2006, EPA conducted two separate (CEIs) at the Faustina Facility, during which, EPA collected samples to determine Defendant’s compliance with applicable State and Federal RCRA requirements.

112. During the CEIs at Faustina, EPA sampled, among other areas, the unlined ditches surrounding the phosphoric acid storage area; unlined DAP Ditch; the DAP Pump Station; the DAP Pond; Lift Station 2 Pump; and puddle(s)/spill(s) near the Seal Tank.



























































