# UNITED STATES DISTRICT COURT DISTRICT OF MINNESOTA

UNITED STATES,	
Plaintiff,	)
and the STATES OF ALABAMA, GEORGIA, ILLINOIS, INDIANA, IOWA, MISSOURI, NEBRASKA, NORTH CAROLINA, NORTH DAKOTA, AND OHIO; and the IOWA Counties of LINN and POLK, the OHIO County of MONTGOMERY, and the TENNESSEE County of SHELBY and City of MEMPHIS,	) ) ) ) ) ) ) ) ) Civil Action Number:
	)
Plaintiff-Intervenors,	)
<b>v</b> .	)
CARGILL, INCORPORATED,	)
Defendant.	)

CONSENT DECREE

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#### CONSENT DECREE

WHEREAS, Plaintiff, the United States of America (hereinafter "Plaintiff" or "the United States"), on behalf of the United States Environmental Protection Agency (hereinafter "EPA"), has, simultaneously with lodging of this Consent Decree, filed a Complaint alleging that Cargill, Incorporated (hereinafter "Cargill") commenced construction of a major emitting facility and major modifications of a major emitting facility in violation of the New Source Review ("NSR") requirements at Part C and D of the Clean Air Act (the "Act"), 42 U.S.C. §§ 7470-7492 and 7501-7515, and the regulations promulgated thereunder at 40 C.F.R. Parts 52.21 and 51.165 and State Implementation Plan ("SIP") permitting programs for construction and operation of new and modified stationary sources;

WHEREAS, the United States issued Notices of Violation related to VOC emissions for Cargill's Lafayette, Indiana oilseeds facility on May 2, 2002, Cargill's Bloomington, Illinois oilseeds facility on September 9, 2002, and all nine of Cargill's corn processing facilities on August 12, 2003;

WHEREAS, on September 9, 2003, a Notice of Violation related to VOC emissions was issued to Cargill by the Regional Air Pollution Control Agency for violations associated with its failure to comply with State of Ohio and Montgomery County air pollution control provisions related to permit and emissions control requirements for new sources of air contaminants;

WHEREAS, Notices of Violations related primarily to VOC emissions were issued to Cargill by the state of Nebraska on May 23, 2003, the state of Iowa on August 1, 2003, the Iowa county of Linn on August 1, 2003, and a Notice of Inquiry related primarily to VOC emissions

was issued to Cargill by the Memphis-Shelby County Health Department on September 30, 2003;

WHEREAS, the states of Alabama, Georgia, Illinois, Indiana, Iowa, Missouri, Nebraska, North Carolina, North Dakota, and Ohio; the Iowa counties of Linn and Polk, the Ohio county of Montgomery, and the Tennessee county of Shelby and city of Memphis (hereinafter collectively "Plaintiff-Intervenors"), have filed Complaints in Intervention, joining the claims alleged by the United States;

WHEREAS, Cargill does not admit the violations alleged in the Complaints and the NOVs;

WHEREAS, Cargill has worked cooperatively with the United States and the Plaintiff-Intervenors to structure a comprehensive program that will result in the installation of pollution control equipment and enforceable emission reductions of at least 40,000 tons of allowable air pollution annually from 24 Cargill facilities in 13 states;

WHEREAS, the parties agree that many of the emission reductions under the Consent Decree would not otherwise be required by law;

WHEREAS, the United States, the Plaintiff-Intervenors, and Cargill have agreed that settlement of this action is in the best interest of the parties and in the public interest, will result in air quality improvements, and that entry of this Consent Decree without further litigation is the most appropriate means of resolving this matter; and

WHEREAS, the United States, the Plaintiff-Intervenors, and Cargill consent to entry of this Consent Decree without trial of any issues;

NOW, THEREFORE, without any admission of fact or law, and without any admission of the violations alleged in the Complaints or NOVs, it is hereby ORDERED AND DECREED as follows:

### I. JURISDICTION AND VENUE

1. The Complaints state a claim upon which relief can be granted against Cargill under Sections 113 and 167 of the Act, 42 U.S.C. §§ 7413 and 7477, and 28 U.S.C. § 1355. This Court has jurisdiction of the subject matter herein and over the parties consenting hereto pursuant to 28 U.S.C. § 1345 and pursuant to Sections 113 and 167 of the Act, 42 U.S.C. §§ 7413 and 7477. Venue is proper under Section 113(b) of the Act, 42 U.S.C. § 7413(b), and under 28 U.S.C. § 1391(b) and (c).

### II. APPLICABILITY

2. The provisions of this Consent Decree shall apply to and be binding upon the United States, the Plaintiff-Intervenors, and upon Cargill as well as Cargill's officers, employees, agents, successors and assigns for the facilities listed in Appendix A to this Consent Decree. In the event Cargill proposes to sell or transfer a facility subject to this Consent Decree before termination of the Consent Decree for that facility, it shall advise such proposed purchaser or successor-in-interest in writing of the existence of this Consent Decree, and shall send a copy of such written notification by certified mail, return receipt requested, to the EPA Regional Administrator for the region in which the facility is located and the Plaintiff-Intervenor with jurisdiction over the facility (the "Appropriate Plaintiff-Intervenor") before such sale or transfer, if possible, but no later than the closing date of such sale or transfer. Cargill shall provide a copy of the Consent Decree to the proposed purchaser or successor-in-interest. In the event Cargill

sells or otherwise assigns any of its right, title, or interest in a facility subject to this Consent Decree prior to termination of the Consent Decree for that facility, the conveyance shall not release Cargill from any obligation imposed by this Consent Decree for that facility unless the party to whom the right, title or interest has been transferred agrees in writing to fulfill the obligations of this Consent Decree for that facility.

### III. FACTUAL BACKGROUND

- 3. Cargill is a "person" as defined in Section 302(e) of the Act, 42 U.S.C. § 7602(e), and the federal and state regulations promulgated pursuant to the Act, and is a Delaware corporation with corporate headquarters in Minnesota.
- 4. Cargill owns and/or operates the corn processing and oilseed processing facilities listed in Appendix A.
- 5. Cargill's corn processing and oilseeds processing facilities produce a number of value-added products including vegetable oil, starch, sweeteners, germ, ethanol, and animal feed. Production of these products results in emissions of regulated air pollutants including nitrogen oxides ("NO<sub>x</sub>"), carbon monoxide ("CO"), sulfur dioxide ("SO<sub>2</sub>"), particulate matter ("PM"), volatile organic compounds ("VOCs") and hazardous air pollutants ("HAPs").
- 6. Plaintiffs allege that certain of Cargill's facilities are "major emitting facilities," as defined by Section 169(1) of the Act, 42 U.S.C. § 7479(1), and federal, state and local regulations promulgated pursuant to the Act.
- 7. Cargill, individually and through its trade association, the Corn Refiners
  Association, voluntarily disclosed to EPA and affected state and local regulatory agencies the
  existence of unpermitted VOC emissions at its corn processing facilities.

- 8. Cargill initiated a process to correct permits for VOC emissions for all nine of its corn processing facilities in June and July 2003. Cargill also met with its state and local agencies for all facilities in July, August and September 2003 regarding the permit applications, VOC emissions and evaluation of VOC emission controls.
- 9. Cargill's two facilities that produce ethanol received PSD permits in 1995 (Eddyville, Iowa) and 1993 (Blair, Nebraska), and have demonstrated compliance with the Best Available Control Technology ("BACT") VOC limits for ethanol-related emission sources (fermentation vents, rectifier vents, stillage evaporators, tank farms and loadouts) in these permits.
- 10. Cargill's Lafayette, Indiana oilseed processing facility received a PSD permit in2001 and complies with BACT VOC limits for the facility in this permit.
- 11. Cargill voluntarily invested more than \$20 million over the past eight years in process unit improvements at its extraction facilities designed to and having the effect of reducing solvent loss and lowering VOC and HAP emissions. These improvements included enhancement of condensation processes at sixteen facilities and installation of vacuum assisted desolventizing systems at Cargill's Bloomington, Illinois and Cedar Rapids West, Iowa facilities.
- 12. Under the terms of this Consent Decree, Cargill will optimize use of existing solvent recovery systems and commit to enforceable solvent loss rates as specified in this Consent Decree that are consistent with USEPA's most stringent BACT determination for the type of oilseeds processing plant.

- 13. Cargill worked to develop and voluntarily implemented use of iso-hexane, a non-hazardous air pollutant containing solvent that significantly reduces HAP emissions from extraction processes at many of its extraction facilities.
- 14. Under the terms of this Consent Decree, Cargill will optimize existing or install new thermal incineration emission control equipment at all feed dryers and carbon furnaces at its corn processing facilities, thereby further reducing VOC and HAP emissions from these units.

### IV. COMPLIANCE PROGRAM

Program Summary. As set forth in this Part, Cargill shall implement a program of enforceable emissions reductions of  $SO_2$ , CO,  $NO_x$ , and VOCs from its corn processing and oilseeds processing plants listed in Appendix A by at least 40,000 tons per year. This includes approximate reductions of  $SO_2$  of 15,000 tons per year, CO of 16,000 tons per year, CO of 2,500 tons per year, and CO of 6,500-11,500 tons per year. Cargill shall accomplish the emission reductions through the installation of pollution control technologies and implementation of emission reduction projects in accordance with the schedules set forth in this CO onsent Decree. Where required, Cargill shall propose new emission limits, and submit permit applications to the applicable permitting authority to incorporate the new limits into federally-enforceable permits for the facility, and shall demonstrate compliance at all times with applicable limits through performance tests, continuous emission or operating parameter monitoring, and recordkeeping.

# A. <u>INSTALLATION OF CONTROLS AND APPLICABLE EMISSION</u> <u>LIMITS</u>

Cargill shall implement the following Emission Control Plans:

15. <u>Boiler SO<sub>2</sub> Emission Cap</u>. The Plaintiff and Appropriate Plaintiff-Intervenors have reviewed Cargill's responses to Plaintiff's Clean Air Act Section 114 information request regarding the construction, modification, operation and emissions history of Cargill's coal-fired boilers, listed in Appendix B. Based on their review of the information available to Plaintiff and Plaintiff-Intervenors, the Plaintiff and Appropriate Plaintiff-Intervenors have not identified

liability for Cargill for failing to comply with New Source Review and/or Prevention of Significant Deterioration requirements for these sources.

Cargill will submit permit applications to the applicable permitting authority within three years from entry of this Consent Decree that will contain annual SO<sub>2</sub> emission limits for the facilities and boilers listed in Appendix B that, in aggregate, limit total annual SO<sub>2</sub> emissions to less than 15,355 tons per year based on a 12-month rolling sum. This represents a reduction of 15,067 tons of SO<sub>2</sub> per year from the current allowable emissions from these sources of 30,422 tons per year. To accommodate environmentally beneficial fuel switches to lower sulfur coal, these facilities are authorized to make changes to the coal boiler that maintain the heat input capacity of the coal boiler (including changes to coal boiler fuel receiving and handling systems and ash handling systems) that do not result in an increase in any single pollutant's emissions above current boiler allowable emission rates or an increase in the heat input to the boiler and result in an overall decrease in emissions.

Additional SO<sub>2</sub> Emission Reduction Commitment. Cargill will submit a permit application to the applicable permitting authority within three years from entry of this Consent Decree that will include individual emission limits for the Cedar Rapids (PC Boiler – 72-CB), Memphis (PC Boiler – 8301) and Decatur (Stoker Boiler – S407) coal boilers that in aggregate will not exceed a capacity weighted average SO<sub>2</sub> emission rate of 1.2 lb/MMBtu. This represents a greater than 44 percent reduction in the pound per million BTU emission rate of SO<sub>2</sub> from the 2003 capacity weighted baseline pound per million BTU emission rate for these boilers of 2.16 lb/MMBtu and a greater than 60 percent reduction from the weighted allowable pound per million BTU emission rate of 3.1 lb/MMBtu.

- 17. Boiler CO Emission Control Plan. Cargill will undertake and complete the CO emissions reduction and combustion optimization project described in Appendix C within five years from entry of this Consent Decree. After completion of the emissions reduction and combustion optimization project and within five years from entry of this Consent Decree, Cargill shall propose a new CO limit to the applicable permitting authority for the Eddyville coal boilers (EU 1.001, 1.002 and 1.039) of 4,374 tons per year based on a 12-month rolling sum. This represents a reduction of 10,080 tons of CO per year from the current BACT allowable emissions from these boilers of 14,454 tons per year. After completion of the emission reduction and combustion optimization project and within five years from entry of the Consent Decree, to the extent Cargill is unable to achieve the limit of 4,374 tons of CO per year, which is based on a vendor performance guarantee, Cargill shall submit to the applicable permitting authority an alternative CO limit based on the demonstrated operation of boilers following completion of the emission reduction project. By letter of June 14, 2005, IDNR expressly approves this emission reduction and combustion optimization project as a pollution control project (to the extent provided by law) that is exempt from New Source Review requirements and EPA does not object to IDNR's determination.
- 18. <u>Boiler NO<sub>x</sub> Emission Control Plan</u>. Within the schedule set forth in Appendix D, Cargill will submit permit applications to the applicable permitting authority that will limit NO<sub>x</sub> emissions from the units listed in Appendix D to the emission limits specified in Appendix D through the installation of controls, acceptance of enforceable operating limits and retirement of sources. This represents a reduction of at least 2,500 tons of NO<sub>x</sub> per year from the current allowable emissions from these sources.

- 19. Extraction VOC Emission Control Plan for Soybean Processing Plants. Cargillwill submit permit applications within three years from entry of this Consent Decree that will propose a final VOC solvent loss limit (hereinafter, also referred to as "solvent loss ratio limit" or "SLR limit") for each conventional soybean oilseed processing facility listed in Appendix E that in aggregate will not exceed a capacity weighted average of 0.175 gallon of VOC solvent loss per ton of oilseed processed (gallon/ton) based on a 12-month rolling average. Beginning three years from the date of entry of the Consent Decree, Cargill shall begin to account for solvent loss and quantity of oilseeds processed to comply with the proposed final solvent loss limit. For each soybean processing plant, the first compliance determination will be based on the first twelve operating months of data collected after the third year from entry of the Consent Decree. For any plant that has an existing permit limit lower than the applicable solvent loss factor ("SLF") in 40 C.F.R. Part 63, Subpart GGGG, Cargill may not propose a final solvent loss ratio limit that is less stringent than either the existing permit limit or the Solvent Extraction for Vegetable Oil Production NESHAP limit. Capacity weighted averages shall be based on the capacities for each facility as listed in Appendix E. If the design capacity for any plant listed in Appendix E changes anytime within three years from entry of this Consent Decree, Cargill will notify the Plaintiff and the Appropriate Plaintiff-Intervenors as part of the next semi-annual report required under Paragraph 36 submitted after such change occurs. Compliance with the capacity weighted average solvent loss limit shall be demonstrated using the compliance demonstration formula in Appendix E.
- 20. Extraction VOC Emission Control Plan for Corn Germ and Sunflower Processing

  Plants. Cargill will submit permit applications within three years from entry of this Consent

Decree that will propose a final VOC solvent loss ratio limit for each corn germ and sunflower processing facility listed in Appendix F that in aggregate will not exceed a capacity weighted average of 0.30 gallon/ton based on a 12-month rolling average. Beginning three years from the date of entry of the Consent Decree, Cargill shall begin to account for solvent loss and quantity of oilseeds processed to comply with the proposed final solvent loss limit. For each corn germ and sunflower processing plant, the first compliance determination will be based on the first twelve operating months of data collected after the third year from entry of the Consent Decree. For any plant that has an existing permit limit lower than the applicable solvent loss factor ("SLF") in 40 C.F.R. Part 63, Subpart GGGG, Cargill may not propose a final VOC SLR limit that is less stringent than either the existing permit limit or the Solvent Extraction for Vegetable Oil Production NESHAP limit. Capacity weighted averages shall be based on the capacities for each facility as listed in Appendix F. If the design capacity for any plant listed in Appendix F changes anytime within three years from entry of this Consent Decree, Cargill will notify the Plaintiff and the Appropriate Plaintiff-Intervenors as part of the next semi-annual report required under Paragraph 36 submitted after such change occurs. Compliance with the capacity weighted average solvent loss limit shall be demonstrated using the compliance demonstration formula in Appendix F.

21. Extraction VOC Emission Control Plan for Specialty Processing Plants. Cargill will submit permit applications within three years from entry of this Consent Decree that will limit total solvent loss from the oilseed specialty facilities listed in Appendix G to the gallon/ton final VOC solvent loss ratio limits established in Appendix G for each facility based on a 12-month rolling average. Beginning three years from the date of entry of the Consent Decree,

Cargill shall begin to account for solvent loss and quantity of oilseeds processed to comply with the gallon/ton solvent loss limits established in Appendix G for each facility on a twelve month rolling average. For each specialty processing plant, the first compliance determination will be based on the first twelve operating months of data collected after the third year from entry of the Consent Decree.

- Decree, Cargill will demonstrate compliance with the applicable solvent loss ratio for one facility included in Appendix G (Extraction VOC Emission Control Plan Specialty Plants). Beginning 12 months after one year from entry of this Consent Decree, Cargill will meet for a minimum of five extraction facilities (listed on Appendices E and F) a weighted solvent loss average of 0.175 gallon/ton (for selected soybean processing plants in Appendix E), or 0.3 gallon/ton (for selected corn germ or sunflower processing plants in Appendix F) on a 12-month rolling average.

  Beginning 12 months after two years from entry of this Consent Decree, Cargill will meet for a minimum of ten extraction facilities (listed on Appendices E and F) a weighted solvent loss average of 0.175 gallon/ton (for selected soybean processing plants in Appendix E), or 0.3 gallon/ton (for selected corn germ or sunflower processing plants in Appendix E), or 0.3 gallon/ton (for selected corn germ or sunflower processing plants in Appendix F) on a 12-month rolling average.
- 23. <u>Corn Processing VOC Emission Control Plan for Process VOC Sources</u>. Cargill, through the installation of pollution control technologies and implementation of emission reduction projects (including emission unit elimination and heat recovery) will meet the level of control specified for the emission units included in Appendix H within the schedule established in Appendix H. Thermal oxidizers installed after lodging and according to the requirements of

this Consent Decree on emission units included in Appendix H located in ozone non-attainment areas (Dayton, Hammond, Memphis), will be designed to achieve at least 98 percent control of VOC emissions and will meet the level of control specified in Appendix H within the schedule established in Appendix H. Within five years from lodging of this Consent Decree, Cargill shall submit permit applications to the applicable permitting authority to incorporate the new VOC limits for emission units in Appendix H into federally enforceable permits for the facilities.

- Systems. For integrated feed/bran drying systems listed in Appendix I, Cargill will optimize existing pollution control equipment (thermal oxidizers and scrubbers) and implement emission reduction projects (including emission unit elimination and heat recovery) to meet pollution control equipment operating parameters set forth in Appendix I or eliminate the emission unit within three years from lodging of this Consent Decree. Also within three years from lodging of this Consent Decree, Cargill will test and establish an allowable short-term VOC emission limit at the outlet of each scrubber stack, as set forth in Appendix I, for each integrated feed/bran drying system. Within five years from lodging of this Consent Decree, Cargill shall submit permit applications to the applicable permitting authority to incorporate the pollution control equipment operating parameters and allowable short-term VOC emission limits for integrated feed/bran drying systems listed in and established pursuant to Appendix I into federally enforceable permits.
- 25. <u>Corn Processing VOC Emission Control Plan Dayton Facility</u>. Within five years from lodging of this Consent Decree, Cargill will submit a permit to install application ("PTI") to the Regional Air Pollution Control Agency in Dayton, Ohio that will limit process

source VOC and boiler NO<sub>x</sub> emissions from the group of sources listed in Appendix J (Dayton, Ohio Corn Processing Ozone Cap) to less than 854 tons per year based on a 12-month rolling sum. The 854 ton per year ozone cap reflects enforceable NO<sub>x</sub> emissions offsets of 404 tons per year for the three boiler emissions units in Appendix J and 98 percent VOC control for the process units identified in Appendix J. The PTI application shall also propose to install new thermal incineration emission control technology designed to achieve VOC destruction efficiency of not less than 98 percent to minimize VOC emissions for the process operations identified in Appendix H as emissions units P031, P052, P057, P072 and P088. The PTI application shall also propose to optimize the control devices listed in Appendix I to meet the equipment design and operational parameters established in Appendix I to minimize VOC emissions from the integrated feed/bran drying system identified as emissions units P032, P033, P034, P037, P040, and P058. Pursuant to the emission test procedures and schedule specified in Appendix J, allowable short-term VOC emission rates shall be established for the process VOC emission units identified in Appendix J. Such allowable short-term VOC emission rates shall be proposed as part of the PTI application. Compliance with the facility ozone cap and short term VOC emission limits established pursuant to this paragraph and Appendix J satisfies the requirement to meet the Lowest Achievable Emission Rate of 98 percent. The PTI application shall also propose to install low-NO<sub>x</sub> burner control technology for the two boilers identified in Appendix J as B004 and B006. The low-NO<sub>x</sub> burner control technology shall result in the shortterm and annual emissions rates of NO<sub>x</sub> specified in Appendix D. Within one year of issuance of the Permit to Install, Cargill shall submit an application to incorporate the provisions of the PTI into the Title V operating permit.

Within one year from lodging of this Consent Decree, Cargill shall complete, and submit to RAPCA, an odor control optimization analysis report. The report shall include identification/speciation of potentially odorous volatile organic compounds expected to be emitted from emission units located at Cargill's Dayton, Ohio corn processing facility and subject to VOC control under Appendix H of this Consent Decree. Identification/speciation of potentially odorous compounds shall be based on review of past emissions testing and analysis at Cargill's facilities, third-party expert consultation, and reasonable review of available literature and information. The odor control optimization analysis report also shall include analysis and recommendations by a third-party expert regarding how controls mandated by the Consent Decree may be operated in a manner to reduce odor to the maximum extent practicable. Specifically, the report shall evaluate and provide recommendations regarding thermal oxidizer residence time between 0.5 and 1.0 second, thermal oxidizer operating temperature between 1200 degrees F and 1500 degrees F, and zero-hearth furnace operating temperatures between 1200 degrees F and 1500 degrees F. In making these recommendations, the third-party expert shall consider effectiveness on odor control, economic feasibility, and the potential for collateral emissions increases. In any permit applications required under this Consent Decree, for the emission units subject to VOC control under Appendix H of this Consent Decree, Cargill shall propose the operating parameters recommended by the third-party expert in the odor control optimization analysis report. Compliance with the operating parameters established pursuant to this paragraph and Appendix I shall be sufficient for purposes of compliance with Ohio Administrative Code Rule 3745-15-07(A).

- 26. Corn Processing Process Source CO Emission Control Plan. Cargill, through the installation of pollution control technologies and implementation of emission reduction projects (including emission unit elimination and heat recovery) will meet the level of control specified for the sources included in Appendix K within the schedule established in Appendix K. Within five years from lodging of this Consent Decree, Cargill shall submit permit applications to the applicable permitting authority to incorporate the new CO limits for sources in Appendix K into federally enforceable permits for the facilities.
- 27. Hammond Process Source SO<sub>2</sub> Emission Control Plan. Cargill, through installation of pollution control technologies and implementation of emission reductions projects (including emission unit elimination) will meet the level of control specified for the sources included in Appendix L within three years from entry of this Consent Decree. Also within three years from entry of this Consent Decree, Cargill will submit to IDEM a formal request to amend Rule 326 IAC 7-4-1.1 to incorporate the new SO2 emission limits for sources in Appendix L into this Rule.
- 28. Installation of air pollution control equipment and emission reduction projects undertaken pursuant to the emission control plans under Paragraphs 15-27 are intended to abate or control atmospheric pollution or contamination by removing, reducing, or preventing the emission of pollutants, and as such, are environmentally beneficial projects and are pollution control projects to the extent provided by law.
- 29. <u>Additional Federal Requirements</u>. Upon entry of this Consent Decree, for all facilities included in Appendix A, Cargill shall identify and implement applicable New Source Performance Standards ("NSPS") requirements codified at 40 C.F.R. Part 60. The following

NSPS may apply: Subparts D, Db and Dc (certain steam generating units), DD (certain grain elevators), Kb (certain organic liquid storage tanks), GG (certain stationary gas turbines) VV (certain synthetic organic chemical manufacturing equipment) and Y (certain coal preparation plants). Within 12 months from the date of entry of this Consent Decree, Cargill shall file an amended Toxics Release Inventory form (Form R) for the corn processing facilities listed in Appendix A to include all identified chemicals. Within 90 days from the date of entry of this Consent Decree, Cargill shall comply with any notification and reporting requirements under CERCLA Section 304, 42 U.S.C. § 11004.

# B. DEMONSTRATION OF COMPLIANCE

- 30. Cargill shall demonstrate compliance with the requirements of Paragraphs 15-29 through the use of performance testing, continuous emission monitoring, parametric monitoring, recordkeeping and reporting, as set forth below:
  - a. <u>Coal Boiler SO<sub>2</sub> Emission Reductions.</u> Cargill shall demonstrate compliance with the aggregate 12-month rolling sum of 15,355 tons of SO<sub>2</sub> per year for coal boilers listed in Appendix B beginning 12 months after the third year from entry of the Consent Decree by compliance with the 12-month rolling sum limits established in individual permits pursuant to Paragraph 15. Monitoring of emissions will be as provided in Appendix B (Boiler SO<sub>2</sub> Emission Control Plan). Cargill shall demonstrate that the individual facility permit limits comply with the combined SO<sub>2</sub> capacity weighted average of 1.2 lb/MMBtu established pursuant to Paragraph 16 (Additional SO<sub>2</sub> Emission Reduction Commitment) using the compliance formula set forth in Appendix B, note 2. Where coal boiler exhaust is commingled with exhaust from other sources,

compliance with this limit will be based on emissions from only the coal boilers, provided that Cargill can accurately quantify the coal boiler emissions. Cargill shall monitor emissions as provided in Appendix B (Boiler SO<sub>2</sub> Emission Control Plan).

- b. <u>Boiler CO Emission Reductions</u>. Cargill shall demonstrate compliance with the 12-month rolling sum of 4,374 tons of CO per year, or the alternative limit proposed under Paragraph 17, from the Eddyville coal boilers (EU 1.001, 1.002 and 1.039) beginning 12 months after the fifth year from entry of the Consent Decree. Cargill shall monitor emissions as provided in Appendix C (Boiler CO Emission Control Plan).
- c. <u>Boiler NO<sub>x</sub> Emission Reductions</u>. Within the schedule set forth in Appendix D (Boiler NO<sub>x</sub> Emission Control Plan), Cargill shall demonstrate compliance with coal and gas boiler NO<sub>x</sub> emission limits established pursuant to Appendix D. Cargill shall monitor emissions as provided in Appendix D, and shall conduct performance testing as provided in Appendix M (Performance Testing Plan).
- d. Extraction VOC Emissions Reductions. Beginning 12 months after the first year from entry of this Consent Decree, Cargill will demonstrate at a minimum of five extraction facilities (listed on Appendices E and F) compliance with a weighted solvent loss average of 0.175 gallon/ton (for selected soybean processing plants in Appendix E), or 0.3 gallon/ton (for selected corn germ or sunflower processing plants in Appendix F) on a 12-month rolling average. Beginning 12 months after the second year from entry of this Consent Decree, Cargill will demonstrate at a minimum of ten extraction facilities compliance with a weighted solvent loss average of 0.175 gallon/ton (for selected soybean processing plants in Appendix E), or 0.3 gallon/ton (for selected

corn germ or sunflower processing plants in Appendix F) on a 12-month rolling average. Beginning 12 months after the third year from entry of the Consent Decree, Cargill will demonstrate compliance with applicable solvent loss ratios for all facilities included under Appendices E (Oilseeds Extraction VOC Emission Control Plan—Soybean Processing Plants), F (Extraction VOC Emission Control Plan—Corn Germ and Sunflower Processing Plants) and G (Extraction VOC Emission Control Plan—Specialty Processing Plants).

Compliance with the solvent loss ratio limits established pursuant to Paragraphs 19-22 shall be calculated on a monthly basis and determined in accordance with 40 C.F.R. Part 63, Subpart GGGG, with the following exceptions: (1) provisions pertaining to HAP content shall not apply; (2) solvent losses and quantities of oilseeds processed during startup and shutdown periods shall not be excluded in determining solvent losses; and (3) records shall be kept in the form of the table in Attachment N (Extraction Solvent Loss Recordkeeping Template), that show total solvent losses, solvent losses during malfunction periods, and adjusted solvent losses (i.e., total solvent losses minus malfunction losses) monthly and on a twelve month rolling average basis. Cargill may apply the provisions of 40 C.F.R. Part 63, Subpart GGGG pertaining to malfunction periods only when: (i) the malfunction results in a shutdown of the solvent extraction system; and (ii) cumulative solvent losses during malfunction periods at a plant do not exceed 4,000 gallons in a 12-month rolling period.

# e. Corn Processing VOC Emission Reductions.

- i. <u>Process VOC Sources</u>. As stated in Paragraph 23, within the schedule established in Appendix H (Corn Processing VOC Emission Control Plan), Cargill will meet the level of control specified for the sources included in Appendix H. Cargill will monitor controls and emissions as provided in Appendix H and will conduct performance testing as provided in Appendix M (Performance Testing Plan) and, where applicable, Appendix O (Carbon Furnace Test Protocol).
- ii. <u>Integrated Feed/Bran Drying Systems</u>. As stated in Paragraph 24, within three years from lodging of the Consent Decree, Cargill will monitor and demonstrate compliance with control equipment operating parameters established under Appendix I as set forth under Appendix I. Also, within three years from lodging of the Consent Decree, Cargill will monitor control equipment and conduct testing as provided in Appendices I and M (Performance Testing Plan).
- Dayton Corn Processing Ozone Cap. As stated in Paragraph 25, Cargill will demonstrate compliance with the Dayton Corn Processing Ozone Cap, which reflects enforceable NOx emissions offsets of 404 tons per year for the three boiler emission units in Appendix J and 98 percent VOC control for the process units identified in Appendix J, via the emission tracking mechanism provided in Appendix J. Such VOC and NO<sub>x</sub> emission tracking shall begin the fifth year from lodging of the Consent Decree. Cargill shall demonstrate compliance with the 12-month rolling sum ozone cap of 854 tons for the process

source VOC and boiler NO<sub>x</sub> emission sources listed in Appendix J during the first 11 months following the fifth year from lodging of the Consent Decree as per the schedule in Appendix J. Cargill will track VOC and NO<sub>x</sub> emissions as provided in Appendix J (Dayton, Ohio Corn Processing Ozone Cap). NO<sub>x</sub> emissions will be continuously monitored as provided in Appendices D (Boiler NO<sub>x</sub> Emission Control Plan) and J (Dayton, Ohio Corn Processing Ozone Cap). To monitor VOC emissions, Cargill will develop and utilize VOC emission factors via performance testing as provided in Appendices J (Dayton, Ohio Corn Processing Ozone Cap) and M (Performance Testing Plan).

- iv. <u>Dayton, Ohio Odor Control Optimization Analysis</u>. Within one year from lodging of this Consent Decree, Cargill shall complete, and submit to RAPCA, an odor control optimization analysis report for emission units subject to VOC control under Appendix H as required under Paragraph 25. Within five years from the date of lodging of this Consent Decree, Cargill shall implement the odor report recommendations for the emission units subject to VOC control under Appendix H.
- v. <u>Hammond, Indiana RACT Plan</u>. Within five years from the date of lodging of this Consent Decree, Cargill shall submit the emission limits established pursuant to Paragraphs 23 and 24 and Appendices H and I as an amendment to the Hammond, Indiana facility's RACT plan; IDEM shall incorporate the emission limits into the RACT plan.

- f. Corn Processing Process Source CO Emission Reductions. As stated in Paragraph 26, within the schedule established in Appendix K, Cargill will meet the level of control specified for the sources included in Appendix K (Corn Processing Process CO Emission Control Plan). Controls and emissions will be monitored as provided in Appendix K and performance testing will occur as provided in Appendix M (Performance Testing Plan) and, where applicable, Appendix O (Carbon Furnace Test Protocol).
- g. <u>Hammond Process Source SO<sub>2</sub> Emission Reductions</u>. As stated in Paragraph 27, within three years from entry of this Consent Decree, Cargill will meet the level of control specified for the sources included in Appendix L (Hammond Process Source SO<sub>2</sub> Emission Control Plan). Controls and emissions will be monitored as provided in Appendix L and performance testing will occur as provided in Appendix M (Performance Testing Plan).
- 21. Continuous Emission Monitors Use and Certification. For all new Continuous Emission Monitors ("CEMs") installed after entry and pursuant to this Consent Decree, Cargill shall install, calibrate and certify the CEMs and begin to continuously monitor emissions sufficient to meet the compliance schedules specified in Paragraph 30 and related appendices. Cargill shall thereafter continuously maintain and operate each CEM as specified in Appendices B-D.
- 32. <u>Source Testing</u>. Cargill shall conduct source testing to evaluate compliance with applicable requirements of this Consent Decree, as required under Appendix M. For each performance test that determines initial compliance or demonstration of emission limits with requirements under Appendices H and I, the performance test shall be conducted in accordance

with a protocol approved by Plaintiff and Appropriate Plaintiff-Intervenors. Testing for compliance or demonstration of emission limits for all other instances shall be conducted in accordance with a protocol approved by the Appropriate Plaintiff-Intervenors. During the source testing, all emission units shall be operated at maximum representative operating conditions. During the source testing, Cargill shall monitor, at a minimum, the operating parameters specified by Appendices B-L.

- 33. <u>Initial Emissions Report.</u> No later than 60 days after the completion of the source testing required pursuant to this Consent Decree, Cargill shall submit an Initial Emissions Report to the Plaintiff and Appropriate Plaintiff-Intervenors. This report shall include, where applicable, the source test report or a summary of emission monitoring data; Cargill's proposed emission limit as required by the emission control plans under Paragraphs 15-27; and the operating parameter(s) ranges or limits that Cargill proposes to monitor for compliance demonstration as required under this Consent Decree or Appendices B-L.
- 34. Proposed and Final Emission Limits. The Plaintiff and Appropriate Plaintiff-Intervenor shall set the final emission limit, and operating parameter ranges or limits, as appropriate and consistent with the provisions of this Consent Decree, taking into consideration Cargill's Initial Emissions Report under Paragraph 33, process variability, test methodology, a reasonable certainty of compliance and any other information pertinent to the specific emission unit. Cargill shall comply with the proposed emission limit immediately following submission of the Initial Report and shall comply with the Final Limit no later than 60 days following Cargill's receipt of notice from the Plaintiff and Appropriate Plaintiff-Intervenors regarding the Final Limit.

# C. RECORDKEEPING AND REPORTING REQUIREMENTS

- 35. <u>Data Retention</u>. Cargill shall conduct monitoring as required by the Emission Control Plans and Paragraphs 30(a)-30(g), and shall maintain records of this monitoring data in accordance with the record retention requirements set forth in Paragraph 37.
- Semi-annual Reports. Cargill shall submit semi-annual written reports to the 36. Plaintiff and Plaintiff-Intervenors that describe Emission Control Plan requirements, the applicable deadlines and the dates the tasks were completed. Each report shall also contain i) any deviations from emission limitations, operational restrictions, performance testing requirements and control device operating parameter limitations, including deviations resulting from malfunctions, that have been detected by the testing, monitoring, and recordkeeping requirements specified in this Consent Decree; ii) the probable cause of such deviations; and iii) any corrective actions or preventive measures taken. If no deviations occurred during a reporting period, Cargill shall submit a written report which states that no deviations occurred. Each report shall be due within thirty days after the end of each semi-annual reporting period (January 1 through June 30, or July 1 through December 31, as applicable, except the first report where the reporting period is from the date of lodging of this Consent Decree through December 31, 2005). Reports shall be submitted as set forth in Paragraph 84 (Notice and Penalty Payment). Emissions data may be submitted in electronic format unless otherwise requested by the Appropriate Plaintiff-Intervenor.
- 37. Cargill shall retain records required by Paragraphs 15-30 of this Consent Decree for a period of five years unless other state or local regulations require the records to be maintained longer.

38. Cargill's semi-annual reports shall contain the following certification and may be signed by the company employees responsible for corn and oilseed processing environmental management and compliance:

"I certify under penalty of law that I have personally examined the information submitted herein and that I have made a diligent inquiry of those individuals immediately responsible for obtaining the information and that to the best of my knowledge and belief, the information submitted herewith is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

### D. PERMITTING

shall apply for modification of its federally-enforceable construction and/or operating permits to incorporate the specific emission reduction requirements, emission limits, operating parameters, performance testing requirements, monitoring requirements and recordkeeping requirements specified under Paragraphs 15-27. It is the intent of the parties that the requirements under Paragraphs 15-27 and associated appendices survive termination of this Consent Decree and are deemed "applicable requirements" under Title V of the Clean Air Act and state and local operating permit programs that implement the requirements of Title V. EPA, states and local agencies agree to propose as permit conditions, and may propose as revisions to their SIPs, the specific emission limits, operating parameters, monitoring requirements and recordkeeping requirements set forth under Paragraphs 15-27 and associated appendices, and as proposed by Cargill under Paragraphs 15-27 so long as Cargill's proposal is consistent with Consent Decree emission reduction requirements. Cargill agrees not to contest any such permit conditions or SIP revisions. For emission reduction projects necessary to meet the requirements of Paragraphs 15-

28 and 30 of this Consent Decree, Cargill, as necessary, shall apply for modification of its federally-enforceable operating permits to incorporate revised emission limits for any collateral emissions increases resulting from implementation of such emission reduction projects within the schedules specified in Paragraphs 15-28 of the Consent Decree for permitting of such projects. For units and pollutants not addressed by the emission reduction programs under Paragraphs 15-27 of this Consent Decree, Cargill shall have a period of 3 years from the date of lodging of the Consent Decree to apply for a permit or permit amendment to impose or modify the VOC, HAP or CO emission limits for the sources included in Appendix A. Prior to issuance of revised construction and/or operating permits that incorporate Consent Decree requirements, Cargill shall operate all units identified in Paragraphs 15-28 of this Consent Decree and associated appendices in accordance with the provisions of Paragraphs 15-28 and 30 of this Consent Decree and associated appendices.

## V. CIVIL PENALTY

- 40. Within thirty (30) calendar days of entry of this Consent Decree, Cargill shall pay to the United States and Plaintiff-Intervenors a total civil penalty pursuant to Section 113 of the Act, 42 U.S.C. § 7413 in the amount of \$1,600,000. The Plaintiffs agree that to the extent the emission reduction projects required in this Consent Decree result in emission reductions not otherwise required by law, they have been considered environmentally beneficial projects for civil penalty mitigation.
- 41. Of the total civil penalty, \$830,769 shall be paid to the United States by Electronic Funds Transfer ("EFT") to the United States Department of Justice, in accordance with current EFT procedures, referencing the USAO File Number and DOJ Case Number, and

the civil action case name and case number. The costs of such EFT shall be Cargill's responsibility. Payment shall be made in accordance with instructions provided to Cargill by the Financial Litigation Unit of the U.S. Attorney's Office. Any funds received after 11:00 a.m. (EST) shall be credited on the next business day. Cargill shall provide notice of payment, referencing the USAO File Number and DOJ Case Number, and the civil action case name and case number, to the Department of Justice and to EPA, as provided in Paragraph 84 (Notice and Penalty Payment).

- 42. Of the total civil penalty, \$769,231 shall be divided among the state and local air authorities that have filed Complaints in Intervention and joined the claims alleged by the United States in this action. Cargill shall make payment as follows:
  - a) \$61,538 to the State of Alabama;
  - b) \$30,769 to the State of Georgia;
  - c) \$30,769 to the State of Illinois;
  - d) \$61,538 to the State of Indiana;
  - e) \$123,082 to the State of Iowa;
  - f) \$92,307 to Linn County, Iowa;
  - g) \$30,769 to Polk County, Iowa;
  - h) \$30,769 to the State of Missouri;
  - i) \$61,538 to the State of Nebraska;
  - j) \$61,538 to the State of North Carolina;
  - k) \$61,538 to the State of North Dakota;
  - 1) \$30,769 to the State of Ohio;

- m) \$30,769 to Montgomery County, Ohio; and
- n) \$61,538 to the City of Memphis and Shelby County, Tennessee.

Payment shall be made as provided in Paragraph 84 (Notice and Penalty Payment).

- 43. Upon entry of this Consent Decree, this Consent Decree shall constitute an enforceable judgment for purposes of post-judgment collection in accordance with Rule 69 of the Federal Rules of Civil Procedure, the Federal Debt Collection Procedure Act, 28 U.S.C. § 3001-3308, and other applicable federal authority. The Plaintiff shall be deemed a judgment creditor for purposes of collection of any unpaid amounts of the civil and stipulated penalties and interest.
- 44. No amount of the total civil penalty of \$1,600,000 to be paid by Cargill shall be used to reduce its federal or state tax obligations.
- 45. <u>Supplemental Environmental Projects</u>. By no later than five years from entry of this Consent Decree, Cargill shall complete implementation of the Supplemental Environmental Projects ("SEPs") identified in Appendix P (Supplemental Environmental Projects) (hereinafter, "Appendix P SEPs") at an aggregate cost of at least \$3,000,000, in accordance with the requirements of Paragraphs 46-48.
- 46. Within one year from entry of this Consent Decree, Cargill shall provide Plaintiff and Plaintiff-Intervenors with a work plan that provides the proposed schedule for commencing and completing construction of the Appendix P SEPs. The work plan submitted under this paragraph is incorporated by reference herein and made directly enforceable under the Consent Decree.

- 47. Semi-annual reports, as required under Paragraph 36, shall include a description of work undertaken to implement the Appendix P SEPs and an accounting of all costs incurred in implementing the Appendix P SEPs. Cargill shall provide, upon request, copies of invoices, receipts, purchase orders or other documentation of costs incurred to implement the Appendix P SEPs.
- 48. Within five years from entry of this Consent Decree, Cargill shall provide an Appendix P SEP completion report to Plaintiffs that documents the dates each project was completed, results of implementing the project (including energy and emission reductions), and project dollars expended by Cargill in implementing the projects.
- 49. <u>Community-Based Supplemental Environmental Projects</u>. By no later than five years from entry of this Consent Decree, Cargill shall complete implementation of the Community-Based SEPs identified below at an aggregate cost of at least \$500,000:
  - a. Mid-South Clean Air Coalition Diesel Retrofit program in Shelby County,
     TN;
  - b. Eddyville Dunes and Wetland Restoration Project in Eddyville, IA;
  - c. Cedar Rapids, IA Indian Creek Nature Center Wetlands Restoration

    Project;
  - d. Nebraska-Missouri River Wetland Reserve Enhancement Program; and
  - e. Such additional or alternative Community-Based SEPs as Cargill may propose, subject to Plaintiff's approval.

The implementation of the Community-Based SEPs shall be deemed complete upon Cargill's expenditure of at least \$500,000 in accordance with the work plan approved pursuant to Paragraph 50.

- 50. Within one year from entry of this Consent Decree, Cargill shall provide to Plaintiff and Plaintiff-Intervenors, for review and approval, a detailed work plan that provides the proposed schedule for commencing and completing the Community-Based SEPs identified above, as well as describing the nature, scope and goals of the projects, and where they are to be implemented. Cargill, subject to Plaintiff's approval, may propose an alternative or additional Community-Based SEP. Cargill's Community-Based SEP work plans shall be approved by the Plaintiff and Appropriate Plaintiff-Intervenors provided they conform to the requirements of EPA's Supplemental Environmental Projects Policy (eff. May 1, 1998).
- 51. <u>Community-Based SEP Completion Report</u>. For the Community-Based SEPs completed under this Section during a particular semiannual period, Cargill shall provide, as part of the semiannual report for that period, a Community-Based SEP Completion Report certified in accordance with Paragraph 38 of this Consent Decree and containing the following information:
  - a. A detailed description of the Community-Based SEP as implemented;
  - A description of any pre-report implementation problems encountered and the solutions thereto;
  - c. An accounting of all costs incurred by Cargill for the purpose of implementing the Community-Based SEP. Cargill shall provide, upon request, copies of the invoices, receipts, purchase orders, or other documentation that specifically identifies and itemizes the individual cost

- or the goods and/or services for which payment is being made. Canceled drafts do not constitute acceptable documentation unless such drafts specifically identify and itemize the individual costs of the goods and/or services for which payment is being made; and
- d. A certification that the Community-Based SEP has been satisfactorily completed which is signed by the company employees responsible for corn and oilseed processing environmental management and compliance.
- 52. Acceptance of Community-Based SEP Completion Report. After receipt of the Community-Based SEP Completion Report described in Paragraph 51 above, the Plaintiff and Appropriate Plaintiff-Intervenors will notify Cargill, in writing, regarding: (a) any deficiencies in the Community-Based SEP Completion Report along with a grant of an additional thirty (30) days for Cargill to correct any deficiencies; or (b) indicate that the Plaintiff and Appropriate Plaintiff-Intervenors conclude that the project has been completed satisfactorily; or (c) determine that the project has not been completed satisfactorily and seek stipulated penalties in accordance with Paragraph 57 herein.
- 53. If the Plaintiff and Appropriate Plaintiff-Intervenors elect to exercise option (a) above, i.e., if the Community-Based SEP Completion Report is determined to be deficient but Plaintiffs and Appropriate Plaintiff-Intervenors have not yet made a final determination about the adequacy of Community-Based SEP completion itself, Cargill shall have the opportunity to object in writing to the notification of deficiency given pursuant to this paragraph within ten (10) days of receipt of such notification. The Plaintiffs and Appropriate Plaintiff-Intervenors and Cargill shall have an additional thirty (30) days from the receipt of the Plaintiffs and Appropriate

Plaintiff-Intervenors notification of objection to reach agreement on changes necessary to the Community-Based SEP Completion Report. If agreement cannot be reached on any such issue within this thirty (30) day period, the Plaintiff and Appropriate Plaintiff-Intervenors shall provide a written statement of their decision on the adequacy of the completion of the Community-Based SEP to Cargill.

- 54. If for any reason Cargill expends less than the full amount in Paragraphs 45 (Appendix P SEPs) or 49 (Community-Based SEPs), Cargill shall pay the balance of the unexpended funds in accordance with the payment requirements set forth in Paragraph 41, within thirty (30) days of receipt of written notification of the unexpended funds from the United States.
- 55. In any public statement regarding the funding of Appendix P SEPs or Community-Based SEPs implemented under this Consent Decree, Cargill shall clearly indicate that these projects are being undertaken as part of the settlement of an enforcement action for alleged environmental violations. Cargill shall not be able to use or rely on any emissions reductions generated as a result of its performance of the Appendix P SEPs or Community-Based SEPs in any federal or state emission averaging, banking, trading or netting program.
- 56. These Paragraphs 45-55 shall not relieve Cargill of its obligation to comply with all applicable provisions of federal, state or local law during the implementation of the Appendix P SEPs or Community-Based SEPs, nor shall they be construed to be a ruling on, or determination of, any issue related to any federal, state or local permit, nor shall they be construed to constitute Plaintiffs approval of the equipment or technology installed by Cargill in connection with the Appendix P SEPs or Community-Based SEPs undertaken pursuant to this Consent Decree.

### VI. STIPULATED PENALTIES

- 57. Cargill shall pay stipulated penalties in the amounts set forth below to the Plaintiff for violations of the Consent Decree. When a violation of the Consent Decree is at a specific facility, Cargill shall divide the stipulated penalty set forth below equally among the Plaintiff and the Appropriate Plaintiff-Intervenors for the following:
  - a. <u>For failure to comply with a proposed emission limit</u> under Paragraphs 15-29 (other than, for proposed emission limits under Paragraphs 23-26, startup, shutdown or malfunction events as defined in 40 C.F.R. Part 63), per day, per unit:

For one through three days per calendar month - \$1,500 For four through ten days per calendar month - \$2,500 For greater than 10 days per calendar month - \$5,000

b. <u>For failure to monitor operating parameters for pollution control</u>

<u>equipment</u> established under Paragraphs 15-29, per day, per calendar quarter, per device
not monitored:

For four to ten days per calendar quarter - \$1,500 For eleven through twenty days per calendar quarter - \$2,500 For greater than twenty days per calendar quarter - \$3,750

c. <u>For failure to operate air pollution control devices within parameters</u> as established under Paragraphs 15-29 (other than, for parameters as established under Paragraphs 23-26, startup, shutdown or malfunction events as defined in 40 C.F.R. Part 63), per day, per device:

For two to six days per calendar month - \$1,500 For seven through twelve days per calendar month - \$2,500 For greater than twelve days per calendar month - \$3,750 d. For failure to meet the 12-month rolling average solvent loss ratio limits established pursuant to Paragraphs 19-22:

For each exceedance of a 12-month rolling average - \$30,000

e. <u>For failure to install CEMs on sources</u> pursuant to Paragraphs 30(a)-(c) and Appendices B, C and D, per a CEM not timely installed:

For first full month of delay - \$2,500 For each subsequent month and fraction thereof - \$2,500

f. For failure to certify CEMs pursuant to Paragraphs 30(a)-(c) and Appendices B, C and D, per a CEM not certified:

For first full month of delay - \$2,500 For each subsequent month and fraction thereof - \$2,500

- g. <u>For failure to operate CEMs</u> pursuant to Paragraphs 30(a)-(c) and Appendices B, C and D, per CEM not operated, \$100 per day.
- h. <u>For failure to apply for permits incorporating emission limits</u> as required by Paragraphs 15-28, \$1,000 per the first full week of delay, and \$1,000 per each subsequent week of delay, or fraction thereof.
- i. <u>For failure to preserve records</u> as specified in Paragraph 37 of the Consent Decree:

Per record not retained per day: \$500

j. <u>For failure to conduct a compliance test</u> as required by Paragraph 30, per day, per unit:

1<sup>st</sup> through 30<sup>th</sup> day after deadline \$1,000 31<sup>st</sup> through 60<sup>th</sup> day after deadline \$2,000 Beyond 60<sup>th</sup> day \$5,000

- k. For failure to complete the CO emission reduction project required under Paragraph 17, \$1,000 per a day.
- l. <u>For failure to submit a semi-annual report</u> required by Paragraph 36 of this Consent Decree, per day:

1<sup>st</sup> through 30<sup>th</sup> day after deadline \$200 31<sup>st</sup> through 60<sup>th</sup> day after deadline \$500 Beyond 60<sup>th</sup> day \$1,000

- m. For failure to notify the Plaintiffs of Cargill's sale or transfer of a facility pursuant to Paragraph 2, \$250 per day.
- n. For failure to pay the civil penalty as specified in Section V of this Consent Decree, Cargill shall pay an additional \$30,000 per week that full payment is delayed plus interest on the amount overdue at the rate specified in 31 U.S.C. § 3717.
- o. <u>For failure to satisfactorily complete implementation of the Appendix P</u>
  <u>SEPs or Community-Based SEPs</u> as required under Paragraphs 45 and 49, Cargill shall pay the shortfall as provided in Paragraph 54 and pay a stipulated penalty of \$50,000, each.
- p. For failure to submit each of the proposed work plans required by Paragraphs 46 and 50, or each of the completion reports required by Paragraphs 48 and 51 of the Consent Decree, per day:

1<sup>st</sup> through 30<sup>th</sup> day after deadline \$1,000 31<sup>st</sup> through 60<sup>th</sup> day after deadline \$2,000 Beyond 60<sup>th</sup> day \$3,000

q. For failure to escrow stipulated penalties as required by Paragraph 59,
 \$1,425 per day.

- 58. Cargill shall pay stipulated penalties upon written demand by the Plaintiff and the Plaintiff-Intervenors no later than thirty (30) days after Cargill receives such demand. Stipulated penalties shall be paid to the Plaintiff and the Plaintiff-Intervenors as provided in Paragraphs 57 and 84 (Notice and Penalty Payment) of this Consent Decree.
- 59. Should Cargill dispute its obligation to pay part or all of a stipulated penalty, it may avoid the imposition of the stipulated penalty for failure to pay a penalty due to the Plaintiff and the Plaintiff-Intervenors by placing the disputed amount demanded by the Plaintiff and the Plaintiff-Intervenors, not to exceed \$30,000 for any given event or related series of events at any one plant, in a commercial escrow account pending resolution of the matter and by invoking the Dispute Resolution provisions of Part IX within the time provided in Paragraph 58 for payment of stipulated penalties. If the dispute is thereafter resolved in Cargill's favor, the escrowed amount plus accrued interest shall be returned to Cargill. Otherwise the Plaintiff and Plaintiff-Intervenors shall be entitled to the escrowed amount that was determined to be due by the Court plus the interest that has accrued on such amount, with the balance, if any, returned to Cargill.
- 60. The Plaintiff and Plaintiff-Intervenors reserve the right to pursue any other remedies for violations of this Consent Decree to which they are entitled. The Plaintiff and Plaintiff-Intervenors will not seek stipulated penalties and civil or administrative penalties for the same violation of the Consent Decree.

#### VII. RIGHT OF ENTRY

61. Nothing in this Consent Decree shall limit the authority of EPA and Plaintiff-Intervenors to conduct tests and inspections under Section 114 of the Act, 42 U.S.C. § 7414, or any other applicable law.

#### VIII. FORCE MAJEURE

- 62. If any event occurs which causes or may cause a delay or impediment to performance in complying with any provision of this Consent Decree, Cargill shall notify the Plaintiff and Plaintiff-Intervenors in writing as soon as practicable, but in any event within twenty (20) business days of when Cargill first knew of the event or should have known of the event by the exercise of due diligence. In this notice Cargill shall specifically reference this Paragraph of this Consent Decree and describe the anticipated length of time the delay may persist, the cause or causes of the delay, and the measures taken or to be taken by Cargill to prevent or minimize the delay and the schedule by which those measures will be implemented. Cargill shall adopt all reasonable measures to avoid or minimize such delays.
- 63. Failure by Cargill to provide notice to the Plaintiff and Plaintiff-Intervenors of an event which causes or may cause a delay or impediment to performance shall render this Part VIII voidable by the Plaintiff and Plaintiff-Intervenors as to the specific event for which Cargill has failed to comply with such notice requirement, and, if voided, is of no effect as to the particular event involved.
- 64. The Plaintiff or the Plaintiff-Intervenors shall notify Cargill in writing regarding Cargill's claim of a delay or impediment to performance as soon as practicable, but in any event within thirty (30) days of receipt of the Force Majeure notice provided under Paragraph 62. If the Plaintiff or the Plaintiff-Intervenors agree that the delay or impediment to performance has been or will be caused by circumstances beyond the control of Cargill, including any entity controlled by Cargill, and that Cargill could not have prevented the delay by the exercise of due diligence, the parties shall stipulate to an extension of the required deadline(s) for all

requirement(s) affected by the delay by a period equivalent to the delay actually caused by such circumstances. Cargill shall not be liable for stipulated penalties for the period of any such delay.

- delay or impediment to performance is caused by a force majeure event, to avoid payment of stipulated penalties, Cargill must submit the matter to this Court for resolution within twenty (20) business days after receiving notice of the Plaintiff's and the Plaintiff-Intervenors position, by filing a petition for determination with this Court. Once Cargill has submitted this matter to this Court, the Plaintiff and Plaintiff-Intervenors shall have twenty (20) business days to file their response to said petition. If Cargill submits the matter to this Court for resolution and the Court determines that the delay or impediment to performance has been or will be caused by circumstances beyond the control of Cargill, including any entity controlled by Cargill, and that Cargill could not have prevented the delay by the exercise of due diligence, Cargill shall be excused as to that event(s) and delay (including stipulated penalties), for a period of time equivalent to the delay caused by such circumstances.
- 66. Cargill shall bear the burden of proving that any delay of any requirement(s) of this Consent Decree was caused by or will be caused by circumstances beyond their control, including any entity controlled by it, and that Cargill could not have prevented the delay by the exercise of due diligence. Cargill shall also bear the burden of proving the duration and extent of any delay(s) attributable to such circumstances. An extension of one compliance date based on a particular event may, but does not necessarily, result in an extension of a subsequent compliance date or dates.

- 67. Unanticipated or increased costs or expenses associated with the performance of Cargill's obligations under this Consent Decree shall not constitute circumstances beyond the control of Cargill, or serve as a basis for an extension of time under this Part. However, failure of a permitting authority to issue a necessary permit in a timely fashion is an event of Force Majeure where Cargill has taken all steps available to it to obtain the necessary permit including but not limited to:
  - a. submitting a timely and complete permit application;
  - b. responding to requests for additional information by the permitting authority in a timely fashion; and
  - c. prosecuting appeals of any disputed terms and conditions imposed by the permitting authority in an expeditious fashion.
- 68. Notwithstanding any other provision of this Consent Decree, this Court shall not draw any inferences nor establish any presumptions adverse to either party as a result of Cargill delivering a notice of Force Majeure or the parties' inability to reach agreement.
- 69. As part of the resolution of any matter submitted to this Court under this Part VIII, the parties by agreement, or this Court, by order, may in appropriate circumstances extend or modify the schedule for completion of work under this Consent Decree to account for the delay in the work that occurred as a result of any delay or impediment to performance agreed to by the Plaintiff and the Plaintiff-Intervenors or approved by this Court. Cargill shall be liable for stipulated penalties for their failure thereafter to complete the work in accordance with the extended or modified schedule.

#### IX. DISPUTE RESOLUTION

- 70. The dispute resolution procedure provided by this Part IX shall be available to resolve all disputes arising under this Consent Decree except as otherwise provided in Part VIII regarding Force Majeure.
- 71. The dispute resolution procedure required herein shall be invoked upon the giving of written notice by one of the parties to this Consent Decree to another advising of a dispute pursuant to this Part IX. The notice shall describe the nature of the dispute, and shall state the noticing party's position with regard to such dispute. The party receiving such a notice shall acknowledge receipt of the notice and the parties shall expeditiously schedule a meeting to discuss the dispute informally not later than fourteen (14) days from the receipt of such notice.
- 72. Disputes submitted to dispute resolution shall, in the first instance, be the subject of informal negotiations between the parties. Such period of informal negotiations shall not extend beyond thirty (30) calendar days from the date of the first meeting between representatives of the Plaintiff, the Plaintiff-Intervenors with jurisdiction over the facility at which the dispute arose and Cargill, unless the parties' representatives agree to shorten or extend this period.
- 73. In the event that the parties are unable to reach agreement during such informal negotiation period, the Plaintiff and the participating Plaintiff-Intervenors shall provide Cargill with a written summary of their position regarding the dispute. In the event the Plaintiff and the participating Plaintiff-Intervenor disagree, the position of the Plaintiff shall control. The position advanced by the Plaintiff and the participating Plaintiff-Intervenors shall be considered binding unless, within forty-five (45) calendar days of Cargill's receipt of the written summary of the

Plaintiff and the participating Plaintiff-Intervenors position, Cargill files with this Court a petition which describes the nature of the dispute, and includes a statement of Cargill's position and any supporting data, analysis, and/or documentation relied on by Cargill. The Plaintiff and the participating Plaintiff-Intervenors shall respond to the petition within forty-five (45) calendar days of filing.

- 74. Where the nature of the dispute is such that a more timely resolution of the issue is required, the time periods set out in this Part IX may be shortened upon motion of one of the parties to the dispute.
- 75. Notwithstanding any other provision of this Consent Decree, in dispute resolution, this Court shall not draw any inferences nor establish any presumptions adverse to either party as a result of invocation of this Part IX or the parties' inability to reach agreement. The final position of the Plaintiff and the participating Plaintiff-Intervenors shall be upheld by the Court if supported by substantial evidence in the record as identified and agreed to by all the Parties.
- 76. As part of the resolution of any dispute submitted to dispute resolution, the parties, by agreement, or this Court, by order, may, in appropriate circumstances, extend or modify the schedule for completion of work under this Consent Decree to account for the delay in the work that occurred as a result of dispute resolution. Cargill shall be liable for stipulated penalties for their failure thereafter to complete the work in accordance with the extended or modified schedule.

#### X. GENERAL PROVISIONS

#### 77. Effect of Settlement.

- a. This Consent Decree is not a permit; compliance with its terms does not guarantee compliance with any applicable federal, state or local laws or regulations.

  During the effective period of the Consent Decree, Cargill shall comply with the specific emission reduction requirements, emission limits, operating parameters, monitoring requirements and recordkeeping requirements specified in this Consent Decree including those specified pursuant to Paragraph 19, which shall supercede and control over corresponding terms and conditions of any air quality control permits existing as of the date of entry of this Consent Decree.
- b. In determining whether a future modification will result in a significant net emissions increase, Cargill shall not take credit for any emissions reductions required by this Consent Decree, as set forth in Paragraphs 15-27, for netting purposes as defined by the applicable regulations implementing Part C of Title I of the Clean Air Act. In addition, the emission reductions of PM, PM10, NO<sub>x</sub>, SO<sub>2</sub>, CO and VOC (at units other than dryers) required under this Consent Decree, as set forth in Paragraphs 15-27, may not be used for any emissions offset, banking, selling or trading program. No further offsets are required for any emission units existing at the facilities in Appendix A as of the date of lodging of this Consent Decree. Cargill may continue to sell and trade: i) NO<sub>x</sub> credits of 50 tons per year for the Memphis facility (an amount equal to the average credits available to Cargill in 2003 and 2004 and representative of Cargill's baseline operations); and ii) emission credits resulting from reductions in excess of those required

to meet the emission limits set forth in Appendices B-L. Cargill may not use VOC emission reductions up to 98 percent of the uncontrolled dryer emissions from sources in Appendices H, I and J for any emissions offset, banking, selling or trading program.

- c. Nothing in this Consent Decree shall be construed to limit the ability of the State of Nebraska to ensure compliance with the National Ambient Air Quality Standards (NAAQS) and the PSD increment provisions of 40 C.F.R. Part 52.21(c) and the corresponding state regulations.
- Resolution of Claims. Satisfaction of the requirements of this Consent Decree constitutes full settlement of and shall resolve all past civil and administrative liability of Cargill and all owners and prior owners and/or operators of the facilities listed in Appendix A to the Plaintiff and the Plaintiff-Intervenors for the violations alleged in the United States' and Plaintiff-Intervenors' Complaints (and any Notices of Violation referenced therein), and all civil and administrative liability of Cargill, and all owners and prior owners and/or operators of the facilities listed in Appendix A, for any violations at the facilities included in Appendix A arising out of facts and events that occurred or may have occurred during the relevant time period, or that arise out of execution of the provisions of this Consent Decree, under the following statutory and regulatory provisions:
  - a. <u>PSD and Nonattainment New Source Review Requirements</u> at Parts C and D of Subchapter I of the Act and the regulations promulgated thereunder at 40 C.F.R. Part 52.21 and 51.165, and the SIP provisions which incorporate and implement the above listed federal statute and regulations;

- b. New Source Performance Standards under Section 111 of the Clean Air Act and the regulations promulgated thereunder at 40 C.F.R. Part 60, including Subparts D, Db, Dc, DD, Kb, GG, VV, and Y, and the SIP provisions which incorporate and implement the above listed federal statute and regulations;
- c. <u>Toxic Chemical Release Reporting Requirements</u> pursuant to EPCRA Section 313, 42 U.S.C. § 11023;
- d. <u>CERCLA Notification and Reporting Requirements</u> under EPCRA Section 304, 42 U.S.C. § 11004;
- e. State Implementation Plan Requirements and State and Local Air Permitting

  Statutes and Regulations for: (1) permitting of the construction and operation of new and modified stationary sources; (2) requirements relating to emission limits in permits issued for such construction and operation; (3) performance testing and emissions monitoring; (4) data submission and notification requirements; (5) supplementation of permit applications; (6) hazardous air pollutants; (7) emission limits, control requirements, and standards of performance; (8) odor, noise or other nuisance; and (9) payment of fees based on quantity of emissions.

For purposes of this Consent Decree, the "relevant time period" shall mean the period beginning when the United States' claims and/or Plaintiff-Intervenor's claims under the above statutes and regulations accrued through the date of entry of this Consent Decree. During the effective period of the Consent Decree, the emission units subject to this Consent Decree shall be on a compliance schedule and any modification to these units, as defined in 40 C.F.R. Part 52.21, which is not required by this Consent Decree is

beyond the scope of this resolution of claims. Nothing in this Paragraph 78 shall be construed to limit the Plaintiff and Plaintiff-Intervenor's right to demand stipulated penalties in accordance with Paragraph 57. Paragraph 78 shall survive the termination of the Consent Decree.

- 79. Other Laws. Except as specifically provided by this Consent Decree, nothing in this Consent Decree shall relieve Cargill of its obligation to comply with all applicable federal, state and local laws and regulations. Nothing in this Consent Decree shall relieve Cargill of its obligation to comply with state and local laws, rules and regulations which become effective after the date of lodging of the consent decree or with State Implementation Plan provisions promulgated after the date of lodging of the Consent Decree. Subject to Paragraphs 60 and 78, nothing contained in this Consent Decree shall be construed to prevent or limit the United States' or the Plaintiff-Intervenor's rights to obtain penalties or injunctive relief under the Act or other federal, state or local statutes or regulations, including but not limited to, Section 303 of the Act, 42 U.S.C. § 7603.
- 80. Third Parties. Except as otherwise provided by this Consent Decree or by law, this Consent Decree does not limit, enlarge or affect the rights of any party to this Consent Decree as against any third parties. Nothing in this Consent Decree should be construed to create any rights, or grant any cause of action, to any person not a party to this Consent Decree.
- 81. <u>Costs</u>. Each party to this Consent Decree shall bear its own costs and attorneys' fees through the date of entry of this Consent Decree.
- 82. <u>Public Documents</u>. All information and documents submitted by Cargill to the Plaintiff and Plaintiff-Intervenors pursuant to this Consent Decree shall be subject to public

inspection, unless subject to legal privileges or protection or identified and supported as business confidential by Cargill in accordance with 40 C.F.R. Part 2.

- 83. Public Comments Federal Approval. The parties agree and acknowledge that final approval by the United States and entry of this Consent Decree is subject to the requirements of 28 C.F.R. Part 50.7, which provides for notice of the lodging of this Consent Decree in the Federal Register, an opportunity for public comment, and consideration of any comments. The United States reserves the right to withdraw or withhold consent if the comments regarding this Consent Decree disclose facts or considerations which indicate that this Consent Decree is inappropriate, improper or inadequate. Cargill and the Plaintiff-Intervenors consent to the entry of this Consent Decree.
- 84. Notice and Penalty Payment. Unless otherwise provided herein, notifications to or communications with the United States, EPA, the Plaintiff-Intervenors or Cargill shall be deemed submitted on the date they are postmarked and sent either by overnight receipt mail service or by certified or registered mail, return receipt requested. Except as otherwise provided herein, when written notification to or communication with the United States, EPA, the Plaintiff-Intervenors or Cargill is required by the terms of this Consent Decree or when payment of a penalty is required by the terms of this Consent Decree, it shall be addressed or paid as set forth in Appendix Q:
- 85. <u>Change of Notice Recipient</u>. Any party may change either the notice recipient or the address for providing notices to it by serving all other parties with a notice setting forth such new notice recipient or address.

- 86. <u>Modification</u>. Except as provided herein, there shall be no modification of this Consent Decree without written agreement of the parties. There shall be no material modification of this Consent Decree without the written agreement of the parties and by Order of the Court.
- 87. <u>Continuing Jurisdiction</u>. The Court retains jurisdiction of this case after entry of this Consent Decree to enforce compliance with the terms and conditions of this Consent Decree and to take any action necessary or appropriate for its interpretation, construction, execution, or modification. During the term of this Consent Decree, any party may apply to the Court for any relief necessary to construe or effectuate this Consent Decree.

#### XI. TERMINATION

party may, upon motion to the Court, seek to terminate specific provisions of this Consent Decree. This Consent Decree shall be subject to complete termination upon motion by any party after Cargill satisfies all requirements of this Consent Decree. At such time, if Cargill believes that it is in compliance with the requirements of this Consent Decree, and has paid the civil penalty and any stipulated penalties required by this Consent Decree, then Cargill shall so certify to the Plaintiff and the appropriate Plaintiff-Intervenors, and unless the Plaintiff and the appropriate Plaintiff-Intervenors object in writing with specific reasons within sixty (60) days of receipt of the certification, the Court shall order that this Consent Decree be terminated on Cargill's motion. If the Plaintiff or Plaintiff-Intervenors object to Cargill's certification, then the matter shall be submitted to the Court for resolution under Part IX ("Dispute Resolution") of this Consent Decree. Paragraphs 39 and 78 shall survive the termination of the Consent Decree.

So entered in accordance with the foregoing this _			day of	, 2005.
		United States District of Minnes	<del>-</del>	

#### FOR PLAINTIFF, THE UNITED STATES OF AMERICA:

ELLY A. JOHNSON

Acting Assistant Attorney General Environment and Natural Resources

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**Environmental Enforcement Section** 

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300 South Fourth Street

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By:

FRED SIEKERT

Assistant United States Attorney

District of Minnesota

## United States et al. v. Cargill, Inc.

For Headquarters US EPA

THOMAS V. SKINNER

Acting Assistant Administrator

Office of Enforcement and Compliance Assurance

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Washington, D.C. 20460

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Acting Regional Administrator

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Agency, Region V

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Date 7-27-05

Richard E. Greene

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U.S. Environmental Protection

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Date 07-22-05

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Atlanta, Georgia 30303-3104

Date AUG - 1 2005

Robert E. Roberts
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Denver, CO 80202-2466

Date: JUL 2 1 2005

## United States et al v. Cargill, Incorporated

## FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY:

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# FOR THE PLAINTIFF-INTERVENOR, THE STATE OF ALABAMA

1	m	radle-	Gore

Date 8-1-05

Name Title

Address

CHIEF, AIR DIVISION ALA-DEPT. OF ENV. MEMT. MONTGIMEN, AL.

FOR THE PLAINTIFF-INTERVENOR, THE STATE OF GEORGIA

Name

Title

Address

55

## FOR THE PLAINTIFF-INTERVENOR, THE STATE OF ILLINOIS

FOR THE STATE OF ILLINOIS PEOPLE OF THE STATE OF ILLINOIS *ex rel*.

LISA MADIGAN,
Attorney General of the State of Illinois

MATTHEW J. DUNN, Chief
Environmental Enforcement/Asbestos Litigation Division

BY: DATE: 8/08/05

THOMAS DAVIS, Chief
Environmental Bureau
Assistant Attorney General

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

BY: DATE: 8/14/05

ROBERT A. MESSINA
Chief Legal Counsel

FOR THE PLAINTIFF-INTERVENOR, THE STATE OF INDIANA

Date: JULY 25, 2005

THOMAS W. EASTERLY

Commissioner

Indiana Department of Environmental Management

Approved as to form and legality:

STEVE CARTER

Indiana Attorney General

Date: August 5, 2005

CHARLES J. TODD

Chief Operating Officer

Office of the Attorney General Indiana Government Center South

5<sup>th</sup> Floor

302 West Washington Street Indianapolis, IN 46204

# FOR THE PLAINTIFF-INTERVENOR, STATE OF IOWA

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## FOR PLAINTIFF-INTERVENOR, THE STATE OF NEBRASKA:

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Attorney General

By:

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#### FOR THE PLAINTIFF-INTERVENOR, THE STATE OF OHIO

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**Environmental Enforcement Section** 

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Columbus, Ohio 42315-3400

Date: 8/8/05

FOR THE COMBINED HEALTH DISTRICT OF MONTGOMERY COUNTY, OHIO REGIONAL AIR POLLUTION CONTROL AGENCY

JOHN A. PAUL, RAPCA Supervisor

Duly Authorized Agent for the Health Commissioner

**RAPCA** 

117 South Main Street

Dayton, Ohio 45422

Date: 8/8/05

RECEIVED
AUG 8 2005

REGIONAL AIR
POLLUTION CONTROL

FOR THE PLAINTIFF-INTERVENOR, THE TENNESSEE COUNTY OF SHELBY AND CITY OF MEMPHIS

	X	lun	Mudlich
Ì	$\nabla \nabla$	ONNE S. MADI	LOCK

Director

Memphis and Shelby County Health Department

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Memphis, Tennessee 38105

## FOR THE PLAINTIFF-INTERVENOR, THE STATE OF NORTH DAKOTA

1-25-85

Date

Terry L. Dwelle, MD, MPHTM

State Health Officer State of North Dakota 600 E. Boulevard Avenue

2<sup>nd</sup> Floor-Judicial Wing

Bismarck, ND 58505-0200

Telephone 701.328.2372

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#### United States, et al. v. Cargill Incorporated

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## FOR THE IOWA COUNTY OF POLK

Date: 7/25/05

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FOR DEFENDANT, CARGILL, INCORPORATED

Ronald L. Christenson

Corporate Vice President, Chief Technology Officer

Cargill, Incorporated

15615 McGinty Road West

Wayzata, Minnesota 55391-2398

Date Meg. 02, 2005

#### **List of Appendices**

Appendix A—List of Cargill Oilseed and Corn Processing Facilities Subject to The Consent Decree

Appendix B—Boiler SO<sub>2</sub> Emission Control Plan

Appendix C—Boiler CO Emission Control Plan

Appendix D—Boiler NO<sub>x</sub> Emission Control Plan

Appendix E—Extraction VOC Emission Control Plan—Soybean Processing Plants

Appendix F—Extraction VOC Emission Control Plan—Corn Germ and Sunflower Processing Plants

Appendix G – Extraction VOC Emission Control Plan – Specialty Plants

Appendix H – Corn Processing VOC Emission Control Plan

Appendix I – Integrated Feed/Bran Drying System VOC Emission Control Plan

Appendix J – Dayton Corn Processing

Appendix K – Corn Processing CO Emission Control Plan

Appendix L – Hammond Process Source SO<sub>2</sub> Emission Control Plan

Appendix M - Performance Testing Plan

Appendix N - Extraction Solvent Loss Recordkeeping Template

Appendix O – Carbon Furnace Test Protocol

Appendix P – Supplemental Environmental Projects

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# Appendix A

List of Cargill Corn and Oilseed Processing Facilities Subject to the Consent Decree

# Appendix A- List of Cargill Corn and Oilseed Processing Facilities Subject to the Consent Decree

### I. Corn Processing Facilities

Facility	Address
Blair, Nebraska (note 1)	650 Industrial Road
	Blair, NE 68008
Cedar Rapids, Iowa	1710 16 <sup>th</sup> Street S.E.
	Cedar Rapids, IA 52401
Dayton, Ohio	3201 Needmore Road
	Dayton, OH 45414-4321
Decatur, Alabama	1030 State Docks Road
	Decatur, AL 35601-7538
Dimmitt, Texas (note 2)	700 East Jones Street
	Dimmitt, TX 79027
Eddyville, Iowa	1 Cargill Drive
·	Eddyville, IA 52553-5000
Hammond, Indiana	1100 Indianapolis Blvd.
	Hammond, IN 46320
Memphis, Tennessee	2330 Buoy Street
	Memphis, TN 38113-1502
Wahpeton, North Dakota	18049 County Road 8E
	Wahpeton, ND 58075

- (1) The Blair, NE facility includes all sources and operations that have been permitted as part of the wet corn mill facility (including the ethanol facility). Facilities at Blair, NE that are now, or were in the past, joint ventures with Cargill are not subject to the Consent Decree.
- (2) Cargill shall notify the Plaintiff and Appropriate Plaintiff-Intervenor of the re-start of the Dimmitt, TX facility in the first semi-annual report filed pursuant to Paragraph 36 after the re-start of the facility.

### **II. Oilseed Processing Facilities**

Facility	Address
Cedar Rapids East, Iowa	411 6 <sup>th</sup> Street Northeast
	East Cedar Rapids, IA 52402
Des Moines, Iowa	3030 East Granger Avenue
	Des Moines, IA 50306
Fayetteville, North Carolina	1754 River Road
	Fayetteville, NC 28301
Gainesville, Georgia	862 West Ridge Road
	Gainesville, GA 30501

Guntersville, Alabama	2930 Guntersville Park Drive
	Guntersville, AL 35976
Iowa Falls, Iowa	602 Industrial Road
	Iowa Falls, IA 50126
Kansas City, Missouri	2334 Rochester Avenue
	Kansas City, MO 64120
Raleigh, North Carolina	1400 South Blount Street
	Raleigh, NC 27603-2506
Sidney, Ohio	2400 Industrial Drive
• :	Sidney, OH 45365
Sioux City, Iowa	11 <sup>th</sup> & Clark Streets
	Sioux City, IA 51101
Wichita, Kansas	1425 North Mosley
	Wichita, KS 67314
West Fargo, North Dakota	250 7 <sup>th</sup> Avenue NE
	West Fargo, ND 58078
Cedar Rapids West, Iowa	1110 12th Avenue SW
	Cedar Rapids IA 52404
Lafayette, Indiana	1503 Wabash Avenue
	Lafayette, IN 47905
Bloomington, Illinois	115 South Euclid
	Bloomington, IL 61702

# Appendix B

 $Boiler\ SO_{2}\ Emission\ Control\ Plan$ 

# Appendix B - Cargill Boiler SO2 Emission Control Plan

-	In The Activities Doccellation and Nimple	Heat Input MMBTU	Monitoring
Facility	Emission Offices and admission	240.5	CEMS - 12 month rolling sum
Cedar Rapids		567	CEMS - 12 month rolling sum
Dayton	PC Boiler - B004	17074	CEMS 12 month rolling Sum
Decatur	Stoker Boiler - S407 (2)	+7.671	Original and the control of the cont
Eddyville	Stoker Boiler - 1.001	282.1	OFIND - 12 INDIRITIONING SUM
T delivering	Stoker Boiler - 1 002	282.1	CEMS - 12 month folling sonn
Eddyville	000 t 2000	282.1	CEMS - 12 month rolling sum
Eddyville	Stoker Boller - 1.003	120	CEMS - 12 month rolling sum
Favetteville	Stoker Boiler - ES22	221	OTATO As month follow of the
olive original	Stoker Roller - B001	145	CEMS - 12 MOUNT TONING SANT
	10001 - 000 - 100	200	N/A
Hammond (1)	Bir No.6-Gas Tube & Tile - 1000	00+	Batira
Hammond (1)	Bir No. 7-Gas Tube & Tile - 1004U	021	10(10
(1)	DIVINO 8 Cas Tihe & Tile - 1005U	120	N/A
חמנווווסנות (1)	1900 AIL 0 AIL 0 0 TIL 1000 II	120	N/A
Hammond (1)	Bir No.10-Gas Tube & Tile -1000	547	CEMS - 12 month rolling sum
Memphis	Stoker Boiler - 8001	117	OCANO 40 month rolling Sum
Momphis	PC Boiler - 8301 (2)	247	
IVIEIUS	Control Dollar BOO4	54.34 (derated to 35.02)	CEMS - 12 month rolling sum
Signey	Stoker boller - boor	54 34 (denated to 26.4)	CEMS - 12 month rolling sum
Sidney	Stoker Boiler - B002	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	

# Comments:

CEMS monitoring shall be in accordance with 40 C.F.R. Part 60 and compliance with 40 C.F.R. Part 60 shall be deemed compliance with this Consent Decree.

Coal analysis will be conducted using at least one composite sample a month.

# Notes:

- (1) The Hammond boilers No. 6 fuel oil capability is being eliminated as part of the Boiler SO2 Emission Control Plan
- (2) Cargill shall demonstrate that the individual facility permit limits comply with the combined SO2 capacity weighted average of 1.2 Ib/MMBtu for the Cedar Rapids (PC Boiler 72-CB), Memphis (PC Boiler 8301) and Decatur (Stoker Boiler S407) coal boilers pursuant to paragraph 16 of this Consent Decree using the following compliance demonstration formula:

X \* (240.5/667.5) + Y \* (180/667.5) + Z \* (247/667.5) < or = 1.2 lb/ MMBtu

CR heat input capacity = 240.5 lb/ MMBtu

DE heat input capacity = 180 lb/ MMBtu

ME PC heat input capacity = 247 lb/ MMBtu

Total CR, DE, ME PC heat input capacity = 667.5 lb/ MMBtu

X = CR SO2 lb/MMBtu emission rate under new SO2 limit Y = DE SO2 lb/MMBtu emission rate under new SO2 limit Z = ME PC SO2 lb/MMBtu emission rate under new SO2 limit

# Appendix C

**Boiler CO Emission Control Plan** 

### Appendix C—Boiler CO Emission Control Plan

Cargill proposes installation of a staged combustion over fire air system as a CO emissions reduction and combustion optimization project for the Eddyville coal boilers (EU 1.001, 1.002 and 1.039). The project involves adding to the existing overfire air turbulence system including: (1) replacement of the existing overfire air fan with a new higher capacity fan; (2) addition of overfire air nozzles to each of the front and rear boiler walls; and (3) replacement of the headers and nozzles with a higher capacity design. The project also involves engineering and installation of equipment to modify the existing undergrate flue gas recirculation system to promote even distribution of the flue gas across the width of the existing undergrate air ductwork. Cargill also will engineer and install equipment for injecting flue gas above the grate surface. In addition, Cargill will undertake and complete additional boiler efficiency work that may include superheater and economizer repairs or replacement. The project is estimated to cost approximately \$8 million. The boilers are currently subject to BACT limits of 1100 lbs of CO per hour per boiler or 3.899 lbs CO/MMBtu heat input. Annual allowable CO emissions are presently 14,454 tons per year. Detroit Stoker Company has provided a guarantee that 12-month rolling average CO emissions from these units will be capable of meeting the proposed limit of 4,374 tons per year based on a 12-month rolling sum based on a flue gas outlet of O2 of 4% wet basis burning powder river basin coal. CO emissions from these units will be measured by a continuous emissions monitor.

## Appendix D

Boiler  $NO_x$  Emission Control Plan

Appendix D - Cargill Boiler N0x Emission Control Plan

ō	Emission Uhli Description Heat inputation and Number MMBTU	4.	Émission-Limitations.		Schedule (years fromentry of
7	ĽB	LNB, FGR	0.07 lh/mmbhi - 20 doir sailise		Consent Degree1
198 LNB, FGR	LNB,	FGR	0.07 lb/mmhti. 20 day (Ulling average	CEMS	10
	LNB,	LNB, FGR	0.07 b/mmtti: 30 day rolling average	CEMS	10
7	LNE	LNB, FGR	0.05 b/mmkti 20 day rolling average	CEMS	10
	LR	LNB/OFA	360 ton 55.13	CEMS	10
275 LNB	LNB	LNB, FGR	O OF This best 12-month rolling sum	CEMS	10
LNB	LNB	LNB, OFA, COMPLY W/NOX SIP PLAN	0.45 lb/mmbtu - 30 day rolling average		10
1	DET	18	12-month rolling sum	CEMS	ĸ
I	N N	SB REMOVE CLIBBENIE CLIC	Retire	N/A	(Nictor)
179.74 GOC	Ö	GOOD COMBLISTION	0.06 lb/mmbtu (NOTE 1) - 30 day rolling average	CEMS	(Note ()
97.6 BAC	BAC	K UP OPERATION	0.5/ ID/mmbtu - 30 day rolling average	CEMS	200
	BACK	BACK UP OPERATION	1800 hrs/12 month rolling period	Recordkeeping	2 2
	N N		1800 hrs/12 month rolling period	Recordkeeping	2 5
135.6 LNB	LNB		0.08 lb/mmbtu	Ref. Method Testing	2 5
	FGR	FGR. COMRINED LIMIT	0.14 lp/mmbtu	Ref. Method Testing	5 5
	FGR	FGR COMBINED I MIT	212.1 lb/hr - 30 day rolling average (NOTE 2)	CEMS	2 0
282.1			212.1 lb/nr - 30 day rolling average (NOTE 2)	CEMS	2 0
	FGR	FGR, COMBINED LIMIT	212.1 lb/nr - 30 day rolling average (NOTE 2)	CEMS	10
			2.00 iD/IIIIDIU	CEMS	10
182.1 LNB	LNB	D LIMIT	212.1 lb/lil - 30 day rolling average (NOTE 2)	CEMS	10
	000		6.7 lb/mmht	CEMS	40
	000		o. r izrninoju	Ref. Method Testing	10
	RET		S.4 i normingto	Ref. Method Testing	10
160 LNB	LNB	LNB, FGR, COMBINED LIMIT	newer of the property of the p	N/A	10
200 CON	SON		O SO IN MARKET	Ref. Method Testing/Recordkeeping	10
	RETI		Sofire	Ref. Method Testing/Recordkeeping	10
	BACK	BACK UP OPERATION, COMBINED I MIT	1800 bg/13 month	N/A	9
	BAC	T.	-	Recordkeeping	10
	TBD	T		Recordkeeping	10
	TBD		limit of 786 tons ner	CEMS	3 (NOTE 4)
312 TBD	8		12 month rolling sum (NOTE 3)	CEMS	3 (NOTE 4)
184.3 LNB	LNB	LNB, FGR		CEMS	3 (NOTE 4)
	BACK	BACK UP OPERATION		CEMS	10
			Strategies when boller - 23 is not operating	Recordkeeping	10

Comments:

To permit the installation of boiler NOx control, Cargill may bring on site and use temporary boilers, provided boilers are gas fired and fired for no longer than 30 days per an installation.

CEMS monitoring shall be in accordance with 40 CFR Part 60 and compliance with 40 CFR Part 60 shall be deemed compliance with this Consent Decree.

(1) To implement the retining of 8005 and the acceptance of 0.06 lb/mmbtu on 8006, the natural gas fuel usage limits on 8006 will be removed from Ohio Permit to Install No. 08-4215. Cargill will comply with the 0.06 lb/mmbtu emission limitation when using natural gas or fuel oil. Within twenty-four months of the date of lodging of this consent decree, Cargill will submit an Ohio permit to install application to RAPCA for the retirement of 8005 and the natural gas useage restrictions for 8006.

(2) Total NOx from Stoker Boilers 1.001, 1.002, 1.039 and package boilers 84 and 86 is limited to 212.1 lb/hr., 30 day rolling average.

(3) To implement the NOx cap, coal volume limits and ash limits on 8001 and 8301 are removed.

(4) All controls required to meet the total NOx allowable shall be installed by the end of the third year from entry of the Consent Decree. Compliance with the 12-month rolling sum shall be demonstrated beginning 12 months after the third year from entry of the Consent Decree.

# Appendix E

**Extraction VOC Emission Control Plan—Soybean Processing Plants** 

## Appendix E—Extraction VOC Emission Control Plan—Soybean Processing Plants

Facility	Design Capacity TPY
Cedar Rapids East, Iowa	1,007,400
Des Moines, Iowa	766,500
Fayetteville, North Carolina	1,095,372
Gainesville, Georgia	990,000
Guntersville, Alabama	1,042,440
Iowa Falls, Iowa	1,040,250
Kansas City, Missouri	993,000
Raleigh, North Carolina	930,750
Sidney, Ohio	945,000
Sioux City, Iowa	1,642,500
Wichita, Kansas	777,000

### **Total Solvent Loss Capacity Weighted Average:**

Cargill shall demonstrate compliance with the Total Solvent Loss Capacity Weighted Average using the following compliance demonstration formula:

Conventional Soybean =  $\sum$  (Seed i \*SLR i) /  $\sum$  (Seed i)  $\leq$  0.175 gal/ton

Where:

Seed i = Design capacity of oilseed plant i; and

SLR <sub>i</sub> = Final SLR Limit for oilseed plant i.

## Appendix F

**Extraction VOC Emission Control Plan—Corn Germ and Sunflower Processing Plants** 

# Appendix F—Extraction VOC Emission Control Plan—Corn Germ and Sunflower Processing Plants

Facility	Design Capacity TPY
West Fargo, North Dakota	735,840
Eddyville, Iowa	547,500
Memphis, Tennessee	547,500
Blair, Nebraska	438,000

### **Total Solvent Loss Capacity Weighted Average:**

Cargill shall demonstrate compliance with the Total Solvent Loss Capacity Weighted Average using the following compliance demonstration formula:

Corn Germ / Sunflower =  $\sum$  (Seed i \*SLR i) /  $\sum$  (Seed i)  $\leq$  0.30 gal/ton

Where:

Seed i = Design capacity of oilseed plant i; and

SLR i = Final SLR Limit for oilseed plant i.

## Appendix G

**Extraction VOC Emission Control Plan – Specialty Plants** 

### Appendix G

### **Extraction VOC Emission Control Plan - Specialty Plants**

Location	Specialty Solvent Loss Factor	Conventional Solvent Loss Factor
Lafayette, Indiana	1.0 gal/ton	0.175 gal/ton
Cedar Rapids West, Iowa	0.9 gal/ton	0.175 gal/ton
Bloomington, Illinois	0.9 gal/ton	0.175 gal/ ton

### Compliance Demonstration Calculation

Compliance Ratio = 
$$\frac{\text{Actual Solvent Loss}}{\text{n}}$$

$$\frac{\Sigma \text{ ((Oilseed)}_{i} * \text{(SLF)}_{i})}{\text{i=1}}$$

Actual Solvent Loss = Gallons of actual solvent loss during previous 12 operating months

Oilseed = Tons of each oilseed type "i" (Specialty and Conventional) processed during the previous 12 operating months

SLF = The corresponding solvent loss ratio limit (gal/ton) for oilseed "i" listed in Table

Compliance is to be determined on a location specific basis.

If the compliance ratio is less than or equal to 1, the source was in compliance.

# Appendix H

**Corn Processing VOC Emission Control Plan** 

Blair							
Blair	Carbon Furnace - Fructose - (58)	Zero hearth furnace	95% control or <* 10ppm	Operating Temperature TBD (3 hour average)	Operating Temperature TBD (3 hour average)	Continuously	6
	Gluten Flash Drying - (8)	Thermal oxidizer	95% control or <= 10ppm	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	5
Blair	Steephouse Scrubber (5)	Scrubber	95% control or <= 20 ppm or atternative limit (1)	scrubbant flow rate, pH & pressure drop	TBD (scrubbant flow rate - 3 hour average; pH & pressure drop - once per day)	Scrubbant flow rate - continuously; pH and pressure drop - once per day	e,
Cedar Rapids	Carbon Furnace - Corn Syrup - (EU32)	Zero hearth furnace	95% central or <= 10ppm	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	8
Cedar Rapids	Feed Drying - Rotary - (EU-72-FD)	Thermal oxidizer	95% control or <≠ 10 ppm	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	. و
Cedar Rapids	Feed Drying - STD - (EU-72-FD)	Thermal oxidizer	95% control or <= 10 ppm	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	ம
Cedar Rapids	Germ Drying - Fluid Bed - (EU-113)	Thermal oxidizer	95% control or <= 10 ppm	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	ĸ
Cedar Rapids	Germ Drying - Fluid Bed - (EU-20)	Thermal oxidizer	95% control or <= 10 ppm	Operating Temperature TBD (3 hour average	TBD (3 hour average)	Continuously	. 9
Cedar Rapids	Gluten Drying · STD · (EU-20)	Thermal oxidizer	95% control or <= 10 ppm	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	ю
Cedar Rapids	Gluten Drying - STD - (EU-20)	Thermal oxidizer	95% control or <* 10 ppm (	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	w
Cedar Rapids	Steephouse Scrubber (EU-41)	Scrubber	95% control or <= 20 ppm or atternative ilmit (1)	scrubbant flow rate, pH & pressure drop	TBD (scrubbant flow rate - 3 hour average; pH & pressure drop - once per day)	Scrubbant flow rate - continuously; pH and pressure drop - once per day	9
Dayton	Carbon Furnace - Corn Syrup - (P067)	Zero hearth furnace	95% control or <= 10ppm	Operating Temperature	TBD (3 hour average)	Continuously	8
Dayton	Carbon Furnace - Fructose - (P582)	Zero hearth furnace	95% control or <= 10ppm	Operating Temperature	TBD (3 hour average)	Continuously	6
Dayton	Gluten Drying - Flash - (P057)	Thermal oxidizer	98% control (3)	Operating Temperature	TBD (3 hour average)	Continuously	s.
Dayton	Germ Drying - STD - (P031)	Thermal oxidizer	98% control (3)	Operating Temperature	TBD (3 hour average)	Continuously	9
Dayton	Germ Drying - STD - (P052)	Thermal oxidizer	98% control (3)	Operating Temperature TBD (3 hour average	TBD (3 hour average)	Continuously	ъ
Dayton	Germ Drying - STD - (P088)	Thermal oxidizer	98% control (3)	Operating Temperature TBD (3 hour average	TBD (3 hour average)	Continuously	ş
Dayton	Gluten Drying - Flash - (P072)	Thermal oxidizer	98% control (3)	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	2
Decatur	Carbon Furnace	Zero hearth furnace or thermal oxidizer	95% control or <= 10ppm	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	s
Decatur	Carbon Furnace	Zero hearth furnace or thermal oxidizer	95% control or <= 10ppm	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	S
Decatur	Feed Drying - Rotary	Thermal oxidizer	95% control or <= 10ppm	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	s
Dimmitt	Carbon Furnace - (S-304)	Zero hearth furnace or thermal oxidizer	95% control or <= 10ppm	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	s
Eddyville	Carbon Furnace - (37.000)	Zero hearth furnace	95% control or <= 10ppm	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	e
Eddyville	Carbon Furnace - (56.000)	Zero hearth furnace	95% control or <* 10 ppm	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	၈
Eddyville	Millrouse Scrubber (9.000)	Scrubber	95% control or <= 20 ppm or : atternative limit (1)	scrubbant flow rate, pH & pressure drop	TBD (scrubbant flow rate - 3 hour average; pH & pressure drop - once per day)	Scrubbant flow rate - continuously; pH and pressure drop - once per day	ю
Eddyville	Milhouse Scrubber (102.000)	Scrubber	95% control or <= 20 ppm or afternative limit (1)	scrubbant flow rate, pH & pressure drop	TBD (scrubbant flow rate - 3 hour average; pH & pressure drop - once per day)	Scrubbant flow rate - continuously; pH and pressure drop - once per day	в
Eddyville	Milhouse Scrubber (119.000)	Scrubber	95% control or <= 20 ppm or scrubbant flow rate, pH allemative limit (1) & pressure drop		TBD (scrubbant flow rate - 3 hour average; pH & pressure drop - once per day)	Scrubbant flow rate - continuously; pH and pressure drop - once per day	თ

# Appendix H - Corn Processing VOC Emission Control Plan

HATE STREET							7
Facility	Emission Unit Description and Number	Control Device 1 Description	Emesion Limit	Parameters Monitored	Combinate Operating Barge	Parameter Monitoring Frequency	Schedule (years from lodging of Consent Decree)
Hammond	Carbon Furnace - (104-01-R)	Zero hearth furnace	95% control or <= 10ppm	Operating Temperature TBD (3 hour average)	TBD (3 hour average)		3 (2)
Hammond	Hammond Feed Drying - Rotary - (124-01-G)	Thermal oxidizer	TBD (Note 4)	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	5 (2)
Наттопо	Germ Drying - Rotary - (21A-02-G)	Thermal oxidizer	TBD (Note 4)	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	5(2)
Наттолб	Germ Drying - Rotary - (51A-02-G)	Thermal oxidizer	TBD (Note 4)	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	5 (2)
Memphis	Carbon Furnace - Corn Syrup - (6008)	Zero hearth furnace	95% control or <= 10ppm	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	8
Memphis	Carbon Furnace - Fructose - (9002)	Zero hearth furnace	95% control or <= 10ppm	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	8
Memphis	Carbon Furnace - Fructose - (9008)	Zero hearth furnace	95% control or <= 10ppm	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	3
Memphis	Gluten Drying - Flash - (4008B)	Thermal oxidizer	95% control or <= 10ppm	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	\$
Memphis	Gluten Drying - Flash - (4011)	Thermal oxidizer	95% control or <= 10ppm	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	9
Memphis	Germ Drying - STD - (4011)	Thermal oxidizer	95% control or <= 10ppm	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	so.
Memphis	Germ Drying - STD - (4011)	Thermal oxidizer	95% control or <= 10ppm	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	5
Wahpeton	Wahpeton   Carbon Furnace - Fructose - (REP41)	Zero hearth furnace	95% control or <= 10ppm	Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	

# Comment

In addition, for unit(s) controlled by RTOs not designed for on-line regeneration (i.e., bake-out) and that are not preceded by a WESP or equivalent device(s), the emission limitations do not apply to periods of off-line RTO regeneration must be secred 12 unit operating hours. For RTOs severations are not an an one unit, a unit operating hours, is any hour in which one or more of the unit is on line. Off-line RTO regeneration while all associated units are shut down, not included in these operating limitations. Also, off-line RTO regenerations because the example of the resonance of the RTO is off-line dution of the resonance of the RTO is off-line dution of the resonance of the RTO) is not all the resonance of the RTO is off-line dution of the resonance of the RTO) and an advantage of the resonance of the RTO) and advantage of the resonance of the RTO) and affairs these operating limitations for a specific RTO. With respect to the Dayton, OH facility, all on-line regeneration (or bake-out) stall be conducted in accordance with OAC Rules

All To Be Determined (TBD) values will be established through stack testing pursuant to Appendices M and O.

Notes:

(1) To the extent that the VOC performance test for this source demonstrates emissions above the 20 ppm and 95 percent VOC destruction efficiency emission limit noted above, within 90 days from the detections at the performance test, Cargilli shalf subdience that the Appropriate Plantiff Intervenors that will establish a schedule to be completed within five years of lodging of this Consent Decree as wasting at the facility that are equivalent to or greater than the horn per year reduction hereassary for the state source to meet the lessed on 2003 baseline to 20 ppm as additional vol. or effect charges to test methodology); or (2) for sources that are subject to VOC central under this Appendix to the Consent Decree based on 2003 baseline to VOC emissions (as adjusted, if necessary, to reflect charges to test methodology); or (2) for source that the percent of th

(2) Within five years from the date of todging of this Consent Decree, Cargill shall submit the emission limits established pursuant to Paragraph 23 and this Appendix as an amendment to the Hammond, Indiana facility's RACT plan; IDEM shall incorporate the emission limits into the RACT plan.

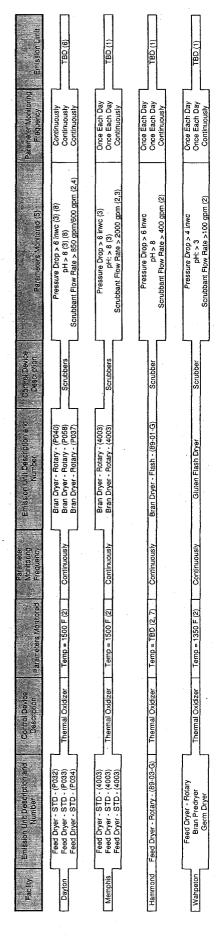
(3) Cargill shall demonstrate compliance with 98% control by complying with the Dayton, Ohio Corn Processing Ozone Cap in Appendix J.

(4) The overall control efficiency requirement for this unit shall be established through performance testing approved by IDEM and conducted in accordance with Appendix M. IDEM will establish the overall control efficiency requirement will be established pursuant to Paragraph 34.

## Appendix I

**Integrated Feed/Bran Drying System VOC Emission Control Plan** 

# Appendix I - Integrated Feed/Bran Drying Systems VOC Emission Control Plan



# Comments:

Thermat oxidizers at Dayton and Memphis facilities will be designed to meet a residence time of at least one second and a combustion temperature of 1500%.

Prior to initial performance testing (as per Appendix M) final optimized scrubber parameters for pH +/- one unit of listed parameters and scrubbant flow rate +/- 20 percent of listed parameters will be evaluated and established based on assessment of VOC outlet concentrations using the rest Method 254 for continuous is bedacted and analysis. The optimized parameters, to the extent they are different from listed parameters, must be met as of the date of initial performance testing and, as of the date of initial performance testing and, as of the date of initial performance testing and the consent Decrees.

# Notes:

- (1) Within three years from lodging of this Consent Decree, Cargill shall undertake performance testing of the scrubber outlet of the integrated feed/bran drying system as per Appendix M to establish an emission limit for this system.
- (2) 3 hour average.
- (3) Operating parameters specified are for each scrubber.
- (4) 850 gpm applies to scrubber for P037 & P040 600 gpm applies to scrubber for P058.
- (5) Within five years from the date of lodging of this Consent Decree, Cargill shall submit the emission limits established pursuant to Paragraph 24 and this Appendix as an amendment to the Hammond, Indiana facility's RACT plan; IDEM shall incorporate the emission limits into the RACT plan.
- (6) Within three years from lodging of this Consent Decree, Cargill shall conduct performance testing of the two existing scrubber outlet stacks of the integrated feed/bran drying system as per Appendix M to establish the allowable short-term VOC emission limit for this system. The measured VOC emission results shall be converted to pounds be though an integrated deviation inters. 2.22 divided by this square allowable specimens of the test runs. The measured by the entire the state of the test runs shall be not less than arithment. Emission measurements shall be performed according to U.S. EFA Reference Test Method 25s, in the event U.S. Exp anomington and RAPCA requests Cargill to use such that the propose of the state than shall be not less than arithment. Emission measurements shall be performed according to U.S. EFA Reference Test Method 25s, in the event U.S. Exp anomington and RAPCA requests Cargill is used. standard deviation times 2.92 divided by the square root of the number of test runs.
- (7) Feed Dryer (89-03-G) shall demonstrate compliance with a control efficiency requirement of 95% control or <= 10 ppm. The temperature limit for the themal oxidizer shall equal the temperature at which the feed dryer demonstrates 95% control or <= 10 ppm.
- (8) Cargill shall record the pressure drop once per a day, Cargill shall record pH as an average for each 8-hour shift white the emissions unit is in operation

# Appendix J Dayton Corn Processing

# Appendix J - Dayton, Ohio Corn Processing Ozone Cap

Emission Unit Number and Description	Pollutant Included in Ozone Cap	Monitoring
PC Boiler (B004)	XON	CEM(1)
Package Boiler (B006)	NOx	CEM(1)
Package Boiler (B005)	NOx	Retire
Gluten Drying-Flash (P057)	VOC	Performance Testing (2)(3)
Germ Drying-STD (P031)	VOC	Performance Testing (2)(3)
Germ Drying-STD (P052)	VOC	Performance Testing (2)(3)
Germ Drying-STD (P088)	VOC	Performance Testing (2)(3)
Carbon Furnace -Corn Syrup (P067)	VOC	Performance Testing (2)(3)
Carbon Furnace-Fructose (P582)	VOC	Performance Testing (2)(3)
Gluten Drying-Flash (P072)	VOC	Performance Testing (2)(3)
Feed Dryers-STD (P032, P033 & P034) Bran Dryers-Rotary (P040, P058 & P037)	NOC.	Performance Testing (2)(3)

# Comments:

The 12-month rolling sum total of 854 tons of NO<sub>x</sub> and VOC emissions from the sources and for the pollutants noted in column 2 above will be used to demonstrate compliance with the ozone cap of 854 tons of VOC and NO<sub>x</sub> per 12-month period as per paragraphs 25 and 30 of the Consent Decree. Compliance with the 12-month rolling sum ozone cap of 854 tons for the process source VOC and boiler NO<sub>x</sub> emission sources listed in Appendix J above shall be demonstrated during the first 11 months following the fifth year from lodging of the Consent Decree based on the following schedule of limits in tons per year:

Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11
142	284	356	427	498	567	641	711	749	785	822

In addition to the emissions testing and other requirements of this Appendix J, Cargill shall also comply with the emissions testing requirements set forth in Appendix M, including testing of emission units P032, P034, P040, P058 and P037.

# Notes:

Within five years from lodging of the Consent Decree, NOx emissions will be measured by CEMs and recorded by a data acquisition system. Emissions concentrations recorded by the CEMs will be converted to mass emissions using the air volume as determined by the continuous flow monitor.  $\equiv$ 

# Appendix J - Dayton, Ohio Corn Processing Ozone Cap

Within five years from lodging of the Consent Decree, annual VOC performance testing (once per 12-month period) will occur for the VOC sources identified above (P032, P033, P034, P040, P058, P037, P057, P031, P052, P088, P067, P582, & P072). All VOC performance testing will be conducted using U.S. EPA Reference Test Method 25A. All measured VOC results will be converted to a pound per hour basis, and multiplied by 2.2 in accordance with OAC Rule 3745-21-10(C)(7).

(N

An emission factor for each VOC source based on pound per hour VOC emission rates as determined during the most recent testing will be divided by a compliance with the ozone cap through completion each month of the Ozone Cap Data Recording and Compliance Demonstration Template included in corresponding process rate (bushels of ground corn for dryer sources and tons of carbon regenerated for carbon furnaces). The emission factor will be used to calculate the monthly sum of VOC emissions that will be combined with the monthly sum of NOx emissions from the NOx sources listed in this Appendix to determine compliance with the ozone cap. If a VOC emission unit identified above is modified within the definition of "modification" under OAC 3745-31-01(PPP), then Cargill will retest the VOC emission rate for such emission unit within 90 days from the modification. Cargill shall track his Appendix.

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multiplied by a factor of 2.2, plus the standard deviation times 2.92 divided by the square root of the number of test runs. The number of test runs shall be short-term VOC limits, Cargill shall, within 12-months of a request by RAPCA to use such new method, conduct emissions testing using the new method 2.92 divided by the square root of the number of test runs. The number of the vocame square root of the vocame stringent allowable short-term VOC emissions limit for any of the VOC emission units identified in this Appendix J, EPA test method results in a more stringent allowable short-term VOC emissions fine vocame of the new promulated U.S. EPA Within five years from lodging of the Consent Decree, allowable short-term (lb/hour) VOC emission limits will be established for the VOC emission units listed above (P032, P033, P034, P040, P058, P037, P057, P031, P052, P088, P067, P582, & P072). All VOC performance testing shall be conducted through the use of U.S. EPA Reference Test Method 25A. The allowable short-term VOC emission limits will be based on the average of the initial 2.92 divided by the square root of the number of test runs. The number of test runs shall be not less than three. In the event the new promulgated U.S. and establish revised allowable VOC limits based on the average of the measured test runs of that new methodology plus the standard deviation times not less than three. In the event a new VOC test method is promulgated by U.S. EPA, for purposes of demonstrating compliance with any allowable Cargill shall demonstrate compliance with the new short-term limit within 24 months of the date of testing through use of the new promulgated U.S. performance test runs. The measured data based upon U.S. EPA Reference Test Method 25A shall be converted to a pound per hour basis, and test method. Compliance demonstration with the ozone cap will not change in the event of promulgation of a new test method and always will be demonstrated using the test methodology specified in note 2 above. For emission inventory purposes, including payment of emission fees, Cargill shall use the emission factor specified in note 2, above. In the event a new VOC test method is promulgated by U.S. EPA, Cargill shall, within 12-months of a request by RAPCA to use such new method, conduct testing of the VOC units listed above using the new method and use the results of such new method for completion of subsequent emission inventory submittals.

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# Appendix J - Dayton, Ohio Corn Processing Ozone Cap

# Ozone Cap Data Recording and Compliance Demonstration Template

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			ŏZ					
Unit Source (1 Inits IDs)	Parameter monitored	Month throughout	Onits	Emission factor	Units	Emissions (tons for month)	Data/Emissions Source	
$\perp$								
B004 PC Boiler (B004)	×ON						CEM Data (Per Pan 60)	
B005 #3 Boiler (B005)	Ö	לעו	out directly fro	Input directly from NOx CEM*			CEM Data (Per Part 60)	
700000000000000000000000000000000000000	C				,			
B006 #4 Boiler (B006)	× ON						OEIN Data (Fel Fait 60)	
Total Month Emissions						0.00		

				VOC				
Unit 10	Source	Parameter monitored	Month throughput	Units	Emission factor	Units	Emissions (tons for month)	Emissions (tons Data/Emissions for month)
P057	P057 Gluten/Germ Drvers	corn		sleusnq		le/snq/ql	0.00	Stack Test
P067	P067 Carbon Furnace - CS	carbon		tons		lb/ton	0.00	Stack Test
P072	P072 Gluten Drver	corn		sleusnq		le/spnshel	0.00	Stack Test
P582	P582 Carbon Furnace - FX	carbon		tons		lb/ton	0.00	Stack Test
*	Main Stack	corn		sieusnq		la/bushel	0.00	Stack Test
Total	Total Month Emissions						0.00	
5	MOUNT FILLIONS							

- CEM emission concentrations are converted to mass emissions by using the flow as determined by the continuous flow monitor.
- \*\* Main stack sources include: P032, P033, P034, P037, P040, P058
- Emission factors will be based on most recent stack testing results. Individual unit emission factors and emissions (tons per month) will be recorded and 12-month rolling sum calculated for each month by the 15th of the following month. \*\*

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Jonthly Emissions	
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Total	

# Appendix K

**Corn Processing CO Emission Control Plan** 

Appendix K - Corn Processing CO Emission Control Plan

Balt         Cachon Funzoe - Fructoes - (SB)         Zero Insanth Number         Polycommod or example         To D thour average)         Continuously         5           Codder Rapids         Cathon Funzoe - Fructoes - (SB)         Thermal codderer         900 commod or exito Comm	Facility	Emission Unit Description and Number	Control Device Description	Emission Limit	Parameters: Monitored	Compliance Operating Range	Parameter Monitoring Frequency	Schedule (years from lodging of Consent Decree)
r Rapids         Cuterin Drying Flath (8)         Thermal oxidizer         90%-control or ~ 100 operating Temperature (TeD (9 bour average))         Continuously           r Rapids         Cuterin Drying Flath (8)         Thermal oxidizer         90%-control or ~ 100 operating Temperature (TeD (9 bour average))         Continuously           r Rapids         Flath (8)         Flath (8)         Flath (8)         Flath (8)         Flath (8)         Continuously         Continuously           r Rapids         Flath (8)         Flath (8)         Flath (8)         Flath (8)         Flath (8)         Continuously         Continuously           r Rapids         Flath (8)         Flath (8)         Flath (8)         Flath (8)         Flath (8)         Continuously         Continuously           r Rapids         Guant Drying - Fluid Bed - (EU-113)         Thermal oxidizer         90%-control or ~ 100 operang Temperature         TED (8) ober average)         Continuously           r Rapids         Guant Drying - Fluid Bed - (EU-120)         Thermal oxidizer         90%-control or ~ 100 operang Temperature         TED (8) ober average)         Continuously           r Rapids         Guant Drying - Flath (8)         Thermal oxidizer         90%-control or ~ 100 operang Temperature         TED (8) ober average)         Continuously           r Rapids         Guant Drying - Flath (100 operang Tempera	Blair				Operating Temperature	TBD (3 hour average)	Continuously	တ
applies         Candon Furnace - Corn Syrup - EU32;         Zabo hearth furnace by 19% control or < 100 dopening Temperature TBD (3 hour average)         TDD (3 hour average)         Continuously           applies         Feed Dyving - STD - (EU-72-FD)         Thermal oxidizer         90% control or < 100 dopening Temperature TBD (3 hour average)	Blair	Gluten Drying Flash (8)			Operating Temperature	TBD (3 hour average)	Continuously	5
apids         Feat Dying - Fluid Bed - (EU-72-FD)         Thermal oxidizer         90% contrid or < 100         Operating Temperature TBD (3 hour average)         Confiniously           apids         Germ Dying - Fluid Bed - (EU-72-FD)         Thermal oxidizer         90% contrid or < 100	Cedar Rapids			90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	က
Rapids         General Dyving - STD - (EU-72-FD)         Thermal oxidizer         90% control or <- 100 Operating Temperature         TBO (by hour average)         Confithuously           Rapids         Germ Drying - Fluid Bed - (EU-113)         Thermal oxidizer         90% control or <- 100 Operating Temperature	Cedar Rapids	Feed Drying - Rotary - (EU-72-FD)			Operating Temperature	TBD (3 hour average)	Continuously	5
Section Drying - Fluid Bed - (EU-13)   Thermal oxidizer   100% control or ~ 100   Operating Temperature   TED (3 hour average)   Continuously   Continuously   Thermal oxidizer   100% control or ~ 100   Operating Temperature   TED (3 hour average)   Continuously   Continuous	Cedar Rapids	Feed Drying - STD - (EU-72-FD)		90% control or <= 100 ppm		TBD (3 hour average)	Continuously	z,
Red   Red   Pujuig - Fluid Bed - (EU-20)	Cedar Rapids	Germ Drying - Fluid Bed - (EU-113)		<= 100	Operating Temperature	TBD (3 hour average)	Continuously	2
Section   Drying - STD - (EU-20)   Thermal oxidizer   20% control or < 100   Operating Temperature   TBO (3 hour average)   Continuously	Cedar Rapids	Germ Drying - Fluid Bed - (EU-20)				TBD (3 hour average)	Continuously	S
Setting   Carbon Furnace - Corn Syrup - (P067)   Zero hearth furnace   20% control or <= 100   Operating Temperature   TBD (3 hour average)   Confinuously   Carbon Furnace - Corn Syrup - (P067)   Zero hearth furnace   20% control or <= 100   Operating Temperature   TBD (3 hour average)   Confinuously   Carbon Furnace - Furdose - (P882)   Zero hearth furnace   20% control or <= 100   Operating Temperature   TBD (3 hour average)   Confinuously   Carbon Furnace - Furdose - (P882)   Thermal oxidizer   20% control or <= 100   Operating Temperature   TBD (3 hour average)   Confinuously   Carbon Furnace   Thermal oxidizer   20% control or <= 100   Operating Temperature   TBD (3 hour average)   Confinuously   Carbon Furnace   Thermal oxidizer   20% control or <= 100   Operating Temperature   TBD (3 hour average)   Confinuously   Carbon Furnace   Thermal oxidizer   20% control or <= 100   Operating Temperature   TBD (3 hour average)   Confinuously   Thermal oxidizer   20% control or <= 100   Operating Temperature   TBD (3 hour average)   Confinuously   Carbon Furnace   Thermal oxidizer   20% control or <= 100   Operating Temperature   TBD (3 hour average)   Confinuously   Thermal oxidizer   20% control or <= 100   Operating Temperature   TBD (3 hour average)   Confinuously   Thermal oxidizer   20% control or <= 100   Operating Temperature   TBD (3 hour average)   Confinuously   Thermal oxidizer   20% control or <= 100   Operating Temperature   TBD (3 hour average)   Confinuously   Thermal oxidizer   20% control or <= 100   Operating Temperature   TBD (3 hour average)   Confinuously   Thermal oxidizer   20% control or <= 100   Operating Temperature   TBD (3 hour average)   Confinuously   Carbon Furnace   (Sero hearth furnace or 100   Operating Temperature   TBD (3 hour average)   Confinuously   Carbon Furnace   (Seco hearth furnace or 100   Operating Temperature   TBD (3 hour average)   Confinuously   Carbon Furnace   (Seco hearth furnace or 100   Operating Temperature   TBD (3 hour average)   Confinuously   Carbon Fu	Cedar Rapids	Gluten Drying - STD - (EU-20)	Thermal oxidizer		Operating Temperature	TBD (3 hour average)	Continuously	5
Carbon Furnace - Corn Syrub - (P087)         Zero hearth furnace         90% control or <= 100 perating Temperature         TBD (3 hour average)         Continuously           Carbon Furnace - Fructose - (P582)         Zero hearth furnace         30% control or <= 100 perating Temperature	Cedar Rapids	Gluten Drying - STD - (EU-20)	Thermal oxidizer	90% control or <= 100 ppm		TBD (3 hour average)	Continuously	വ
Carbon Furnace - Fructose - (PS62)	Dayton	Carbon Furnace - Corn Syrup - (P067)	Zero hearth furnace			TBD (3 hour average)	Continuously	ဇ
Carbon Furnace - (5.304)   Thermal oxidizer   90% control or <= 100   Operating Temperature   TBD (3 hour average)   Continuously   Department of <= 100   Operating Temperature   TBD (3 hour average)   Continuously   Department of <= 100   Operating Temperature   TBD (3 hour average)   Continuously   Department of <= 100   Operating Temperature   TBD (3 hour average)   Continuously   Department of <= 100   Operating Temperature   TBD (3 hour average)   Continuously   Department of <= 100   Operating Temperature   TBD (3 hour average)   Continuously   Department of <= 100   Operating Temperature   TBD (3 hour average)   Continuously   Department of <= 100   Operating Temperature   TBD (3 hour average)   Continuously   Department of <= 100   Operating Temperature   TBD (3 hour average)   Continuously   Department of <= 100   Operating Temperature   TBD (3 hour average)   Continuously   Department of <= 100   Operating Temperature   TBD (3 hour average)   Continuously   Department of <= 100   Operating Temperature   TBD (3 hour average)   Continuously   Department of <= 100   Operating Temperature   TBD (3 hour average)   Continuously   Department of <= 100   Operating Temperature   TBD (3 hour average)   Continuously   Department of <= 100   Operating Temperature   TBD (3 hour average)   Continuously   Department of <= 100   Operating Temperature   TBD (3 hour average)   Continuously   Department of <= 100   Operating Temperature   TBD (3 hour average)   Continuously   Department of <= 100   Operating Temperature   TBD (3 hour average)   Continuously   Department of <= 100   Operating Temperature   TBD (3 hour average)   Continuously   Department of <= 100   Operating Temperature   TBD (3 hour average)   Continuously   Department of <= 100   Operating Temperature   TBD (3 hour average)   Continuously   Department of <= 100   Department of <= 100   Operating Temperature   TBD (3 hour average)   Continuously   Department of <= 100   Department of <= 100   Department of <= 100   Department of <= 100   Department o	Dayton	Carbon Furnace - Fructose - (P582)	Zero hearth furnace		Operating Temperature	TBD (3 hour average)	Continuously	က
Germ Drying - STD - (P031)         Thermal oxidizer ppm         90% control or <= 100 perating Temperature         TBD (3 hour average)         Continuously           Germ Drying - STD - (P052)         Thermal oxidizer ppm         90% control or <= 100 perating Temperature	Dayton	Gluten Drving - Flash - (P057)	Thermal oxidizer	90% control or <= 100 ppm		TBD (3 hour average)	Continuously	S
Germ Drying - STD - (P052)         Thermal oxidizer         90% control or <= 100 ppm         Operating Temperature presenture         TBD (3 hour average)         Continuously ppm           Germ Drying - STD - (P088)         Thermal oxidizer         90% control or <= 100 ppm	Dayton	Germ Drying - STD - (P031)	Thermal oxidizer	90% control or <= 100 ppm		TBD (3 hour average)	Continuously	S
Germ Drying - STD - (P088)         Thermal oxidizer ppm         90% control or <= 100 operating Temperature ppm         TBD (3 hour average)         Continuously           Gluten Drying - Flash - (P072)         Thermal oxidizer thermal	Dayton	Germ Drying - STD - (P052)	Thermal oxidizer	90% control or <≖ 100 ppm		TBD (3 hour average)	Continuously	2
Gluten Drying - Flash - (PO72)       Thermal oxidizer thermal oxidizer       90% control or <= 100 operating Temperature por thermal oxidizer       90% control or <= 100 operating Temperature por thermal oxidizer       PDM operating Temperature por the port port port port port port port port	Dayton	Germ Drying - STD - (P088)	Thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	5
Carbon Furnace         Zero hearth furnace or thermal oxidizer         90% control or <= 100 operating Temperature         TBD (3 hour average)         Continuously           Carbon Furnace         Zero hearth furnace or thermal oxidizer         90% control or <= 100 operating Temperature	Dayton	Gluten Drying - Flash - (P072)	Thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	<b>ن</b> و
Carbon Furnace     Zero hearth furnace or thermal oxidizer     90% control or <= 100 operating Temperature     TBD (3 hour average)     Continuously       Feed Drying - Rotary     Thermal oxidizer     90% control or <= 100 operating Temperature	Decatur	Carbon Furnace		<= 100	Operating Temperature	TBD (3 hour average)	Continuously	5
Feed Drying - Rotary       Thermal oxidizer       90% control or <= 100 operating Temperature       TBD (3 hour average)       Continuously         Carbon Furnace - (S-304)       Zero hearth furnace or operating Temperature       90% control or <= 100 operating Temperature	Decatur	Carbon Furnace		90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	ະດ
Carbon Furnace - (S-304)     Zero hearth furnace or thermal oxidizer     90% control or <= 100   Operating Temperature     TBD (3 hour average)     Continuously       Carbon Furnace - (37.000)     Zero hearth furnace     90% control or <= 100   Operating Temperature	Decatur	Feed Drying - Rotary	Thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	ഹ
Carbon Furnace - (37.000)  Zero hearth furnace ppm ppm Carbon Furnace - (56.000)  Zero hearth furnace ppm ppm Denating Temperature TBD (3 hour average)  Carbon Furnace - (56.000)  Carbon Furnace - (56.000)	Dimmit	Carbon Furnace - (S-304)	Zero hearth furnace or thermal oxidizer	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	ಬ
Carbon Furnace - (56.000) Zero hearth furnace ppm Control or <= 100 Operating Temperature TBD (3 hour average) Continuously	Eddyville	Carbon Furnace - (37.000)	Zero hearth furnace	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	3
	Eddyville	Carbon Furnace - (56.000)	Zero hearth furnace	90% control or <= 100 ppm	Operating Temperature	TBD (3 hour average)	Continuously	3

# Appendix K - Corn Processing CO Emission Control Plan

Facility	Emission Unit Description and Number	Description	Parameters Emission Umit. Monitored	Compliance Operating Range	Monitoring Frequency	from lodging of Consent Decree)	
Hammond	Carbon Furnace - (104-01-R)	Zero hearth furnace	90% control or <= 100 Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	8	
Hammond	Feed Drying - Rotary - (124-01-G)	Thermal oxidizer	90% control or <= 100 Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	ţ,	
Hammond	Germ Drying - Rotary - (21A-02-G)	Thermal oxidizer	90% control or <= 100 Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	ហ	
Hammond	Germ Drying - Rotary - (51A-02-G)	Thermal oxidizer	90% control or <= 100 Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	5	
Memphis	Carbon Furnace - Corn Syrup - (6008)	Zero hearth furnace	90% control or <= 100 Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	8	
Memphis	Carbon Furnace - Fructose - (9002)	Zero hearth furnace	90% control or <= 100 Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	က	
Memphis	Carbon Furnace - Fructose - (9008)	Zero hearth furnace	90% control or <= 100 Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	က	
Memphis	Gluten Drying - Flash - (4008B)	Thermal oxidizer	90% control or <= 100 Operating Temperature TBD (3 hour average) ppm	TBD (3 hour average)	Continuously	5	
Memphis	Gluten Drying - Flash - (4011)	Thermal oxidizer	90% control or <= 100 Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	သ	
Memphis	Germ Drying - STD - (4011)	Thermal oxidizer	90% control or <= 100 Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	5	
Memphis	Germ Drying - STD - (4011)	Thermal oxidizer	90% control or <= 100 Operating Temperature TBD (3 hour average)	TBD (3 hour average)	Continuously	, S	
Wahpeton	Carbon Furnace - Fructose - (REP41)	Zero hearth furnace	90% control or <= 100 Operating Temperature TBD (3 hour average) ppm	TBD (3 hour average)	Continuously		

# Comments:

In addition, for unit(s) controlled by RTOs not designed for on-line regeneration (i.e., bake-out) and that are not preceded by a WESP or equivalent device(s), the emission limitations do not apply to periods off-line RTO regeneration periods that can be completed during unrelated shutdown, or malfunction periods (i.e., periods not related to the need to periods that can be completed during unrelated shutdown, or malfunction periods (i.e., periods not related to the need to periods that can be completed during unrelated shutdown, or malfunction periods (i.e., periods not related to the need to periods that can be completed during unrelated shutdown, or malfunction periods (i.e., periods not related to the need to periods that can be completed during unrelated shutdown, or malfunction periods (i.e., periods not related to the need to periods that can be completed during unrelated shutdown). of off-line RTO regeneration not to exceed 50 unit operating hours per calendar year and individual off-line RTO regeneration periods not to exceed 12 unit operating hours. For RTOs servicing more than one unit, a unit operating hour is any hour in which one or more of the unit is on line. Off-line RTO regeneration while all associated units are shut down is not included in these operating limitations. Also, malfunction of upstream PM control equipment which requires bypass of the RTO). Cargill may petition EPA and the appropriate state or local regulatory agency to adjust these operating limitations for a specific RTO. With respect to the Dayton, OH facility, all on-line regeneration (bake-out) shall be conducted in accordance with OAC Rules 3745-15-06(A)(3) and 3745-15-06(B). these limitations (i.e., Cargill may perform "preventative "off--line RTO regenerations during periods when the RTO is off-line for other reasons such as when the RTO is off-line due to maintenance or

## Appendix L

Hammond Corn Processing Source SO<sub>2</sub> Emission Control Plan

Appendix L - Hammond Corn Processing Process Source SO2 Emission Control Plan

Emission Unit Description and Number	Control Device Description	Emission Limit	Parameters Monitored	Compliance Operating Range	Parameter Monitoring Frequency
Germ Drying-Rotary (21A-02-G)	Scrubber	90% control or <=20 ppm	Hd	TBD	Once Each Day
Germ Drying-Rotary (51A-02-G)	Scrubber	90% control or <=20 ppm	£	TBD	Once Each Day
Bran Dryer-Flash (89-01-G)	Scrubber	TBD (note 2)	Ha	TBD (NOTE 1)	Once Each Day
Feed Dryer-Rotary (89-03-G)	Scrubber	90% control or <=20 ppm	H	TBD	Once Each Day
Feed Drying-Rotary (124-01-G)	Scrubber	90% control or <=20 ppm	Hd	TBD	Once Each Day
Gluten Dryer-Flash (121-01-G)	Scrubber	90% control or <=20 ppm	Ηď	TBD	Once Each Day
Germ Drying-Fluid Bed (124A-01-G)	Scrubber	90% control or <=20 ppm	Hd	TBD	Once Each Day
Carbon Furnace (104-01-R)	Scrubber	TBD (note 2)	Нd	TBD	Once Each Day

# Notes:

(1) The compliance operating range parameters shall be the same as those set forth in Appendix I for this unit.

(2) To establish emission limits for the Bran Dryer (89-01-G) and Carbon Furnace (104-01-R), Cargill shall operate the scrubbers associated with these emission units at a pH equal to the average of the pH operating ranges for all other sources listed in Appendix L established for purposes of demonstrating compliance with the emission limits listed in Appendix L.

# Appendix M

**Performance Testing Plan** 

Facility	Number	Pollutant Tested	1 est Metriodology	
Blair	Carbon Furnace - Fructose - (58)	VOC, CO	Testing done per Appendix O	By end of year 3 of lodging of the consent decree
Blair	Gluten Drying - Flash - (8)	VOC, CO	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Blair	Steephouse Scrubber - (5)	NOC	Control Efficiency Testing	By end of year 3 of lodging of the consent decree
Cedar Rapids	Carbon Furnace - Corn Syrup - (EU32)	00'00A	Testing done per Appendix O	By end of year 3 of lodging of the consent decree
Cedar Rapids	Feed Drying - Rotary - (EU-72-FD)	00,000	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Cedar Rapids	Feed Drying - STD - (EU-72-FD)	00,000	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Cedar Rapids	Germ Drying - Fluid Bed - (EU-113)	00,00	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Cedar Rapids	Germ Drying - Fluid Bed - (EU-20)	00,00	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Cedar Rapids	Gluten Drying - STD - (EU-20)	00,000	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Cedar Rapids	Gluten Drying - STD - (EU-20)	00,000	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Cedar Rapids	Steephouse Scrubber - (EU-41)	NOC	Control Efficiency Testing	By end of year 3 of lodging of the consent decree
Dayton	Bran Dryer - Rotary - (P037) (note 1)	NOC	See note 1	By end of year 3 of lodging of the consent decree
Dayton	Bran Dryer - Rotary - (P040) (1)	NOC	See note 1	By end of year 3 of lodging of the consent decree
Dayton	Bran Dryer - Rotary - (P058) (1)	VOC	See note 1	By end of year 3 of lodging of the consent decree
Dayton	Carbon Furnace - Corn Syrup - (P067) (1)	00,000	Testing done per Appendix O	By end of year 3 of lodging of the consent decree
Dayton	Carbon Furnace - Fructose - (P582) (1)	00,00	Testing done per Appendix O	By end of year 3 of lodging of the consent decree
Davton	Germ Drying - STD - (P031) (1)	00,000	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Davton	Germ Drving - STD - (P052) (1)	00,000	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Davton		00,000	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Dayton	Gluten Drving - Flash - (P057) (1)	VOC, CO	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Dayton	Gluten Drving - Flash - (P072) (1)	00,000	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Decatur		VOC. CO	Testing done per Appendix O	By end of year 5 of lodging of the consent decree
Docatur	Carbon Firmaca	VOC CO	Testing done per Appendix O	By end of year 5 of lodging of the consent decree
Dooptur	Food Oning - Boton	NOC CO	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Decalui	Carbon Europe - (S.304)	CO CON	Testing done per Appendix O	By end of year 5 of lodging of the consent decree
Diminiti	Dookoon Boilor SAMB		40 CEB Part 60 Method 7/E)	By end of year 10 of entry of the consent decree
The state of the s	Package Bollet - 5400	Š	40 CFB Part 60 Method 7(E)	By end of year 10 of entry of the consent decree
	rachage boilei - 040/		Tothing and and Appendix O	By and of year 3 of Indaina of the consent decree
Eddyville	Carbon Furnace - (37.000)	20,00	Toxing doile per Appendix O	By ond of year 3 of Indaina of the consent decree
Eddyville	Carbon Furnace - (56.000)	00,00	Control Efficiency Totalog	By end of year 3 of todaing of the consent decree
Eddyville	Millhouse Scrubber - (102.000)		Control Efficiency Testing	By end of year 3 of lodging of the consent decree
Eddyville Talda illa	Willinguase actuable: (1.19.000)	200	Control Efficiency Testing	By and of year 3 of lodging of the consent decree
Eddyville	Inimitionse octubrel (9:000)	À À	An CER Part 60 Mathod 7/E)	By and of year 10 of entry of the consent decree
rayelleville Originalia	Stokel Bollel - EOSA	Š	40 CER Part 60 Method 7(E)	By and of year 10 of entry of the consent decree
Callidayilla	Store Build - Boot	JON	TBD	By end of year 3 of lodging of the consent decree
Taminond	Carter Figure (69-01-0)		Testing done ner Appendix O	By and of year 3 of lodging of the consent decree
Hammond	Each Duing Botom (194-01-6)	2000	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
חמווווווסווח	read Diying - Hotely - (124-01-0)	20/2/	Control Efficiency Testing	By and of year 3 of Indefine of the consent decree
наттопа	Feed Dryer - notary - (03-03-03)		Control Efficiency Testing	By and of year 5 of lodging of the consent decree
חשונווווסנוס	Gentl Diylig - hotaly - (21A-02-0)	00,000	Control Efficiency Testing	By and of year 5 of Indaing of the consent decree
Hammond	Germ Drying - Horaly - (31A-02-G)	20,50	An OEB Bart 60 Mathod 7/E)	By and of year 10 of entry of the consent decree
наттопа	Package boller - 10020	Š	AO CEB Bar so Method 7/E)	By and of year 10 of entry of the consent decree
наттопа	Gas Tube & Tile - Tudgo	Š.	Control Efficiency Testing	By and of year 3 of entry of the concent decree
Hammond		202	Control Elliciency Lesuing	By and of year 3 of entry of the consent decree
Hammond	Germ Drying-Hotary - (51A-02-G)	306	Control Efficiency (esting	בי ב

# Appendix M - Performance Testing Plan

Facility	Emission Unit Description and Number	Pollutant Tested	Test Methodology	Testing Schedule
Hammond	Bran Dryer - Flash - (89-01-G)	80S	40 CFR Part 60 Method 6	By end of year 3 of entry of the consent decree
Hammond	Feed Dryer - Rotary - (89-03-G)	SO2	Control Efficiency Testing	By end of year 3 of entry of the consent decree
Hammond	Feed Drying - Rotary - (124-01-G)	S02	Control Efficiency Testing	By end of year 3 of entry of the consent decree
Hammond	Gluten Dryer - Flash - (121-01-G)	SO2	Control Efficiency Testing	By end of year 3 of entry of the consent decree
Hammond	Germ Drying - Fluid Bed - (124A-01-G)	SO2	Control Efficiency Testing	By end of year 3 of entry of the consent decree
Hammond	Carbon Furnace - (104-01-R)	S02	40 CFR Part 60 Method 6	By end of year 3 of entry of the consent decree
Memphis	Bran Dryer - Rotary - (4003)	NOC	TBD	By end of year 3 of lodging of the consent decree
Memphis	Bran Dryer - Rotary - (4003)	NOC	TBD	By end of year 3 of lodging of the consent decree
Memphis	Carbon Furnace - Corn Syrup - (6008)	voc, co	Testing done per Appendix O	By end of year 3 of lodging of the consent decree
Memphis	Carbon Furnace - Fructose - (9002)	voc, co	Testing done per Appendix O	By end of year 3 of lodging of the consent decree
Memphis	Carbon Furnace - Fructose - (9008)	voc, co	Testing done per Appendix O	By end of year 3 of lodging of the consent decree
Memphis	Germ Drying - STD - (4011)	voc, co	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Memphis	Germ Drying - STD - (4011)	voc, co	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Memphis	Gluten Drying - Flash - (4008B)	voc, co	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Memphis	Gluten Drying - Flash - (4011)	voc, co	Control Efficiency Testing	By end of year 5 of lodging of the consent decree
Sidney	Stoker Boller - B001	XON	40 CFR Part 60 Method 7(E)	By end of year 10 of entry of the consent decree
Sidney	Stoker Boiler - B002	NOx	40 CFR Part 60 Method 7(E)	By end of year 10 of entry of the consent decree
Sioux City	Package Boiler - 17	NOx	40 CFR Part 60 Method 7(E)	By end of year 10 of entry of the consent decree
Wahpeton	Carbon Furnace - Fructose - (REP41)	voc, co	Testing done per Appendix O	By end of year 3 of lodging of the consent decree
Wahpeton	Gluten Drying - Flash - (FEP21)	voc	TBD	By end of year 3 of lodging of the consent decree

# Comments:

Where exhaust from a specific unit is commingled with exhaust from other sources, compliance will be based on emissions from only the specific unit.

Control Efficiency Testing shall be conducted for VOCs using 40 C.F.R. Part 60, Method 25A; for CO using 40 C.F.R. Part 60, Method 10; and for SO<sub>2</sub> using 40 C.F.R. Part 60, Method 6.

standards by demonstrating compliance at the system's end control device that emits to the atmosphere. If the listed units' exhaust is commingled with the exhaust of other units not listed in Appendices H, I and K, Cargill shall demonstrate compliance with the applicable performance standard based on the exhaust of the listed units For units listed in Appendices H, I and K, if multiple listed units emit to a single system, Cargill shall demonstrate compliance with any applicable performance

For new control devices installed after the date of lodging and pursuant to this Consent Decree, Cargill shall conduct testing required by this Appendix M within 180 days after start-up of the newly installed controls.

# Notes:

(1) In addition to the emission testing and other requirements of this Appendix M, Cargill shall also comply with the emissions testing requirements set forth in Appendix J.

# Appendix N

**Extraction Solvent Loss Recordkeeping Template** 

				 	 	 ,	 	 	 	 	 	 	
	Solvent Loss Rate 12-Month Rolling (gallons/ton)												
	Adjusted Solvent Loss Monthly (gallons)												
	Malfunction Period Solvent Loss 12-Month Rolling (gallons)												
mplate	Solvent Loss 12- Month Rolling (gallons)												
ping Te	Solvent Loss Monthly (gallons)												
Recordkee	Speciality Crush 12- Month Rolling (tons) (Specialty Plants Only)												
- Extraction Solvent Loss Recordkeeping Template	Speciality Crush Monthly (tons) (Specialty Plants Only)												
	Conventional Crush 12- Month Rolling (tons) (Specialty Plants Only)												
Appendix N - Ex	Conventional Crush 12- Crush Monthly Month Rolling (tons) (tons) (tons) (specialty Specialty Plants Only)											-	
Appe	Total Crush 12-Month Rolling (tons)												
	Total Crush Monthly (tons)												
	Date/Month/Year												

## Appendix O

**Carbon Furnace Test Protocol** 

### **Appendix O**

### CARBON FURNACE TEST PROTOCOL

A Protocol For Determination Of Volatile Organic Compound And Carbon Monoxide Destruction Efficiency For Afterburners Installed On Carbon Furnace Exhausts.

### INTRODUCTION

The protocol sets forth the test methodology, technique and monitoring procedures that will be used to establish after burner operating temperatures required to achieve 95% reduction of volatile organic compounds (VOC) and 90% of carbon monoxide (CO) from carbon furnace exhausts.

### PROGRAM SCOPE AND TEST STRATEGY

Because afterburners on carbon furnaces are an integrated part of the furnace, it is not possible to install inlet sampling ports to assess inlet VOC and CO concentrations. VOC and CO destruction efficiency for carbon furnace afterburners, therefore, will be determined by comparing uncontrolled conditions with the afterburner shut off (hereinafter referred to as "inlet" conditions), to controlled emissions with the afterburner operating.

Sequential testing of the carbon furnace with the afterburner shut off and with it operating will be completed such that a minimum amount of time elapses between each "inlet" and outlet test. Although time between each inlet and outlet test will be primarily dictated by the amount of time needed for the afterburner to reach a proper operating temperature or cool down, additional measures will be employed to minimize the time between tests. These measures will include dedicating separate analyzers and heated sample lines for the "inlet" and outlet locations (reduces calibration time as well as the time needed to reach a stable sample line background level). Velocity traverses also will be configured so as not to delay testing (see schedule below). Each test run will consist of one 60-minute outlet test (after burner operating), a period between tests where the afterburner is allowed to cool down, and one 60-minute "inlet" test. In all, a total of three runs totaling 120-minutes of measured data each (60 outlet, 60 inlet) will be completed per unit. Emissions between the two 60-minute segments of each test run while the afterburner is cooling down will not be included in the test result. Prior to the second and third test runs time will be allowed to operate and stabilize the afterburner.

For each test run, gas stream velocity, temperature, moisture and fixed gases will be determined to allow for the calculation of gas stream volumetric flowrate. Velocity traverses will be completed for each "inlet" and outlet test. In addition, moisture will be determined during each test (one moisture determination per "inlet" and outlet test) for a total of 6 moisture runs. Fixed gases also will be determined for each test via collection of an integrated sample and analysis in accordance with EPA Method 3. Accordingly, testing of the carbon furnace afterburners for destruction efficiency will be completed as follows:

- Complete Run 1 outlet (controlled condition) velocity traverse.
- Conduct Run 1 outlet test for VOC, CO, moisture, and fixed gases with the afterburner on. Test run duration will be 60 minutes.
- Turn off the afterburner and wait until the temperature in the afterburner is stabilized and within 100 degrees F of the feed hearth temperature.

- Complete Run 1 "inlet" test for VOC, CO, moisture, and fixed gases for 60 minutes. Conduct Run 1 "inlet" velocity traverse.
- Complete Runs 2 and 3 duplicating the steps cited above for Run 1.

### GENERAL SOURCE DESCRIPTION

Activated carbon is used to remove natural impurities present in corn syrup. As the carbon adsorbs impurities from the corn syrup, the carbon becomes saturated (spent) with those impurities and becomes less effective. Once the carbon is no longer useful for the process, the carbon is recycled through regeneration in the carbon furnaces.

Carbon regeneration occurs as the spent carbon is fed into the top sections of the multi-hearth furnace. The carbon passes through three separate zones within the furnace. In each zone, the carbon is subjected to different temperatures and atmospheres to drive off the impurities and restore the carbon. A rotating central shaft circulates a rabble arm that mixes and advances the carbon through the hearths exposing them to the counter-current flow of gases.

The three reaction zones, or steps, that occur in the furnace are drying, pyrolysis, and activation.

- A. In the drying, or heating zone (which is the closest zone to the afterburner), water is evaporated off the carbon through the counter-current action of the hot combustion gases. The temperature of the drying zone is approximately 600-1300°F on a six-hearth and 500-1000°F on an eighthearth furnace.
- B. In the second zone, or pyrolysis zone, the temperature is raised to approximately 1300-1700°F in an oxygen-free atmosphere. Under these conditions, the adsorbed organic impurities are pyrolyzed and volatiles are driven off.
- C. The third zone is the gasification, or activation zone. The temperature in this area approaches 1800°F. The residues from the carbon are oxidized in a manner that prevents damage to the original carbon pore structure. If the carbon is not heated to reaction temperature, or the carbon is improperly dried, the reaction of water vapor, C02, and adsorbate will not proceed in an effective regeneration process. Once the carbon passes through the final zone of the multiple hearth furnace, the carbon is sent to the quench tank, and then pumped back to the process.

The afterburner, which follows the drying zone of the furnace, is intended to burn the organic compounds driven off of the carbon that do not burn in the furnace.

During the times of testing, the carbon furnace will be operated at or near its rated throughput capacity.

### SAMPLING LOCATION DESCRIPTION

Use or installation of test ports and selection of velocity traverse points will be done in accordance with EPA Method 1 criteria.

#### MONITORING PROCEDURES

VOC and CO measurements and flow monitoring will be completed using the following methods

- Total Gaseous Organics (VOC) EPA Method 25A
- Carbon Monoxide (CO) EPA Method 10
- Stack Gas Volumetric Flow Rate EPA Method 2
- Fixed Gases EPA Method 3
- Stack Gas Moisture EPA Method 4

The following provides a description of the sampling and analytical methods to be employed.

#### VOC (Total Gaseous Organics) - EPA Method 25A

Emissions testing for VOC will be completed in accordance with EPA Method 25A. In this procedure, stack gas is delivered directly to a heated TGO analyzer equipped with a flame ionization detector (FID). The analyzer is calibrated with know concentrations of propane and results are expressed as propane equivalents.

The sample delivery system consists of an in-stack sintered particulate filter and stainless steel sample probe, a three-way valve assembly for delivery of calibration gases to the system probe, a heat-traced Teflon sample line and sample pump. Sample gas is delivered to the FID analyzer on a wet basis and subsequently converted to dry conditions for calculation of a mass emission rate.

The TGO monitors will be VIG-20 Flame Ionization analyzers. The analyzers are expected to be operated in the 0-10,000 ppm range for the inlet location and the 0-100 ppm range for the outlet. The output signals from each analyzer is connected to strip chart recorders as well as an IBM PC, equipped with a Strawberry Tree, analog to digital converter and Workbench® data acquisition system software. This software provides data in 1-minute averages and calculates TGO emission rates in terms of parts per million (ppmv) and pounds per hour (lbs/hr) for each 1-minute average and for each test run.

#### Carbon Monoxide - EPA Method 10

Carbon Monoxide will be determined in accordance with EPA Method 10, modified to eliminate the ascarite trap used for CO<sub>2</sub> removal. Use of the ascarite trap is not needed for NDIR analyzers which use the gas filter correlation technique to eliminate CO<sub>2</sub> interference. Samples will be collected in conjunction with each test run using the integrated tedlar bag sampling approach described in the method. At the conclusion of each test run, the contents of the integrated tedlar bag will be analyzed for carbon monoxide concentration using a non-dispersive infrared analyzer (NDIR) with gas filter correlation in accordance with the requirements of EPA Method 10. The analyzer will be calibrated using zero gas and two upscale standards as cited in the test method. All other QC requirements specified by the method will be employed.

#### Stack Gas Volumetric Flowrate – EPA Method 2

Vent stream volumetric flowrate will be determined in conjunction with each test run in accordance with EPA Method 2. Gas stream temperature and moisture will also be determined in association with each flowrate determination. Temperature will be determined using a thermocouple and pyrometer and gas stream moisture via EPA Method 4.

As previously stated, gas stream velocity will be determined in conjunction with each test (before or after each TGO test) while moisture and fixed gases will be measured simultaneous with each TGO test run. The traverse will be completed across two stack diameters as specified in EPA Method 2. All test ports and traverse points will meet the minimum criteria specified in EPA Method 1.

#### Fixed Gases (O<sub>2</sub>,CO<sub>2</sub>)

Fixed gas (O<sub>2</sub>, CO<sub>2</sub>) measurement used for the determination of stack gas molecular weight will be completed in accordance with EPA Method 3, "Gas Analysis for the Determination of Dry Molecular Weight". This procedure involves collection of an integrated sample followed by analysis for fixed gases using an Orsat analyzer. O<sub>2</sub>, CO<sub>2</sub> are measured directly and N<sub>2</sub> is determined by difference.

#### Stack Gas Moisture

Stack gas moisture will be measured in accordance with the EPA Method 4, "Determination of Moisture Content in Stack Gases", 40 CFR 60, Appendix A. In this procedure a known volume of stack gas is extracted at a fixed rate through a series of water impingers and silica gel and the collected condensate is measured to determine the gas stream percent moisture. Moisture will be determined simultaneous with each 60-minute inlet and outlet test.

#### TEST METHOD REFERENCES AND MODIFICATIONS

The following provides detailed references for the test methods proposed for this program. Proposed reference method modifications are listed following the appropriate reference.

- 1. <u>VOC's</u> EPA Method 25A, Measurement of Total Gaseous Organic Concentration Using a Flame Ionization Detector, 40 CFR 60, Appendix A. Calibration standards will be prepared using a propane standard in accordance with the method.
- 2. <u>CO</u> EPA Method 10, Determination of Carbon Monoxide Emissions from Stationary Sources, 40 CFR 60, Appendix A.
- 3. Flow -- EPA Method 2, 40 CFR 60, Appendix A.
- 4. <u>Moisture</u> -- EPA Method 4, Determination of Moisture Content in Stack Gases 40 CFR 60, Appendix A.
- 5. <u>Fixed Gases (O<sub>2</sub>, CO<sub>2</sub>) EPA Method 3, Gas Analysis for Determination of Dry Molecular Weight 40 CFR 60, Appendix A.</u>

#### DATA REDUCTION REQUIREMENTS

Concentration data from the Method 25A analysis will be reduced for each operating condition, and converted to a pounds of VOC and CO emitted per hour (lb/hr). The "inlet" or uncontrolled condition lb/hr rate will be compared to the outlet or controlled lb/hr rate and a determination of the percent reduction will be made. The results of each test run as well as the percent reduction will be reported to the agency as follows:

Test Run	Inlet Emissions VOC or CO	Outlet Emissions VOC or CO	Destruction Efficiency (%)
Test Run 1	ppmv	ppmv	
	lb/hr	lb/hr	:
Test Run 2	ppmv	ppmv	
	lb/hr	lb/hr	
Test Run 3	ppmv	ppmv	
	lb/hr	lb/hr	
Ave ppmv	ppmv	ppmv	
Ave lb/hr	lb/hr	lb/hr	

Destruction efficiency will be calculated using the following equation:

$$Eff = \frac{Ci - Co}{Ci}$$

Where:

Eff = Overall destruction efficiency

Ci = Inlet lb/hr emission rate

Co = Outlet lb/hr emission rate

# Appendix P

**Supplemental Environmental Projects** 

# Appendix P

# **Supplemental Environmental Projects**

Elimination of Gaseous Sulfur Dioxide - Blair, NE, Cedar Rapids, IA, Dayton, OH, Eddyville, IA and Memphis, TN - Cargill has historically stored gaseous sulfur dioxide at corn wet milling facilities for use in the production process. Gaseous sulfur dioxide is viewed as posing significant environmental and health risks and its storage and use is regulated under 40 CFR Part 68 (Chemical Accident Prevention Provisions) and 29 CFR Part 1910.119 (Process Safety Management of Highly Hazardous Chemicals). Gaseous sulfur dioxide storage exceeds the 40 CFR Part 68 thresholds at Blair, Cedar, Dayton, Eddyville, and Memphis and total gaseous sulfur dioxide storage exceeds 1.2 million pounds at these facilities. This project involves permanent replacement of gaseous sulfur dioxide used in the corn wet milling process with a less hazardous substitute, liquid sodium bisulfide (SBS), which is not subject to either risk management or process safety plan requirements. Project scope will include installation of tanks, piping, and controls for systems located in Blair, Cedar, Dayton, Eddyville, and Memphis, purchase of SBS, and removal of gaseous SO<sub>2</sub> handling capabilities. This project will benefit the environment by eliminating the risk of SO<sub>2</sub> releases through the removal of over 1.2 million pounds of sulfur dioxide storage and reduced SO<sub>2</sub> emissions from facility processes. It is also anticipated that this project would reduce fugitive sulfur dioxide emissions.

Pilot VOC and HAP Reduction Project—Memphis, TN Oxidized Starch Process – VOCs and HAPs are formed in the oxidized starch production process primarily by the reaction of hypochlorite, a bleaching agent, with impurities in the starch. This innovative pollution reduction project will reduce the formation of VOCs and HAPs in the oxidized starch production process, thus reducing associated emissions. The project scope includes the installation and operation of new equipment designed to reduce impurity levels in starch production. Studies by Cargill have determined that reduced impurity levels can significantly reduce formation of VOCs and HAPs in the process. It is anticipated that this project could reduce VOC and HAP emissions from this process by up to 30 percent.

Elimination of Ozone Depleting Substance – Eddyville, IA and Blair, NE – R22 (chlorodifluoromethane) is used in condensers at Cargill's Blair, NE and Eddyville, IA ethanol loadout facilities. These condensers are BACT control devices installed and operated pursuant to the sources' PSD permit. This project is to permanently replace these condensers with an equivalent or better VOC control that results in the removal of R22. Cargill shall not use any of the retired condensers within any of its other facilities (except with a Non-Ozone Depleting Refrigerant) and all refrigerant from the retired condensers shall be either sent for destruction in accordance with the provisions of 40 C.F.R. Part 82.104(h), or reclaimed as defined in 40 C.F.R. Part 82.152, by a certified reclaimer as defined in 40 C.F.R. Part 82.164. This project will benefit the environment by the removal and destruction of over 700 pounds of an ozone depleting substance.

# Appendix Q

**Notice and Penalty Payment** 

# APPENDIX Q NOTICE AND PENALTY PAYMENT PROVISIONS

#### **The United States**

# Payment of penalties:

Payment shall be made in accordance with paragraphs 40 though 42, paragraphs 57 through 59, and paragraph 84 of the Consent Decree.

# Contact persons for notices:

Information shall be sent to the appropriate Plaintiffs in accordance with paragraph 84 of the Consent Decree at the addresses below.

# U.S. EPA HQ

#### **Technical Contact:**

Cary Secrest

**Environmental Protection Specialist** 

US EPA Air Enforcement Division (Mail Code 2242A)

Ariel Rios Building Room 2119

1200 Pennsylvania Ave., N.W.

Washington, DC 20460 [for Fed Ex/UPS use ZIP 20004]

secrest.cary@epa.gov

Phone:

202-564-8661

Fax:

202-564-0053

Cell:

202-236-3499

Air Lab:

410-305-3069

#### **Counsel:**

Charlie Garlow

US EPA Air Enforcement Division (Mail Code 2242A)

Ariel Rios Building Room 2111A

1200 Pennsylvania Ave., N.W.

Washington, DC 20460 [for FedEx/UPS use ZIP 20004]

garlow.charlie@epa.gov

Phone:

202-564-1088

Fax:

202-564-0068

# U.S. EPA Region 4

#### **Technical Contacts:**

Jason McDonald

US EPA Region 4

Atlanta Federal Center

61 Forsyth St. S.W.

Atlanta, GA 30303

mcdonald.jason@epa.gov

Phone:

404-562-9203

Fax:

404-562-9164

Kevin I. Taylor

US EPA Region 4

Atlanta Federal Center

61 Forsyth St. S.W.

Atlanta, GA 30303

taylor.kevin@epa.gov

Phone:

404-562-9134

Fax:

404-562-9164

#### **Counsel:**

Gregory R. Tan

Associate Regional Counsel

US EPA Region 4

61 Forsyth St. S.W.

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tan.gregory@epa.gov

Phone:

404-562-9697

Fax:

404-562-9486

# Please also cc:

Angelia Souder Blackwell

US EPA Region 4

Office of Environmental Accountability

61 Forsyth St. S.W.

Atlanta, GA 30303

blackwell.angelia@epa.gov

Phone:

404-562-9527

Fax:

404-562-9664

# U.S. EPA Region 5

#### **Technical Contacts:**

Compliance Tracker

US EPA Region 5

77 W. Jackson Blvd AE-17J

Chicago, IL 60604

Phone:

312-886-6797

Fax:

312-353-8289

#### **Counsel:**

Kathleen Schnieders

US EPA Region 5

77 W. Jackson Blvd C-14J

Chicago, IL 60604

schnieders.kathleen@epa.gov

Phone:

312-353-8912

Fax:

312-886-0747

# U.S. EPA Region 6

### **Technical Contact:**

Raymond Magyar (6EN-AA)

Air Enforcement Section

US EPA Region 6

1445 Ross Avenue Suite 1200

Dallas, TX 75202

magyar.raymond@epa.gov

Phone:

214-665-7288

Fax:

214-665-3177 or 214-665-7446

#### Counsel:

Patricia Capps Welton (6RC-EA)

Air/Toxics Enforcement Branch

Office of Regional Counsel

US EPA Region 6

1445 Ross Avenue Suite 1200

Dallas, TX 75202-2733

Welton.patricia@epa.gov

Phone:

214-665-7327

Fax:

214-665-3177

# U.S. EPA Region 7

#### **Technical Contact:**

Richard Tripp ARTD/APCO

US EPA Region 7 901 N. 5<sup>th</sup> St.

Kansas City, KS 66101

tripp.richard@epa.gov

Phone:

913-551-7566

Fax:

913-551-9566

#### **Counsel:**

Belinda Holmes CNSL/REGE

Senior Assistant Regional Counsel

US EPA Region 7

901 N. 5<sup>th</sup> St.

Kansas City, KS 66101

holmes.belinda@epa.gov

Phone:

913-551-7714

Fax:

913-551-7925

# U.S. EPA Region 8

#### **Technical Contact:**

Air Program Director c/o Scott Whitmore (8ENF-AT)

Office of Enforcement, Compliance & Environmental Justice

US EPA Region 8

999 18<sup>th</sup> Street, Suite 300

Denver, CO 80202-2466

Whitmore.scott@epa.gov

Phone:

303-312-6317

Fax:

303-312-6191

#### State of Alabama

#### Payment of penalties:

The check must be made payable to the "Alabama Department of Environmental Management." Please make a notation on the check that it is for the Air Division and mail the check to:

Alabama Department of Environmental Management Air Division

P.O. Box 301463

Montgomery, AL 36130-1463

Attention: Clai Mullens

# Contact person for notices:

Ronald W. Gore

Alabama Department of Environmental Management

Air Division

P.O. Box 301463

Montgomery, AL 36130-1463

rwg@adem.state.al.us

Phone:

334-271-7861

Fax:

334-279-3044

# State of Georgia

## Payment of penalties:

The check must be made payable to the Georgia Department of Natural Resources and must be mailed to:

Georgia Air Protection Branch 4244 International Parkway, Suite 120 Atlanta, GA 30354, Attn. Lou Musgrove

# **Contact person for notices:**

Lou Musgrove, Program Manager Stationary Source Compliance Program Georgia Air Protection Branch 4244 International Parkway, Suite 120 Atlanta, GA 30354

Lou Musgrove@dnr.ga.state.us

Phone:

404-363-7018

Fax:

404-363-7100

# **State of Illinois**

#### Payment of penalties:

The check shall be made payable to the "Illinois EPA for deposit into the Illinois

#### Environmental Protection Trust Fund" and mailed to:

Illinois Environmental Protection Agency **Fiscal Services** 1021 North Grand Avenue East P.O. Box 19276 Springfield, IL 62794-9276

# **Contact person for notices:**

Ms. Julie K. Armitage Illinois Environmental Protection Agency Bureau of Air Compliance and Enforcement Section 1021 North Grand Avenue East P.O. Box 19276 Springfield, Illinois 62794-9276 Julie.Armitage@epa.state.il.us Phone:

217-782-5811

Fax:

217-782-6348

# State of Indiana

# Payment of penalties:

Check must be made payable to the "Environmental Management Special Fund." The check must include the case number of this action and shall be mailed to:

Cashier—Mail Code 50-10C Indiana Department of Environmental Management 100 N. Senate Avenue Indianapolis, IN 46204-2251

NOTE: The IDEM case numbers assigned to this case are 2005-14673-A (Layfayette) and 2005-14646-A (Hammond). Please place these numbers on the check so the Cashier will post the check to the appropriate account codes.

# **Contact person for notices:**

Matthew Stuckey Senior Environmental Manager Office of Enforcement/Air Section – Mail Code 60-02 Indiana Department of Environmental Management

100 N. Senate Ave.

Indianapolis, IN 46204-2251

mstuckey@dem.state.In.us

Phone:

317-233-1134

Fax:

317-233-5968

# State of Iowa

# Payment of penalties:

The check must be made to the order of "The State of Iowa" and mailed to:

David R. Sheridan Assistant Attorney General Environmental Law Division Lucas State Office Building 321 E. 12th Street, Room 018 Des Moines, IA 50319

# **Contact person for notices:**

Brian Hutchins, Supervisor Air Compliance Section Air Quality Bureau, Iowa DNR 7900 Hickman Rd., Suite 1 Urbandale, IA 50322 Brian.Hutchins@DNR.state.ia.us

Phone:

515-281-8448

Fax:

515-242-5094

# Linn County, Iowa

# Payment of penalties:

Checks must be made to the order of "Linn County Air Quality Division c/o the Linn County Treasurer," and must be mailed to:

Linn County Public Health Department 501 13<sup>th</sup> St. NW Cedar Rapids, IA 52405

# Contact person for notices:

Gregory D. Slager
Air Pollution Control Officer
Linn County Public Health Department
501 13th St. NW.
Cedar Rapids, IA 52405
Greg.Slager@linncounty.org

Phone:

319-892-6010

Fax:

319-892-6099

# Polk County, Iowa

# Payment of penalties:

Checks must be made to the order of the "Polk County Treasurer," and mailed to:

Polk County Treasurer
Polk County Air Quality Division
5885 NE 14<sup>th</sup> Street
Des Moines, IA 50313

# Contact person for notices:

Gary Young, Air Quality Engineer Polk County Air Quality Division 5885 NE 14<sup>th</sup> Street Des Moines, IA 50313 gyoung@co.polk.ia.us

Phone:

515-286-3372

Fax:

515-875-5599

# State of Missouri

# Payment of penalties:

The check must be payable to the State of Missouri, followed by the name of the county, in parentheses, in which the facility is located ("State of Missouri (Clay County)"). The check should be mailed to the attention of:

Jo Ann Hovath

Assistant Attorney General P.O. Box 899 Jefferson City, MO 65102-0899

#### Contact persons for notices:

Timothy P. Duggan
Assistant Attorney General
P.O. Box 899
Jefferson City, MO 65102-0899
tim.duggan@ago.mo.gov

Phone:

573-751-9802

Fax:

573-751-8464

Steve Feeler Air Pollution Control Program Missouri Department of Natural Resources P.O. Box 176 Jefferson City, MO 65102 steve.feeler@dnr.mo.gov

Phone:

573-751-4817

Fax:

573-751-2706

# State of Nebraska

# Payment of penalties:

The check must be made payable to "Treasurer of Washington County, Nebraska," with the notation "civil penalty," and must be mailed to:

Jodi M. Fenner Assistant Attorney General 2115 State Capital Building Lincoln, NE 68509-8920

# Contact person for notices:

Shelly Kaderly Air Division Administrator 1200 "N" Street, Suite 400 P.O. Box 98922

Lincoln, NE 68509-8922

Shelly.kaderly@ndeq.state.ne.us

Phone:

402-471-4299

Fax:

402-471-2909

# State of North Carolina

#### Payment of penalties:

The check shall be made payable to "North Carolina Department of Environment and Natural Resources." Please note that a memo on the check should refer to "STL 2005-001." The check shall be mailed to:

Enforcement Group - Payment Department of Environment and Natural Resources Division of Air Quality 1641 Mail Service Center Raleigh, NC 27699-1641

# **Contact person for notices:**

Lee A. Daniel, Chief Technical Services Section NC Division of Air Quality 1641 Mail Service Center Raleigh, NC 27699-1641 Lee.Daniel@ncmail.net

Phone:

919-733-1471

Fax:

919-733-1812

# **State of North Dakota**

## Payment of penalties:

The check must be made payable to "North Dakota Department of Health" and mailed to:

Dave D. Glatt, Chief Environmental Health Section North Dakota Department of Health P.O. Box 5520 Bismarck, ND 58506-5520

# Contact person for notices:

Benjamin Gress

Division of Air Quality

North Dakota Department of Health

P.O. Box 5520

Bismarck, ND 58506-5520

bgress@state.nd.us

Phone:

701-328-5188

Fax:

701-328-5200

# **State of Ohio**

# Payment of penalties:

The check for the portion of the penalty attributable to the Sidney, Ohio facility should be made out to "Treasurer, State of Ohio," and mailed or delivered to:

Amy Laws, Paralegal Environmental Enforcement Section Ohio Attorney General's Office 30 Easte Broad, 25<sup>th</sup> Floor Columbus, OH 43215-3400

## Contact person for notices:

Jim Orlemann, Assistant Chief SIP Development and Enforcement Ohio Environmental Protection Agency Lazarus Government Center Division of Air Pollution Control P.O. Box 1049 Columbus, OH 43216-1049 Jim.Orlemann@epa.state.oh.us

Phone:

614-644-3592

Fax:

614-644-3681

# Montgomery County/Regional Air Pollution Control Authority (RAPCA):

# Payment of penalties:

The check for the portion of the penalty attributable to the Dayton, Ohio facility must be made payable to the "Air Resources Study Trust Fund," and must be mailed to:

Bruno Maier **RAPCA** 117 South Main Street Dayton, OH 45422-1280

# Contact person for notices:

John A. Paul **RAPCA Supervisor** 117 South Main Street Dayton, OH 45422-1280 paulja@rapca.org

Phone:

937-225-5948

Fax:

937-225-3486

# Memphis/Shelby County, Tennessee:

# Payment of penalties:

The check must be made payable to "Memphis and Shelby County Health Department, Pollution Control Section" and should be mailed to:

Memphis and Shelby County Health Department, Pollution Control Section 814 Jefferson Avenue, 4th Floor Memphis, Tennessee 38105 Attn: Robert Rogers, P.E.

# **Contact person for notices:**

Robert Rogers, P.E. Technical Manager Memphis and Shelby County Health Department **Pollution Control Section** 814 Jefferson Avenue, 4th Floor Memphis, Tennessee 38105 brogers@mschdpollution.org

Phone:

901-544-7587 or 7586

Fax:

901-544-7308