STATE OF MISSISSIPPI
AIR POLLUTION CONTROL
TITLE V PERMIT

TO OPERATE AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Darling Ingredients Inc
1299 Prisock Road
Jackson, Mississippi
Hinds County

has been granted permission to operate air emissions equipment in accordance with emission limitations, monitoring requirements and conditions set forth herein. This permit is issued in accordance with Title V of the Federal Clean Air Act (42 U.S.C.A. § 7401 - 7671) and the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder.

Permit Issued: December 2, 2013
Permit Modified: FEB 1 4 2017

Effective Date: As specified herein.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

AUTHORIZED SIGNATURE
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Expires: November 30, 2018 **Permit No.: 1080-00040**

1099 PER20160001

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SECTION 1. GENERAL CONDITIONS

1.1 The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Federal Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(a).)

1.2 It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(b).)

1.3 This permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(c).)

1.4 (a) This permit shall be reopened and revised under any of the following circumstances:

(1) Additional applicable requirements under the Federal Act become applicable to a major Title V source with a remaining permit term of 3 or more years. Such a reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended.

(2) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

(3) The Permit Board or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit.

(4) The Administrator or the Permit Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

(b) Proceedings to reopen and issue this permit shall follow the same procedures as apply to initial permit issuance and shall only affect those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.

(c) Reopenings shall not be initiated before a notice of such intent is provided to the Title V source by the DEQ at least 30 days in advance of the date that the permit is to be reopened, except that the Permit Board may provide a shorter time period in the case of an emergency.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.G)

1.5 The permittee shall furnish to the DEQ within a reasonable time any information the DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permittee or, for information to be confidential, the permittee shall furnish such records to DEQ along with a claim of confidentiality. The permittee may furnish such records directly to the Administrator along with a claim of confidentiality. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(e).)

1.6 This permit does not convey any property rights of any sort, or any exclusive privilege. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(d).)

1.7 The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstances, is challenged or held invalid, the validity of the remaining permit provisions and/or portions thereof or their application to other persons or sets of circumstances, shall not be affected thereby. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(5).)

1.8 The permittee shall pay to the DEQ an annual permit fee. The amount of fee shall be determined each year based on the provisions of regulated pollutants for fee purposes and the fee schedule specified in the Commission on Environmental Quality's order which shall be issued in accordance with the procedure outlined in Regulation 11 Miss. Admin. Code Pt. 2, Ch. 6.)

(a) For purposes of fee assessment and collection, the permittee shall elect for actual or allowable emissions to be used in determining the annual quantity of emissions unless the Commission determines by order that the method chosen by the applicant for calculating actual emissions fails to reasonably represent actual emissions. Actual emissions shall be calculated using emission monitoring data or direct emissions measurements for the pollutant(s); mass balance calculations such as the amounts of the pollutant(s) entering and leaving process equipment and where mass balance calculations can be supported by direct measurement of process parameters, such direct measurement data shall be supplied; published emission factors such as those relating release quantities to throughput or equipment type (e.g., air emission factors); or other approaches such as engineering calculations (e.g., estimating volatilization using published mathematical formulas) or best engineering judgments where such judgments are derived from process and/or emission data which supports the estimates of maximum actual emission. (Ref.: 11 Miss. Admin. Code Pt. 2, R.

6.6.A(2).)

(b) If the Commission determines that there is not sufficient information available on a facility's emissions, the determination of the fee shall be based upon the permitted allowable emissions until such time as an adequate determination of actual emissions is made. Such determination may be made anytime within one year of the submittal of actual emissions data by the permittee. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.A(2).) If at any time within the year the Commission determines that the information submitted by the permittee on actual emissions is insufficient or incorrect, the permittee will be notified of the deficiencies and the adjusted fee schedule. Past due fees from the adjusted fee schedule will be paid on the next scheduled quarterly payment time. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.D(2).)

(c) The fee shall be due September 1 of each year. By July 1 of each year the permittee shall submit an inventory of emissions for the previous year on which the fee is to be assessed. The permittee may elect a quarterly payment method of four (4) equal payments; notification of the election of quarterly payments must be made to the DEQ by the first payment date of September 1. The permittee shall be liable for penalty as prescribed by State Law for failure to pay the fee or quarterly portion thereof by the date due. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.D.)

(d) If in disagreement with the calculation or applicability of the Title V permit fee, the permittee may petition the Commission in writing for a hearing in accordance with State Law. Any disputed portion of the fee for which a hearing has been requested will not incur any penalty or interest from and after the receipt by the Commission of the hearing petition. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.C.)

1.9 No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(8).)

1.10 Any document required by this permit to be submitted to the DEQ shall contain a certification by a responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.2.E.)

1.11 The permittee shall allow the DEQ, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to perform the following:

(a) enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit;

(b) have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

(d) as authorized by the Federal Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.C(2).)

1.12 Except as otherwise specified or limited herein, the permittee shall have necessary sampling ports and ease of accessibility for any new air pollution control equipment, obtained after May 8, 1970, and vented to the atmosphere. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.I(1).)

1.13 Except as otherwise specified or limited herein, the permittee shall provide the necessary sampling ports and ease of accessibility when deemed necessary by the Permit Board for air pollution control equipment that was in existence prior to May 8, 1970. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.I(2).)

1.14 Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance where such applicable requirements are included and are specifically identified in the permit or where the permit contains a determination, or summary thereof, by the Permit Board that requirements specifically identified previously are not applicable to the source. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.F(1).)

1.15 Nothing in this permit shall alter or affect the following:

(a) the provisions of Section 303 of the Federal Act (emergency orders), including the authority of the Administrator under that section;

(b) the liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

(c) the applicable requirements of the acid rain program, consistent with Section 408(a) of the Federal Act.

(d) the ability of EPA to obtain information from a source pursuant to Section 114 of the Federal Act. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.F(2).)

1.16 The permittee shall comply with the requirement to register a Risk Management Plan if permittee's facility is required pursuant to Section 112(r) of the Act to register such a plan. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.H.)

1.17 Expiration of this permit terminates the permittee's right to operate unless a timely and complete renewal application has been submitted. A timely application is one which is submitted at least six (6) months prior to expiration of the Title V permit. If the permittee submits a timely and complete application, the failure to have a Title V permit is not a violation of regulations until the Permit Board takes final action on the permit application. This protection shall cease to apply if, subsequent to the completeness determination, the permittee fails to submit by the deadline specified in writing by the DEQ any additional information identified as being needed to process the application. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.C(2)., R. 6.4.B., and R. 6.2.A(1)(c).)

1.18 The permittee is authorized to make changes within their facility without requiring a permit revision (ref: Section 502(b)(10) of the Act) if:

(a) the changes are not modifications under any provision of Title I of the Act;

(b) the changes do not exceed the emissions allowable under this permit;

(c) the permittee provides the Administrator and the Department with written notification in advance of the proposed changes (at least seven (7) days, or such other time frame as provided in other regulations for emergencies) and the notification includes:

(1) a brief description of the change(s),

(2) the date on which the change will occur,

(3) any change in emissions, and

(4) any permit term or condition that is no longer applicable as a result of the change;

(d) the permit shield shall not apply to any Section 502(b)(10) change. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.F(1).)

1.19 Should the Executive Director of the Mississippi Department of Environmental Quality declare an Air Pollution Emergency Episode, the permittee will be required to operate in accordance with the permittee's previously approved Emissions Reduction Schedule or, in the absence of an approved schedule, with the appropriate requirements specified in 11 Miss. Admin. Code Pt. 2, Ch. 3., "Regulations for the Prevention of Air Pollution Emergency Episodes" for the level of emergency declared. (Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 3.)

1.20 Except as otherwise provided herein, a modification of the facility may require a Permit to Construct in accordance with the provisions of Regulations 11 Miss. Admin. Code Pt. 2, Ch. 2., "Permit Regulations for the Construction and/or Operation of Air Emissions Equipment", and may require modification of this permit in accordance with Regulations 11 Miss. Admin. Code Pt. 2, Ch. 6., "Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act". Modification is defined as "[a]ny physical change in or change in the method of operation of a facility which increases the actual emissions or the potential uncontrolled emissions of any air pollutant subject to regulation under the Federal Act emitted into the atmosphere by that facility or which results in the emission of any air pollutant subject to regulation under the Federal Act into the atmosphere not previously emitted. A physical change or change in the method of operation shall not include:

(a) routine maintenance, repair, and replacement;

(b) use of an alternative fuel or raw material by reason of an order under Sections 2 (a) and (b) of the Federal Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act;

(c) use of an alternative fuel by reason of an order or rule under Section 125 of the Federal Act;

(d) use of an alternative fuel or raw material by a stationary source which:

(1) the source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.166; or

(2) the source is approved to use under any permit issued under 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.166;

(e) an increase in the hours of operation or in the production rate unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Subpart I or 40 CFR 51.166; or

(f) any change in ownership of the stationary source."

1.21 Any change in ownership or operational control must be approved by the Permit Board. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.D(4).)

1.22 This permit is a Federally approved operating permit under Title V of the Federal Clean Air Act as amended in 1990. All terms and conditions, including any designed to limit the

source's potential to emit, are enforceable by the Administrator and citizens under the Federal Act as well as the Commission. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.B(1).)

1.23 Except as otherwise specified or limited herein, the open burning of residential, commercial, institutional, or industrial solid waste, is prohibited. This prohibition does not apply to infrequent burning of agricultural wastes in the field, silvicultural wastes for forest management purposes, land-clearing debris, debris from emergency clean-up operations, and ordnance. Open burning of land-clearing debris must not use starter or auxiliary fuels which cause excessive smoke (rubber tires, plastics, etc.); must not be performed if prohibited by local ordinances; must not cause a traffic hazard; must not take place where there is a High Fire Danger Alert declared by the Mississippi Forestry Commission or Emergency Air Pollution Episode Alert imposed by the Executive Director and must meet the following buffer zones.

(a) Open burning without a forced-draft air system must not occur within 500 yards of an occupied dwelling.

(b) Open burning utilizing a forced-draft air system on all fires to improve the combustion rate and reduce smoke may be done within 500 yards of but not within 50 yards of an occupied dwelling.

(c) Burning must not occur within 500 yards of commercial airport property, private air fields, or marked off-runway aircraft approach corridors unless written approval to conduct burning is secured from the proper airport authority, owner or operator. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.G.)

1.24 Except as otherwise specified herein, the permittee shall be subject to the following provision with respect to emergencies.

(a) Except as otherwise specified herein, an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

(b) An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in (c) following are met.

(c) The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs, or other relevant evidence that include information

as follows:

(1) an emergency occurred and that the permittee can identify the cause(s) of the emergency;

(2) the permitted facility was at the time being properly operated;

(3) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

(4) the permittee submitted notice of the emergency to the DEQ within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(d) In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

(e) This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.G.)

1.25 Except as otherwise specified herein, the permittee shall be subject to the following provisions with respect to upsets, startups, shutdowns and maintenance.

(a) Upsets (as defined by 11 Miss. Admin. Code Pt. 2, R. 1.2.KK.)

(1) The occurrence of an upset constitutes an affirmative defense to an enforcement action brought for noncompliance with emission standards or other requirements of Applicable Rules and Regulations or any applicable permit if the permittee demonstrates through properly signed contemporaneous operating logs, or other relevant evidence that include information as follows:

(i) an upset occurred and that the permittee can identify the cause(s) of the upset;

(ii) the source was at the time being properly operated;

(iii) during the upset the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements

of Applicable Rules and Regulations or any applicable permit;

(iv) the permittee submitted notice of the upset to the DEQ within 5 working days of the time the upset began; and

(v) the notice of the upset shall contain a description of the upset, any steps taken to mitigate emissions, and corrective actions taken.

(2) In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

(3) This provision is in addition to any upset provision contained in any applicable requirement.

(b) Startups and Shutdowns (as defined by 11 Miss. Admin. Code Pt. 2, R. 1.2.HH. & R. 1.2.CC.)

(1) Startups and shutdowns are part of normal source operation. Emissions limitations applicable to normal operation apply during startups and shutdowns except as follows:

(i) when sudden, unavoidable breakdowns occur during a startup or shutdown, the event may be classified as an upset subject to the requirements above;

(ii) when a startup or shutdown is infrequent, the duration of excess emissions is brief in each event, and the design of the source is such that the period of excess emissions cannot be avoided without causing damage to equipment or persons; or

(iii) when the emissions standards applicable during a startup or shutdown are defined by other requirements of Applicable Rules and Regulations or any applicable permit.

(2) In any enforcement proceeding, the permittee seeking to establish the applicability of any exception during a startup or shutdown has the burden of proof.

(3) In the event this startup and shutdown provision conflicts with another applicable requirement, the more stringent requirement shall apply.

(c) Maintenance.

(1) Maintenance should be performed during planned shutdown or repair of process equipment such that excess emissions are avoided. Unavoidable maintenance that results in brief periods of excess emissions and that is necessary to prevent or minimize emergency conditions or equipment malfunctions constitutes an affirmative defense to an enforcement action brought for noncompliance with emission standards, or other regulatory requirements if the permittee can demonstrate the following:

(i) the permittee can identify the need for the maintenance;

(ii) the source was at the time being properly operated;

(iii) during the maintenance the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements of Applicable Rules and Regulations or any applicable permit;

(iv) the permittee submitted notice of the maintenance to the DEQ within 5 working days of the time the maintenance began or such other times as allowed by DEQ; and

(v) the notice shall contain a description of the maintenance, any steps taken to mitigate emissions, and corrective actions taken.

(2) In any enforcement proceeding, the permittee seeking to establish the applicability of this section has the burden of proof.

(3) In the event this maintenance provision conflicts with another applicable requirement, the more stringent requirement shall apply. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.10.)

1.26 The permittee shall comply with all applicable standards for demolition and renovation activities pursuant to the requirements of 40 CFR Part 61, Subpart M, as adopted by reference in Regulation 11 Miss Admin. Code Pt. 2, R. 1.8. The permittee shall not be required to obtain a modification of this permit in order to perform the referenced activities

SECTION 2. EMISSION POINTS & POLLUTION CONTROL DEVICES

Emission Point	Description
AA-003	15,000 Gallon Fuel Oil Storage Tank
AA-004a	Venturi Scrubber, controlled thence through AA-027
AA-004b	Packed Tower Scrubber for back-up contingency for AA-027, thence controlled through AA-005
AA-005	Room Air Scrubber (Ceilcoat HRP-700 Cross Flow Scrubber)
AA-009	37.5 TPH Poultry Line with cookers #1, #2 and #4 controlled through AA-004a/AA-027; contingency through AA-004a/AA-004b/AA-005
AA-010	6.75 TPH Red Meat/Poultry Line with cooker #3 controlled through AA-004a/AA-027; contingency through AA-004a/AA-004b/AA-005
AA-013	8.75 TPH Grease Processing Line
AA-016	Steam-Tube Blood Dryer Line controlled through AA-004a/AA-027; contingency through AA-004a/AA-004b/AA-005
AA-017	High Intensity Scrubber System. Back-up contingency stand-by status for AA-027
AA-018	Room Air Scrubber (AC Corporation, Model RDS-100 Cross Flow)
AA-019	Steam-Tube Feather Dryer Line controlled through AA-004a/AA-027; contingency through AA-017/AA-018
AA-020	50.4 MMBTU/hr Hurst Boiler (Ref. No. Hurst 1)
AA-021	50.4 MMBTU/hr Hurst Boiler (Ref. No. Hurst 2)
AA-022	50.4 MMBTU/hr Hurst Boiler (Ref. No. Hurst 3)
AA-023	50.4 MMBTU/hr Hurst Boiler (Ref. No. Hurst 4)
AA-024	48 MMBTU/hr Hurst Boiler (Ref. No. Hurst 5)

Emission Point	Description
AA-025	48 MMBTU/hr Hurst Boiler (Ref. No. Hurst 6)
AA-026	Poultry Line with Cooker #5 controlled through AA-004a/AA-027; contingency through AA-017/AA-018
AA-027	Regenerative Thermal Oxidizer, providing control of emissions from AA-004a
AA-028	51 hp Natural Gas Fired Emergency Generator (2016 Model Year Spark Ignition Internal Combustion Engine)

SECTION 3. EMISSION LIMITATIONS & STANDARDS

A. Facility-Wide Emission Limitations & Standards

3.A.1 Except as otherwise specified or limited herein, the permittee shall not cause, permit, or allow the emission of smoke from a point source into the open air from any manufacturing, industrial, commercial or waste disposal process which exceeds forty (40) percent opacity subject to the exceptions provided in (a) & (b).

(a) Startup operations may produce emissions which exceed 40% opacity for up to fifteen (15) minutes per startup in any one hour and not to exceed three (3) startups per stack in any twenty-four (24) hour period.

(b) Emissions resulting from soot blowing operations shall be permitted provided such emissions do not exceed 60 percent opacity, and provided further that the aggregate duration of such emissions during any twenty-four (24) hour period does not exceed ten (10) minutes per billion BTU gross heating value of fuel in any one hour. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.A.)

3.A.2 Except as otherwise specified or limited herein, the permittee shall not cause, allow, or permit the discharge into the ambient air from any point source or emissions, any air contaminant of such opacity as to obscure an observer's view to a degree in excess of 40% opacity, equivalent to that provided in Paragraph 3.A.1. This shall not apply to vision obscuration caused by uncombined water droplets. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.B.)

3.A.3 For the entire facility, the permittee shall limit emissions of filterable Particulate Matter (PM), Sulfur Dioxide (SO_2), and Nitrogen Oxides (NO_x) to no more than 249 tons/year for each pollutant on a 12-month rolling basis. (Ref.: Permit to Construct No. 1080-00040 issued March 16, 1999)

3.A.4 For all processing areas, the permittee shall not cause, permit, or allow the emission from each independent manufacturing process, in any one hour from any point source, particulate matter in total quantities in excess of the amount determined by the relationship

$$E = 4.1\ p^{0.67}$$

where E is the emission rate in pounds per hour and p is the process weight input rate in tons per hour.

An independent process, for the purposes of Darling Ingredients, shall be the Poultry Lines (AA-009 and AA-026); the Red Meat/Poultry Line (AA-010); Grease Processing Line (AA-013); Steam-Tube Blood Dryer Line (AA-016); and Steam-Tube Feather Dryer Line (AA-019). Conveyor discharge of coarse solid matter may be allowed if no nuisance is created beyond the property boundary where the discharge occurs. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.F(1).)

3.A.5 There shall be no odorous substances in the ambient air in concentrations sufficient to adversely and unreasonably:

(a) affect human health and well-being;

(b) interfere with the use or enjoyment of property; or

(c) affect plant or animal life.

In determining that concentrations of such substances in the ambient air are adversely and unreasonably affecting human well-being or the use or enjoyment of property of plant or animal life, the factors to be considered by the Commission will include, without limiting the generality of the foregoing, the number of complaints or petitioners alleging that such a condition exists, the frequency of the occurrence of such substances in the ambient air as confirmed by the Department of Environmental Quality staff, and the land use of the affected area. (Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 4., State enforceable only)

3.A.6 The permittee shall not cause, permit, or allow the emission of particles, or any contaminants in sufficient amounts or of such duration from any process as to be injurious to humans, animals, plants, or property, or to be a public nuisance, or create a condition of air pollution.

(a) No person shall cause or permit the handling or transporting or storage of any material in a manner which allows or may allow unnecessary amounts of particulate matter to become airborne.

(b) When dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance to property other than that from which it originated or to violate any other provision of this regulation, the Commission may order such corrected in a way that all air and gases or air and gasborne material leaving the building or equipment are controlled or removed prior to discharge to the open air. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.C.)

B. Emission Point Specific Emission Limitations & Standards

Emission Point(s)	Pollutant/ Parameter	Limit/Standard	Condition Number(s)	Applicable Requirement
AA-020 AA-021 AA-022 AA-023 AA-024 AA-025	SO_2	4.8 lbs/MMBTUH or as otherwise limited by facility modification restrictions	3.B.1	11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).
	SO_2 via fuel oil sulfur content	Maximum fuel oil sulfur content of 0.5% by weight	3.B.2	40 CFR 60.42c(d)
	PM (filterable only)	$E= 0.8808*I^{-0.1667}$ or as otherwise limited by facility modification restrictions	3.B.3	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b).
	Fuel Restriction	Only combust natural gas, No. 2 fuel oil, No. 6 fuel oil, on-spec. used oil, and processed fats	3.B.4	Title V Operating Permit No. 1080-00040 issued January 9, 2009
AA-020 AA-021 AA-022 AA-023 AA-024 AA-025	Opacity	When combusting fuel oil, 20% opacity (6-minute) average, except for one 6-minute per hour of not more than 27% opacity shall not be exceeded.	3.B.5	40 CFR 60.43c(c)
	Combined Boiler Usage	A combined boiler usage limitation of 249.9 MMBTU/Hr heat input at any given time shall not be exceeded.	3.B.6	Permit to Construct No.1080-00040 issued December 17, 2012
AA-004a AA-004b AA-005 AA-017 AA-018 AA-027	Operational Restriction	Control devices must be in operation and inspected in accordance with the approved Operational Plan	3.B.7	Title V Operating Permit No. 1080-00040 issued January 9, 2009
AA-027	Temperature	Minimum operating temperature in the combustion chamber of 1300 degrees Fahrenheit	3.B.8	Federal Enforceable Limit established in modification of Title V Operating Permit No. 1808-00040 on August 3, 2016
AA-028	Applicability	Comply with 40 CFR Part 63, Subpart ZZZZ by complying with 40 CFR Part 60, Subpart JJJJ	3.B.9	40 CFR 63.6590(c)(1)
	Applicability	Comply with 40 CFR Part 60, Subpart JJJJ and 40 CFR Part 60, Subpart A	3.B.10	40 CFR 60.4230(a)(4)(iii) 40 CFR 60.4246
	Manufacturer Certification Standards	Use certified engine per manufacturer's specifications	3.B.11	40 CFR 60.4233(d)

Emission Point(s)	Pollutant/ Parameter	Limit/Standard	Condition Number(s)	Applicable Requirement
AA-028	Operation and Maintenance	Life-time emissions requirement	3.B.12	40 CFR 60.4234
		Hour meter requirement	3.B.13	40 CFR 60.4237(c)
		Emergency operation provisions	3.B.14	40 CFR 60.4243(d)

3.B.1 For Emission Points AA-020 through AA-025, the maximum discharge of sulfur oxides from any fuel burning equipment shall not exceed 4.8 pounds (measured as sulfur dioxide) per million BTU heat input. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).)

3.B.2 For Emission Points AA-020 through AA-025, the permittee shall not combust any fuel oil that contains greater than 0.5 weight percent sulfur. (Ref.: 40 CFR 60.42c(d).)

3.B.3 For Emission Points AA-020 through AA-025, the permittee shall not allow ash and/or particulate matter to exceed an emission rate as determined by the relationship

$$E = 0.8808 * I^{-0.1667}$$

where E is the emission rate in pounds per million BTU per hour heat input and I is the heat input in millions of BTU per hour. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b).

3.B.4 For all fuel burning equipment, the permittee shall only combust natural gas, No. 2 fuel oil, No. 6 fuel oil, on-spec. used oil, and processed fats. (Ref.: Title V Operating Permit No. 1080-00040 issued January 9, 2009)

3.B.5 For Emission Points AA-020 through AA-025, when combusting fuel oil, the permittee shall not cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute) average, except for one 6-minute period per hour of not more than 27 percent opacity. (Ref.: 40 CFR 60.43c(c))

3.B.6 For Emission Points AA-020 through AA-025, the permittee shall not exceed a combined boiler usage limitation of 249.9 MMBTU/Hr heat input at any given time. (Ref.: Permit to Construct No. 1080-00040 issued December 17, 2012)

3.B.7 For Emission Points AA-004a, AA-004b, AA-005, AA-017, AA-018, and AA-027 the permittee must operate and inspect all control devices in accordance with the approved Operational Plan required by Condition 5.B.9 of the Title V Operating Permit issued

January 9, 2009. (Ref.: Title V Operating Permit No. 1080-00040 issued January 9, 2009)

3.B.8 For Emission Point AA-027 the permittee shall maintain a minimum operating temperature in the combustion chamber of 1300 degrees Fahrenheit. (Ref.: Federal Enforceable Limit established in modification of Title V Operating Permit No. 1808-00040 on August 5, 2016.)

3.B.9 For Emission Point AA-028, the permittee shall comply with the requirements of 40 CFR Part 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Compression Engines by meeting the requirements of 40 CFR Part 60, Subpart JJJJ – Standards for Performance for Stationary Spark Ignition Internal Combustion Engines. (Ref.: 40 CFR 63.6590(c)(1))

3.B.10 For Emission Point AA-028, the permittee shall comply with the requirements of 40 CFR Part 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines and 40 CFR Part 60, Subpart A – General Provisions for stationary spark ignition (SI) internal combustion engines (ICE) that commence construction after June 12, 2006 and are manufactured after July 1, 2008. (Ref.: 40 CFR 60.4230(a)(4)(iii); 40 CFR 60.4246)

3.B.11 For Emission Point AA-028, the permittee shall comply with the emission standards in Table 1 of 40 CFR 60, Subpart JJJJ. (Ref.: 40 CFR 60.4233(d))

3.B.12 For Emission Point AA-028, the permittee shall operate and maintain the stationary SI ICE to achieve the standards in Permit Condition 3.B.11 over the entire life of the engine. (Ref.: 40 CFR 60.4234)

3.B.13 For Emission Point AA-028, the permittee shall install a non-resettable hour meter prior to startup of the engine. (Ref.: 40 CFR 60.4237(c))

3.B.14 For Emission Point AA-028, the permittee shall operate the emergency stationary ICE according to the requirements in 40 CFR 60.4243(d)(1) through (3). The emergency ICE must not operate more than 50 hours per year in non-emergency use and shall not exceed 100 hours per year in total. Any operation beyond the 100 hours per year must be approved per the procedures in 40 CFR 60.4243(d). Operation is unlimited for emergency use. (Ref.: 40 CFR 60.4243(d))

C. Insignificant and Trivial Activity Emission Limitations & Standards

Pollutant/ Parameter	Limit/Standard	Condition Number(s)	Applicable Requirement
PM (filterable only)	0.6 lbs/MMBTU	3.C.1	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).
SO_2	4.8 lbs/MMBTU	3.C.2	11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).

3.C.1 The maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations of less than 10 million BTU per hour heat input shall not exceed 0.6 pounds per million BTU per hour heat input. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).)

3.C.2 The maximum discharge of sulfur oxides from any fuel burning installation in which the fuel is burned primarily to produce heat or power by indirect heat transfer shall not exceed 4.8 pounds (measured as sulfur dioxide) per million BTU heat input. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).)

SECTION 4. COMPLIANCE SCHEDULE

4.1 Unless otherwise specified herein, the permittee shall be in compliance with all requirements contained herein upon issuance of this permit.

4.2 Except as otherwise specified herein, the permittee shall submit to the Permit Board and to the Administrator of EPA Region IV a certification of compliance with permit terms and conditions, including emission limitations, standards, or work practices, by January 31 for the preceding calendar year. Each compliance certification shall include the following:

(a) the identification of each term or condition of the permit that is the basis of the certification;

(b) the compliance status;

(c) whether compliance was continuous or intermittent;

(d) the method(s) used for determining the compliance status of the source, currently and over the applicable reporting period;

(e) such other facts as may be specified as pertinent in specific conditions elsewhere in this permit. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.C(5)(a), (c), & (d).)

SECTION 5. MONITORING, RECORDKEEPING & REPORTING REQUIREMENTS

A. General Monitoring, Recordkeeping and Reporting Requirements

5.A.1 The permittee shall install, maintain, and operate equipment and/or institute procedures as necessary to perform the monitoring and recordkeeping specified below.

5.A.2 In addition to the recordkeeping specified below, the permittee shall include with all records of required monitoring information the following:

(a) the date, place as defined in the permit, and time of sampling or measurements;

(b) the date(s) analyses were performed;

(c) the company or entity that performed the analyses;

(d) the analytical techniques or methods used;

(e) the results of such analyses; and

(f) the operating conditions existing at the time of sampling or measurement. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(b)(1).)

5.A.3 Except where a longer duration is specified in an applicable requirement, the permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(b)(2).)

5.A.4 Except as otherwise specified herein, the permittee shall submit reports of any required monitoring by July 31 and January 31 for the preceding six-month period. All instances of deviations from permit requirements must be clearly identified in such reports and all required reports must be certified by a responsible official consistent with 11 Miss. Admin. Code Pt. 2, R. 6.2.E. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).)

5.A.5 Except as otherwise specified herein, the permittee shall report all deviations from permit requirements, including those attributable to upsets, the probable cause of such deviations, and any corrective actions or preventive measures taken. Said report shall be made within five (5) days of the time the deviation began. (Ref.: 11 Miss. Admin.

Code Pt. 2, R. 6.3.A(3)(c)(2).)

5.A.6 Except as otherwise specified herein, the permittee shall perform emissions sampling and analysis in accordance with EPA Test Methods and with any continuous emission monitoring requirements, if applicable. All test methods shall be those versions or their equivalents approved by the DEQ and the EPA.

5.A.7 The permittee shall maintain records of any alterations, additions, or changes in equipment or operation.

B. Specific Monitoring and Recordkeeping Requirements

Emission Point(s)	Pollutant/Parameter Monitored	Monitoring/Recordkeeping Requirement	Condition Number	Applicable Requirement
Facility Wide	PM (filterable only) SO_2 NO_x	Monitor and record a rolling 12-month emission calculation for each pollutant	5.B.1	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(3).
	Production Outputs	Monitor and record production outputs	5.B.2	
AA-020 AA-021 AA-022 AA-023 AA-024 AA-025	Fuel Supplier Certifications	Monitor and maintain fuel supplier certifications when combusting No. 2 (distillate) fuel oil	5.B.3	40 CFR 60.42c(h)(1), 60.48c(e)(11), 60.48c(f)(1)
	Sulfur Content	Analyze oil samples to determine the sulfur content of the oil when combusting No.6 (residual) fuel oil or on-spec. used oil	5.B.4	40 CFR 60.42c(g), 60.42c(h)(2) & (4), 60.44c(g), 60.46c(d)(2)
	Combined Boiler Usage	Monitor and record boiler usage	5.B.5	Permit to Construct No. 1080-00040 issued December 17, 2012
	Fuel Oil Usage	Record and maintain fuel oil usage	5.B.6	
	Opacity	When combusting #2, #6, or on-spec. used oil, conduct Test Method 9 to determine compliance with the opacity limit	5.B.7	40 CFR 60.45c(a)(8)
	Fuel Usage	Record and maintain daily fuel usage	5.B.8	40 CFR 60.48c(g)(1)
AA-004a AA-004b AA-005 AA-017 AA-018 AA-027	Operational Plan	Monitor and record operational parameters	5.B.9	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(3).
AA-027	Temperature	Monitor and record combustion chamber temperature	5.B.10	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).
AA-028	Hours of Operation	Operating Records	5.B.11	40 CFR 60.4245(a) and (b)

5.B.1 For the entire facility, the permittee shall monitor and record a rolling 12-month total of filterable Particulate Matter (PM), Sulfur Dioxide (SO_2), and Nitrogen Oxides (NO_x) emissions. The 12-month rolling total for these pollutants shall be based on available performance testing results or fuel sampling data required by this permit, as well as emissions calculations derived from AP-42 emission factors, vendor supplied data, data from similar operations, and/or any other means necessary for determining a reasonable measure of compliance with the Federally Enforceable Emission Limitations found in this permit. These records shall be maintained in accordance with Condition 5.A.3 and be made available upon request by MDEQ. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(3).)

5.B.2 For the entire facility, the permittee shall monitor and record a rolling 12-month total of the facility-wide production outputs. These records shall be maintained in accordance with Condition 5.A.3 and be made available upon request by MDEQ. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(3).)

5. B.3 For Emission Points AA-020 through AA-025, when combusting distillate (No. 2) fuel oil, the permittee shall demonstrate that the oil contains 0.5 weight percent sulfur or less as required by 40 CFR Part 60.42c, by maintaining monthly fuel supplier certification records containing the following information and as specified in 40 CFR Part 60.48c:

(a) The name of the oil supplier;

(b) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in Part 60.41c; and

(c) The sulfur content of the oil

The report shall also include a certified statement signed by the permittee that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period. (Ref.: 40 CFR 60.42c(h)(1), 60.48c(e)(11), 60.48c(f)(1))

5.B.4 For Emission Points AA-020 through AA-025, when combusting residual (No. 6) fuel oil or on-spec. used oil, the permittee shall demonstrate that the oil contains 0.5 weight percent sulfur or less as required by 40 CFR Part 60.42c, by collecting oil samples from the fuel tank for each steam generating unit immediately after the fuel tank is filled and before any oil is combusted. The oil sample shall be analyzed to determine the sulfur content of the oil. If a partially empty fuel tank is refilled, a new sample and analysis of the fuel in the tank will be required upon filling. Results of the fuel analysis taken after each new shipment of oil is received shall be used as the daily value when calculating the 30-day rolling average until the next shipment is received. If the fuel analysis shows that the sulfur content in the fuel tank is greater than 0.5 weight percent sulfur, the permittee shall ensure

that the sulfur content of subsequent oil shipments is low enough to cause the 30-day rolling average sulfur content to be 0.5 weight percent sulfur or less. The permittee shall record and maintain the records of oil samples that are analyzed and other records in accordance with 40 CFR Part 60.48c(e)(1), (2), and (3). (Ref.: 40 CFR 60.42c(g), 60.42c(h)(2) & (4), 60.44c(g), 60.46c(d)(2))

5. B.5 For Emission Points AA-020 through AA-025, the permittee shall determine and record the method for demonstrating compliance with the combined boiler usage limitation of 249.9 MMBTU/Hr heat input. If the permittee is demonstrating compliance by operating five (5) out of the six (6) Boilers, then the permittee shall record which boilers were operated when and in what combination for demonstrating a reasonable level of compliance. (Ref.: Permit to Construct No. 1080-00040 issued December 17, 2012)

5. B.6 For Emission Points AA-020 through AA-025, meet the definition of a gas-fired boiler, as defined in 40 CFR 63.11237, and are not subject to the requirements of 40 CFR Part 63, Subpart JJJJJJ for Industrial, Commercial, and Institutional Boilers at Area Sources. A Gas-fired boiler includes any boiler that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment, gas supply emergencies, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year.

For Emission Points AA-020 through AA-025, the permittee shall record and maintain a log of the date, duration (in hours), and amount of fuel oil combusted for each occurrence during the calendar year and shall note the reason that fuel oil was combusted (e.g., maintenance test, natural gas curtailment, etc.).

For Emission Points AA-020 through AA-025, for the purposes of 40 CFR Part 63 Subpart JJJJJJ, if a boiler can no longer comply with the gas-fired boiler conditions then the oil subcategory shall become applicable and any affected boiler shall immediately comply with 40 CFR Part 63 Subpart JJJJJJ. Emission Points AA-020, AA-021, and AA-022, would qualify as existing sources and Emission Points AA-023, AA-024, and AA-025, would qualify as new sources. When an emission point becomes applicable to an oil subcategory of 40 CFR Part 63 Subpart JJJJJJ, then the records required in the above paragraph no longer have to be maintained for that emission point. (Ref.: Permit to Construct No. 1080-00040 issued December 17, 2012, and 40 CFR 63.11195(e))

5.B.7 For Emission Points AA-020 through AA-025, when combusting distillate (No. 2) fuel oil, residual (No. 6) fuel oil or on-spec. used oil, the permittee shall demonstrate compliance with the opacity limit by conducting EPA Test Method 9 or other EPA approved alternative, in accordance with the MDEQ approved Site Specific Opacity Monitoring Plan. The permittee shall maintain records containing the following information as specified in 40 CFR Part 60.48c(c)(1) and as specified in the MDEQ approved Site Specific Opacity Monitoring Plan:

(a) Dates and time intervals of all opacity observation periods;

(b) Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and

(c) Copies of all visible emission observer opacity field data sheets;
(Ref.: 40 CFR 60.45c(a)(8), 40 CFR 60.47c(g), 40 CFR 60.48c(c)(1))

5.B.8 For Emission Points AA-020 through AA-025, the permittee shall record and maintain records of the amount of each fuel combusted during each operating day. The daily recordings shall be combined into monthly logs. These records shall be maintained in accordance with Condition 5.A.3. (Ref.: 40 CFR 60.48c(g)(1))

5. B.9 For Emission Points AA-004a, AA-004b, AA-005, AA-017, AA-018, and AA-027 the permittee shall maintain an updated MDEQ approved Operational Plan. This Operational Plan shall indicate the steps taken should any control device become non-operational. Additionally, the Operational Plan shall include all necessary operational parameters and ranges that will demonstrate a reasonable margin of compliance with Conditions found in Section 3. These operational ranges for each control device shall be derived from stack test data, vendor certification, operational history, visual inspections, and/or olfactory observations, the combination of which demonstrate the proper operation of the equipment. Updated ranges, with supporting documentation, shall be submitted to the Environmental Permits Division of MDEQ within 60 days of the update. MDEQ reserves the right to comment and request changes to the plan upon review. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(3).)

5.B.10 For Emission Point AA-027, the permittee shall demonstrate compliance with the temperature limit through daily monitoring of the combustion temperature, in accordance with paragraphs (a) through (b) below.

(a) Install, calibrate, maintain, and operate temperature monitoring equipment according to the manufacturer's specifications. The calibration of the temperature indicator must be verified according to the manufacturer's specifications; or the temperature indicator must be replaced. The permittee must replace the equipment either if the permittee chooses not to perform the calibration or if the equipment cannot be calibrated properly. Each temperature monitoring device must have an accuracy of +/- 1% of the temperature being monitored in degrees Fahrenheit.

(b) Install the thermocouple or temperature sensor in the combustion chamber at the location in the combustion zone recommended by the manufacturer or based on best engineering judgment.

5.B.11 For Emission Point AA-028, the permittee must keep records of all notifications submitted to comply with 40 CFR Part 60, Subpart JJJJ and all documentation supporting any

notification, maintenance conducted on the engine, and documentation from the manufacturer that the engine is certified to meet emission standards. The permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. (Ref.: 40 CFR 60.4245(a) and (b))

C. Specific Reporting Requirements

Emission Point(s)	Pollutant/Parameter Monitored	Reporting Requirement	Condition Number	Applicable Requirement
Facility Wide	PM (filterable only) SO_2 NO_x	Semiannual reports	5.C.1	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).
	Production Outputs	Semiannual reports	5.C.2	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).
AA-020 AA-021 AA-022 AA-023 AA-024 AA-025	Fuel Supplier Certifications	Semiannual reports	5.C.3	40 CFR 60.48c(d)
	Sulfur Content	Semiannual reports	5.C.4	40 CFR 60.48c(d)
	Combined Boiler Usage	Semiannual reports	5.C.5	Permit to Construct No. 1080-00040 issued December 17, 2012
	Fuel Oil Usage	Semiannual reports	5.C.6	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).
	Opacity	Semiannual reports	5.C.7	40 CFR 60.48c(c)
	Boiler Classification	Report	5.C.8	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).
AA-027	Temperature	Report	5.C.9	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1)and(2)

5. C.1 For the entire facility, the permittee shall submit a summary report of the facility-wide rolling 12-month total of filterable Particulate Matter (PM), Sulfur Dioxide (SO_2) and Nitrogen Oxides (NO_x) emissions. This summary shall be submitted semiannually in accordance with Condition 5.A.4 (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).)

5. C.2 The permittee shall submit semiannually a summary report of the rolling 12-month facility-wide production outputs. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).)

5.C.3 For Emission Points AA-020 through AA-025, the permittee shall submit semiannual reports demonstrating compliance with the fuel supplier certification records. (Ref.: 40 CFR 60.48c(d), (e), & (j))

5.C.4 For Emission Points AA-020 through AA-025, the permittee shall submit semiannual records of oil samples that are analyzed and other records in accordance with 40 CFR Part 60.48c(e)(1), (2), and (3). (Ref.: 40 CFR 60.48c(d), (e), & (j))

5.C.5 For Emission Points AA-020 through AA-025, the permittee shall submit semiannual reports demonstrating compliance with the combined boiler usage limitation of 249.9 MMBTU/Hr heat input. (Ref.: Permit to Construct No. 1080-00040 issued December 17, 2012)

5. C.6 For Emission Points AA-020 through AA-025, the permittee shall submit semiannually the logs of the date, duration (in hours), and amount of fuel oil combusted for each occurrence during the calendar year and shall note the reason that fuel oil was combusted (e.g., maintenance test, natural gas curtailment, etc.). (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).)

5.C.7 For Emission Points AA-020 through AA-025, the permittee shall submit semiannually excess emission reports in accordance with 40 CFR 60.48c(c)(1) for any excess emissions that occur during the reporting period as applicable to the visible emissions monitoring method 9. (Ref.: 40 CFR 60.48c(c) & (j))

5.C.8 For Emission Points AA-020 through AA-025, if the permittee switches fuels or makes a physical change to a boiler that affects the applicability of 40 CFR Part 63, Subpart JJJJJJ, then the permittee shall submit written notification to MDEQ within 30 days of the change. The notification must identify:

(a) The name of the owner or operator of the affected source, the location of the source, the boiler(s) that have switched fuels, were physically changed, or took a permit limit, and the date of the notice.

(b) The date upon which the fuel switch, physical change, or permit limit occurred. (Ref.: 40 CFR Part 63.11225(g))

5.C.9 For Emission Point AA-027, the permittee shall report any deviations from the temperature limit in accordance with Condition 5.A.5. A copy of the report shall be maintained in accordance with the general recordkeeping provisions in 5.A.3. Reports shall include:

(a) The occurrence and duration of each deviation from the minimum operating temperature limit, including the date and time of commencement and completion of the deviation and the nature and cause of the malfunction (if known).

(b) The occurrence and duration of each malfunction of process equipment or the thermal oxidizer, all required maintenance performed on the thermal oxidizer and associated monitoring equipment, all adjustments and maintenance performed on the monitoring system, and all monitoring system calibration checks.

(c) Corrective actions taken during periods, which deviated from the minimum operating temperature limit (including corrective actions to restore malfunctioning process equipment to its normal or usual manner of operation).

(d) The date and time identifying each period during which the monitoring system was inoperative, failed, and/or could not be calibrated, including the nature of any repairs or adjustments made as a result. (Ref.: 11 Miss. Admin. Code Pt. 2,R. 6.3.A(3)(c)(1)and(2).)

SECTION 6. ALTERNATIVE OPERATING SCENARIOS

6.1 None permitted.

SECTION 7. TITLE VI REQUIREMENTS

The following are applicable or potentially applicable requirements originating from Title VI of the Clean Air Act – Stratospheric Ozone Protection. The full text of the referenced regulations may be found on-line at **http://ecfr.gpoaccess.gov** under Title 40, or DEQ shall provide a copy upon request from the permittee.

7.1 If the permittee produces, transforms, destroys, imports or exports a controlled substance or imports or exports a controlled product, the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart A – Production and Consumption Controls.

7.2 If the permittee performs service on a motor vehicle for consideration when this service involves the refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart B – Servicing of Motor Vehicle Air Conditioners.

7.3 The permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart E – The Labeling of Products Using Ozone-Depleting Substances, for the following containers and products:

(a) All containers in which a class I or class II substance is stored or transported;

(b) All products containing a class I substance; and

(c) All products directly manufactured with a process that uses a class I substance, unless otherwise exempted by this subpart or, unless EPA determines for a particular product that there are no substitute products or manufacturing processes for such product that do not rely on the use of a class I substance, that reduce overall risk to human health and the environment, and that are currently or potentially available. If the EPA makes such a determination for a particular product, then the requirements of this subpart are effective for such product no later than January 1, 2015.

7.4 If the permittee performs any of the following activities, the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart F – Recycling and Emissions Reduction:

(a) Servicing, maintaining, or repairing appliances;

(b) Disposing of appliances, including small appliances and motor vehicle air conditioners; or

(c) Refrigerant reclaimers, technician certifying programs, appliance owners and operators, manufacturers of appliances, manufacturers of recycling and recovery equipment, approved recycling and recovery equipment testing organizations, persons

selling class I or class II refrigerants or offering class I or class II refrigerants for sale, and persons purchasing class I or class II refrigerants.

7.5 The permittee shall be allowed to switch from any ozone-depleting substance to any acceptable alternative that is listed in the Significant New Alternatives Policy (SNAP) program promulgated pursuant to 40 CFR Part 82, Subpart G – Significant New Alternatives Policy Program. The permittee shall also comply with any use conditions for the acceptable alternative substance.

7.6 If the permittee performs any of the following activities, the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart H – Halon Emissions Reduction:

(a) Any person testing, servicing, maintaining, repairing, or disposing of equipment that contains halons or using such equipment during technician training;

(b) Any person disposing of halons;

(c) Manufacturers of halon blends; or

(d) Organizations that employ technicians who service halon-containing equipment.

APPENDIX A

List of Abbreviations Used In this Permit

11 Miss. Admin. Code Pt. 2, Ch. 1.	Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants
11 Miss. Admin. Code Pt. 2, Ch. 2.	Permit Regulations for the Construction and/or Operation of Air Emissions Equipment
11 Miss. Admin. Code Pt. 2, Ch. 3.	Regulations for the Prevention of Air Pollution Emergency Episodes
11 Miss. Admin. Code Pt. 2, Ch. 4.	Ambient Air Quality Standards
11 Miss. Admin. Code Pt. 2, Ch. 5.	Regulations for the Prevention of Significant Deterioration of Air Quality
11 Miss. Admin. Code Pt. 2, Ch. 6.	Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act
11 Miss. Admin. Code Pt. 2, Ch. 7.	Acid Rain Program Permit Regulations for Purposes of Title IV of the Federal Clean Air Act
BACT	Best Available Control Technology
CEM	Continuous Emission Monitor
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COM	Continuous Opacity Monitor
COMS	Continuous Opacity Monitoring System
DEQ	Mississippi Department of Environmental Quality
EPA	United States Environmental Protection Agency
gr/dscf	Grains Per Dry Standard Cubic Foot
HP	Horsepower
HAP	Hazardous Air Pollutant
lbs/hr	Pounds per Hour
M or K	Thousand
MACT	Maximum Achievable Control Technology
MM	Million
MMBTUH	Million British Thermal Units per Hour
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emissions Standards For Hazardous Air Pollutants, 40 CFR 61 or National Emission Standards For Hazardous Air Pollutants for Source Categories, 40 CFR 63
NMVOC	Non-Methane Volatile Organic Compounds
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards, 40 CFR 60
O&M	Operation and Maintenance
PM	Particulate Matter
PM_{10}	Particulate Matter less than 10 μm in diameter
ppm	Parts per Million
PSD	Prevention of Significant Deterioration, 40 CFR 52
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
TPY	Tons per Year
TRS	Total Reduced Sulfur
VEE	Visible Emissions Evaluation
VHAP	Volatile Hazardous Air Pollutant
VOC	Volatile Organic Compound

APPENDIX B

DARLING INGREDIENTS INC.
1299 Prisock Road
Jackson,MS 39272
AI ID # 1099
Scrubber/RTO System Operational Plan
Title V Operating Permit No. 1080-00040

General Information
The wet scrubber systems at the Darling Ingredients Inc. (Darling) Jackson, Mississippi, facility were originally designed for non-speciated and unquantified malodor compound control, and not specifically designed for criteria pollutant (particulate matter [PM] or volatile organic compound [VOC]) control. However, there is an inherent amount of PM and VOC control in wet scrubbers (especially those that use oxidizing chemistry). The Jackson facility has installed a regenerative thermal oxidizer (RTO) system where PM and malodorous non-condensable vapors (including hydrogen sulfide [H2S] and VOC) are significantly thermally destroyed. See the last page of this Plan for a schematic of the scrubber/RTO systems setup.

The venturi scrubber (AA-004a) controls all process emissions from the Poultry Lines (AA-009 -Cookers #I, #2, and #4), Red Meat/Poultry Lines (AA-010 - Cooker #3), Blood Line (AA-OI6), Feather Line (AA-019), and Poultry Line (AA-026- Cooker #5). The air flow from AA-004a discharges to the RTO (AA-027), which discharges to the atmosphere.

In the event of AA-027 maintenance or failure, process emissions from AA-009, AA-010, and AA-016 would continue to be directed to AA-004a. The air flow from AA-004a would be redirected to the contingency packed tower scrubber (AA-004b) and finally to the room air scrubber (AA-005), which discharges to the atmosphere. Process emissions from AA-019 and AA-026 would be re-directed to the contingency packed tower scrubber (AA-017) and finally to the room air scrubber (AA-018), which discharges to the atmosphere, or would be directed to AA-004a and follow the same pathway as stated above.

In the Title V Permit application iteration of2015 (RTO modification), Darling utilized filterable PM emissions performance/testing data for rendering operations from two compliance tests conducted at Darling's facility in Butler, Kentucky, in February 2004 and October 2009. These tests were conducted on the exhaust of a high intensity scrubber system (wet venturi scrubber followed by a wet packed tower scrubber) for a single cooker line. Darling monitored the production rate during these tests and converted the PM emissions rate into a finished protein meal weight-rate based emission factor (EF) (pursuant to EPA's AP-42 document that also provides EFs on finished meal weight-rate basis). The resulting EFs of these two PM compliance tests were 0.059 and 0.021 lbs PM/ton of finished meal, respectively (versus the AP-42 EF of 1.22 lbs/ton for direct-fired high airflow rate dryers).

Darling did not conduct particle size distribution or condensable emissions (EPA Method 202) testing at the Butler facility. Similar to the AP-42, Darling assumed that all filterable PM emissions were filterable PM less than 10 microns (PM_{10}) emissions. For condensable PM emissions, rather than claiming that there were none present, Darling conservatively assumed that the condensable and filterable emissions at the Butler tests were at the same ratio as those in the AP-42 results for blood dryers (1.65:1 filterable to condensable). This ratio would result in condensable PM emission rates of0.036 and 0.013 lbs/ton for the two tests, respectively. In accordance with Darling's understanding of the most recent EPA (and Mississippi Department of Environmental Quality [MDEQ]) position on this subject, Darling counted the condensable emissions as both PM_{10} and PM less than 2.5 microns ($PM_{2.5}$) emissions.

Darling indicated to the MDEQ in the October 10,2013, Permit renewal application that these actual emissions test-based EFs and assumptions more accurately reflected actual process PM species emissions from Darling's operations that do the AP-42 PM EFs for blood dryers, and most conservatively used the EF from the higher of the above Butler tests (instead of averaging the two tests). Although Darling's calculations of process PM PTE used the actual test-based PM species EFs in that renewal application for the poultry/red meat cooker lines (AA-009, AA-010, and AA- 026), Darling inadvertently did not use these EFs when calculating PM PTE emissions for the blood and feather lines (AA-016 and AA-019, respectively); Darling inadvertently instead used (as in previous older applications) the PM species EFs published in the EPA's AP-42 document for blood dryers. Darling subsequently discovered this and reported and corrected this to the MDEQ in a letter dated May 15, 2014. Darling also corrected this in the 2015 RTO modification application.

To date, Darling has not developed PM EFs for rendering operations controlled by thermal oxidation (RTO), as this technology is relatively new to the industry and to Darling. Therefore, Darling will, most conservatively, use the higher of the two actual weight-

based test results (0.059 lbs/ton filterable PM_{10} and 0.036 lbs/ton condensable PM for a total PM of0.095 lbs/ton) as the EF for calculating Jackson's PM (or total PM_{10}) emission from the rendering operations. $PM_{2.5}$ emissions are limited to only condensable emissions (0.036 lbs/ton). This is a most conservative approach for two reasons. First, this uses the higher of the two Butler compliance test results. Second, actual RTO emissions testing data from site specific emissions testing at Darling's Bakery Feeds' facilities that produce carbohydrate meals show an average 93 percent (%) destruction of that organic PM, versus industry-accepted standard of 80% destruction of PM with wet scrubber technology.

VOC emissions engineering tests conducted by Environmental Monitoring Laboratory (EML) at the Jackson facility included test runs with the scrubber systems operating and with the scrubber systems not operating (only for the tests- one time event) to determine controlled and uncontrolled emissions respectively, and therefore conclude any VOC control efficiency from the scrubbers. The tests indicated VOC "control efficiencies" across the scrubber systems of between 33 % and 68%. These apparently low (33% to 68%) efficiencies were due to the already low uncontrolled VOC concentrations entering the scrubber systems. The uncontrolled process VOC emission weight-rate EF for the feather line was 0.513 lb/ton finished meal (and resulting 0.344 lb/ton controlled [at 33%]); and the uncontrolled EF for the blood/red meat/poultry lines was 0.576 lb/ton (and resulting 0.386 lb/ton controlled [at 33%]).

RTO control efficiency for VOC emissions is known to be on the order of98%+ (conventional use of RTO technology is for control of VOC [from such as painting operations] and VOC control efficiencies are well understood to commonly exceed 98%). Ignoring first stage wet venture scrubber conditioning efficiency that is known to exist (but was not measured alone in the emissions tests at Jackson), and using only a second stage RTO control efficiency of at least 95% (most conservative), an overall assumed VOC control efficiency of95% used in the RTO modification application was reasonable and conservative. The total process emissions controlled through the RTO (AA-027) at 95% efficiency provides a controlled process VOC emissions weight-rate EF of0.0291b/ton finished meal for the blood/red meat/poultry lines and 0.0261b/ton for the feather line.

Darling has provided evidence and asserts that the Jackson facility scrubber/RTO systems accomplish more than just malodor compound control, that a given level of control efficiency is also obtained for PM, VOC, and H_2S (conversion to sulfur dioxide [S02]). The proper operation and maintenance of these scrubber/RTO systems is very important to ensure that emissions of malodorous compounds, as well as PM, VOCs, and H_2S, are controlled. Darling will abide by the maintenance, operating conditions, and monitoring schedules specified in this Plan. If, for some unforeseen reason, a scrubber/RTO system described herein becomes non-operational, Darling will make immediate repairs and return the system to normal operation within a reasonable time or will shut the related process operation(s) down until such repairs are made and the system is again returned to normal operation.

Emission Unit AA-004a
Venturi Scrubber Operation

The venturi scrubber (AA-004a) is a type of wet scrubber that uses only water as the treating solution, and is used to precondition the process gas stream prior to additional controls. AA-004a works by cooling the process gases and by wetting PM for removal from the gas stream to the treating solution. The AA-004a process gas stream inlet is located at the top of the unit and the gas stream flows in vertical direction downward through the scrubber, passing through a cross flow water spray located in the throat or "venturi" of the scrubber. As the gas stream passes through this reduced venturi water spray and cools, the pressure drops and the velocity of the air flow increases causing the gas steam to become turbulent, thereby mixing the water and process gas stream and transferring a significant amount of PM to the scrubbing liquid. A blow-down (bleed) of the solution is maintained to remove contaminants from the system. Makeup liquid is provided via overflow from the packed tower scrubber (AA-004b).

It is important to keep this unit cleaned and air tight. This unit is shut down weekly for inspection and maintenance.

Maintenance:
Weekly: Clean and inspect throat and nozzles

Operating Parameters:

Parameter	Range
Pressure Drop	0.1-8.5 inches of water (process flow dependent)

Monitoring:

Parameter:	Frequency
Pressure Drop	Once per operating day

Emission Unit / Emission Point AA-027
Regenerative Thermal Oxidizer

This RTO (AA-027) is made up of two chambers packed with ceramic media and a combustion zone located between the two chambers. As the air flow enters AA-027 through one of the ceramic packed chambers, the air stream is preheated by the ceramic media. This preheated air enters the combustion zone where PM and malodorous non-condensable vapors (including H2S and VOC) are significantly thermally destroyed. After exiting the combustion zone, the air flow enters the second ceramic filled chamber where it releases heat to the ceramic media prior to being discharged to the atmosphere. At a preset temperature in the ceramic media, the incoming air flow is reversed and the air stream now enters the newly heated chamber and the air flow exiting the combustion zone enters the opposite chamber releasing heat to the now cooled chamber.

Maintenance:
Weekly: Inspect AA-027 burner, switching valves, and ceramic beds
Maintain thermocouples per manufacture recommendations
Clean as needed

Operating Parameters:

Parameter	Range
Combustion	Zone Temperature ≥ 1,300 °F

Monitoring:

Parameter	Frequency
Combustion Zone Temperature	Once per operating day

Emission Unit / Emission Point AA-005
Room Air Scrubber Operation

The room air scrubber (AA-005) is designed to treat high air flow rates with relatively low concentrations of contaminants (malodors, PM and VOC). AA-005 is constructed of a non-corrosive type material and is rectangular in shape and has two horizontal air flow chambers. Each chamber has spray nozzles that spray into (countercurrent) the air flow direction, followed by a section of mist eliminators to collect and remove water droplets from the air stream. The second chamber contains packing that the gas stream flows through. Spray nozzles are located at the inlet of each chamber, and a reservoir of treating solution is located below. As the treating solution is being pumped from the reservoir to the spray nozzles, oxidizer chemistry (chlorine dioxide, sodium hypochlorite, or similar) is metered into the solution stream. As the countercurrent flow occurs, the gas stream comes into contact with the oxidizing chemicals in the scrubbing solution and oxidize and/or absorbs the odor from the gas stream. The solution returns to the reservoir, where it is collected and pumped back to the inlet of the scrubber chambers. A blow-down (bleed) of the solution is maintained to remove contaminants from the system. Recycled water from the on-site wastewater treatment system is used to provide makeup scrubbing liquid.

The primary purpose of AA-005 is to induce negative pressure on the interior of the building, and capture and treat fugitive low-intensity malodors from within the building. The treated air stream will then be discharged to the atmosphere. As all high-intensity process emissions will be ducted through the AA-004a and AA-027 (as current setup), only de minimis fugitive process malodor emissions would be captured and treated by AA-005.

Maintenance

Weekly: Drain and clean unit
Inspect Packing
Clean and inspect nozzles

Operating Parameters

Parameter:	Range
Recirculating Scrubber Solution Pressure	15-35 PSI
Chlorine Residual	>0.50 ppm
Pressure Drop	0.5-5 inches of water (process flow dependent)

Monitoring

Parameter:	Frequency
Recirculating Scrubber Solution Pressure	Once per Operating Day
Chlorine Residual	Once per Operating Day
Pressure Drop	Once per Operating Day

Emission Unit / Emission Point AA-018
Room Air Scrubber

This room air scrubber (AA-018) is made up of two spray chambers where oxidizer chemistry (sodium hypochlorite, chlorine dioxide, or similar) is used for odor control. The two spray chambers have nozzles that spray (counter current) into the airflow direction. As the counter current flow occurs, the odors in the vapor stream come into contact with the oxidizing chemicals in the solution stream and are oxidized and/or absorbed. The solution returns back to the reservoir, where it is pumped back to the inlet of the scrubber chamber. A blow-down (bleed) of the solution is maintained to remove contaminants from the system Recycled water from the on-site wastewater treatment system is used to provide makeup scrubbing liquid. The primary purpose of AA-018 is to induce negative pressure on the interior of the building, and capture and treat fugitive low-intensity malodors from within the building. The treated air stream will then be discharged to the atmosphere. As all high-intensity process emissions will be ducted through AA-004a and AA-027, only de minimis fugitive process malodor emissions would be captured and treated by AA-018.

Maintenance:

Weekly: Drain and clean unit
Clean and inspect nozzles

Operating Parameters:

Parameter	Range
Recirculating Scrubber Solution Pressure Stage I	10-35PSI
Recirculating Scrubber Solution Pressure Stage 2	I0-35PSI
Chlorine Residual	>0.50 ppm
Pressure Drop	0.5 - *5* inches of water (process flow dependent)

Monitoring:

Parameter	Frequency
Recirculating Scrubber Solution Pressure Stage 1	Once per Operating Day
Recirculating Scrubber Solution Pressure Stage 2	Once per Operating Day
Chlorine Residual	Once per Operating Day
Pressure Drop	Once per Operating Day

Contingency Packed Tower Scrubber Operation

The packed tower scrubber (AA-004b) has been taken to contingency back-up stand-by status (in event of AA-027 maintenance or failure). In the event of AA-027 maintenance or failure, process emissions from AA-004a would flow to AA-004b and finally to existing AA-005, which discharges to the atmosphere. If in operation, AA-004b is used to treat high-intensity concentrated contaminant odors as well as PM and VOC. AA-004b is located downstream of AA-004a where the process gas stream is preconditioned (See discussion of AA-004a above). This equipment is constructed of a non-corrosive type material and is cylindrical shaped, containing hundreds of cubic feet of "packing" material. Spray nozzles are located above the packing directing a spray of scrubbing liquid downward, counter current to the air flow. A reservoir is located below the packing material. As the scrubbing solution is being pumped from the reservoir to the spray nozzles, oxidizer chemistry (chlorine dioxide, sodium hypochlorite, or similar) is metered into the solution stream. This oxidizer solution is pumped through the spray nozzles and cascades downward through the packing material as the process gas stream passes up through the packing. The packing material provides significant surface area for the solution to contact the air stream and shears the solution into smaller and smaller droplets. As the droplets become smaller, the surface area of the treating solution available for gas treatment increases. As this countercurrent flow occurs, the odors in the gas stream come in contact with the oxidizing chemicals in the solution droplets and are oxidized and/or absorbed. The solution cascades down through the packing back into the reservoir where it is pumped back to the top of AA-004a. A blow-down (bleed) of the solution is maintained to remove contaminants from the system. Recycled water from the on-site wastewater treatment system is used to provide makeup scrubbing liquid. To ensure proper and efficient operation, the packing requires periodic inspection and cleaning. This unit is shut down weekly for inspection and maintenance.

Maintenance

Weekly: Drain and clean unit
Inspect packing
Clean and inspect nozzles

Operating Parameters

Parameter:	Range:
Recirculating Scrubber Solution Pressure	15-35 PSI
Chlorine Residual	>0.50 ppm
Pressure Drop	0.25 - 6.0 inches of water (process flow dependent)

Monitoring

Parameter:	Frequency:
Recirculating Scrubber Solution Pressure	Once per operating day (if operating)*
Chlorine Residual	Once per operating day (if operating)*
Pressure Drop	Once per operating day (if operating)*

***If AA-004b on stand-by status, please indicate "NA" for daily operating day reading**

Contingency Packed Tower Scrubber System

The packed tower scrubber (AA-017) has been taken to contingency back-up stand-by status (in event of AA-027 maintenance or failure). In the event of AA-027 maintenance or failure, process emissions from AA-019 and AA-026 would either be directed to AA-004a and follow the same pathway as stated above; or, be directed to AA-017 and the existing AA-018, which discharges to the atmosphere. If in operation, AA-017 captures vapors from both AA-019 and AA-026. The system includes a horizontal pretreatment spray chamber to precondition the process gas stream using water to cool process gases and remove PM. The gas stream is then directed into the high efficiency packed tower that uses oxidizer chemistry (sodium hypochlorite, chlorine dioxide, or similar) to control odors. AA-0 17 is constructed and operates similar to AA-004b.

Maintenance:

Weekly: Drain and clean unit
Inspect packing
Clean and inspect nozzles

Operating Parameters:

Parameter	Range
Recirculating Scrubber Solution Pressure	15-35 PSI
Chlorine Residual	>0.50ppm
Pressure Drop	0.5-7.0 inches of water (process flow dependent)

Monitoring:

Parameter	Frequency
Recirculating Scrubber Solution Pressure	Once per operating day*
Chlorine Residual	Once per operating day*
Pressure Drop	Once per operating day*
Frequency	Once per operating day*

***If AA-017 on stand-by status, please indicate "NA" for daily operating day reading**