PUBLIC NOTICE

Primary Products Ingredients Americas LLC has applied to the Tennessee Department of Environment and Conservation, Division of Air Pollution Control for a significant modification to their existing major source (Title V) operating permit subject to the provisions of Tennessee Air Pollution Control Regulations 1200-03-09-.02(11) (Title V Regulations). A major source operating permit is required by both the Federal Clean Air Act and Tennessee's air pollution control regulations. However, it should be noted that this facility has a current major source operating permit.

The Title V operating permit subject to the modification is identified as follows: Division identification number 53-0081/573292. Modifications include the addition of a sulfur burner to wetmill source 53-0081-03, an increase in the propanediol production rate for sources 53-0081-72, 73, and 74, and the removal of nonapplicable requirements for the cogeneration units of sources 53-0081-37 and 38. Only the portions of the Title V permit affected by this significant modification are open for comment during the notice period.

EPA has agreed to treat this draft significant modification to permit no. 573292 as a proposed Part 70 significant permit modification and to perform its 45-day review provided by the law concurrently with the public notice period. If any substantive comments are received, EPA's 45- day review period will cease to be performed concurrently with the public notice period. In this case, EPA's 45-day review period will start once the public notice period has been completed and EPA receives notification from the Tennessee Air Pollution Control Division that comments have been received and resolved. The status regarding EPA's 45-day review of these permits and the deadline for submitting a citizen's petition can be found at the following website address:

https://www.epa.gov/caa-permitting/tennessee-proposed-title-v-permits

Copies of the application materials and draft/proposed permit are available for public inspection during normal business hours at the following locations:

Tennessee Department of Environment and Conservation
Knoxville Environmental Field Office
Division of Air Pollution Control
3711 Middlebrook Pike
Knoxville, TN 37921

and

Tennessee Department of Environment and Conservation
Division of Air Pollution Control
William R. Snodgrass Tennessee Tower, 15th Floor
312 Rosa L. Parks Avenue
Nashville, TN 37243

Also, if you require a copy of the draft/ proposed permit it is available electronically by accessing the TDEC Air Pollution Control Public Participation Opportunity (APC PPO) page:

http://www.tn.gov/environment/ppo-public-participation/ppo-public-participation/ppo-air.html

Questions concerning the source may be addressed to John Trimmer at (615) 532-0552 or by e-mail at John.Trimmer@tn.gov.

Interested parties are invited to review these materials and comment. In addition, a public hearing may be requested at which written or oral presentations may be made. To be considered, written comments or requests for a public hearing must be received no later than 4:30 PM on November 3, 2023. To assure that written comments are received and addressed in a timely manner, written comments must be submitted using one of the following methods:

1. **Mail, private carrier, or hand delivery:** Address written comments to Ms. Michelle W. Owenby, Director, Division of Air Pollution Control, William R. Snodgrass Tennessee Tower, 15th Floor, 312 Rosa L. Parks Avenue, Nashville, Tennessee 37243.

2. **E-mail**: Submit electronic comments to air.pollution.control@tn.gov.

A final determination will be made after weighing all relevant comments.

Individuals with disabilities who wish to review information maintained at the above-mentioned depositories should contact the Tennessee Department of Environment and Conservation to discuss any auxiliary aids or services needed to facilitate such review. Such contact may be in person, by writing, telephone, or other means, and should be made no less than ten days prior to the end of the public comment period to allow time to provide such aid or services. Contact the Tennessee Department of Environment and Conservation ADA Coordinator, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue 22nd Floor, Nashville, TN 37243, 1-(866)-253-5827. Hearing impaired callers may use the Tennessee Relay Service, 1-(800)-848-0298.

STATE OF TENNESSEE
AIR POLLUTION CONTROL BOARD
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243

SIGNIFICANT MODIFICATION 1 TO
OPERATING PERMIT (TITLE V) Issued Pursuant to Tennessee Air Quality Act

This permit fulfills the requirements of Title V of the Federal Clean Air Act (42 U.S.C. 7661a-7661e) and the federal regulations promulgated thereunder at 40 CFR Part 70. (FR Vol. 57, No. 140, Tuesday, July 21, 1992 p.32295-32312). This permit is issued in accordance with the provisions of paragraph 1200-03-09-.02(11) of the Tennessee Air Pollution Control Comprehensive Rules and Regulations. The permittee has been granted permission to operate an air contaminant source in accordance with emissions limitations and monitoring requirements set forth herein.

Date Issued: April 1, 2019 **Permit Number:** 573292

Significant Modification 1 Date: TBD, 2023

Date Expires: March 31, 2024

Issued To:
Primary Products Ingredients Americas LLC

Installation Address:
198 Blair Bend Drive
Loudon, Tennessee

Installation Description:
53-0081-01: Corn Unloading (PES #1)

Elevator Area
53-0081-02: Elevator (PES #2)

Continued on page i

Emission Source Reference No.: 53-0081

Renewal Application Due Date:
Between July 5, 2023 and October 3, 2023

Primary SIC: 20 & 28

Information Relied Upon:

Renewal Application dated October 25, 2017; letter dated November 20, 2018
Letter dated April 11, 2019, and application dated May 20, 2019 (for Minor modification 1)
Application dated December 23, 2021 (for Administrative Amendment #2)
Significant Modification 1: Applications dated October 24, 2019, February 11, 2020, and September 28, 2022 (revision dated November 14, 2022); letter dated September 27, 2023

(continued on the next page)

DRAFT

TECHNICAL SECRETARY

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

POST AT INSTALLATION ADDRESS

Installation Description:	Wetmill/Feedhouse Area	
53-0081-03: Steephouse Aspiration (PES #3)	53-0081-03: Millhouse Aspiration (PES #4)	53-0081-05: Gluten Filter Aspiration (PES #5)
53-0081-06: Cracked Corn Conveying (PES #6)	53-0081-16: Germ Dryer (PES #7)	53-0081-16: Gluten Dryer (PES #9)
53-0081-10: Pellet Cooler #1 (PES #10)	53-0081-11: Pellet Cooler #2 (PES #11)	53-0081-16: SSD Fiber Dryer (PES #12)
53-0081-13: reserved	53-0081-16: Removed from service (PES #16)	53-0081-17: Gluten Meal Conveying/Loadout (PES #17)
53-0081-16: Feed Dryer #1 (PES #18)	53-0081-16: Feed Dryer #2 (PES #19)	53-0081-06: Feed Cooler (PES #20)
53-0081-06: Feed Milling Cyclones (PES #21)	53-0081-06: Pellet Loadout (PES #52)	53-0081-62: Corn Byproducts Loadout (PES #62A)
53-0081-62: Corn and Corn Byproducts Unloading (PES #62B)	53-0081-64: Germ Dewatering (PES #64)	53-0081-65: Vacuum Filter Aspiration (PES #65)
53-0081-68: Germ Conveyor, Storage and Loadout Bin (PES #68)	53-0081-16: Feed Dryer #3 (PES #94)	53-0081-16: Germ Pre-dryer (PES #95)
53-0081-09: Gluten Filters/Pumps (PES #14)		

Installation Description:	Refinery Area	
53-0081-23: Carbon Furnace (PES #23)	53-0081-24: Soda Ash Unloading (PES #24)	53-0081-26: Filter Aid Supply System (PES #26)
53-0081-27: Filter Aid Bulk Bin (PES #27)	53-0081-53: HCl System – Bulk Tank (PES #53A)	53-0081-53: HCl System – Dilute Acid Tank (PES #53B)
53-0081-66: Jet Foam Trap Exhaust (PES #66)	53-0081-67: Jet Vapor Condensate Tank (PES #67)	53-0081-90: Railcar Receiver Bin (PES #90A)
53-0081-90: Spray Dryer (PES #90B)	53-0081-90: Product Bin (PES #90C)	53-0081-90: Product Bin (PES #90D)
53-0081-90: Unloading Receiver (PES #90H)	53-0081-90: Bag Dump (PES #90I)	53-0081-90: reserved
53-0081-91: Tote and Bag Packer Bin Vents (PES #91A)	53-0081-91 Starch/Maltodextrin Product Storage Bin (PES #91B)	53-0081-91: Starch/Maltodextrin Product Storage Bin (PES #91C)
53-0081-91: Starch/Maltodextrin Product Storage Bin (PES #91D)	53-0081-91: Truck Loadout Filter Receiver (PES #91E)	53-0081-91: Tote and Bag Packer Collector (PES #91F)
53-0081-91: Starch/Maltodextrin Product Storage Bin (PES #91G)	53-0081-91: Tote Feed Bin Vent (PES #91H)	53-0081-93: Corn Sweetener Process (PES #93)

Installation Description:	Alcohol Area	
53-0081-28: CO2 Scrubber (PES #28A)	53-0081-28: Propagators Scrubber with RTO (PES #28B)	53-0081-54: Denatured Alcohol Storage Tank (PES #54A)
53-0081-54: Denatured Alcohol Storage Tank (PES #54B)	53-0081-55: Alcohol Storage and Loadout (PES #55)	53-0081-59: Natural Gasoline Storage Tank (PES #59)
53-0081-61: Fuel Additive Storage Tank (PES #61)	53-0081-97: reserved	53-0081-98: Alcohol Storage Tank (PES #98)
53-0081-99: Alcohol Barge Loadout Facility (PES #99)		

Installation Description:	Propanediol Area	
53-0081-72: Fermentation Reactive Bioscrubber (PES #72)	53-0081-73: Evaporation (PES #73)	53-0081-73: Biomass Drum Dryers Scrubber (PES #74)
53-0081-74: Hydrogenation (PES #75)	53-0081-74: Refining/Distillation (PES #76)	

Installation Description:	Utilities Area	
53-0081-15: Anaerobic Wastewater Treatment Flare (PES #15)	53-0081-29: Removed from service (PES #29)	53-0081-30: Removed from service (PES #30)
53-0081-32: Removed from service (PES #32)	53-0081-34: Gas Fired Boiler #1 (PES #34)	53-0081-34: Gas Fired Boiler #2 (PES #35)
53-0081-34: Oil/Gas Boiler #3 (PES #36)	53-0081-39: Removed from service (PES #39)	53-0081-43: No. 2 Fuel Oil Storage Tank (PES #43)
53-0081-44: Removed from service (PES #44)	53-0081-60: Removed from service (PES #60)	53-0081-71: Emergency Electrical Generator Engines (PES #71)
53-0081-100: Emergency Fire Pump Engine (PES #100)	53-0081-37: Cogeneration Unit 1	53-0081-38: Cogeneration Unit 2

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SECTION A
GENERAL PERMIT CONDITIONS

A permit issued under the provisions of Tennessee Air Pollution Control Regulations (TAPCR) paragraph 1200-03-09-.02(11) is a permit issued pursuant to the requirements of Title V of the Federal Act and its implementing Federal regulations promulgated at 40 CFR, Part 70.

Conditions A1(SM1) – D14(SM1)

A1(SM1). **Definitions.** Terms not otherwise defined in the permit shall have the meaning assigned to such terms in the referenced regulations.

TAPCR 1200-03 and 0400-30

A2(SM1). **Compliance requirement.** All terms and conditions in a permit issued pursuant to TAPCR paragraph 1200-03-09-.02(11), including any provisions designed to limit a source's potential to emit, are enforceable by the Administrator and citizens under the Federal Act. The permittee shall comply with all conditions of its permit. Except for requirements specifically designated herein as not being federally enforceable (State Only), non-compliance with the permit requirements is a violation of the Federal Act and the Tennessee Air Quality Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. Non-compliance with permit conditions specifically designated herein as not being federally enforceable (State Only) is a violation of the Tennessee Air Quality Act and may be grounds for these actions.

TAPCR 1200-03-09-.02(11)(e)2(i) and 1200-03-09-.02(11)(e)1(vi)(I)

A3(SM1). **Need to halt or reduce activity.** The need to halt or reduce activity is not a defense for noncompliance. 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 the permit. However, nothing in this item shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in assessing penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations.

TAPCR 1200-03-09-.02(11)(e)1(vi)(II)

A4(SM1). **The permit.** The permit 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.

TAPCR 1200-03-09-.02(11)(e)1(vi)(III)

A5(SM1). **Property rights.** The permit does not convey any property rights of any sort, or any exclusive privilege.

TAPCR 1200-03-09-.02(11)(e)1(vi)(IV)

A6(SM1). **Submittal of requested information.** The permittee shall furnish to the Technical Secretary, within a reasonable time, any information that the Technical Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or termination of the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Technical Secretary copies of records required to be kept by the permit. If the permittee claims that such information is confidential, the Technical Secretary may review that claim and hold the information in protected status until such time that the Board can hear any contested proceedings regarding confidentiality disputes. If the information is desired by EPA, the permittee may mail the information directly to EPA. Any claims of confidentiality for federal purposes will be determined by EPA.

TAPCR 1200-03-09-.02(11)(e)1(vi)(V)

A7(SM1). **Severability clause.** The requirements of this permit are severable. A dispute regarding one or more requirements of this permit does not invalidate or otherwise excuse the permittee from their duty to comply with the remaining portion of the permit.

TAPCR 1200-03-09.02(11)(e)1(v)

A8(SM1). **Fee payment.**

(a) The permittee shall pay an annual Title V emission fee based upon the responsible official's choice of actual emissions, allowable emissions, or a combination of actual and allowable emissions; and on the responsible official's choice of annual accounting period. An emission cap of 4,000 tons per year per regulated pollutant per major source SIC Code shall apply to actual or allowable based emission fees. A Title V annual emission fee will not be charged for emissions in excess of the cap. Title V annual emission fees will not be charged for carbon monoxide or for greenhouse gas pollutants solely because they are greenhouse gases.

(b) Title V sources shall pay allowable based emission fees until the beginning of the next annual accounting period following receipt of their initial Title V operating permit. At that time, the permittee shall begin paying their Title V fee based upon their choice of actual or allowable based fees, or mixed actual and allowable based fees. Once permitted, the Responsible Official may revise their existing fee choice by submitting a written request to the Division no later than December 31 of the annual accounting period for which the fee is due.

(c) When paying annual Title V emission fees, the permittee shall comply with all provisions of TAPCR Rule 1200-03-26-.02 and paragraph 1200-03-09-.02(11) applicable to such fees.

(d) Where more than one allowable emission limit is applicable to a regulated pollutant, the allowable emissions for the regulated pollutants shall not be double counted. Major sources subject to the provisions of TAPCR paragraph 1200-03-26-.02(9) shall apportion their emissions as follows to ensure that their fees are not double counted.

1. Sources that are subject to federally promulgated hazardous air pollutant standards that can be imposed under TAPCR Chapter 0400-30-38 or Chapter 1200-03-31 will place such regulated emissions in the regulated hazardous air pollutant (HAP) category.

2. A category of miscellaneous HAPs shall be used for hazardous air pollutants listed at TAPCR part 1200-03-26-.02(2)(i)12 that are not subject to federally promulgated hazardous air pollutant standards under 40 CFR 60, 61, or 63 or TAPCR chapter 1200-03-31.

3. HAPs that are also in the family of volatile organic compounds, particulate matter, or PM_{10} shall not be placed in either the regulated HAP category or miscellaneous HAP category.

4. Sources that are subject to a provision of TAPCR chapter 1200-03-16 New Source Performance Standards (NSPS) or chapter 0400-30-39 Standards of Performance for New Stationary Sources for pollutants that are neither particulate matter, PM_{10}, sulfur dioxide (SO_2), volatile organic compounds (VOC), nitrogen oxides (NO_x), or hazardous air pollutants (HAPs) will place such regulated emissions in an NSPS pollutant category.

5. The regulated HAP category, the miscellaneous HAP category, and the NSPS pollutant category are each subject to the 4,000 ton cap provisions of TAPCR subparagraph 1200-03-26-.02(2)(i).

6. Major sources that wish to pay annual emission fees for PM_{10} on an allowable emission basis may do so if they have a specific PM_{10} allowable emission standard. If a major source has a total particulate emission standard, but wishes to pay annual emission fees on an actual PM_{10} emission basis, it may do so if the PM_{10} actual emission levels are proven to the satisfaction of the Technical Secretary. The method to demonstrate the actual PM_{10} emission levels must be made as part of the source's major source operating permit in advance in order to exercise this option. The PM_{10} emissions reported under these options shall not be subject to fees under the family of particulate emissions. The 4,000 ton cap provisions of TAPCR subparagraph 1200-03-26-.02(2)(i) shall also apply to PM_{10} emissions.

TAPCR 1200-03-26-.02 and 1200-03-09-.02(11)(e)1(vii)

A9(SM1). **Permit revision not required.** A permit revision will not be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or process for changes that are provided for in the permit.

TAPCR 1200-03-09-.02(11)(e)1(viii)

A10(SM1). **Inspection and entry.** Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Technical Secretary or an authorized representative to perform the following for the purposes of determining compliance with the permit applicable requirements:

(a) Enter upon, at reasonable times, the permittee's premises where a source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the 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 Clean Air Act and Chapter 1200-03-10 of the TAPCR, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.
(e) "Reasonable times" shall be considered to be customary business hours unless reasonable cause exists to suspect noncompliance with the Act, TAPCR Division 1200-03 or any permit issued pursuant thereto and the Technical Secretary specifically authorizes an inspector to inspect a facility at any other time.

TAPCR 1200-03-09-.02(11)(e)3(ii)

A11(SM1). Permit shield.

(a) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date of permit issuance, provided that:
1. Such applicable requirements are included and are specifically identified in the permit; or
2. The Technical Secretary, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.
(b) Nothing in this permit shall alter or affect the following:
1. The provisions of section 303 of the Federal Act (emergency orders), including the authority of the Administrator under that section. Similarly, the provisions of T.C.A. §68-201-109 (emergency orders) including the authority of the Governor under the section;
2. 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;
3. The applicable requirements of the acid rain program, consistent with section 408(a) of the Federal Act; or
4. The ability of EPA to obtain information from a source pursuant to section 114 of the Federal Act.
(c) Permit shield is granted to the permittee.
(d) The permit shield does not apply to permit changes made under the minor permit modification procedures of TAPCR subpart 1200-03-09-.02(11)(f)5(ii) nor the administrative permit amendment procedures of TAPCR part 1200-03-09-.02(11)(f)4, except that the permit shield may be extended for administrative permit amendments that meet the relevant requirements of TAPCR subparagraph 1200-03-09-.02(11)(e), subparagraph 1200-03-09-.02(11)(f) and subparagraph 1200-03-09-.02(11)(g) for significant permit modifications.
(e) The permit shield does not apply to off-permit changes made under the operational flexibility provisions of TAPCR part 1200-03-09-.02(11)(a)4.

TAPCR 1200-03-09-.02(11)(e)6 and 1200-03-09-.02(11)(f)4(iv)

A12(SM1). Permit renewal and expiration.

(a) An application for permit renewal must be submitted at least 180 days, but no more than 270 days, prior to the expiration of this permit. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted.
(b) If the permittee submits a timely and complete application for permit renewal the source will not be considered to be operating without a permit until the Technical Secretary takes final action on the permit application, except as otherwise noted in TAPCR paragraph 1200-03-09-.02(11).
(c) This permit, its shield provided in Condition A11, and its conditions will be extended and effective after its expiration date provided that the source has submitted a timely, complete renewal application to the Technical Secretary.

TAPCR 1200-03-09-.02(11)(f)2 and 3, 1200-03-09-.02(11)(d)1(i)(III), and 1200-03-09-.02(11)(a)2

A13(SM1). Reopening for cause.

(a) A permit shall be reopened and revised prior to the expiration of the permit under any of the circumstances listed below:
1. Additional applicable requirements under the Federal Act become applicable to the sources contained in this permit provided the permit has a remaining term of 3 or more years. Such a reopening shall be completed not 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 permit expiration date of this permit, unless the original has been extended pursuant to TAPCR part 1200-03-09-.02(11)(a)2.
2. Additional requirements become applicable to an affected source under the acid rain program.

3. The Technical Secretary or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

4. The Technical Secretary or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

(b) Proceedings to reopen and issue a permit shall follow the same proceedings as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists, and not the entire permit. Such reopening shall be made as expeditiously as practicable.

(c) Reopenings for cause shall not be initiated before a notice of such intent is provided to the permittee by the Technical Secretary at least 30 days in advance of the date that the permit is to be reopened except that the Technical Secretary may provide a shorter time period in the case of an emergency. An emergency shall be established by the criteria of T.C.A. 68-201-109 or other compelling reasons that public welfare is being adversely affected by the operation of a source that is in compliance with its permit requirements.

(d) If the Administrator finds that cause exists to terminate, modify, or revoke and reissue a permit as identified in A13, he is required under federal rules to notify the Technical Secretary and the permittee of such findings in writing. Upon receipt of such notification, the Technical Secretary shall investigate the matter in order to determine if he agrees or disagrees with the Administrator's findings. If he agrees with the Administrator's findings, the Technical Secretary shall conduct the reopening in the following manner:

1. The Technical Secretary shall, within 90 days after receipt of such notification, forward to EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate. If the Administrator grants additional time to secure permit applications or additional information from the permittee, the Technical Secretary shall have the additional time period added to the standard 90-day time period.

2. EPA will evaluate the Technical Secretary's proposed revisions and respond as to their evaluation.

3. If EPA agrees with the proposed revisions, the Technical Secretary shall proceed with the reopening in the same manner prescribed under Condition A13(b) and Condition A13(c).

4. If the Technical Secretary disagrees with either the findings or the Administrator that a permit should be reopened or an objection of the Administrator to a proposed revision to a permit submitted pursuant to Condition A13(d), he shall bring the matter to the Board at its next regularly scheduled meeting for instructions as to how he should proceed. The permittee shall be required to file a written brief expressing their position relative to the Administrator's objection and have a responsible official present at the meeting to answer questions for the Board. If the Board agrees that EPA is wrong in their demand for a permit revision, they shall instruct the Technical Secretary to conform to EPA's demand, but to issue the permit under protest preserving all rights available for litigation against EPA.

TAPCR 1200-03-09-.02(11)(f)6 and 7

A14(SM1). **Permit transference.** An administrative permit amendment allows for a change of ownership or operational control of a source where the Technical Secretary determines that no other change in the permit is necessary, provided that the following requirements are met:

(a) Transfer of ownership permit application is filed consistent with the provisions of TAPCR paragraph 1200-03-09-.03(6), and

(b) written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Technical Secretary.

TAPCR 1200-03-09-.02(11)(f)4(i)(IV) and 1200-03-09-.03(6)

A15(SM1). **Air pollution alert.** When the Technical Secretary has declared that an air pollution alert, an air pollution warning, or an air pollution emergency exists, the permittee must follow the requirements for that episode level as outlined in TAPCR paragraph 1200-03-09-.03(1) and TAPCR Rule 1200-03-15-.03.

A16(SM1). **Construction permit required.** Except as exempted in TAPCR Rule 1200-03-09-.04, or excluded in TAPCR subparagraph 1200-03-02-.01(1)(aa) or TAPCR subparagraph 1200-03-02-.01(1)(cc), this facility shall not begin the construction of a new air contaminant source or the modification of an air contaminant source which may result in the discharge of air contaminants without first having applied for and received from the Technical Secretary a construction permit for the construction or modification of such air contaminant source.

TAPCR 1200-03-09-.01(1)(a)

A17(SM1). **Notification of changes.** The permittee shall notify the Technical Secretary 30 days prior to commencement of any of the following changes to an air contaminant source which would not be a modification requiring a construction permit.

(a) change in air pollution control equipment
(b) change in stack height or diameter
(c) change in exit velocity of more than 25 percent or exit temperature of more than 15 percent based on absolute temperature.

TAPCR 1200-03-09-.02(7)

A18(SM1). **Schedule of compliance.** The permittee will comply with any applicable requirement that becomes effective during the permit term on a timely basis and no later than required by the provisions of the new applicable requirement. If the permittee is not in compliance the permittee must submit a schedule for coming into compliance which must include a schedule of remedial measure(s), including an enforceable set of deadlines for specific actions.

TAPCR 1200-03-09-.02(11)(d)3, 1200-03-09-.03(8), 0400-30-38, 0400-30-39, and 40 CFR Part 70.5(c)

A19(SM1). **Title VI.**
(a) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR, Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to Section 82.156.
2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to Section 82.158.
3. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to Section 82.161.
(b) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone depleting substance refrigerant in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR, Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.
(c) The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR, Part 82, Subpart G, Significant New Alternatives Policy Program.

TAPCR 1200-03-09-.03(8)

A20(SM1). **112 (r).** Sources which are subject to the provisions of Section 112(r) of the federal Clean Air Act or any federal regulations promulgated thereunder, shall annually certify in writing to the Technical Secretary that they are properly following their accidental release plan. The annual certification is due in the office of the Technical Secretary no later than January 31 of each year. Said certification will be for the preceding calendar year.

TAPCR 1200-03-32-.03(3)

SECTION B

GENERAL CONDITIONS for MONITORING, REPORTING, and ENFORCEMENT

B1(SM1). **Recordkeeping.** Monitoring and related record keeping shall be performed in accordance with the requirements specified in the permit conditions for each individual permit unit. In no case shall reports of any required monitoring and record keeping be submitted less frequently than every six months.

(a) Where applicable, records of required monitoring information include the following:
1. The date, place as defined in the permit, and time of sampling or measurements;
2. The date(s) analyses were performed;
3. The company or entity that performed the analysis;
4. The analytical techniques or methods used;
5. The results of such analyses; and
6. The operating conditions as existing at the time of sampling or measurement.

(b) Digital data accumulation which utilizes valid data compression techniques shall be acceptable for compliance determination as long as such compression does not violate an applicable requirement and its use has been approved in advance by the Technical Secretary.

TAPCR 1200-03-09-.02(11)(e)1(iii)

B2(SM1). **Retention of monitoring data.** The permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

TAPCR 1200-03-09-.02(11)(e)1(iii)(II)II

B3(SM1). **Reporting.** Reports of any required monitoring and record keeping shall be submitted to the Technical Secretary in accordance with the frequencies specified in the permit conditions for each individual permit unit. Reports shall be submitted within 60 days of the close of the reporting period unless otherwise noted. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official. Reports required under "State only requirements" are not required to be certified by a responsible official.

TAPCR 1200-03-09-.02(11)(e)1(iii)

B4(SM1). **Certification.** Except for reports required under “State Only” requirements, any application form, report or compliance certification submitted pursuant to the requirements of this permit shall contain certification by a responsible official of truth, accuracy and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

TAPCR 1200-03-09-.02(11)(d)4

B5(SM1). **Annual compliance certification.** The permittee shall submit annually compliance certifications with terms and conditions contained in Sections A, B, D and E of this permit, including emission limitations, standards, or work practices. This compliance certification shall include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable):

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

(b) The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period; such methods and other means shall include, at a minimum, the methods and means required by this permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Act, which prohibits knowingly making a false certification or omitting material information;

(c) The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in B5(b) above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion* or exceedance** as defined below occurred; and

(d) Such other facts as the Technical Secretary may require to determine the compliance status of the source.

* "Excursion" shall mean a departure from an indicator range established for monitoring under this paragraph, consistent with any averaging period specified for averaging the results of the monitoring.

** "Exceedance" shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.

40 CFR Part 70.6(c)(5)(iii) as amended in the Federal Register Vol. 79, No.144, July 28, 2014, pages 43661 through 43667

B6(SM1). **Submission of compliance certification.** The compliance certification shall be submitted to:

The Tennessee Department of Environment and Conservation Environmental Field Office specified in Section E of this permit	and	Air Enforcement Branch US EPA Region IV 61 Forsyth Street, SW Atlanta, Georgia 30303

TAPCR 1200-03-09-.02(11)(e)3(v)(IV)

B7(SM1). **Emergency provisions.** An emergency constitutes an affirmative defense to an enforcement action brought against this source for noncompliance with a technology-based emission limitation 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.

(a) The affirmative defense of the emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An emergency occurred and that the permittee can identify the probable cause(s) of the emergency. "Probable" must be supported by a credible investigation into the incident that seeks to identify the causes and results in an explanation supported by generally accepted engineering or scientific principles.

2. The permitted source was at the time being properly operated. In determining whether or not a source was being properly operated, the Technical Secretary shall examine the source's written standard operating procedures which were in effect at the time of the noncompliance and any other code as detailed below that would be relevant to preventing the noncompliance. Adherence to the source's standard operating procedures will be the test of adequate preventative maintenance, careless operation, improper operation or operator error to the extent that such adherence would prevent noncompliance. The source's failure to follow recognized standards of practice to the extent that adherence to such a standard would have prevented noncompliance will disqualify the source from any claim of an emergency and an affirmative defense.

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.

4. The permittee submitted notice of the emergency to the Technical Secretary according to the notification criteria for malfunctions in TAPCR Rule 1200-03-20-.03. For the purposes of this condition, "emergency" shall be substituted for "malfunction(s)" in TAPCR Rule 1200-03-20-.03 to determine the relevant notification threshold. The notice shall include a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

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

(c) The provisions of this condition are in addition to any emergency, malfunction or upset requirement contained in TAPCR Divisions 1200-03 and 0400-30 or other applicable requirement.

TAPCR 1200-03-09-.02(11)(e)7

B8(SM1). **Excess emissions reporting.**

(a) The permittee shall promptly notify the Technical Secretary when any emission source, air pollution control equipment, or related facility breaks down in such a manner to cause the emission of air contaminants in excess of the applicable emission standards contained in TAPCR Division 1200-03 or any permit issued thereto, or of sufficient duration to cause damage to property or public health. The permittee must provide the Technical Secretary with a statement giving all pertinent facts, including the estimated duration of the breakdown, the probable cause of the deviation, and any corrective actions or preventative measures taken. Violations of the visible emission standard which occur for less than 20 minutes in one day (midnight to midnight) need not be reported. Prompt notification will be within 24 hours of the malfunction and shall be provided by telephone to the Division's Nashville office. The Technical Secretary shall be notified when the condition causing the failure or breakdown has been corrected. In attainment and unclassified areas if emissions other than from sources designated as significantly impacting on a nonattainment area in

excess of the standards will not and do not occur over more than a 24-hour period (or will not recur over more than a 24-hour period) and no damage to property and or public health is anticipated, notification is not required.

(b) Any malfunction that creates an imminent hazard to health must be reported by telephone immediately to the Division's Nashville office at (615) 532-0554 and to the State Civil Defense.

(c) A log of all malfunctions, startups, and shutdowns resulting in emissions in excess of the standards in TAPCR Division 1200-03 or any permit issued thereto must be kept at the plant. All information shall be entered in the log no later than twenty-four (24) hours after the startup or shutdown is complete, or the malfunction has ceased or has been corrected. Any later discovered corrections can be added in the log as footnotes with the reason given for the change. This log must record at least the following:

1. Stack or emission point involved

2. Time malfunction, startup, or shutdown began and/or when first noticed

3. Type of malfunction and/or reason for shutdown

4. Time startup or shutdown was complete or time the air contaminant source returned to normal operation

5. The company employee making entry on the log must sign, date, and indicate the time of each log entry

The information under items 1. and 2. must be entered into the log by the end of the shift during which the malfunction or startup began. For any source utilizing continuous emission(s) monitoring, continuous emission(s) monitoring collection satisfies the above log keeping requirement.

TAPCR 1200-03-20-.03 and .04

B9(SM1). **Malfunctions, startups and shutdowns - reasonable measures required.** The permittee must take all reasonable measures to keep emissions to a minimum during startups, shutdowns, and malfunctions. These measures may include installation and use of alternate control systems, changes in operating methods or procedures, cessation of operation until the process equipment and/or air pollution control equipment is repaired, maintaining sufficient spare parts, use of overtime labor, use of outside consultants and contractors, and other appropriate means. Failures that are caused by poor maintenance, careless operation or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions. This provision does not apply to standards found in 40 CFR, Parts 60(Standards of performance for new stationary sources), 61(National emission standards for hazardous air pollutants) and 63(National emission standards for hazardous air pollutants for source categories).

TAPCR 1200-03-20-.02

B10(SM1). Reserved.

B11(SM1). **Report required upon the issuance of a notice of violation for excess emissions.** The permittee must submit, within twenty days after receipt of the notice of violation, the data required below. If this data has been made available to the Technical Secretary prior to the issuance of the notice of violation no further action is required of the violating source. However, if the source desires to submit additional information, then this must be submitted within the same 20-day time period. The minimum data requirements are:

(a) The identity of the stack and/or other emission point where the excess emission(s) occurred;

(b) The magnitude of the excess emissions expressed in pounds per hour and the units of the applicable emission limitation(s) and the operating data and calculations used in determining the magnitude of the excess emissions;

(c) The time and duration of the emissions;

(d) The nature and cause of such emissions;

(e) For malfunctions, the steps taken to correct the situation and the action taken or planned to prevent the recurrence of such malfunctions;

(f) The steps taken to limit the excess emissions during the occurrence reported, and

(g) If applicable, documentation that the air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good operating practices for minimizing emissions.

Failure to submit the required report within the 20-day period specified shall preclude the admissibility of the data for determination of potential enforcement action.

TAPCR 1200-03-20-.06(2), (3) and (4)

SECTION C
PERMIT CHANGES

C1(SM1). **Operational flexibility changes.** The source may make operational flexibility changes that are not addressed or prohibited by the permit without a permit revision subject to the following requirements:

(a) The change cannot be subject to a requirement of Title IV of the Federal Act or TAPCR Chapter 1200-03-30.

(b) The change cannot be a modification under any provision of Title I of the federal Act or TAPCR Division 1200-03.

(c) Each change shall meet all applicable requirements and shall not violate any existing permit term or condition.

(d) The source must provide contemporaneous written notice to the Technical Secretary and EPA of each such change, except for changes that are below the threshold of levels that are specified in TAPCR Rule 1200-03-09-.04.

(e) Each change shall be described in the notice including the date, any change in emissions, pollutants emitted, and any applicable requirements that would apply as a result of the change.

(f) The change shall not qualify for a permit shield under the provisions of TAPCR part 1200-03-09-.02(11)(e)6.

(g) The permittee shall keep a record describing the changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes. The records shall be retained until the changes are incorporated into subsequently issued permits.

TAPCR 1200-03-09-.02(11)(a)4(ii)

C2(SM1). **Section 502(b)(10) changes.**

(a) The permittee can make certain changes without requiring a permit revision, if the changes are not modifications under Title I of the Federal Act or TAPCR Division 1200-03 and the changes do not exceed the emissions allowable under the permit. The permittee must, however, provide the Administrator and Technical Secretary with written notification within a minimum of 7 days in advance of the proposed changes. The Technical Secretary may waive the 7 day advance notice in instances where the source demonstrates in writing that an emergency necessitates the change. Emergency shall be demonstrated by the criteria of TAPCR part 1200-03-09-.02(11)(e)7 and in no way shall it include changes solely to take advantages of an unforeseen business opportunity. The Technical Secretary and EPA shall attach each such notice to their copy of the relevant permit.

(b) The written notification must be signed by a facility Title V responsible official and include the following:

1. a brief description of the change within the permitted facility;

2. the date on which the change will occur;

3. a declaration and quantification of any change in emissions;

4. a declaration of any permit term or condition that is no longer applicable as a result of the change; and

5. a declaration that the requested change is not a Title I modification and will not exceed allowable emissions under the permit.

(c) The permit shield provisions of TAPCR part 1200-03-09-.02(11)(e)6 shall not apply to Section 502(b)(10) changes.

TAPCR 1200-03-09-.02(11)(a)4(i)

C3(SM1). **Administrative amendment.**

(a) Administrative permit amendments to this permit shall be in accordance with TAPCR part 1200-03-09-.02(11)(f)4. The source may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request.

(b) The permit shield shall be extended as part of an administrative permit amendment revision consistent with the provisions of TAPCR part 1200-03-09-.02(11)(e)6 for such revisions made pursuant to item (c) of this condition which meet the relevant requirements of TAPCR subparagraph 1200-03-09-.02(11)(e), TAPCR subparagraph 1200-03-09-.02(11)(f) and TAPCR subparagraph 1200-03-09-.02(11)(g) for significant permit modifications.

(c) Proceedings to review and grant administrative permit amendments shall be limited to only those parts of the permit for which cause to amend exists, and not the entire permit.

TAPCR 1200-03-09-.02(11)(f)4

C4(SM1). **Minor permit modifications.**

(a) The permittee may submit an application for a minor permit modification in accordance with TAPCR subpart 1200-03-09-.02(11)(f)5(ii).
(b) The permittee may make the change proposed in its minor permit modification immediately after an application is filed with the Technical Secretary.
(c) Proceedings to review and modify permits shall be limited to only those parts of the permit for which cause to modify exists, and not the entire permit.
(d) Minor permit modifications do not qualify for a permit shield.

TAPCR 1200-03-09-.02(11)(f)5(ii)

C5(SM1). Significant permit modifications.

(a) The permittee may submit an application for a significant modification in accordance with TAPCR subpart 1200-03-09-.02(11)(f)5(iv).
(b) Proceedings to review and modify permits shall be limited to only those parts of the permit for which cause to modify exists, and not the entire permit.

TAPCR 1200-03-09-.02(11)(f)5(iv)

C6(SM1). New construction or modifications.

Future construction at this facility that is subject to the provisions of TAPCR Rule 1200-03-09-.01 shall be governed by the following:
(a) The permittee shall designate in their construction permit application the route that they desire to follow for the purposes of incorporating the newly constructed or modified sources into their existing operating permit. The Technical Secretary shall use that information to prepare the operating permit application submittal deadlines in their construction permit.
(b) Sources desiring the permit shield shall choose the administrative amendment route of TAPCR part 1200-03-09-.02(11)(f)4 or the significant modification route of TAPCR subpart 1200-03-09-.02(11)(f)5(iv).
(c) Sources desiring expediency instead of the permit shield shall choose the minor permit modification procedure route of TAPCR subpart 1200-03-09-.02(11)(f)5(ii) or group processing of minor modifications under the provisions of TAPCR subpart 1200-03-09-.02(11)(f)5(iii) as applicable to the magnitude of their construction.

TAPCR 1200-03-09-.02(11)(d)1(i)(V)

SECTION D
GENERAL APPLICABLE REQUIREMENTS

D1(SM1). **Visible emissions.**

(a) With the exception of air emission sources exempt from the requirements of TAPCR Chapter 1200-03-05 and air emission sources for which a different opacity standard is specifically provided elsewhere in this permit, the permittee shall not cause, suffer, allow or permit discharge of a visible emission from any air contaminant source with an opacity in excess of twenty (20) percent for an aggregate of more than five (5) minutes in any one (1)hour or more than 20 minutes in any twenty-four (24) hour period; provided, however, that for fuel burning installations with fuel burning equipment of input capacity greater than 600 million btu per hour, the permittee shall not cause, suffer, allow, or permit discharge of a visible emission from any fuel burning installation with an opacity in excess of 20 percent (6-minute average) except for one six minute period per one hour of not more than 40 percent opacity. Sources constructed or modified after July 7, 1992, shall utilize 6-minute averaging.

(b) Consistent with the requirements of TAPCR Chapter 1200-03-20, due allowance may be made for visible emissions in excess of that permitted under TAPCR Chapter 1200-03-05 which are necessary or unavoidable due to routine startup and shutdown conditions. The facility shall maintain a continuous, current log of all excess visible emissions showing the time at which such conditions began and ended and that such record shall be available to the Technical Secretary or an authorized representative upon request.

TAPCR 1200-03-05-.01(1), TAPCR 1200-03-05-.03(6) and TAPCR 1200-03-05-.02(1)

D2(SM1). **General provisions and applicability for non-process gaseous emissions.** Any person constructing or otherwise establishing a non-portable air contaminant source emitting gaseous air contaminants after April 3, 1972, or relocating an air contaminant source more than 1.0 km from the previous position after November 6, 1988, shall install and utilize the best equipment and technology currently available for controlling such gaseous emissions.

TAPCR 1200-03-06-.03(2)

D3(SM1). **Non-process emission standards.** The permittee shall not cause, suffer, allow, or permit particulate emissions from non-process sources in excess of the standards in TAPCR Chapter 1200-03-06.

D4(SM1). **General provisions and applicability for process gaseous emissions.** Any person constructing or otherwise establishing an air contaminant source emitting gaseous air contaminants after April 3, 1972, or relocating an air contaminant source more than 1.0 km from the previous position after November 6, 1988, shall install and utilize equipment and technology which is deemed reasonable and proper by the Technical Secretary.

TAPCR 1200-03-07-.07(2)

D5(SM1). **Particulate emissions from process emission sources.** The permittee shall not cause, suffer, allow, or permit particulate emissions from process sources in excess of the standards in TAPCR part 1200-03-07.

D6(SM1). **Sulfur dioxide emission standards.** The permittee shall not cause, suffer, allow, or permit sulfur dioxide emissions from process and non-process sources in excess of the standards in TAPCR Chapter 1200-03-14. Regardless of the specific emission standard, new process sources shall utilize the best available control technology as deemed appropriate by the Technical Secretary of the Tennessee Air Pollution Control Board.

D7(SM1). **Fugitive Dust.**

(a) The permittee shall not cause, suffer, allow, or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, but not be limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in demolition of existing buildings or structures, construction operations, grading of roads, or the clearing of land;

2. Application of asphalt, water, or suitable chemicals on dirt roads, material stockpiles, and other surfaces which can create airborne dusts;

3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Adequate containment methods shall be employed during sandblasting or other similar operations.

(b) The permittee shall not cause, suffer, allow, or permit fugitive dust to be emitted in such manner to exceed five (5) minutes per hour or 20 minutes per day as to produce a visible emission beyond the property line of the property on which the emission originates, excluding malfunction of equipment as provided in TAPCR Chapter 1200-03-20.

TAPCR 1200-03-08

D8(SM1). **Open burning.** The permittee shall comply with the TAPCR Chapter 1200-03-04 for all open burning activities at the facility.

TAPCR 1200-03-04

D9(SM1). **Asbestos.** Where applicable, the permittee shall comply with the requirements of 40 CFR Part 61 when conducting any renovation or demolition activities at the facility.

TAPCR 0400-30-38-.01(2) and 40 CFR, Part 61

D10(SM1). **Annual certification of compliance.** The generally applicable requirements set forth in Section D of this permit are intended to apply to activities and sources that are insignificant emission units or activities. By annual certification of compliance with the conditions in this Section the permittee shall be considered to meet the monitoring and related record keeping and reporting requirements of TAPCR subpart 1200-03-09-.02(11)(e)1(iii) and part 1200-03-10-.04(2)(b)1 and the compliance requirements of TAPCR subpart 1200-03-09-.02(11)(e)3(i). The permittee shall submit compliance certification for these conditions annually.

D11(SM1). **Emission Standards for Hazardous Air Pollutants.** The permittee shall comply with all applicable requirements of TAPCR Chapter 0400-30-38 for all emission sources subject to a requirement contained therein.

D12(SM1). **Standards of Performance for New Stationary Sources.** The permittee shall comply with all applicable requirements of TAPCR chapters 0400-30-39 and 1200-03-16 for all emission sources subject to a requirement contained therein.

D13(SM1). **Gasoline Dispensing Facilities.** The permittee shall comply with all applicable requirements of TAPCR Rule 1200-03-18-.24 for all emission sources subject to a requirement contained therein.

D14(SM1). **Internal Combustion Engines.**

(a) All stationary reciprocating internal combustion engines, including engines deemed insignificant activities and insignificant emission units, shall comply with the applicable provisions of TAPCR Rule 0400-30-38-.01.
(b) All stationary compression ignition internal combustion engines, including engines deemed insignificant activities and insignificant emission units, shall comply with the applicable provisions of TAPCR Chapter 0400-30-39.
(c) All stationary spark ignition internal combustion engines, including engines deemed insignificant activities and insignificant emission units, shall comply with the applicable provisions of TAPCR Chapter 0400-30-39.

TAPCR 0400-30-38 and 39

SECTION E

SOURCE SPECIFIC EMISSION STANDARDS, OPERATING LIMITATIONS, and MONITORING, RECORDKEEPING and REPORTING REQUIREMENTS

53-0081	Facility Description:	Primary Products Ingredients Americas LLC Loudon facility is a corn wet milling operation that manufactures ethyl alcohol, corn products and propanediol. The facility is divided into six separate areas: elevator, wetmill/feedhouse, refinery, alcohol, propanediol and utilities.

Conditions E1(SM1) through E3-10(SM1) apply to all sources in Section E of this permit unless otherwise noted.

E1(SM1). Fee payment:

FEE EMISSIONS SUMMARY TABLE FOR MAJOR SOURCE 53-0081

REGULATED POLLUTANTS	ALLOWABLE EMISSIONS (tons per AAP)	ACTUAL EMISSIONS (tons per AAP)	COMMENTS
PARTICULATE MATTER (PM)	246.83	AEAR	Includes all fee emissions.
PM_{10}	N/A	N/A	
SO_2	294.35	AEAR	Includes all fee emissions.
VOC	412.96	AEAR	Includes all fee emissions.
NO_X	671.09	AEAR	Includes all fee emissions.
MISCELLANEOUS	8.4	AEAR	Includes all fee emissions.
CATEGORY OF MISCELLANEOUS HAZARDOUS AIR POLLUTANTS (HAP WITHOUT A STANDARD)*			
VOC FAMILY GROUP	N/A	N/A	Fee emissions are included in VOC above.
NON-VOC GASEOUS GROUP (HCl)	0.5	AEAR	Fee emissions are not included above.
PM FAMILY GROUP	N/A	N/A	Fee emissions are included in PM above.

CATEGORY OF SPECIFIC HAZARDOUS AIR POLLUTANTS (HAP WITH A STANDARD)**			
VOC FAMILY GROUP	N/A	N/A	40 CFR part 63 subpart FFFF Fee emissions are included in the VOC above.
NON-VOC GASEOUS GROUP	N/A	N/A	Fee emissions are not included above.
PM FAMILY GROUP	N/A	N/A	Fee emissions are included in PM above.
CATEGORY OF NSPS POLLUTANTS NOT LISTED ABOVE***			
EACH NSPS POLLUTANT NOT LISTED ABOVE	N/A	N/A	

NOTES

AAP The **Annual Accounting Period** (**AAP**) is a 12 consecutive month period that **either (a) begins each July 1st and ends June 30th of the following year when fees are paid on a fiscal year basis, or (b) begins January 1st and ends December 31st of the same year when paying on a calendar year basis.** The **Annual Accounting Period** at the time of significant modification 1 permit issuance **began July 1, 2023 and ends June 30, 2024.** The next Annual Accounting Period begins **July 1, 2024,** and ends **June 30, 2025,** unless a request to change the annual accounting period is submitted by the responsible official as required by subparagraph 1200-03-26-.02(9)(b) of the TAPCR and approved by the Technical Secretary**.** If the permittee wishes to revise their annual accounting period or their annual emission fee basis as allowed by subparagraph 1200-03-26-.02(9)(b) of the TAPCR, the responsible official must submit the request to the Division in writing on or before December 31 of the annual accounting period for which the fee is due. If a change in fee basis from allowable emissions to actual emissions for any pollutant is requested, the request from the responsible official must include the methods that will be used to determine actual emissions. Changes in fee bases must be made using the Title V Fee Selection form, form number APC 36 (CN-1583), included as an attachment (Attachment 8) to this permit and available on the Division of Air Pollution Control's website.

N/A **N/A** indicates that no emissions are specified for fee computation.

AEAR If the permittee is paying annual emission fees on an actual emissions basis, **AEAR** indicates that an **A**ctual **E**missions **A**nalysis is **R**equired to determine the actual emissions of:

(1) **each regulated pollutant** (Particulate matter, SO_2, VOC, NO_X and so forth. See TAPCR 1200-03-26-.02(2)(i) for the definition of a regulated pollutant.),
(2) **each pollutant group** (VOC Family, Non-VOC Gaseous, and Particulate Family),
(3) the **Miscellaneous HAP Category,**
(4) the **Specific HAP Category**, and
(5) the **NSPS Category**

under consideration during the **Annual Accounting Period**.

***** **Category Of Miscellaneous HAP (HAP Without A Standard):** This category is made-up of hazardous air pollutants that do not have a federal or state standard. Each HAP is classified into one of three groups, the **VOC Family** group**, the Non-VOC Gaseous** group**,** or the **Particulate (PM) Family** group**. For fee computation**, the **Miscellaneous HAP Category** is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i) of the TAPCR.

****** **Category Of Specific HAP (HAP With A Standard):** This category is made-up of hazardous air pollutants (HAP) that are subject to Federally promulgated Hazardous Air Pollutant Standards that can be imposed under Chapter 1200-03-11 or Chapter 1200-03-31. Each individual hazardous air pollutant is classified into one of three groups, the **VOC Family** group**, the Non-VOC Gaseous** group**,** or the **Particulate (PM) Family** group**. For fee computation**, each individual hazardous air pollutant of the **Specific HAP Category** is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i) of the TAPCR.

******* **Category Of NSPS Pollutants Not Listed Above:** This category is made-up of each **N**ew **S**ource **P**erformance **S**tandard (**NSPS**) pollutant whose emissions are not included in the **PM**, **SO_2, VOC** or **NO_X**

emissions from each source in this permit. **For fee computation**, each **NSPS pollutant not listed above** is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i) of the TAPCR.

END NOTES

The permittee shall:

(1) Pay Title V **annual emission fees**, on the emissions and year bases requested by the responsible official and approved by the Technical Secretary, for each annual accounting period (AAP) by the payment deadline(s) established in TAPCR 1200-03-26-.02(9)(g). Fees may be paid on an **actual**, **allowable**, or **mixed** emissions basis; and on either a **state fiscal year** or a **calendar year**, provided the requirements of TAPCR 1200-03-26-.02(9)(b) are met. If any part of any fee imposed under TAPCR 1200-03-26-.02 is not paid within 15 days of the due date, penalties shall at once accrue as specified in TAPCR 1200-03-26-.02(8).

(2) Sources paying annual emissions fees on an allowable emissions basis: pay annual allowable based emission fees for each annual accounting period no later than April 1 of each year pursuant to TAPCR 1200-03-26-.02(9)(d).

(3) Sources paying annual emissions fees on an actual emissions basis: prepare an **actual emissions analysis** for each AAP and pay **actual based emission fees** pursuant to TAPCR 1200-03-26-.02(9)(d). The **actual emissions analysis** shall include:

(a) the completed **Fee Emissions Summary Table**,

(b) each **actual emissions analysis** required**,** and

(c) the actual emission records for each pollutant and each source as required for actual emission fee determination, or a summary of the actual emission records required for fee determination, as specified by the Technical Secretary or the Technical Secretary's representative. The summary must include sufficient information for the Technical Secretary to determine the accuracy of the calculations. These calculations must be based on the annual fee basis approved by the Technical Secretary (a state fiscal year [July 1 through June 30] or a calendar year [January 1 through December 31]). These records shall be used to complete the **actual emissions analyses** required by the above **Fee Emissions Summary Table**.

(4) Sources paying annual emissions fees on a mixed emissions basis: for all pollutants and all sources for which the permittee has chosen an actual emissions basis, prepare an **actual emissions analysis** for each AAP and pay **actual based emission fees** pursuant to TAPCR 1200-03-26-.02(9)(d). The **actual emissions analysis** shall include:

(a) the completed **Fee Emissions Summary Table**,

(b) each **actual emissions analysis** required**,** and

(c) the actual emission records for each pollutant and each source as required for actual emission fee determination, or a summary of the actual emission records required for fee determination, as specified by the Technical Secretary or the Technical Secretary's representative. The summary must include sufficient information for the Technical Secretary to determine the accuracy of the calculations. These calculations must be based on the fee bases approved by the Technical Secretary (payment on an actual or mixed emissions basis) and payment on a state fiscal year (July 1 through June 30) or a calendar year (January 1 through December 31). These records shall be used to complete the **actual emissions analysis**.

For all pollutants and all sources for which the permittee has chosen an allowable emissions basis, pay allowable based emission fees pursuant to TAPCR 1200-03-26-.02(9)(d).

(5) When paying on an actual or mixed emissions basis, submit the **actual emissions analyses** at the time the fees are paid in full.

The annual emission fee due dates are specified in TAPCR 1200-03-26-.02(9)(g) and are dependent on the Responsible Official's choice of fee bases as described above. If any part of any fee imposed under TAPCR 1200-03-26-.02 is not paid within 15 days of the due date, penalties shall at once accrue as specified in TAPCR 1200-03-26-.02(8). Emissions for regulated pollutants shall not be double counted as specified in Condition A8(d) of this permit.

Payment of the fee due and the actual emissions analysis (if required) shall be submitted to The Technical Secretary at the following address:

Payment of Fee to:
The Tennessee Department of Environment and Conservation
Division of Fiscal Services
Consolidated Fee Section – APC
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 10th Floor
Nashville, Tennessee 37243

and

Actual Emissions Analyses to:
The Tennessee Department of Environment and Conservation
Division of Air Pollution Control
Emission Inventory Program
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, Tennessee 37243
or
An electronic copy (PDF) of actual emissions analysis can also be submitted to: apc.inventory@tn.gov

E2(SM1). Reporting requirements

(a) Semiannual reports. The first report shall cover the period from April 1, 2019, through September 30, 2019, and shall be submitted within sixty (60) days after the period ending September 30, 2019. Subsequent reports shall be submitted within sixty (60) days after the end of each six-month period following the first report. All instances of deviations from permit requirements must be clearly identified in these reports and the reports must be certified by a responsible official.

These semiannual reports shall include:

(1) Reports of any monitoring, recordkeeping and calculated emission rates required by conditions E4-2, E5-2, E6-3(SM1), E6-4(SM1), E7-3, E7-4, E7-7, E7-8, E8-2, E9-3, E10-2, E11-2, E12-2, E13-2, E14-2, E15-2, E17-2, E18-3, E19-2, E20-2, E23-2, E23-3, E25-3, E26-2, E27-2, E28-2, E29-2, E30-2, E31-2, E32-2, E32a-2, E33-2, E34-3, E34-5, E40-2, E41-1(SM1), E41-2(SM1), E41-7(SM1), E42-5(SM1), E43-5(SM1), E44-1, E44-2, E48-3, E48-4, E48-29, E48-33, E55-2, E56-15, E56-19, E56-20, E57-16, E57-20, and E57-21 of this permit. However, a summary report of this data is acceptable provided there is sufficient information to enable the Technical Secretary to evaluate compliance.

(2) The visible emission evaluation readings from condition E3-1 for all regulated stack emissions of this permit if required. However, a summary report of this data is acceptable provided there is sufficient information to enable the Technical Secretary to evaluate compliance.

(3) Identification of all instances of deviations from **ALL PERMIT REQUIREMENTS**.

These reports must be certified by a responsible official consistent with condition B4 of this permit and shall be submitted to The Technical Secretary at the address in Condition E2(b) of this permit.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

(b) Annual compliance certification. The permittee shall submit annually compliance certifications with terms and conditions contained in Sections A, B, D, & E of this permit, including emission limitations, standards, or work practices. This compliance certification shall include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable):

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

(2) The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period; such methods and other means shall include, at a minimum, the methods and means required by this permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Act, which prohibits knowingly making a false certification or omitting material information;

(3) The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in B5(b) above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion* or exceedance** as defined below occurred; and

(4) Such other facts as the Technical Secretary may require to determine the compliance status of the source.

* Excursion shall mean a departure from an indicator range established for monitoring under this paragraph, consistent with any averaging period specified for averaging the results of the monitoring.

** Exceedance shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.

40 CFR Part 70.6(c)(5)(iii) as amended in the Federal Register Vol.79, No. 144, July 28, 2014, pages 43661 through 43667

The first certification shall cover the period from April 1, 2019, through September 30, 2019, and shall be submitted within sixty (60) days after the period ending September 30, 2019. Subsequent certifications shall be submitted within sixty (60) days after the end of each 12-month period following the first certification.

These certifications shall be submitted to: **TN APCD** and EPA

An electronic copy (PDF) of the reports may be submitted to the Technical Secretary at the email address below:

Hard Copy to:

Technical Secretary
Knoxville Environmental Field Office
Tennessee Division of Air Pollution Control
3711 Middlebrook Pike
Knoxville, TN 37921
And
Air Enforcement and Toxics Branch
US EPA Region IV
61 Forsyth Street, SW
Atlanta, Georgia 30303

Adobe Portable Document Format (PDF) Copy to:

APC.KnoxEFO@tn.gov

(c) NESHAP Reporting Requirements

Semiannual reports required by 40 CFR 63 Subpart FFFF §63.2520(e): The first report shall cover the period from April 1, 2019, through June 30, 2019, and shall be submitted within sixty (60) days after the period ending June 30, 2019. Subsequent reports shall be submitted within sixty (60) days after the end of each six-month period following the first report. These reports shall be submitted to:

TN APCD and **EPA**

Tennessee Permit Program
Division of Air Pollution Control
William R. Snodgrass Tennessee Tower, 15th Floor
312 Rosa L. Parks Avenue
Nashville, TN 37243

and

Air Enforcement and Toxics Branch
US EPA Region IV
61 Forsyth Street, SW
Atlanta, GA 30303

Or electronic pdf copy to: Air.Pollution.Control@tn.gov

These semiannual reports shall include:

(1) Reports of any monitoring, recordkeeping and calculated emission rates required by condition E34-11 of this permit for applicable units as identified in the Compliance Status Report submitted by the permittee to the Division of Air Pollution Control on October 7, 2008 [see sources 53-0081-28, 54, 55, 59, 61, 98, 99, 72, 73, and 74 of this permit]. However, a summary report of this data is acceptable provided there is sufficient information to enable the Technical Secretary to evaluate compliance.

(2) Identification of all instances of deviations from **ALL PERMIT REQUIREMENTS**.

These reports must be certified by a responsible official consistent with condition B4 of this permit and shall be submitted to The Technical Secretary at the address in Condition E2(c) of this permit.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §63.2520

(d) NSPS Reporting Requirements

Semiannual reports required by 40 CFR 60 Subpart VV §60.487(c): The first report shall cover the period from the April 1, 2019, though September 30, 2019, and shall be submitted within thirty (30) days after the period ending September 30, 2019. Subsequent reports shall be submitted within thirty (30) days after the end of each six-month period following the first report. These reports shall be submitted to:

TN APCD and **EPA**

Tennessee Permit Program
Division of Air Pollution Control
William R. Snodgrass Tennessee Tower, 15th Floor
312 Rosa L. Parks Avenue
Nashville, TN 37243

and

Air Enforcement and Toxics Branch
US EPA Region IV
61 Forsyth Street, SW
Atlanta, GA 30303

Or electronic pdf copy to: Air.Pollution.Control@tn.gov

These semiannual reports shall include:

(1) Reports of any monitoring, recordkeeping and calculated emission rates required by condition E34-31 of this permit. However, a summary report of this data is acceptable provided there is sufficient information to enable the Technical Secretary to evaluate compliance.

(2) Identification of all instances of deviations from **ALL PERMIT REQUIREMENTS**.

These reports must be certified by a responsible official consistent with condition B4 of this permit and shall be submitted to The Technical Secretary at the address in Condition E2(d) of this permit.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.487

(e) **Accidental Release Plan.** In accordance with Section 112(r) of the Clean Air Act and Rule 1200-03-32-.03(1) of the Tennessee Air Pollution Control Comprehensive Rules and Regulations (Tenn. Comp. R. & Regs.), the permittee has filed a copy of the accidental release plan for this facility. This plan has been filed with both EPA Region IV and the Division of Air Pollution Control. The permittee shall annually certify in writing to the Technical Secretary that they are properly following their accidental release plan. Such certification is due no later than January 31 for the preceding calendar year in accordance with Rule 1200-03-32-.03(3) of the Tenn. Comp. R. & Regs. The certification shall be submitted to the Technical Secretary at the following address or by electronic copy:

Tennessee Permit Program
Division of Air Pollution Control
William R. Snodgrass Tennessee Tower, 15th Floor
312 Rosa L. Parks Avenue
Nashville, TN 37243

Or electronic pdf copy to: Air.Pollution.Control@tn.gov

Tenn. Comp. R. & Regs. 1200-03-32-.03

E3. General requirements applicable to permitted facility.

E3-1. Visible emissions from sources in this permit shall not exhibit greater than twenty percent (20%) opacity, except for one (1) six-minute period in any one (1) hour period and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

Tenn. Comp. R. & Regs. 1200-03-05-.03(6) and Tenn. Comp. R. & Regs. 1200-03-05-.01(1)

Compliance Method: Compliance with this opacity limitation shall be certified through utilization of the Division's Opacity Matrix dated June 18, 1996, amended September 11, 2013, using EPA Method 9 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring.

E3-2. Routine maintenance, as required to maintain specified emission limits in this permit, shall be performed on the air pollution control device(s). Maintenance records shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five years.

Tenn. Comp. R. & Regs. 1200-03-09

E3-3. Logs and records specified in this permit shall be made available upon request by the Technical Secretary or an authorized representative and shall be retained for a period of not less than five years unless otherwise noted. The logs contained in this permit are based on a recommended format. Any logs that have an alternative format may be utilized provided they contain the same information that is required.

Tenn. Comp. R. & Regs. 1200-03-09

E3-4. Upon the malfunction/failure of any emission control device(s) serving this source, the operation of the process(es) served by the device(s) shall be regulated by Chapter 1200-03-20 of the Tennessee Air Pollution Control Comprehensive Rules and Regulations.

E3-5. Record keeping requirements for this facility, including all data and calculations, must be updated and maintained based on the following schedule:

Record Keeping Type	Update Requirement
Monthly Log	Recorded within 30 days after the end of the month
Weekly Log	Recorded within 7 days after the end of the week
Daily Log	Recorded within 7 days after the end of the day

Tenn. Comp. R. & Regs. 1200-03-09

E3-6. The permittee listed various insignificant and exempt activities in their Title V Application per Rule 1200-3-9-.04(5). Additional insignificant activities may be added and operated at any time with the provision that a written notification shall be submitted to the Technical Secretary including an updated APC V.2 application form along with a truth, accuracy, and completeness statement signed by a responsible official.

Tenn. Comp. R. & Regs. 1200-03-09

E3-7. Due allowance for failure to monitor shall be made during any period of monitoring system malfunction, provided that the source owner or operator shows, to the satisfaction of the Technical Secretary, that the malfunction was unavoidable and is being repaired as expeditiously as practicable and that a log of all such malfunctions is being kept by the permittee, including time malfunction began, when it was detected, what was wrong, what was done to correct the malfunction, and when the malfunction was corrected.

Tenn. Comp. R. & Regs. 1200-03-10-.02(1)(e)

E3-8. The permittee shall comply with all applicable federal and state regulations concerning the operation of this source. This includes but is not limited to, federal regulations published under 40 CFR part 63 for sources of hazardous air pollutants and 40 CFR part 60, New Source Performance Standards.

This source shall operate in accordance with the terms of this permit and the information submitted in the approved permit application.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8)

E3-9. The owner or operator must maintain records and submit reports in accordance with federal regulations published under 40 CFR part 63 for sources of hazardous air pollutants and 40 CFR part 60, New Source Performance Standards.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR Part 63 subpart A, 40 CFR Part 60 subpart A

Compliance Method: Compliance with this requirement shall be assured by maintaining the required records and by submitted semiannual reports and periodic reports as required.

In addition to EPA, the reports shall be submitted to:

Technical Secretary
Tennessee Division of Air Pollution Control
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243

Or submitted as a PDF document via email to: Air.Pollution.Control@tn.gov

E3-10(SM1). Identification of Responsible Official, Technical Contact, and Billing Contact

a) The application that was utilized in the preparation of this permit is dated, October 25, 2017, and signed by former Responsible Official Gerald F. Schlueter, Plant Manager of the permitted facility. A letter dated November 20, 2018, identifies Edwin H. Hammann, as the new Plant Manager and Responsible Official of the permitted facility. The letter and application that were utilized in the preparation of the minor modification 1 permit are dated April 11, 2019, and May 20, 2019, respectively, and signed by Edwin H. Hammann, Plant Manager. The applications that were utilized in the preparation of the significant modification 1 permit are dated October 24, 2019, February 11, 2020, and September 28, 2022, and signed by Edwin H. Hammann, Plant Manager. If this person (Edwin H. Hammann) terminates employment or is assigned different duties and is no longer a Responsible Official for this facility as defined in part 1200-03-09-.02(11)(b)21 of the Tennessee Air Pollution Control Regulations, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty (30) days of the change. The notification shall include the name and title of the new Responsible Official and certification of truth and accuracy. All representations, agreement to terms and conditions, and covenants made by the former Responsible Official that were used in the establishment of the permit terms and conditions will continue to be binding on the facility until such time that a revision to this permit is obtained that would change said representations, agreements, and/or covenants.

b) The application that was utilized in the preparation of this permit is dated October 25, 2017, and identifies Don Moster, Environmental Engineer as the Principal Technical Contact for the permitted facility. The letter and application that were utilized in the preparation of the minor modification 1 permit are dated April 11, 2019, and May 20, 2019, respectively, and identify Don Moster, Environmental Engineer as the Principal Technical Contact for the permitted facility. The applications that were utilized in the preparation of the significant modification 1 permit are dated October 24, 2019, February 11, 2020, and September 28, 2022. The application dated September 28, 2022, identifies Bryan Crawford as the new Principal Technical Contact for the permitted facility. If this person terminates employment or is assigned different duties and is no longer the Principal Technical Contact for this facility, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty (30) days of the change. The notification shall include the name and title of the new Principal Technical Contact and certification of truth and accuracy.

c) The application that was utilized in the preparation of this permit is dated October 25, 2017, and identifies Herman Coggin as the Billing Contact for the permitted facility. The letter and application that were utilized in the preparation of the minor modification 1 permit are dated April 11, 2019, and May 20, 2019, respectively, and identify, Herman Coggin as the Billing Contact for the permitted facility. The applications that were utilized in the preparation of the significant modification 1 permit are dated October 24, 2019, February 11, 2020, and September 28, 2022. The application dated September 28, 2022, identifies Bryan Crawford as the new Billing Contact for the permitted facility. If this person terminates employment or is assigned different duties and is no longer the Billing Contact for this facility, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty (30) days of the change. The notification shall include the name and title of the new Billing Contact and certification of truth and accuracy.

TAPCR 1200-03-09-.03(8)

E3-11. The permittee shall comply with the applicable provisions of Tenn. Comp. R. & Regs. 1200-03-27-.12 (NO_X SIP Call Requirements for Stationary Boilers and Combustion Turbines), as follows:

(a) **Definitions, abbreviations, and acronyms**: Terms, abbreviations, and acronyms shall have the meanings set forth in Tenn. Comp. R. & Regs. 1200-03-27-.12(1) and (2).

(b) **Applicability**: Except as otherwise exempted by Tenn. Comp. R. & Regs. 1200-03-27-.12, the provisions of this rule shall apply to each affected unit and each affected facility. Tenn. Comp. R. & Regs. 1200-03-27-.12(3)

(c) **Existing units:** NO_X allowances are allocated to all existing affected units in the amounts specified in the State Implementation Plan. Tenn. Comp. R. & Regs. 1200-03-27-.12(6)(a)

(d) **New units:** The Responsible Official of a new affected unit may request NO_X allowances starting with the first control period in which the affected unit commences operation, in accordance with Tenn. Comp. R. & Regs. 1200-03-27-.12(6)(c)2. The Technical Secretary will review each allowance allocation request and allocate NO_X allowances for each control period in accordance with Tenn. Comp. R. & Regs. 1200-03-27-.12(6)(c)2.

(e) **Adjustment of allowance allocations:** The Technical Secretary may adjust allowance allocations for new and existing units in accordance with Tenn. Comp. R. & Regs. 1200-03-27-.12(6)(d).

(f) **NO_X emission requirements:** As of the compliance deadline for a control period, the tons of total nitrogen oxides emissions for the control period from all affected units at an affected facility, as determined in accordance with Tenn. Comp. R. & Regs. 1200-03-27-.12(11), shall not exceed the number of allowances allocated to the affected facility. Tenn. Comp. R. & Regs. 1200-03-27-.12(7).

(g) **Monitoring and Reporting:** The owners and operators, and to the extent applicable, the Responsible Official, of an affected unit shall comply with the applicable monitoring, recordkeeping, and reporting requirements provided in 40 CFR part 75 for each control period. The Responsible Official may petition the Technical Secretary and EPA Administrator requesting approval of an alternative to any requirement of 1200-03-27-.12(11)(a). Approval of any monitoring alternative must be granted in writing by both the Technical Secretary and the EPA Administrator. Tenn. Comp. R. & Regs. 1200-03-27-.12(11)

Tenn. Comp. R. & Regs. 1200-03-27-.12

E4. Emission Source

53-0081-01	Source Identification:	Elevator Area Corn Receiving and Handling (corn unloading)
	Stacks:	Corn Receiving and Handling PES #1
	Control Equipment:	Unloading Collector L-1101 (CAM)

Conditions E4-1 through E4-2 apply to source 53-0081-01.

E4-1. The maximum input capacity for this source shall not exceed the amount as given in the approved confidential application dated October 3, 2005.

Construction Permit 958558P, Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: A log of the process material input rate in a form that demonstrates compliance with this condition by recordkeeping data must be maintained at the source location and made available for inspection by the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five (5) years.

E4-2. Particulate matter emitted from this source shall not exceed 1.73 pounds per hour based on a daily average and 7.6 tons per year.

Construction Permit 958558P, Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: Compliance with the particulate matter emission limitation shall be assured by complying with the CAM plan in attachment 2.

In addition to the CAM plan, routine maintenance, as required to maintain specified emission limits, shall be performed on the air pollution control device(s). Maintenance records shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five (5) years.

E5. Emission Source

53-0081-02	Source Identification:	Elevator Area Elevator Dust Collector The emission source includes splitter bin, corn cleaners, and cracked corn bin.
	Stacks:	Elevator Dust Collector PES #2
	Control Equipment:	Elevator Dust Collector, L-1208 (CAM)

Conditions E5-1 through E5-2 apply to source 53-0081-02.

E5-1. The maximum input capacity for this source shall not exceed the amount as given in the approved confidential application dated October 3, 2005.

Construction Permit 958558P, Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: A log of the process material input rate in a form that demonstrates compliance with this condition by recordkeeping data must be maintained at the source location and made available for inspection by the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five (5) years.

E5-2. Particulate matter emitted from this source shall not exceed 1.18 pounds per hour based on a daily average and 5.2 tons per year.

Construction Permit 958558P, Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: Compliance with the particulate matter emission limitation shall be assured by complying with the CAM plan in attachment 2.

In addition to the CAM plan, routine maintenance, as required to maintain specified emission limits, shall be performed on the air pollution control device(s). Maintenance records shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five (5) years.

E6. Emission Source

53-0081-03	Source Identification:	Wetmill/Feedhouse Area Steep area aspiration (PES #3) and millhouse aspiration (PES #4) The wet scrubber controls emissions from both the steep area and the millhouse area. Significant Modification 1: Addition of a Sulfur Burner, Molten Sulfur Storage Tank, and a Sulfur Dioxide Absorption Tower (PES #8) with exhaust to existing wet scrubber and stack identified below. A sulfur burner, molten sulfur storage tank, and a sulfur dioxide absorption tower were installed in the wetmill area to replace the current liquid sulfur dioxide storage system. The project resulted in an increase in emissions of particulate matter, sulfur dioxide, and volatile organic compounds. The project was not subject to PSD review, since emissions increases for the project were below PSD threshold significance levels. Construction of this project was authorized by permit 974410 issued October 8, 2018.
	Stack(s):	Millhouse Stack (MHS), Y-3002
	Control Equipment:	Wet Scrubber, K-2004 (CAM)

Conditions E6-1(SM1) through E6-4(SM1) apply to source 53-0081-03.

E6-1(SM1). The maximum input rates of corn and sulfur for this source shall not exceed the amounts as given in the approved confidential applications dated July 2, 2018, and October 24, 2019. Should the permittee need to modify the source(s) in a manner that increases the maximum input rates, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8) and the confidential applications dated July 2, 2018, and October 24, 2019

Compliance Method: The permittee shall maintain a log of the actual amount of material input for this source during each calendar month and each period of 12-consecutive months. The log shall be retained for a period of not less than five years.

E6-2(SM1). Particulate matter (PM) emitted from the millhouse stack (MHS) shall not exceed 0.005 grain per dry standard cubic foot of exhaust gas (6.6 tons per year).

TAPCR 1200-03-07-.01(5), agreement letter dated September 27, 2023 (Attachment 7), applications dated July 2, 2018, and October 24, 2019

Compliance Method: Compliance with this limitation shall be assured by operating the control equipment as required in conditions E6-3(SM1) and E6-4(SM1).

E6-3(SM1). Volatile organic compound (VOC) emissions from this source shall be emitted through the Mill House Stack and shall not exceed 67.6 tons during any period of 12-consecutive months.

TAPCR 1200-03-07-.07(2), applications dated July 2, 2018, and October 24, 2019

Compliance Method: (a) Compliance with the VOC emissions shall be assured by maintaining a wet scrubber liquid flow rate of 1200 gallons per minute. A minimum liquid flow rate of 1200 gallons per minute to the scrubber shall be assured by maintaining an average daily current of 27 amperes to the scrubber liquid pump and by conducting a daily visual inspection of each scrubber by operating personnel. The average daily electrical current in amperes shall be determined from the average current in amperes over the hours that the scrubber pump is in operation for that day. The purpose of the visual inspection shall be to verify normal flow of water within the scrubber. A daily record of the average current flow (amperes) and of a visual inspection of the scrubber to ensure proper operation of the scrubber shall be maintained. Records shall be retained for a period of not less than five years.

In addition to the daily current, compliance with the VOC emissions limitation shall be assured by maintaining the minimum pH of the scrubber liquid at 6.0. The pH shall be monitored and recorded once daily. This record shall be retained for a period of not less than five years.

(b) Monitoring of process material input: A daily record of the steeped corn grind rate for this source shall be maintained per the compliance requirements of condition **E6-1(SM1).**

E6-4(SM1). Sulfur dioxide (SO_2) emissions from this source shall be emitted through the Mill House Stack and shall not exceed 7.05 pounds per hour (30.9 tons during any period of 12-consecutive months).

TAPCR 1200-03-14-.01(3), agreement letter dated September 27, 2023 (Appendix 7), applications dated July 2, 2018, and October 24, 2019

Compliance Method: **(a)** Monitoring of wet scrubber: Compliance with the sulfur dioxide (SO_2) emission limitations shall be assured by maintaining a wet scrubber liquid flow rate of 1200 gallons per minute. A minimum liquid flow rate of 1200 gallons per minute shall be assured by complying with the average daily current in amperes identified in the CAM plan dated October 2017 in attachment 2 and by conducting a daily visible inspection of the scrubber by operating personnel. The purpose of the visual inspection shall be to verify normal flow of water within the scrubber. A daily record of the average daily current in amperes and the visual inspection shall be maintained. These records must be retained for a period of not less than five years.

In addition to the daily average current, compliance with the SO_2 emission rate shall be assured by maintaining the minimum pH of the wet scrubber liquid as identified in the CAM plan dated October 2017 (See Attachment 2 of this permit). The pH shall be monitored and recorded once per operating day in the log according to the CAM Plan.

An inspection of the scrubber and associated equipment (scrubbing liquid pump, piping, blower/ fan, if applicable) shall be performed on an annual basis to ensure the equipment is operating properly. The results of the inspection shall be recorded in a log. In addition to the noted assurances, routine maintenance, as required to maintain specified emission limits, shall be performed on the air pollution control device(s). Maintenance records shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five years. The amperage meter (scrubber liquid flow rate verification) must be operational at least 95% of the operational time of the source.

Monitoring of process material input: A daily record of the steeped corn grind rate and the sulfur input to the sulfur burner for this source shall be maintained per the compliance requirements of condition **E6-1(SM1)**.

(b) Monitoring of SO_2 absorption tower: Compliance with the sulfur dioxide (SO_2) emission limitations shall be assured by maintaining a SO_2 absorption tower minimum liquid flow rate of 350 gallons per minute. The liquid flow rate of the absorption tower shall be monitored by a flowmeter, and the liquid flow rate shall be recorded continuously by a data logger or equivalent device during operation of this source. The flowmeter/ continuous recorder equipment must be operational at least 95% of the operational time of the source. A daily visible inspection of the SO_2 absorption tower shall be conducted by operating personnel during operation of this source. The purpose of the visual inspection shall be to verify normal flow of water within the absorption tower and normal absorption tower operation. A daily record of the visual inspections shall be maintained at the facility. These absorption tower liquid flow rate records and visual inspection records shall be retained for a period of not less than five years.

E7. Emission Source

53-0081-05	Source Identification:	Wetmill/Feedhouse Area
53-0081-65		Gluten Filter Aspiration (PES #5)
		Gluten Filter Vacuum Pump Aspiration (PES #65)
		The gluten filter aspiration and gluten filter vacuum pump aspiration are a single process emission source (dependent) with two stacks.
	Stack(s):	PES #5
		PES #65
	Control Equipment:	Wet Scrubber Y-4401
		Wet Scrubber Y-4402

Conditions E7-1 through E7-8 apply to source 53-0081-05 & 53-0081-65.

Gluten Filter Aspiration

E7-1. The maximum input capacity for Gluten Filter Aspiration shall not exceed the amount as given in the approved confidential application dated October 3, 2005.

Permit 958558P, Condition 11, Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: Compliance with this throughput limitation shall be demonstrated by maintaining compliance with condition E4-1.

E7-2. Particulate matter (TSP) emitted from the gluten filter aspiration stack (PES #5) shall not exceed 0.005 grains per dry standard cubic foot of exhaust gas (2.5 tons per year).

Tenn. Comp. R. & Regs. 1200-03-07-.01(5), agreement letter dated August 18, 2011

Compliance Method: Compliance with this limitation shall be assured by complying with conditions E7-3 and E7-4.

E7-3. Volatile organic compound (VOC) emissions from Gluten Filter Aspiration shall not exceed 10.5 tons/year.

Permit 958558P, Condition 12, Tenn. Comp. R. & Regs. 1200-03-07-.07(2)

Compliance Method: Compliance with the VOC emissions limitation shall be assured by maintaining a wet scrubber liquid flow of 170 gallons per minute. A minimum liquid flow of 170 gallons per minute to the scrubber shall be assured by maintaining an average daily current of 5.8 amperes to the scrubber liquid pump and by conducting a daily visual inspection of each scrubber by operating personnel. The average daily electrical current in amperes shall be determined from the average current in amperes over the hours that the scrubber pump is in operation for that day. The purpose of the visual inspection shall be to verify normal flow of water within the scrubber. A daily record of the average current flow (amperes) and of a visual inspection of the scrubber to insure proper operation of the scrubber shall be maintained. Records shall be retained for a period of not less than five (5) years.

In addition to the daily current, compliance with the VOC emissions shall be assured by maintaining the minimum pH of the scrubber liquid at 6. The pH shall be monitored and recorded once daily. This record shall be retained for a period of not less than five (5) years.

E7-4. Sulfur dioxide (SO2) emissions from Gluten Filter Aspiration shall not exceed 4.6 tons/year.

Permit 958558P, Condition 12, Tenn. Comp. R. & Regs. 1200-03-14-.07(2)

Compliance Method: Compliance with the SO2 emissions limitation shall be assured by maintaining a wet scrubber liquid flow of 170 gallons per minute. A minimum liquid flow of 170 gallons per minute to the scrubber shall be assured by maintaining an average daily current of 5.8 amperes to the scrubber liquid pump and by conducting a daily visual inspection of each scrubber by operating personnel. The average daily electrical current in amperes shall be determined from the average current in amperes over the hours that the scrubber pump is in operation for that day. The purpose of the visual inspection shall be to verify normal flow of water within the scrubber. A daily record of the average

current flow (amperes) and of a visual inspection of the scrubber to insure proper operation of the scrubber shall be maintained. Records shall be retained for a period of not less than five (5) years.

In addition to the daily current, compliance with the SO2 emissions shall be assured by maintaining the minimum pH of the scrubber liquid at 6. The pH shall be monitored and recorded once daily. This record shall be retained for a period of not less than five (5) years.

Gluten Filter Pump Aspiration

E7-5. The maximum input capacity for the Gluten Filter Vacuum Pump Aspiration shall not exceed the amount as given in the approved confidential application dated October 3, 2005.

Permit 958558P, Condition 15, Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: Compliance with this throughput limitation shall be demonstrated by maintaining compliance with condition E4-1 and recordkeeping data which indicate compliance with this limitation.

E7-6. Particulate matter emitted from the gluten filter pump aspiration stack (PES #65) shall not exceed 0.005 grains per dry standard cubic foot of exhaust gas (2.2 tons per year).

Tenn. Comp. R. & Regs. 1200-03-07-.01(5), agreement letter dated August 18, 2011

Compliance Method: Compliance with this limitation shall be assured by complying with conditions E7-7 and E7-8.

E7-7. Volatile organic compound (VOC) emissions from Gluten Filter Vacuum Pump Aspiration shall not exceed 9.5 tons/year.

Permit 958558P, Condition 16,Tenn. Comp. R. & Regs. 1200-03-07-.07(2)

Compliance Method: Compliance with the VOC emissions limitation shall be assured by maintaining a wet scrubber liquid flow of 143 gallons per minute. A minimum liquid flow of 143 gallons per minute to the scrubber shall be assured by maintaining an average daily current of 2.2 amperes to the scrubber liquid pump and by conducting a daily visual inspection of each scrubber by operating personnel. The average daily electrical current in amperes shall be determined from the average current in amperes over the hours that the scrubber pump is in operation for that day. The purpose of the visual inspection shall be to verify normal flow of water within the scrubber. A daily record of the average current flow (amperes) and of a visual inspection of the scrubber to insure proper operation of the scrubber shall be maintained. Records shall be retained for a period of not less than five (5) years.

In addition to the daily current, compliance with the VOC emissions shall be assured by maintaining the minimum pH of the scrubber liquid at 6. The pH shall be monitored and recorded once daily. This record shall be retained for a period of not less than five (5) years.

E7-8. Sulfur dioxide (SO2) emissions from Gluten Filter Vacuum Pump Aspiration shall not exceed 3.8 tons/year.

Permit 958558P, Condition 16, Tenn. Comp. R. & Regs.1200-03-14-.07(2)

Compliance Method: Compliance with the SO2 emissions limitation shall be assured by maintaining a wet scrubber liquid flow of 143 gallons per minute. A minimum liquid flow of 143 gallons per minute to the scrubber shall be assured by maintaining an average daily current of 2.2 amperes to the scrubber liquid pump and by conducting a daily visual inspection of each scrubber by operating personnel. The average daily electrical current in amperes shall be determined from the average current in amperes over the hours that the scrubber pump is in operation for that day. The purpose of the visual inspection shall be to verify normal flow of water within the scrubber. A daily record of the average current flow (amperes) and of a visual inspection of the scrubber to insure proper operation of the scrubber shall be maintained. Records shall be retained for a period of not less than five (5) years.

In addition to the daily current, compliance with the SO2 emissions shall be assured by maintaining the minimum pH of the scrubber liquid at 6. The pH shall be monitored and recorded once daily. This record shall be retained for a period of not less than five (5) years.

E8. Emission Source

53-0081-06	Source Identification:	Wetmill/Feedhouse Area FHS #3
		Cracked Corn Conveying (PES #6), Cyclone L-4315, Cyclone L-4342, Cyclone L-4316
		Feed Cooler (PES #20), Cyclone L-4313
		Feed Milling (PES #21), Cyclone L-4337
		Pellet Loadout (PES #52), Cyclone L-4316
		These operations discharge through a single wet scrubber (common control) then through a single stack.
	Stack(s):	FHS #3
	Control Equipment:	Wet Scrubber Y-4602 (CAM for PM10)

Conditions E8-1 through E8-2 apply to source 53-0081-06.

E8-1. The maximum input capacity for this source shall not exceed the amount as given in the approved confidential applications dated September 30, 2005, and November 27, 2006.

Permit 960547P, Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: Compliance with this throughput limitation shall be demonstrated by maintaining compliance with condition E4-1.

E8-2. Particulate matter from this source shall not exceed 5.2 pounds per hour based on a daily average and 22.8 tons per year.

This emission limitation is established pursuant to Rule 1200-03-07-.01(5) of the Tennessee Air Pollution Control Comprehensive Rules and Regulations and the information contained in applications dated September 30, 2005, and November 27, 2006, from the permittee. This limit was included in the netting analysis to show that this construction project would not be subject to NSR/PSD review.

Compliance Method: Compliance Method: Compliance with the particulate matter emissions limitation shall be assured by maintaining a minimum wet scrubber liquid flow of 300 gallons per minute. A minimum of 300 gallons per minute to the scrubber shall be assured by maintaining an average daily amperage as identified in the CAM plan in attachment 2 and by conducting a daily visual inspection of the scrubber by operating personnel. The purpose of the visual inspection shall be to verify normal flow of water within the scrubber. A daily record of the average current flow (amperes) and of a visual inspection of the scrubber to insure proper operation of the scrubber shall be maintained. Records shall be retained for a period of not less than five (5) years.

In addition to the noted assurances, routine maintenance, as required to maintain specified emission limits, shall be performed on the air pollution control device(s). Maintenance records shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five (5) years.

The amperage meter (scrubber liquid flow rate verification) must be operational 95% of the operational time of the source.

E9. Emission Source

53-0081-16	Source Identification:	Wetmill/Feedhouse Area FHS #1
		Germ Dryer #1 (PES #7), Cyclone L-4101, Heat Recovery Scrubber K-4390, RTO #1
		Gluten Dryer (PES #9), Eight (8) Cyclones L-4811-4818, Heat Recovery Scrubber K-4900, RTO #1
		Feed Dryer #1 (PES #18), Primary Cyclones L-4304 & L-4305, Wet Scrubber, RTO #3
		Feed Dryer #2 (PES #19), Primary Cyclones L-4306 & L-4307, Wet Scrubber, RTO #2
		Feed Dryer #3 (PES #94), Cyclone L-4380, Heat Recovery Scrubber K-4390, RTO #1
		Germ Pre-dryer (PES #95), Cyclone L-4160, Heat Recovery Scrubber K-4390, RTO #1
		These operations discharge through a single stack, FHS #1. (PES #12 has an individual stack)
	Stack(s):	FHS #1
	Control Equipment:	Regenerative Thermal Oxidizer (RTO) #1, rated at 8,000,000 Btus per hour (PES #7, 9, 94, & 95)
		Regenerative Thermal Oxidizer (RTO) #2, rated at 8,000,000 Btus per hour (PES #19)
		Regenerative Thermal Oxidizer (RTO) #3, rated at 16,000,000 Btus per hour (PES #18)
		Feed Dryer #1 Wet Scrubber

Conditions E9-1 through E9-5 apply to source 53-0081-16.

E9-1. The maximum input capacity for the Germ Dryer #1 (PES#7), Gluten Dryer (PES#9), SSD Fiber Dryer (PES#12), Feed Dryer #1 (PES#18), Feed Dryer #2 (PES#19), Feed Dryer #3 (PES#94), and Germ Pre-dryer (PES#95) shall not exceed the amount as given in the approved confidential applications dated September 30, 2005, November 27, 2006, and November 8, 2008.

Permit 960547P, Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: Compliance with this throughput limitation shall be demonstrated by maintaining compliance with condition E4-1.

E9-2. The fuel heat input rate for each emissions unit of this source shall not exceed on a daily average:

a. 125,000,000 Btu per hour for the gluten dryer PES#9 and Feed Dryer #2, PES #19

b. 75,000,000 Btu per hour for the SSD fiber dryer PES#12

c. 55,000,000 Btu per hour for feed dryer #1 PES#18

Natural gas or biogas shall be used as fuel for these sources.

Tenn. Comp. R. & Regs.1200-03-09, construction permit 971336P

Compliance Method: A log of monthly natural gas and biogas usage and daily average of heat input rate for each dryer specified above must be maintained at the source location and kept available for inspection by the Technical

Secretary or an authorized representative. Compliance with these capacities shall be demonstrated by recordkeeping data which indicate compliance with these limitations. This log must be retained for a period of not less than five (5) years.

E9-3. Emissions from the feed house dryers (PES #7, #9, #18, #19, #94 & #95) shall not exceed the following amounts via the Feed House #1 Stack (FHS#1).

Pollutant	**FHS#1**
Particulate Matter (TSP) (CAM)	0.005 grain per actual cubic foot of exhaust gas (35.7 tons per year)
Sulfur Dioxide (SO2) (CAM)	99.6 tons per year
Carbon Monoxide (CO)	134.0 tons per year
Nitrogen Oxides (NOx)	98.4 tons per year
Volatile Organic Compounds (VOC)	49.0 tons per year

These emission limitations were established pursuant to Rule 1200-03-07-.01(5) of the Tennessee Air Pollution Control Comprehensive Rules and Regulations and the information contained in application and letter dated February 2, 2016, from the permittee. These limits were included in the netting analysis to show that the Feed Dryer #1 replacement project would not be subject to NSR/PSD review. Permit 971336P

Compliance Method: Compliance with PM/PM10 and SO2 emission limitations shall be assured by maintaining the following parametric monitoring values.

Manufacturing Process Parameters				
Description and PES #	Minimum Flow Rate (gallons per minute)	Average daily current to scrubber pump (amperes)	Minimum pH of scrubber liquid	
Gluten Dryer (PES #9) K-4900	170	N/A	6.5	
Feed Dryer #1 (PES #18)	235	N/A	6.5	
Feed Dryer #2 (PES #19)	235	N/A	6.5	
Feed Dryer #3 (PES #94) K-4390	300	6.2	5.5	

Manufacturing Process Parameters				
Description and PES #	Minimum Flow Rate (gallons per minute)	Average daily current to scrubber pump (amperes)	Minimum pH of scrubber liquid	
Germ Pre-Dryer (PES #95) K-4390	300	6.2	5.5	
Germ Dryer #1 (PES #7) K-4390	300	6.2	5.5	

Scrubber liquid flow shall be assured by maintaining an average daily scrubber liquid flow in gallons per minute or an average daily current in amperes, if applicable, to the respective scrubber liquid pump as described in the table above. The average daily scrubber liquid flow or current is based on one minute averages which are averaged over a 24-hour period. In addition, the permittee shall assure compliance by maintaining the minimum flow rate listed above (based on the average daily flow rate) and by conducting a daily visual inspection of each scrubber by operating personnel. The purpose of the visual inspection shall be to verify normal flow of water within the scrubber. A daily record of the daily average scrubber liquid flow rate, the daily average current (amperes) to the scrubber liquid pump, and the daily visual inspection of the scrubber to insure proper operation of the scrubber shall be maintained. Records shall be retained for a period of not less than five (5) years. The amperage meter (for scrubber liquid flow rate verification) must be operational 95% of the operational time of the source.

The pH of the scrubber liquid shall be monitored once per day to assure sufficient caustic to the scrubber utilizing a pH meter that electronically records one-minute averages. The electronic pH meter reading shall be recorded once per day in a log. This record shall be retained for a period of not less than five (5) years.

Compliance with the VOC and CO emission limitations shall be assured by a continuous monitoring system which shall be calibrated, maintained and operated on each thermal oxidizer for measuring operating temperature. For purposes of this condition continuous shall mean temperature measurement no less than once per minute. The output of this system shall be recorded as 3-hour averages. The Permittee shall operate the thermal oxidizers at or above the 3-hour average temperature of 1500 F. Compliance with the VOC and CO emission rates shall be assured by maintaining the 3-hour block average temperature of each oxidizer at or above 1500 ^{O}F and by complying with the CAM plan in the February 2, 2016, application (see Attachment 2 of this permit). Records shall be retained for a period of not less than five (5) years. The temperature recording system must be operational 95% of the operational time of the source.

An inspection of the cyclones, wet scrubbers, and thermal oxidizers associated with this source shall be conducted annually to verify the proper operation and integrity of the control devices, and the results of the inspections shall be recorded in a log. This inspection shall supplement the control device routine maintenance requirement described below.

Routine maintenance, as required to maintain specified emission limits, shall be performed on the air pollution control device(s). Maintenance records shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five (5) years.

E9-4. The maintenance bypass for regenerative thermal oxidizer #1 discharging through FHS #2 for PES #7, PES #9, PES #94, and PES #95 shall operate no more than 600 hours per 12 consecutive months.

The maintenance bypass for regenerative thermal oxidizer #2 discharging through FHS #4 for PES #19 shall operate no more than 600 hours per 12 consecutive months.

The maintenance bypass for regenerative thermal oxidizer #3 discharging through FHS #5 for PES #18 shall operate no more than 600 hours per 12 consecutive months.

Permit 971336P, . Tenn. Comp. R. & Regs. 1200-03-09,

Compliance Method: Compliance with these requirements shall be demonstrated by maintaining logs of the hours when bypassing the RTOs in a form that readily shows compliance with these requirements. The logs must be maintained at the source location and made available for inspection by the Technical Secretary or an authorized representative. The logs must be retained for a period of not less than five (5) years.

E9-5. Reserved.

E9-6. The permittee has specified that the new feed dryer #1 is provided with a low NO_X technology burner (per the requirements of the Division of Air Pollution Control) which has an emission rating of 0.08 pounds of NO_X per million Btu of heat input. The permittee shall maintain the manufacturer's specifications for this burner at the facility.

Permit 971336P, Tenn. Comp. R. & Regs. 1200-03-09, application dated February 2, 2016

E10. Emission Source

53-0081-10	Source Identification:	Wetmill/Feedhouse Area Pellet Cooler #1
	Stack(s):	PES #10
	Control Equipment:	Cyclone D-4601 (CAM)

Conditions E10-1 through E10-2 apply to source 53-0081-10.

E10-1. The maximum input capacity for this source shall not exceed the amount as given in the approved confidential applications dated September 30, 2005, and November 27, 2006.

Permit 960547P, Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: Compliance with this throughput limitation shall be demonstrated by maintaining compliance with condition E4-1.

E10-2. Particulate matter from this source shall not exceed 1.7 pounds per hour based on a daily average (7.5 tons per year).

This emission limitation is established pursuant to Rule 1200-03-07-.01(5) of the Tennessee Air Pollution Control Comprehensive Rules & Regulations and the information contained in applications dated September 30, 2005, and November 27, 2006, from the permittee. This limit was included in the netting analysis to show that this construction project would not be subject to NSR/PSD review.

Compliance Method: The control device will be operated and maintained in accordance with manufacturer specifications or best management practices. Routine inspections shall be performed on all control devices. Appropriate maintenance records including inspections, and dates on which maintenance is performed shall be recorded in a suitable permanent form and kept available for inspection. These records must be retained for a period of not less than five (5) years.

Compliance with this requirement shall be assured by performing daily observations for the presence of visible emissions in accordance with the CAM plan in attachment 2. If during the observation visible emissions are observed, the facility will initiate corrective action in accordance with the site-specific start-up, shutdown, and malfunction plan.

E11. Emission Source

53-0081-11	Source Identification:	Wetmill/Feedhouse Area Pellet Cooler #2
	Stack(s):	PES #11
	Control Equipment:	Cyclone D-4602 (CAM)

Conditions E11-1 through E11-2 apply to source 53-0081-11.

E11-1. The maximum input capacity for this source shall not exceed the amount as given in the approved confidential applications dated September 30, 2005, and November 27, 2006.

Permit 960547P, Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: Compliance with this throughput limitation shall be demonstrated by maintaining compliance with condition E4-1.

E11-2. Particulate matter from this source shall not exceed 1.7 pounds per hour based on a daily average (7.5 tons per year).

This emission limitation is established pursuant to Rule 1200-03-07-.01(5) of the Tennessee Air Pollution Control Comprehensive Rules & Regulations and the information contained in applications dated September 30, 2005, and November 27, 2006, from the permittee. This limit was included in the netting analysis to show that this construction project would not be subject to NSR/PSD review.

Compliance Method: The control device will be operated and maintained in accordance with manufacturer specifications or best management practices. Routine inspections shall be performed on all control devices. Appropriate maintenance records including inspections, and dates on which maintenance is performed shall be recorded in a suitable permanent form and kept available for inspection. These records must be retained for a period of not less than five (5) years.

Compliance with this requirement shall be assured by performing daily observations for the presence of visible emissions in accordance with the CAM plan in attachment 2. If during the observation visible emissions are observed, the facility will initiate corrective action in accordance with the site-specific start-up, shutdown, and malfunction plan.

E12. Emission Source

53-0081-16	Source Identification:	Wetmill/Feedhouse Area Super Heated Steam Fiber Dryer
	Stack(s):	PES #12 (combustion emissions only)
	Control Equipment:	Low NOx Burner

Conditions E12-1 through E12-3 apply to source 53-0081-16.

E12-1. The maximum input capacity for the SSD Fiber Dryer (PES#12) shall not exceed the amount as given in the approved confidential applications dated September 30, 2005, and November 27, 2006.

Permit 960547P, Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: Compliance with this throughput limitation shall be demonstrated by maintaining compliance with condition E4-1.

E12-2. The fuel heat input rate for the SSD Fiber Dryer shall not exceed 75,000,000 Btu per hour based on a daily average.

Natural gas or biogas shall be used as fuel for this source.

Permit 960547P, Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: A log of monthly natural gas and biogas usage and daily average of heat input rate must be maintained at the source location and kept available for inspection by the Technical Secretary or an authorized representative. Compliance with this capacity shall be demonstrated by recordkeeping data which indicate compliance with this limitation. This log must be retained for a period of not less than five (5) years.

E12-3. Emissions from the SSD Fiber Dyer shall not exceed the following amounts:

Pollutant	PES #12
Particulate Matter (TSP)	0.56 lb/hr, 2.4 ton/yr
Sulfur Dioxide (SO2)	0.04 lb/hr, 0.2 ton/yr
Carbon Monoxide (CO)	6.18 lb/hr, 27.1 ton/yr
Nitrogen Oxides (NOx)	4.5 lb/hr, 19.7 ton/yr
Volatile Organic Compounds (VOC)	0.4 lb/hr, 1.8 ton/yr

Tenn. Comp. R. & Regs. 1200-03-07-.01(5) of the Tennessee Air Pollution Control Comprehensive Rules & Regulations and the information contained in applications dated September 30, 2005, and November 27, 2006, from the permittee. This limit was included in the netting analysis to show that this construction project would not be subject to NSR/PSD review.

Compliance Method: Compliance with these emission limits shall be assured by operating the dryer per the manufacturer's recommendation and not altering the dryer's rated heat capacity. The emission limits were calculated based on emission factors from Section 1.4 of *AP-42, Fifth Edition, Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources* and the rated heat capacity of the dryer.

The permittee shall annually certify that the dryer is equipped with low NOx technology.

E13. Emission Source

53-0081-17	Source Identification:	Wetmill/Feedhouse Area Gluten Meal Conveying/Loadout
	Stack(s):	PES #17
	Control Equipment:	Gluten Meal Bin Filter/Receiver L-4505 (CAM)

Conditions E13-1 through E13-3 apply to source 53-0081-17.

E13-1. The maximum input capacity for this source shall not exceed the amount as given in the approved confidential application dated October 3, 2005.

Permit 958558P, Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: Compliance with this throughput limitation shall be demonstrated by maintaining compliance with condition E4-1.

E13-2. Particulate matter from this source shall not exceed 2.57 pounds per hour based on a daily average (11.3 tons per year).

Tenn. Comp. R. & Regs. 1200-03-07-.01(5)

Compliance Method: The control device will be operated and maintained in accordance with manufacturer specifications or best management practices. Routine inspections shall be performed on all control devices. Appropriate maintenance records including inspections, and dates on which maintenance is performed shall be recorded in a suitable permanent form and kept available for inspection. These records must be retained for a period of not less than five (5) years.

Compliance with this requirement shall be assured by performing daily observations for the presence of visible emissions in accordance with the CAM plan in attachment 2. If during the observation visible emissions are observed, the facility will initiate corrective action in accordance with the site-specific start-up, shutdown, and malfunction plan.

E13-3. Visible emissions from the baghouse and from the feed loadout building shall not exceed zero (0) percent opacity as determined by EPA Method 9 in the current 40 CFR 60, Appendix A. (6 minute average)

Tenn. Comp. R. & Regs. 1200-03-05-.03(6)

Compliance Method: Compliance with this opacity limitation shall be certified through utilization of the Division's Opacity Matrix dated June 18, 1996, amended September 11, 2013, using EPA Method 9 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring.

E14. Emission Source

53-0081-62	Source Identification:	Wetmill/Feedhouse Area
		Loading Barge Facility (Corn byproducts loading at barge facility.)
	Stack(s):	PES #62A
	Control Equipment:	Baghouse L-4750 (CAM)

Conditions E14-1 through E14-3 apply to source 53-0081-62.

E14-1. The maximum input capacity for this source shall not exceed the amount as given in the confidential application dated November 27, 2007.

Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: A log of the process material input rate in a form that demonstrates compliance with this condition by recordkeeping data must be maintained at the source location and made available for inspection by the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five (5) years.

E14-2. Particulate matter from this source shall not exceed 0.64 pounds per hour based on a daily average. (2.8 tons per year)

Tenn. Comp. R. & Regs. 1200-03-07-.01(5)

Compliance Method: The control device will be operated and maintained in accordance with manufacturer specifications or best management practices. Routine inspections shall be performed on all control devices. Appropriate maintenance records including inspections, and dates on which maintenance is performed shall be recorded in a suitable permanent form and kept available for inspection. These records must be retained for a period of not less than five (5) years.

Compliance with this requirement shall be assured by performing daily observations for the presence of visible emissions in accordance with the CAM plan in attachment 2. If during the observation visible emissions are observed, the facility will initiate corrective action in accordance with the site-specific start-up, shutdown, and malfunction plan.

E14-3. Visible emissions from stacks, building openings, and fugitive sources shall not exceed 10 percent opacity as determined by EPA Method 9 in the current 40 CFR 60, Appendix A. (6 minute average)

Tenn. Comp. R. & Regs. 1200-03-05-.03(6)

Compliance Method: Compliance with this opacity limitation shall be certified through utilization of the Division's Opacity Matrix dated June 18, 1996, amended September 11, 2013, using EPA Method 9 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring.

E15. Emission Source

53-0081-62	Source Identification:	Wetmill/Feedhouse Area
		Unloading Barge Facility (Corn and corn byproducts are unloaded at the barge facility.)
	Stack(s):	PES #62B
	Control Equipment:	Baghouse L-4702 (CAM)

Conditions E15-1 through E15-3 apply to source 53-0081-62.

E15-1. The maximum input capacity for this source shall not exceed the amount as given in the confidential application dated November 27, 2007.

Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: A log of the process material input rate in a form that demonstrates compliance with this condition by recordkeeping data must be maintained at the source location and made available for inspection by the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five (5) years.

E15-2. Particulate matter from this source shall not exceed 0.37 pounds per hour based on a daily average (1.6 tons per year).

Tenn. Comp. R. & Regs. 1200-03-07-.01(5)

Compliance Method: The control device will be operated and maintained in accordance with manufacturer specifications or best management practices. Routine inspections shall be performed on all control devices. Appropriate maintenance records including inspections, and dates on which maintenance is performed shall be recorded in a suitable permanent form and kept available for inspection. These records must be retained for a period of not less than five (5) years.

Compliance with this requirement shall be assured by performing daily observations for the presence of visible emissions in accordance with the CAM plan in attachment 2. If during the observation visible emissions are observed, the facility will initiate corrective action in accordance with the site-specific start-up, shutdown, and malfunction plan.

E15-3. Visible emissions from stacks, building openings, and fugitive sources shall not exceed 10 percent opacity as determined by EPA Method 9 in the current 40 CFR 60, Appendix A. (6 minute average)

Tenn. Comp. R. & Regs. 1200-03-05-.03(6)

Compliance Method: Compliance with this opacity limitation shall be certified through utilization of the Division's Opacity Matrix dated June 18, 1996, amended September 11, 2013, using EPA Method 9 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring.

E16. Emission Source

53-0081-64	Source Identification:	Wetmill/Feedhouse Area Germ Dewatering
	Stack(s):	PES #64
	Control Equipment:	Screens S-4110 and S-4101

Conditions E16-1 through E16-4 apply to source 53-0081-64.

E16-1. The maximum input capacity for this source shall not exceed the amount as given in the approved confidential application dated October 3, 2005.

Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: A log of the process material input rate in a form that demonstrates compliance with this condition by recordkeeping data must be maintained at the source location and made available for inspection by the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five (5) years.

E16-2. Particulate matter emitted from the germ dewatering stack (PES #64) shall not exceed 0.02 grains per dry standard cubic foot of exhaust gas (1.0 ton per year).

Tenn. Comp. R. & Regs. 1200-03-07-.01(5), agreement letter dated August 18, 2011

Compliance Method: The control device will be operated and maintained in accordance with manufacturer specifications or best management practices. Routine inspections shall be performed on all control devices. Appropriate maintenance records including inspections, and dates on which maintenance is performed shall be recorded in a suitable permanent form and kept available for inspection. These records must be retained for a period of not less than five (5) years.

E16-3. Sulfur dioxide emitted from this source shall not exceed 3.5 tons per year.

Tenn. Comp. R. & Regs. 1200-03-09, Construction Permit 958558P

Compliance Method: The potential to emit sulfur dioxide from this source is less than five tons per year. In accordance with Tenn. Comp. R. & Regs. 1200-03-09-.04(5)(c)3. and by annual certification of compliance, the permittee shall be considered to meet the monitoring and related record keeping and reporting requirements of Tenn. Comp. R. & Regs. 1200-03-09-.02(11)(e)1.(iii), and the compliance requirements of Tenn. Comp. R. & Regs. 1200-03-09-.02(11)(e)3.(i). The permittee shall submit annually a compliance certification for sulfur dioxide from this source.

E16-4. Volatile organic compound emissions from this source shall not exceed 0.7 tons/year.

Tenn. Comp. R. & Regs. 1200-03-09, Construction Permit 958558P

Compliance Method: The potential to emit volatile organic this source is less than five tons per year. In accordance with Tenn. Comp. R. & Regs. 1200-03-09-.04(5)(c)3. and by annual certification of compliance, the permittee shall be considered to meet the monitoring and related record keeping and reporting requirements of Tenn. Comp. R. & Regs. 1200-03-09-.02(11)(e)1.(iii), and the compliance requirements of Tenn. Comp. R. & Regs. 1200-03-09-.02(11)(e)3.(i). The permittee shall submit annually a compliance certification for volatile organic compounds from this source.

E17. Emission Source

53-0081-68	Source Identification:	Wetmill/Feedhouse Area Germ Conveyor, Storage & Loadout Bin
	Stack(s):	PES #68
	Control Equipment:	Bin Vent L-4520

Conditions E17-1 through E17-3 apply to source 53-0081-68.

E17-1. The maximum materials (dry germ) processing rate shall not exceed 29.6 tons per hour, based on a 24 hour average.

Tenn. Comp. R. & Regs. 1200-03-09, Construction Permit 949951P

Compliance Method: Compliance with this throughput limitation shall be demonstrated by maintaining compliance with condition E4-1.

E17-2. Particulate matter emitted from this source shall not exceed 0.02 grains per dry standard cubic foot (0.34 pounds per hour, 1.5 tons per year).

Tenn. Comp. R. & Regs. 1200-03-07-.01(5), agreement letter dated August 6, 1998

Compliance Method: The control device will be operated and maintained in accordance with manufacturer specifications or best management practices. Routine inspections shall be performed on all control devices. Appropriate maintenance records including inspections, and dates on which maintenance is performed shall be recorded in a suitable permanent form and kept available for inspection.

Compliance with this requirement shall be assured by performing daily observations for the presence of visible emissions. If during the observation visible emissions are observed, the facility will initiate corrective action in accordance with the site-specific start-up, shutdown, and malfunction plan.

A record of the daily visible emission observations shall be maintained at the facility and made available for inspection by the Tennessee Division of Air Pollution Control personnel. This record shall be used to assure compliance with this condition and the reporting requirements of Condition E2 of this permit. Copies of the records must be retained for a period of not less than five years. Reports and certifications shall be submitted in accordance with condition E2 of this permit.

E17-3. Visible emissions from stacks, building openings, and fugitive sources shall not exceed 10 percent opacity as determined by EPA Method 9 in the current 40 CFR 60, Appendix A. (6 minute average)

Tenn. Comp. R. & Regs. 1200-03-05-.03(6)

Compliance Method: Compliance with this opacity limitation shall be certified through utilization of the Division's Opacity Matrix dated June 18, 1996, amended September 11, 2013, using EPA Method 9 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring.

E17a. Emission Source

53-0081-09	Source Identification:	Wetmill / Feedhouse Area Gluten Filters/Pumps #7 & #8 Aspiration
	Stack(s):	PES #14
	Control Equipment:	Wet Scrubber

Conditions E17a-1 and E17a-2 apply to source 53-0081-09.

E17a-1. The maximum input capacity for the Gluten Filters/Pumps #7 & #8 (PES #14) shall not exceed the amount as given in the approved confidential applications dated November 8, 2008.

Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: A log of the process material input rate in a form that demonstrates compliance with this condition by recordkeeping data must be maintained at the source location and made available for inspection by the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five (5) years.

E17a-2. Emissions from the Gluten Filters/Pumps #7 & #8 (PES #14) shall not exceed the following amounts:

Pollutant	**PES #14**
Particulate Matter (TSP)	0.005 grains per dry standard cubic feet of stack gases (1.9 tons per year)
Sulfur Dioxide (SO2)	4.5 tons per year
Volatile Organic Compounds (VOC)	7.3 tons per year

These emission limitations were established pursuant to Rules 1200-03-07-.01(5) and 1200-03-14-.01(3) of the Tennessee Air Pollution Control Comprehensive Rules and Regulations and the information contained in application dated November 8, 2008, and the agreement letter dated December 1, 2008, from the permittee. These limits were included in the netting analysis to show that this construction project would not be subject to NSR/PSD review.

Compliance Method: Compliance with PM, SO2 and VOC emissions shall be assured by maintaining the following parametric monitoring values:

Manufacturing Process Parameters			
Description and PES #	Minimum Flow Rate of Scrubber Liquid (gallons per minute)	Average daily current to scrubber pump (amperes)	Minimum pH of scrubber liquid
Gluten Filters/Pumps #7 & #8 (PES #14)	150	N/A	6.5

The permittee shall assure compliance by maintaining the minimum scrubber liquid flow rate listed above. A daily record of the flow rate shall be maintained. Records shall be retained for a period of not less than five (5) years.

The pH level of the scrubber liquid shall be monitored and recorded once daily. This record shall be retained for a period of not less than five (5) years.

E18. Emission Source

53-0081-23	Source Identification:	Refinery Area Carbon Furnace
	Stack(s):	PES #23
	Control Equipment:	Carbon Furnace Scrubber System (venturi scrubber and impingement scrubber) (CAM) Zero Hearth Afterburner

Conditions E18-1 through E18-7 apply to source 53-0081-23.

E18-1. The maximum input capacity of the carbon regeneration furnace shall not exceed the amount as given in the approved confidential application dated December 7, 1999.

Tenn. Comp. R. & Regs. 1200-03-09, Construction Permit 952667P

Compliance Method: A log of the process material input rate in a form that demonstrates compliance with this condition by recordkeeping data must be maintained at the source location and made available for inspection by the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five (5) years.

E18-2. The maximum design heat input capacity for the furnace is 14,500,000 BTU per hour, on a daily average.

Tenn. Comp. R. & Regs. 1200-03-09, Construction Permit 952667P

Compliance Method: A log of daily material usage (spent carbon cake) and records of monthly fuel usage and operating hours must be maintained at the source location and kept available for inspection by the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five (5) years.

E18-3. Particulate matter emitted from this source shall not exceed 0.025 grains per dry standard cubic foot (1.0 pounds per hour, 4.4 tons per year).

This emission limitation is established pursuant to Rule 1200-03-26-.02(6)(b) and 1200-03-07-.01(5) of the Tennessee Air Pollution Control Comprehensive Rules & Regulations and the information contained in the agreement letter dated April 6, 2000. The permittee has requested this limit in order to reduce annual emission fees.

Compliance Method: Compliance with the particulate matter emission limitation shall be assured by maintaining a wet scrubber liquid flow rate of 372 gallons per minute daily average through the impingement scrubber and 76 gallons per minute daily average through the venturi scrubber as identified in the CAM plan in attachment 2 and by conducting a daily visible inspection of the scrubbers by operating personnel. Records of the flow rates and visual inspections must be retained for a period of not less than five (5) years.

In addition to the noted assurances, routine maintenance, as required to maintain specified emission limits, shall be performed on the air pollution control device(s). Maintenance records shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five (5) years.

The flow meters must be operational 95% of the operational time of the source.

E18-4. Sulfur dioxide emitted from this source shall not exceed 5.0 lb/hr based on a daily average (21.9 tons per year).

Tenn. Comp. R. & Regs. 1200-03-14-.03(5), Construction Permit 952667P

Compliance Method: Compliance with condition E18-3 shall be deemed compliance with this condition.

E18-5. Nitrogen dioxide emitted from this source shall not exceed 3.0 lb/hr (13.1 tons per year).

Tenn. Comp. R. & Regs. 1200-03-07-.07(2), Construction Permit 952667P

Compliance Method: Compliance with this emission limitation is based on calculations using EPA, AP-42 emission factor for natural gas (100 pounds per million cubic feet natural gas, enclosed as attachment 4 of this permit) and maintaining a log of monthly fuel usage that must be maintained at the source location and kept available for inspection by

the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five (5) years.

E18-6. Carbon monoxide emitted from this source shall not exceed 5.0 lb/hr based on a daily average (21.9 tons per year).

Tenn. Comp. R. & Regs. 1200-03-07-.07(2), Construction Permit 952667P

Compliance Method: Compliance with this emission limitation is assured by complying with the CAM plan in attachment 2. The combustion temperature of the afterburner must be maintained at 1400^{o}F based on a 24 hour average. Records of the combustion chamber temperature must be retained for a period of not less than five (5) years.

The combustion chamber temperature system must be operational 95% of the operational time of the source.

E18-7. Volatile Organic Compounds (VOC) emitted from this source shall not exceed 5.0 lb/hr (21.9 tons per year).

Tenn. Comp. R. & Regs. 1200-03-07-.07(2), Construction Permit 952667P

Compliance Method: Compliance with this emission limitation is assured by complying with the CAM plan in attachment 2. The combustion temperature of the afterburner must be maintained at 1400^{o}F based on a 24 hour average. Records of the combustion chamber temperature must be retained for a period of not less than five (5) years.

The combustion chamber temperature system must be operational 95% of the operational time of the source.

E19. Emission Source

53-0081-24	Source Identification:	Refinery Area Soda Ash Unloading
	Stack(s):	PES #24
	Control Equipment:	Mist Eliminator K-6007 (CAM)

Conditions E19-1 through E19-2 apply to source 53-0081-24.

E19-1. Capacity shall not exceed 20 tons per hour and 36,500 tons per year.

Tenn. Comp. R. & Regs. 1200-03-09, Operating Permit 019882P

Compliance Method: A log of the process material input rate in a form that demonstrates compliance with this condition by recordkeeping data must be maintained at the source location and made available for inspection by the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five (5) years.

E19-2. Particulate matter emitted from this source shall not exceed 0.51 pounds per hour based on a daily average (2.3 tons per year).

Tenn. Comp. R. & Regs. 1200-03-09-.01(4), Operating Permit 019882P

Compliance Method: Compliance with the particulate matter emission limitation shall be assured by complying with the CAM plan in attachment 2.

In addition to the CAM plan, routine maintenance, as required to maintain specified emission limits, shall be performed on the air pollution control device(s). Maintenance records shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five (5) years.

E20. Emission Source

53-0081-26	Source Identification:	Refinery Area Filter Aid Supply System
	Stack(s):	PES #26
	Control Equipment:	Baghouse L-6005 (CAM)

Conditions E20-1 through E20-2 apply to source 53-0081-26.

E20-1. Capacity shall not exceed 2.0 tons per hour and 2,000 tons per year.

Tenn. Comp. R. & Regs. 1200-03-09, Operating Permit 019882P

Compliance Method: A log of the process material input rate in a form that demonstrates compliance with this condition by recordkeeping data must be maintained at the source location and made available for inspection by the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five (5) years.

E20-2. Particulate matter emitted from this source shall not exceed 0.17 pounds per hour based on a daily average (0.8 tons per year).

Tenn. Comp. R. & Regs. 1200-03-09-.01(4), Operating Permit 019882P

Compliance Method: Compliance with the particulate matter emission limitation shall be assured by complying with the CAM plan in attachment 2.

In addition to the CAM plan, routine maintenance, as required to maintain specified emission limits, shall be performed on the air pollution control device(s). Maintenance records shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five (5) years.

E21. Emission Source

53-0081-27	Source Identification:	Refinery Area Filter Aid Bulk Bin
	Stack(s):	PES #27
	Control Equipment:	Bin Vent

Conditions E21-1 through E21-2 apply to source 53-0081-27.

E21-1. Particulate matter emitted from this source shall not exceed 0.01 grains per dry standard cubic foot (0.022 lb/hr, 0.1 tons per year).

Tenn. Comp. R. & Regs. 1200-03-09, Construction Permit 950219P

Compliance Method: The potential to emit particulate matter from this source is less than five tons per year. In accordance with Tenn. Comp. R. & Regs. 1200-03-09-.04(5)(c)3. and by annual certification of compliance, the permittee shall be considered to meet the monitoring and related record keeping and reporting requirements of Tenn. Comp. R. & Regs. 1200-03-09-.02(11)(e)1.(iii), and the compliance requirements of Tenn. Comp. R. & Regs. 1200-03-09-.02(11)(e)3.(i). The permittee shall submit annually a compliance certification for particulate matter from this source.

E21-2. Visible emissions from this source shall not exhibit greater than ten percent (10%) opacity, except for one (1) six-minute period in any one (1) hour period and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

Tenn. Comp. R. & Regs. 1200-3-5-.01(3), Construction Permit 950219P

Compliance Method: Compliance with this opacity limitation shall be certified through utilization of the Division's Opacity Matrix dated June 18, 1996, amended September 11, 2013, using EPA Method 9 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring.

E22. Emission Source

53-0081-53	Source Identification:	Refinery Area
		Hydrochloric Acid (HCl) Storage Tank T-6023
		HCL Dilute Head Tank T-6019
		Process flow diagrams shows that these two sources are interrelated.
	Stack(s):	PES #53A and #53B
	Control Equipment:	HCl Scrubber K-6002, PES #53A
		HCl Scrubber K-6009, PES #53B

Conditions E22-1 through E22-2 apply to source 53-0081-53.

E22-1. Capacity shall not exceed 9,000 gallons per hour based on a daily average.

Tenn. Comp. R. & Regs. 1200-03-09, Operating Permit 019898P

Compliance Method: A log of the process material input rate in a form that demonstrates compliance with this condition by recordkeeping data must be maintained at the source location and made available for inspection by the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five (5) years.

E22-2. Hydrochloric acid (HCl) emitted from this source shall not exceed 0.1 pounds per hour (0.5 tons per year) based on a daily average.

Tenn. Comp. R. & Regs. 1200-03-09-.01(4), Operating Permit 019898P

Compliance Method: The potential to emit hydrochloric acid from this source is less than five tons per year. In accordance with TAPCD 1200-03-09-.04(5)(c)3. and by annual certification of compliance, the permittee shall be considered to meet the monitoring and related record keeping and reporting requirements of Tenn. Comp. R. & Regs. 1200-03-09-.02(11)(e)1.(iii), and the compliance requirements of Tenn. Comp. R. & Regs. 1200-03-09-.02(11)(e)3.(i).

E23. Emission Source

53-0081-66	Source Identification:	Refinery Area
		Jet Foam Trap Exhaust
		Three (3) jet feed tanks and associated processes.
	Stack(s):	PES #66
	Control Equipment:	Foam Trap T-6103

Conditions E23-1 through E23-3 apply to source 53-0081-66.

E23-1. Particulate matter emitted from this source (stack PES #66) shall not exceed 0.02 grains per dry standard cubic foot of exhaust gas (2.3 pounds per hour, 10.1 tons per year).

Tenn. Comp. R. & Regs. 1200-03-07-.01(5), agreement letter dated August 18, 2011

Compliance Method: The permittee shall monitor average valve output which will be limited to less than an annualized average of a 22% open valve position at 3 psig (normal pressure). The permittee will track a 30 day running average of the valve output. The permittee will provide an annual report showing that the average % open is less than 22%.

E23-2. Volatile organic compounds emitted from this source shall not exceed 21.9 tons per year.

Tenn. Comp. R. & Regs. 1200-03-07-.07(2), application dated November 27, 2007

Compliance Method: The permittee shall monitor average valve output which will be limited to less than an annualized average of a 22% open valve position at 3 psig (normal pressure). The permittee will track a 30 day running average of the valve output. The permittee will provide an annual report showing that the average % open is less than 22%.

E23-3. Sulfur dioxide emitted from this source shall not exceed 21.9 tons per year.

Tenn. Comp. R. & Regs. 1200-03-14-.01(3), application dated November 27, 2007

Compliance Method: The permittee shall monitor average valve output which will be limited to less than an annualized average of a 22% open valve position at 3 psig (normal pressure). The permittee will track a 30 day running average of the valve output. The permittee will provide an annual report showing that the average % open is less than 22%.

E24. Emission Source

53-0081-67	Source Identification:	Refinery Area Jet Vapor Condensate Tank
	Stack(s):	PES #67
	Control Equipment:	none

Conditions E24-1 through E24-2 apply to source 53-0081-67.

E24-1. Volatile Organic Compound emissions at the Jet Vapor Condensate Tank are not subject to regulation under the provisions of Tennessee Air Pollution Control Comprehensive Rules & Regulations, 1200-03. In accordance with Tenn. Comp. R. & Regs. 1200-03-26-.02(2)(d)3. and for fee purposes only Volatile Organic Compound emissions are 64.9 tons per year.

E24-2. Sulfur Dioxide emissions at the Jet Vapor Condensate Tank are below the significance threshold specified in Tennessee Air Pollution Control Regulation 1200-03-09-.04(5)(a)4.(i) and therefore not regulated under the provisions of Tennessee Air Pollution Control Comprehensive Rules & Regulations, 1200-03. In accordance with Tenn. Comp. R. & Regs. 1200-03-26-.02(2)(d)3. and for fee purposes only Sulfur Dioxide emissions are 2.6 tons per year.

E25. Emission Source

53-0081-90	Source Identification:	Refinery Area
		Railcar Storage Silo L-8005, PES #90A
		Starch Spray Dryer D8210, PES #90B (Dryer rated at 47.5 MMBtu/hr)
		Product Storage Blend Bin L-8203, PES #90C
		Product Storage Blend Bin L-8204, PES #90D
		Unloading Receiver Bin L-8001, PES #90H
		Bag Dump, PES #90I
	Stack(s):	Spray Dryer Stack (SDS) Y-8201
		SDS is the discharge stack for the sources noted above.
	Control Equipment:	Bin Vent L-8005, PES #90A
		Baghouses L-8210, L-8220, L-8230, L-8240, L-8250, and L-8260, PES #90B (CAM)
		Filter Receiver L-8201, PES #90C
		Filter Receiver L-8202, PES #90D
		Bin Vent LL-8001, PES #90H
		No Control Bag Dump, PES #90I

Conditions E25-1 through E25-5 apply to source 53-0081-90.

E25-1. The maximum throughput for the sources identified above shall not exceed 75,000 pounds per hour (based on a daily average).

Tenn. Comp. R. & Regs. 1200-03-09, Construction Permit 947624P

Compliance Method: A log of the process material input rates (starch/maltodextrin) for the spray dryer (90B) shall be maintained in a form that readily demonstrates compliance with this limitation by recordkeeping data. The log must be maintained at the source location and made available for inspection by the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five (5) years.

E25-2. The maximum heat input rate to the natural gas burning spray dryer shall not exceed 47.5 MM BTU per hour based on a daily average.

Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: Compliance is based upon the manufacturer's rated capacity. Proof of compliance with the maximum rated capacity may be requested by the Technical Secretary to verify this value.

E25-3. Particulate matter (PM10) emitted from this source shall not exceed the following:

Source	Particulate Concentration (Grains per Dry Standard Cubic Foot)
90A – Rail Car Receiving	0.01
90B – Starch Spray Dryer	0.005
90C & 90D – Two Starch Product Bins	0.01
90H – Unloading Receiver Bin	0.01
90I – Bag Dump	0.01

Regardless of the above-specified emission limits, the total amount of particulate matter emitted from this source shall not exceed 5.36 pounds per hour based on a daily average.

Tenn. Comp. R. & Regs. 1200-03-09-.01(4), Construction Permit 947624P

Compliance Method: The control device will be operated and maintained in accordance with manufacturer specifications or best management practices. Routine inspections shall be performed on all control devices. Appropriate maintenance records including inspections, and dates on which maintenance is performed shall be recorded in a suitable permanent form and kept available for inspection.

Compliance with this requirement shall be assured by performing daily observations for the presence of visible emissions. If during the observation visible emissions are observed, the spray dryer baghouse (PES #90B) will be checked first for the source of visible emissions. If the spray dryer baghouse is not the source, then the remaining sources bin vents and filter receivers will be checked until the source of visible emissions has been identified and corrected in accordance with the site-specific start-up, shutdown, and malfunction plan.

The particulate matter emissions from the spray dryer (PES #90B) are subject to the CAM plan as identified in appendix 2.

A record of the daily visible emission observations shall be maintained at the facility and made available for inspection by the Tennessee Division of Air Pollution Control personnel. This record shall be used to assure compliance with this condition and the reporting requirements of condition E2 of this permit. Copies of the records must be retained for a period of not less than five years. Reports and certifications shall be submitted in accordance with condition E2 of this permit.

E25-4. All waste materials, raw materials and finished products shall be stored in appropriately enclosed containers.

Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: The permittee shall certify compliance with this requirement by annual certification.

E25-5. The following emission allowables are subject to fees:

SO2 0.03 lb/hr, 0.1 ton/yr

VOC 0.3 lb/hr, 1.1 ton/yr

NOx 4.8 lb/hr, 20.8 ton/yr

Tenn. Comp. R. & Regs. 1200-03-26

Compliance Method: Pay annual emission fees in accordance with condition E1.

E26. Emission Source

53-0081-91	Source Identification:	Refinery Area
		Tote and Bag Packer Bin Vents, PES #91A
	Stack(s):	PES #91A, 8,000 acfm
	Control Equipment:	Bin Vent L-8311
		Bin Vent L-8306

Conditions E26-1 through E26-2 apply to source 53-0081-91.

E26-1. The stated design material processing rate for this source is 40,000 pounds per hour and the truckload rate is limited to 60,000 pounds per hour based on a daily average.

Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: Compliance with this throughput limitation shall be demonstrated by maintaining compliance with condition E25-1.

E26-2. Particulate matter emitted from this source (stack PES #91A) shall not exceed 0.01 grains per dry standard cubic foot of exhaust gas (3.0 tons per year).

Tenn. Comp. R. & Regs. 1200-03-09-.01(4), Construction Permit 954083P

Compliance Method: The control device will be operated and maintained in accordance with manufacturer specifications or best management practices. Routine inspections shall be performed on all control devices. Appropriate maintenance records including inspections, and dates on which maintenance is performed shall be recorded in a suitable permanent form and kept available for inspection.

Compliance with this requirement shall be assured by performing daily observations for the presence of visible emissions. If during the observation visible emissions are observed, the facility will initiate corrective action in accordance with the site-specific start-up, shutdown, and malfunction plan.

A record of the daily visible emission observations shall be maintained at the facility and made available for inspection by the Tennessee Division of Air Pollution Control personnel. This record shall be used to assure compliance with this condition and the reporting requirements of condition E2 of this permit. Copies of the records must be retained for a period of not less than five years. Reports and certifications shall be submitted in accordance with condition E2 of this permit.

E27. Emission Source

53-0081-91	Source Identification:	Refinery Area Product Storage Bin L-8270
	Stack(s):	PES #91B, 2,600 scfm
	Control Equipment:	Bin Vent L-8271, PES #91B

Conditions E27-1 through E27-2 apply to source 53-0081-91.

E27-1. The stated design material processing rate for this source is 80,000 pounds per hour based on daily average.

Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: Compliance with this throughput limitation shall be demonstrated by maintaining compliance with condition E25-1.

E27-2. Particulate matter emitted from this source (stack PES #91B) shall not exceed 0.01 grains per dry standard cubic foot of exhaust gas (1.0 tons per year).

Tenn. Comp. R. & Regs. 1200-03-07-.01(5), agreement letter dated August 18, 2011

Compliance Method: The control device will be operated and maintained in accordance with manufacturer specifications or best management practices. Routine inspections shall be performed on all control devices. Appropriate maintenance records including inspections, and dates on which maintenance is performed shall be recorded in a suitable permanent form and kept available for inspection.

Compliance with this requirement shall be assured by performing daily observations for the presence of visible emissions. If during the observation visible emissions are observed, the facility will initiate corrective action in accordance with the site-specific start-up, shutdown, and malfunction plan.

A record of the daily visible emission observations shall be maintained at the facility and made available for inspection by the Tennessee Division of Air Pollution Control personnel. This record shall be used to assure compliance with this condition and the reporting requirements of condition E2 of this permit. Copies of the records must be retained for a period of not less than five years. Reports and certifications shall be submitted in accordance with condition E2 of this permit.

E28. Emission Source

53-0081-91	Source Identification:	Refinery Area Product Storage Bin L-8275
	Stack(s):	PES #91C, 2,600 scfm
	Control Equipment:	Bin Vent L-8276, PES #91C

Conditions E28-1 through E28-2 apply to source 53-0081-91.

E28-1. The stated design material processing rate for this source is 80,000 pounds per hour based on a daily average.

Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: Compliance with this throughput limitation shall be demonstrated by maintaining compliance with condition E25-1.

E28-2. Particulate matter emitted from this source (stack PES #91C) shall not exceed 0.01 grains per dry standard cubic foot of exhaust gas (1.0 tons per year).

Tenn. Comp. R. & Regs. 1200-03-07-.01(5), agreement letter dated August 18, 2011

Compliance Method: The control device will be operated and maintained in accordance with manufacturer specifications or best management practices. Routine inspections shall be performed on all control devices. Appropriate maintenance records including inspections, and dates on which maintenance is performed shall be recorded in a suitable permanent form and kept available for inspection.

Compliance with this requirement shall be assured by performing daily observations for the presence of visible emissions. If during the observation visible emissions are observed, the facility will initiate corrective action in accordance with the site-specific start-up, shutdown, and malfunction plan.

A record of the daily visible emission observations shall be maintained at the facility and made available for inspection by the Tennessee Division of Air Pollution Control personnel. This record shall be used to assure compliance with this condition and the reporting requirements of condition E2 of this permit. Copies of the records must be retained for a period of not less than five years. Reports and certifications shall be submitted in accordance with condition E2 of this permit.

E29. Emission Source

53-0081-91	Source Identification:	Refinery Area Product Storage Bin L-8280
	Stack(s):	PES #91D, 2,600 scfm
	Control Equipment:	Bin Vent L-8281, PES #91D

Conditions E29-1 through E29-2 apply to source 53-0081-91.

E29-1. The stated design material processing rate for this source is 80,000 pounds per hour based on a daily average.

Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: Compliance with this throughput limitation shall be demonstrated by maintaining compliance with condition E25-1.

E29-2. Particulate matter emitted from this source (stack PES #91D) shall not exceed 0.01 grains per dry standard cubic foot of exhaust gas (1.0 tons per year).

Tenn. Comp. R. & Regs. 1200-03-07-.01(5), agreement letter dated August 18, 2011

Compliance Method: The control device will be operated and maintained in accordance with manufacturer specifications or best management practices. Routine inspections shall be performed on all control devices. Appropriate maintenance records including inspections, and dates on which maintenance is performed shall be recorded in a suitable permanent form and kept available for inspection.

Compliance with this requirement shall be assured by performing daily observations for the presence of visible emissions. If during the observation visible emissions are observed, the facility will initiate corrective action in accordance with the site-specific start-up, shutdown, and malfunction plan.

A record of the daily visible emission observations shall be maintained at the facility and made available for inspection by the Tennessee Division of Air Pollution Control personnel. This record shall be used to assure compliance with this condition and the reporting requirements of condition E2 of this permit. Copies of the records must be retained for a period of not less than five years. Reports and certifications shall be submitted in accordance with condition E2 of this permit.

E30. Emission Source

53-0081-91	Source Identification:	Refinery Area Product Storage Bin L-8265
	Stack(s):	PES #91G, 2,600 scfm
	Control Equipment:	Bin Vent L-8266, PES #91G

Conditions E30-1 through E30-2 apply to source 53-0081-91.

E30-1. The stated design material processing rate for this source is 80,000 pounds per hour based on a daily average.

Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: Compliance with this throughput limitation shall be demonstrated by maintaining compliance with condition E25-1.

E30-2. Particulate matter emitted from this source (stack PES #91G) shall not exceed 0.01 grains per dry standard cubic foot of exhaust gas (1.0 tons per year).

Tenn. Comp. R. & Regs. 1200-03-07-.01(5), agreement letter dated August 18, 2011

Compliance Method: The control device will be operated and maintained in accordance with manufacturer specifications or best management practices. Routine inspections shall be performed on all control devices. Appropriate maintenance records including inspections, and dates on which maintenance is performed shall be recorded in a suitable permanent form and kept available for inspection.

Compliance with this requirement shall be assured by performing daily observations for the presence of visible emissions. If during the observation visible emissions are observed, the facility will initiate corrective action in accordance with the site-specific start-up, shutdown, and malfunction plan.

A record of the daily visible emission observations shall be maintained at the facility and made available for inspection by the Tennessee Division of Air Pollution Control personnel. This record shall be used to assure compliance with this condition and the reporting requirements of condition E2 of this permit. Copies of the records must be retained for a period of not less than five years. Reports and certifications shall be submitted in accordance with condition E2 of this permit.

E31. Emission Source

53-0081-91	Source Identification:	Refinery Area Truck Loadout Filter Receiver L-8340
	Stack(s):	PES #91E, 3,500 scfm
	Control Equipment:	Filter Receiver, PES #91E (CAM)

Conditions E31-1 through E31-2 apply to source 53-0081-91.

E31-1. The stated design material processing rate for this source is 80,000 pounds per hour based on a daily average.

Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: Compliance with this throughput limitation shall be demonstrated by maintaining compliance with condition E25-1.

E31-2. Particulate matter emitted from this source (stack PES #91E) shall not exceed 0.01 grains per dry standard cubic foot of exhaust gas (1.3 tons per year).

Tenn. Comp. R. & Regs. 1200-03-07-.01(5), agreement letter dated August 18, 2011

Compliance Method: The control device will be operated and maintained in accordance with manufacturer specifications or best management practices. Routine inspections shall be performed on all control devices. Appropriate maintenance records including inspections, and dates on which maintenance is performed shall be recorded in a suitable permanent form and kept available for inspection.

Compliance with this requirement shall be assured by performing daily observations for the presence of visible emissions in accordance with the CAM plan in appendix 2. If during the observation visible emissions are observed, the facility will initiate corrective action in accordance with the site-specific start-up, shutdown, and malfunction plan.

A record of the daily visible emission observations shall be maintained at the facility and made available for inspection by the Tennessee Division of Air Pollution Control personnel. This record shall be used to assure compliance with this condition and the reporting requirements of condition E2 of this permit. Copies of the records must be retained for a period of not less than five years. Reports and certifications shall be submitted in accordance with condition E2 of this permit.

E32. Emission Source

53-0081-91	Source Identification:	Refinery Area Bag Packer Collector L-8305
	Stack(s):	PES #91F, 16,000 scfm
	Control Equipment:	Tote and Bag Packer Collector L-8305, PES #91F Vacuum System Bin Vent L-8304, PES #91F (CAM)

Conditions E32-1 through E32-2 apply to source 53-0081-91.

E32-1. The stated design material processing rate for this source is 80,000 pounds per hour.

Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: Compliance with this throughput limitation shall be demonstrated by maintaining compliance with condition E25-1.

E32-2. Particulate matter emitted from this source (stack PES #91F) shall not exceed 0.01 grains per dry standard cubic foot of exhaust gas (6.0 tons per year).

Tenn. Comp. R. & Regs. 1200-03-07-.01(5), agreement letter dated August 18, 2011

Compliance Method: The control device will be operated and maintained in accordance with manufacturer specifications or best management practices. Routine inspections shall be performed on all control devices. Appropriate maintenance records including inspections, and dates on which maintenance is performed shall be recorded in a suitable permanent form and kept available for inspection.

Compliance with this requirement shall be assured by performing daily observations for the presence of visible emissions in accordance with the CAM plan in appendix 2. If during the observation visible emissions are observed, the facility will initiate corrective action in accordance with the site-specific start-up, shutdown, and malfunction plan.

A record of the daily visible emission observations shall be maintained at the facility and made available for inspection by the Tennessee Division of Air Pollution Control personnel. This record shall be used to assure compliance with this condition and the reporting requirements of condition E2 of this permit. Copies of the records must be retained for a period of not less than five years. Reports and certifications shall be submitted in accordance with condition E2 of this permit.

E32a. Emission Source

53-0081-91	Source Identification:	Refinery Area Tote Feed Bin Vent and Dust Collector; PES #91H
	Stack(s):	PES #91H, 5,100 acfm
	Control Equipment:	Tote Feed Bin Vent (L-8311) Feed Bin Dust Collector (Baghouse) (L-8305)

Conditions E32a-1 and E32a-2 apply to source 53-0081-91.

E32a-1. The maximum input capacity for this source shall not exceed 75,000 pounds per hour on a daily average per the permit application dated November 16, 2015.

Tenn. Comp. R. & Regs. 1200-03-09, Construction Permit 971078P

Compliance Method: Compliance with this throughput limitation shall be demonstrated by maintaining compliance with condition E25-1 for recordkeeping of the material input rate (starch/ maltodextrin) to the spray dryer (ID: 90B).`

E32a-2. Particulate matter (TSP) emitted from this source (stack PES #91H) shall not exceed a maximum of 0.01 grains per dry standard cubic foot of exhaust gas (1.9 tons per year).

Tenn. Comp. R. & Regs. 1200-03-07-.01(5), agreement letter dated November 16, 2015 (for avoidance of non-attainment new source review), Construction Permit 971078P

Compliance Method: Compliance with this emission limit shall be assured by the following:

(a) The control device shall be operated and maintained in accordance with manufacturer specifications or best management practices. Routine inspections shall be performed on all control devices. Appropriate maintenance records including inspections and dates on which maintenance is performed shall be recorded in a suitable permanent form and kept available for inspection.

(b) Daily observations for the presence of visible emissions shall be performed. If during the observation, visible emissions are observed, the facility shall initiate corrective action in accordance with the site specific start-up, shutdown, and malfunction plan. A record of daily visible emission observations shall be maintained at the facility and made available for inspection by the Tennessee Division of Air Pollution Control personnel. This record shall be used to assure compliance with this condition and the reporting requirements of condition E2 of permit 573292. Copies of records must be retained for a period of not less than five years.

E33. Emission Source

53-0081-93	Source Identification:	Refinery Area
		Corn Sweetener Process
		Dryer/Cooler D-7810 and Aspiration from Various Processes Including Product Bins and Screens
	Stack(s):	PES #93
	Control Equipment:	Wet Scrubber K-7803, PES #93 (CAM)
		Cyclone L-7810

Conditions E33-1 through E33-3 apply to source 53-0081-93.

E33-1. The maximum process weight rate (PWR) shall not exceed the following (based on a daily average):

Corn Sweetener Solid Dryer/Cooler: 91,000 pounds per hour

Corn Sweetener Product Bins: 91,000 pounds per hour.

Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: A log of the process material input rates in a form that demonstrates compliance with this condition by recordkeeping data must be maintained at the source location and made available for inspection by the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five (5) years.

E33-2. Particulate matter emitted from this source shall not exceed 1.1 pounds per hour based on a daily average (4.8 tons per year).

Tenn. Comp. R. & Regs. 1200-03-07-.01(5), Operating Permit 034395P

Compliance Method: Compliance shall be assured by maintaining a wet scrubber liquid flow of 270 gallons per minute. A minimum liquid flow of 270 gallons per minute to the scrubber shall be assured by conducting a daily visual inspection of the scrubber by operating personnel in accordance with the CAM plan in appendix 2. The purpose of the visual inspection shall be to verify normal flow of water within the scrubber. A daily record of the visual inspection of the scrubber to insure proper operation of the scrubber shall be maintained. Records shall be retained for a period of not less than five (5) years.

E33-3. Visible emissions from this source shall not exhibit greater than ten percent (10%) opacity, except for one (1) six-minute period in any one (1) hour period and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

Tenn. Comp. R. & Regs. 1200-03-05-.03(6), Operating Permit 034395P

Compliance Method: Compliance with this opacity limitation shall be certified through utilization of the Division's Opacity Matrix dated June 18, 1996, amended September 11, 2013, using EPA Method 9 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring.

E34. Emission Source

53-0081-28	Source Identification:	Alcohol Area
		CO2 Scrubbing System for Fermenters, PES #28A
		Propagators Scrubber and RTO (regenerative thermal oxidizer), PES #28B
		Application has 28A and 28B separated, they have a common scrubber bottom degasser
		NESHAP subpart FFFF
	Stack(s):	PES #28A
		PES #28B
	Control Equipment:	Foam Trap K-5696, Wet Scrubber K-5695, PES #28A (CAM)
		Scrubber K-5840, Propagators Scrubbers K-5690 & K-5693, RTO, PES #28B (CAM)

Conditions E34-1 through E34-14 apply to source 53-0081-28.

E34-1. The maximum input capacity for this source shall not exceed 360,000 gallons of alcohol per day.

Tenn. Comp. R. & Regs. 1200-03-09, Construction Permit 958558P

Compliance Method: A log of the process material input rate in a form that demonstrates compliance with this condition by recordkeeping data must be maintained at the source location and made available for inspection by the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five (5) years.

CO2 Scrubbing System for Fermenters, PES #28A

E34-2. Particulate matter (TSP) emitted from the CO2 scrubber (PES #28A) shall not exceed 0.0005 grains per dry standard cubic foot of exhaust gas (0.3 tons per year).

This emission limitation is established pursuant to Tenn. Comp. R. & Regs. 1200-03-07-.01(5) and the agreement letter dated November 4, 2008, from the permittee.

Compliance Method: Compliance with this limit shall be assured by complying with condition E34-3 and by annual certification.

E34-3. Volatile Organic Compounds (VOC) emitted from PES #28A shall not exceed 23 tons per year

Tenn. Comp. R. & Regs. 1200-03-09, Construction Permit 962319P

Compliance Method: Compliance shall be assured by maintaining a wet scrubber liquid flow of 100 gallons per minute and by conducting a daily visual inspection of the scrubber by operating personnel in accordance with the CAM plan in appendix 2. A daily record of the visual inspection of the scrubber to insure proper operation of the scrubber shall be maintained. Records shall be retained for a period of not less than five (5) years.

Propagators Scrubber and RTO (regenerative thermal oxidizer), PES #28B

E34-4. Particulate matter (TSP) emitted from the propagators scrubber (PES #28B) shall not exceed 0.005 grains per dry standard cubic foot of exhaust gas (0.8 tons per year).

This emission limitation is established pursuant to Tenn. Comp. R. & Regs. 1200-03-07-.01(5) and the agreement letter dated August 18, 2011, from the permittee.

Compliance Method: Compliance with this limit shall be assured by complying with condition E34-5 and by annual certification.

E34-5. Volatile Organic Compounds (VOC) emitted from PES #28B shall not exceed 1.9 tons per year.

Tenn. Comp. R. & Regs. 1200-03-09, Construction Permit 962319P

Compliance Method: The permittee shall assure compliance by maintaining a minimum scrubber flow rate of 19 gallons per minute for PES 28B, maintaining the average daily operating temperature of the regenerative thermal oxidizer in series with the propagators' scrubber at PES 28B at a minimum of 1400 °F and by conducting a daily visual inspection of each scrubber by operating personnel in accordance with the CAM plan in appendix 2. A daily record of the flow rates, the average daily operating temperature of the regenerative thermal oxidizer and a visual inspection of the scrubbers to insure proper operation of the scrubbers shall be maintained. Records shall be retained for a period of not less than five (5) years.

The monitoring devices must be operational 95% of the operational time of the source.

E34-6. Sulfur dioxide emitted from PES #28B shall not exceed 2.5 tons per year.

Tenn. Comp. R. & Regs. 1200-03-09, Construction Permit 962319P

Compliance Method: Compliance with this limit shall be assured by complying with condition E34-5 and by annual certification.

E34-7. The following allowable emissions are subject to fees:

NOx: 0.4 ton/yr

Tenn. Comp. R. & Regs. 1200-03-26

Compliance Method: Pay annual emission fees in accordance with condition E1.

National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing (MON)

E34-8. The application dated October 25, 2017, indicates that this source (53-0081-28) is subject to 40 CFR 63 subpart FFFF (National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing). The applicability of this rule to the processes associated with this source follows:

Process ID	Applicability of rule 40 CFR 63 subpart FFFF
PES 28A	Exempt from rule
PES 28B	Applicable per rule

Compliance Method: The permittee shall comply with conditions E34-9 through E39-14 and E2(c) for this source.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR 63.2435

E34-9.(AA2) (a) You must be in compliance with the emission limits and work practice standards to this subpart FFFF at all times, except during periods of startup, shutdown, and malfunction (SSM), and you must meet the requirements specified in 40 CFR §§63.2455 through 63.2490 (or the alternative means of compliance in 40 CFR §63.2495, §63.2500, or §63.2505), except as specified in (b) through (s) of this condition. You must meet the notification, reporting, and recordkeeping requirements specified in 40 CFR §§63.2515, 63.2520, and 63.2525.

(b) *Determine halogenated vent streams.* You must determine if an emission stream is a halogenated vent stream, as defined in 40 CFR §63.2550, by calculating the mass emission rate of halogen atoms in accordance with 40 CFR §63.115(d)(2)(v). Alternatively, you may elect to designate the emission stream as halogenated.

(c) *Requirements for combined emission streams.* When organic HAP emissions from different emission types (*e.g.*, continuous process vents, batch process vents, storage tanks, transfer operations, and waste management units) are combined, you must comply with the requirements of either (c)(1) or (2) of this condition.

(1) Comply with the applicable requirements of this subpart FFFF for each kind of organic HAP emissions in the stream (*e.g.*, the requirements of table 1 to this subpart for continuous process vents and the requirements of table 4 to this subpart for emissions from storage tanks).

(2) Determine the applicable requirements based on the hierarchy presented in (c)(2)(i) through (vi) of this condition. For a combined stream, the applicable requirements are specified in the highest-listed paragraph in the hierarchy that applies to any of the individual streams that make up the combined stream. For example, if a combined stream consists of emissions from Group 1 batch process vents and any other type

of emission stream, then you must comply with the requirements in (c)(2)(i) of this condition for the combined stream; compliance with the requirements in (c)(2)(i) of this condition constitutes compliance for the other emission streams in the combined stream. Two exceptions are that you must comply with the requirements in table 3 to this subpart and 40 CFR §63.2465 for all process vents with hydrogen halide and halogen HAP emissions, and recordkeeping requirements for Group 2 applicability or compliance are still required (*e.g.,* the requirement in 40 CFR §63.2525(f) to track the number of batches produced and calculate rolling annual emissions for processes with Group 2 batch process vents).

(i) The requirements of table 2 to this subpart and 40 CFR §63.2460 for Group 1 batch process vents, including applicable monitoring, recordkeeping, and reporting.

(ii) The requirements of table 1 to this subpart and 40 CFR §63.2455 for continuous process vents that are routed to a control device, as defined in 40 CFR §63.981, including applicable monitoring, recordkeeping, and reporting.

(iii) The requirements of table 5 to this subpart and 40 CFR §63.2475 for transfer operations, including applicable monitoring, recordkeeping, and reporting.

(iv) The requirements of table 7 to this subpart and 40 CFR §63.2485 for emissions from waste management units that are used to manage and treat Group 1 wastewater streams and residuals from Group 1 wastewater streams, including applicable monitoring, recordkeeping, and reporting.

(v) The requirements of table 4 to this subpart and 40 CFR §63.2470 for control of emissions from storage tanks, including applicable monitoring, recordkeeping, and reporting.

(vi) The requirements of table 1 to this subpart and 40 CFR §63.2455 for continuous process vents after a recovery device including applicable monitoring, recordkeeping, and reporting.

(d) [Reserved]

(e) *Requirements for control devices.* (1) Except when complying with 40 CFR §63.2485, if you reduce organic HAP emissions by venting emissions through a closed-vent system to any combination of control devices (except a flare) or recovery devices, you must meet the requirements of 40 CFR §63.982(c) and the requirements referenced therein.

(2) Except when complying with 40 CFR §63.2485, if you reduce organic HAP emissions by venting emissions through a closed-vent system to a flare, you must meet the requirements of 40 CFR §63.982(b) and the requirements referenced therein.

(3) If you use a halogen reduction device to reduce hydrogen halide and halogen HAP emissions from halogenated vent streams, you must meet the requirements of 40 CFR §63.994 and the requirements referenced therein. If you use a halogen reduction device before a combustion device, you must determine the halogen atom emission rate prior to the combustion device according to the procedures in 40 CFR §63.115(d)(2)(v).

(f) [Reserved]

(g) *Requirements for performance tests.* The requirements specified in (g)(1) through (5) of this condition apply instead of or in addition to the requirements specified in subpart SS of this part 63.

(1) Conduct gas molecular weight analysis using Method 3, 3A, or 3B in appendix A to part 60 of this chapter.

(2) Measure moisture content of the stack gas using Method 4 in appendix A to part 60 of this chapter.

(3) If the uncontrolled or inlet gas stream to the control device contains carbon disulfide, you must conduct emissions testing according to (g)(3)(i) or (ii) of this condition.

(i) If you elect to comply with the percent reduction emission limits in tables 1 through 7 to this subpart FFFF, and carbon disulfide is the principal organic HAP component (*i.e.*, greater than 50 percent of the HAP in the stream by volume), then you must use Method 18, or Method 15 (40 CFR part 60, appendix A) to measure carbon disulfide at the inlet and outlet of the control device. Use the percent reduction in carbon disulfide as a surrogate for the percent reduction in total organic HAP emissions.

(ii) If you elect to comply with the outlet total organic compound (TOC) concentration emission limits in tables 1 through 7 to this subpart, and the uncontrolled or inlet gas stream to the control device contains greater than 10 percent (volume concentration) carbon disulfide, you must use Method 18 or Method 15 to separately determine the carbon disulfide concentration. Calculate the total HAP or TOC emissions by totaling the carbon disulfide emissions measured using Method 18 or 15 and the other HAP emissions measured using Method 18 or 25A.

(4) As an alternative to using Method 18, Method 25/25A, or Method 26/26A of 40 CFR part 60, appendix A, to comply with any of the emission limits specified in tables 1 through 7 to this subpart, you may use Method 320 of 40 CFR part 60, appendix A. When using Method 320, you must follow the analyte spiking procedures of section 13 of Method 320, unless you demonstrate that the complete spiking procedure has been conducted at a similar source.

(5) Section 63.997(c)(1) of 40 CFR does not apply. For the purposes of this subpart FFFF, results of all initial compliance demonstrations must be included in the notification of compliance status report, which is due 150 days after the compliance date, as specified in 40 CFR §63.2520(d)(1).

Primary Products Ingredients Americas LLC completed the required performance tests on September 18, 2008, and submitted its Notification of Compliance Status Report on October 7, 2008, which included the performance testing results to the Division of Air Pollution Control. No other performance testing is required.

(h) [Reserved]

(i) *Outlet concentration correction for combustion devices.* When 40 CFR §63.997(e)(2)(iii)(C) requires you to correct the measured concentration at the outlet of a combustion device to 3 percent oxygen if you add supplemental combustion air, the requirements in either (i)(1) or (2) of this condition apply for the purposes of this subpart FFFF.

(1) You must correct the concentration in the gas stream at the outlet of the combustion device to 3 percent oxygen if you add supplemental gases, as defined in 40 CFR §63.2550, to the vent stream, or;

(2) You must correct the measured concentration for supplemental gases using Equation 1 of 40 CFR §63.2460; you may use process knowledge and representative operating data to determine the fraction of the total flow due to supplemental gas.

(j) *Continuous emissions monitoring systems.* Each continuous emissions monitoring system (CEMS) must be installed, operated, and maintained according to the requirements in 40 CFR §63.8 and (j)(1) through (5) of this condition.

(1) Each CEMS must be installed, operated, and maintained according to the applicable Performance Specification of 40 CFR part 60, appendix B, and according to (j)(2) of this condition, except as specified in (j)(1)(i) of this condition. For any CEMS meeting Performance Specification 8, you must also comply with appendix F, procedure 1 of 40 CFR part 60.

(i) If you wish to use a CEMS other than an Fourier Transform Infrared Spectroscopy (FTIR) meeting the requirements of Performance Specification 15 to measure hydrogen halide and halogen HAP before EPA

promulgates a Performance Specification for such CEMS, you must prepare a monitoring plan and submit it for approval in accordance with the procedures specified in 40 CFR §63.8.

(ii) [Reserved]

(2) You must determine the calibration gases and reporting units for TOC CEMS in accordance with (j)(2)(i), (ii), or (iii) of this condition.

(i) For CEMS meeting Performance Specification 9 or 15 requirements, determine the target analyte(s) for calibration using either process knowledge of the control device inlet stream or the screening procedures of Method 18 on the control device inlet stream.

(ii) For CEMS meeting Performance Specification 8 used to monitor performance of a combustion device, calibrate the instrument on the predominant organic HAP and report the results as carbon (C1), and use Method 25A or any approved alternative as the reference method for the relative accuracy tests.

(iii) For CEMS meeting Performance Specification 8 used to monitor performance of a noncombustion device, determine the predominant organic HAP using either process knowledge or the screening procedures of Method 18 on the control device inlet stream, calibrate the monitor on the predominant organic HAP, and report the results as C_1. Use Method 18, ASTM D6420-99, or any approved alternative as the reference method for the relative accuracy tests, and report the results as C_1.

(3) You must conduct a performance evaluation of each CEMS according to the requirements in 40 CFR 63.8 and according to the applicable Performance Specification of 40 CFR part 60, appendix B, except that the schedule in 40 CFR §63.8(e)(4) does not apply, and the results of the performance evaluation must be included in the notification of compliance status report.

(4) The CEMS data must be reduced to operating day or operating block averages computed using valid data consistent with the data availability requirements specified in 40 CFR §63.999(c)(6)(i)(B) through (D), except monitoring data also are sufficient to constitute a valid hour of data if measured values are available for at least two of the 15-minute periods during an hour when calibration, quality assurance, or maintenance activities are being performed. An operating block is a period of time from the beginning to end of batch operations within a process. Operating block averages may be used only for batch process vent data.

(5) If you add supplemental gases, you must correct the measured concentrations in accordance with (i) of this condition and 40 CFR §63.2460(c)(6).

(k) *Continuous parameter monitoring.* The provisions in (k)(1) through (6) of this condition apply in addition to the requirements for continuous parameter monitoring system (CPMS) in subpart SS of this part 63.

(1) You must record the results of each calibration check and all maintenance performed on the CPMS as specified in 40 CFR §63.998(c)(1)(ii)(A).

(2) When subpart SS of this part 63 of 40 CFR uses the term “a range” or “operating range” of a monitored parameter, it means an “operating limit” for a monitored parameter for the purposes of this subpart.

(3) [Reserved]

(4) [Reserved]

(5) [Reserved]

(6) For a control device with total inlet HAP emissions less than 1 tpy, you must establish an operating limit(s) for a parameter(s) that you will measure and record at least once per averaging period (i.e., daily or block) to verify that the control device is operating properly. You may elect to measure the same parameter(s) that is required for control devices that control inlet HAP emissions equal to or greater than 1 tpy. If the parameter

will not be measured continuously, you must request approval of your proposed procedure in the precompliance report. You must identify the operating limit(s) and the measurement frequency, and you must provide rationale to support how these measurements demonstrate the control device is operating properly.

(l) *Startup, shutdown, and malfunction.* Sections 63.152(f)(7)(ii) through (iv) and 63.998(b)(2)(iii) and (b)(6)(i)(A) of 40 CFR, which apply to the exclusion of monitoring data collected during periods of SSM from daily averages, do not apply for the purposes of this subpart FFFF.

(m) *Reporting.* (1) When 40 CFR §§63.2455 through 63.2490 reference other subparts in this part 63 that use the term "periodic report," it means "compliance report" for the purposes of this subpart. The compliance report must include the information specified in 40 CFR §63.2520(e), as well as the information specified in referenced subparts.

(2) When there are conflicts between this subpart and referenced subparts for the due dates of reports required by this subpart, reports must be submitted according to the due dates presented in this subpart FFFF.

(3) Excused excursions, as defined in subparts G and SS of this part 63, are not allowed.

(n) [Reserved]

(o) You may not use a flare to control halogenated vent streams or hydrogen halide and halogen HAP emissions.

(p) Opening a safety device, as defined in 40 CFR §63.2550, is allowed at any time conditions require it to avoid unsafe conditions.

(q) If an emission stream contains energetics or organic peroxides that, for safety reasons, cannot meet an applicable emission limit specified in Tables 1 through 7 to this subpart, then you must submit documentation in your precompliance report explaining why an undue safety hazard would be created if the air emission controls were installed, and you must describe the procedures that you will implement to minimize HAP emissions from these vent streams.

(r) *Surge control vessels and bottoms receivers.* For each surge control vessel or bottoms receiver that meets the capacity and vapor pressure thresholds for a Group 1 storage tank, you must meet emission limits and work practice standards specified in Table 4 to this subpart FFFF.

(s) For the purposes of determining Group status for continuous process vents, batch process vents, and storage tanks in 40 CFR §§63.2455, 63.2460, and 63.2470, hydrazine is to be considered an organic HAP.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §63.2450

E34-10. You must keep the records specified in (a) through (k) of this condition.

(a) Each applicable record required by subpart A of 40 CFR part 63 and in referenced subparts F, G, SS, UU, WW, and GGG of 40 CFR part 63 and in referenced subpart F of 40 CFR part 65.

(b) Records of each operating scenario as specified in (b)(1) through (8) of this condition.

(1) A description of the process and the type of process equipment used.

(2) An identification of related process vents, including their associated emissions episodes if not complying with the alternative standard in 40 CFR §63.2505; wastewater point of determination (POD); storage tanks; and transfer racks.

(3) The applicable control requirements of this subpart, including the level of required control, and for vents, the level of control for each vent.

(4) The control device or treatment process used, as applicable, including a description of operating and/or testing conditions for any associated control device.

(5) The process vents, wastewater POD, transfer racks, and storage tanks (including those from other processes) that are simultaneously routed to the control device or treatment process(s).

(6) The applicable monitoring requirements of this subpart and any parametric level that assures compliance for all emissions routed to the control device or treatment process.

(7) Calculations and engineering analyses required to demonstrate compliance.

(8) For reporting purposes, a change to any of these elements not previously reported, except for (b)(5) of this condition, constitutes a new operating scenario.

(c) A schedule or log of operating scenarios for processes with batch vents from batch operations updated each time a different operating scenario is put into effect.

(d) The information specified in (d)(1) and (2) of this condition for Group 1 batch process vents in compliance with a percent reduction emission limit in Table 2 to this subpart if some of the vents are controlled to less the percent reduction requirement.

(1) Records of whether each batch operated was considered a standard batch.

(2) The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.

(e) The information specified in (e)(2), (3), or (4) of this condition, as applicable, for each process with Group 2 batch process vents or uncontrolled hydrogen halide and halogen HAP emissions from the sum of all batch and continuous process vents less than 1,000 lb/yr. No records are required for situations described in (e)(1) of this condition.

(1) No records are required if you documented in your notification of compliance status report that the MCPU meets any of the situations described in (e)(1)(i), (ii), or (iii) of this condition.

(i) The MCPU does not process, use, or generate HAP.

(ii) You control the Group 2 batch process vents using a flare that meets the requirements of 40 CFR §63.987.

(iii) You control the Group 2 batch process vents using a control device for which your determination of worst case for initial compliance includes the contribution of all Group 2 batch process vents.

(2) If you documented in your notification of compliance status report that an MCPU has Group 2 batch process vents because the non-reactive organic HAP is the only HAP and usage is less than 10,000 lb/yr, as specified in 40 CFR §63.2460(b)(7), you must keep records of the amount of HAP material used, and calculate the daily rolling annual sum of the amount used no less frequently than monthly. If a record indicates usage exceeds 10,000 lb/yr, you must estimate emissions for the preceding 12 months based on the number of batches operated and the estimated emissions for a standard batch, and you must begin recordkeeping as specified in (e)(4) of this condition. After 1 year, you may revert to recording only usage if the usage during the year is less than 10,000 lb.

(3) If you documented in your notification of compliance status report that total uncontrolled organic HAP emissions from the batch process vents in an MCPU will be less than 1,000 lb/yr for the anticipated number of standard batches, then you must keep records of the number of batches operated and calculate a daily rolling annual sum of batches operated no less frequently than monthly. If the number of batches operated results in organic HAP emissions that exceed 1,000 lb/yr, you must estimate emissions for the preceding 12 months based on the number of batches operated and the estimated emissions for a standard batch, and you must begin recordkeeping as specified in (e)(4) of this condition. After 1 year, you may revert to recording only the number of batches if the number of batches operated during the year results in less than 1,000 lb of organic HAP emissions.

(4) If you meet none of the conditions specified in (e)(1) through (3) of this condition, you must keep records of the information specified in (e)(4)(i) through (iv) of this condition.

(i) A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.

(ii) A record of whether each batch operated was considered a standard batch.

(iii) The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.

(iv) Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.

(f) A record of each time a safety device is opened to avoid unsafe conditions in accordance with 40 CFR §63.2450(s).

(g) Records of the results of each CPMS calibration check and the maintenance performed, as specified in 40 CFR §63.2450(k)(1).

(h) For each CEMS, you must keep records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(i) For each PUG, you must keep records specified in (i)(1) through (5) of this condition.

(1) Descriptions of the MCPU and other process units in the initial PUG required by 40 CFR §63.2535(l)(1)(v).

(2) Rationale for including each MCPU and other process unit in the initial PUG (*i.e.*, identify the overlapping equipment between process units) required by 40 CFR §63.2535(l)(1)(v).

(3) Calculations used to determine the primary product for the initial PUG required by 40 CFR §63.2535(l)(2)(iv).

(4) Descriptions of process units added to the PUG after the creation date and rationale for including the additional process units in the PUG as required by 40 CFR §63.2535(l)(1)(v).

(5) The calculation of each primary product redetermination required by 40 CFR §63.2535(l)(2)(iv).

(j) In the SSMP required by 40 CFR §63.6(e)(3), you are not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and is optional for other equipment.

(k) For each bag leak detector used to monitor PM HAP emissions from a fabric filter, maintain records of any bag leak detection alarm, including the date and time, with a brief explanation of the cause of the alarm and the corrective action taken.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §63.2525

E34-11. The permittee shall comply with reporting requirements of 40 CFR 63 subpart FFFF as follows:

(a) *Compliance report.* The compliance report must contain the information specified in (a)(1) through (10) of this condition.

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) For each startup, shutdown, and malfunction (SSM) during which excess emissions occur, the compliance report must include records that the procedures specified in your startup, shutdown, and malfunction plan (SSMP) were followed or documentation of actions taken that are not consistent with the SSMP, and include a brief description of each malfunction.

(5) The compliance report must contain the information on deviations, as defined in 40 CFR §63.2550, according to (a)(5)(i), (ii), (iii), and (iv) of this condition.

(i) If there are no deviations from any emission limit, operating limit or work practice standard specified in this subpart, include a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.

(ii) For each deviation from an emission limit, operating limit, and work practice standard that occurs at an affected source where you are not using a continuous monitoring system (CMS) to comply with the emission limit or work practice standard in this subpart, you must include the information in (a)(5)(ii)(A) through (C) of this condition. This includes periods of SSM.

(A) The total operating time of the affected source during the reporting period.

(B) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(C) Operating logs of processes with batch vents from batch operations for the day(s) during which the deviation occurred, except operating logs are not required for deviations of the work practice standards for equipment leaks.

(iii) For each deviation from an emission limit or operating limit occurring at an affected source where you are using a CMS to comply with an emission limit in this subpart, you must include the information in (a)(5)(iii)(A) through (L) of this condition. This includes periods of SSM.

(A) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(B) The date, time, and duration that each CEMS was out-of-control, including the information in 40 CFR §63.8(c)(8).

(C) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(D) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total operating time of the affected source during that reporting period.

(E) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(F) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the affected source during that reporting period.

(G) An identification of each HAP that is known to be in the emission stream.

(H) A brief description of the process units.

(I) A brief description of the CMS.

(J) The date of the latest CMS certification or audit.

(K) Operating logs of processes with batch vents from batch operations for each day(s) during which the deviation occurred.

(L) The operating day or operating block average values of monitored parameters for each day(s) during which the deviation occurred.

(iv) If you documented in your notification of compliance status report that an MCPU has Group 2 batch process vents because the non-reactive HAP is the only HAP and usage is less than 10,000 lb/yr, the total uncontrolled organic HAP emissions from the batch process vents in an MCPU will be less than 1,000 lb/yr for the anticipated number of standard batches, or total uncontrolled hydrogen halide and halogen HAP emissions from all batch process vents and continuous process vents in a process are less than 1,000 lb/yr, include the records associated with each calculation required by 40 CFR §63.2525(e) that exceeds an applicable HAP usage or emissions threshold.

(6) If you use a CEMS, and there were no periods during which it was out-of-control as specified in 40 CFR §63.8(c)(7), include a statement that there were no periods during which the CEMS was out-of-control during the reporting period.

(7) Include each new operating scenario which has been operated since the time period covered by the last compliance report and has not been submitted in the notification of compliance status report or a previous compliance report. For each new operating scenario, you must provide verification that the operating conditions for any associated control or treatment device have not been exceeded and that any required calculations and engineering analyses have been performed. For the purposes of this paragraph, a revised operating scenario for an existing process is considered to be a new operating scenario.

(8) Records of process units added to a PUG as specified in §63.2525(i)(4) and records of primary product redeterminations as specified in 40 CFR §63.2525(i)(5).

(9) Applicable records and information for periodic reports as specified in referenced subparts F, G, H, SS, UU, WW, and GGG of this part and subpart F of 40 CFR part 65.

(10) *Notification of process change.* (i) Except as specified in (a)(10)(ii) of this condition, whenever you make a process change, or change any of the information submitted in the notification of compliance status report or a previous compliance report, that is not within the scope of an existing operating scenario, you must document the change in your compliance report. A process change does not include moving within a range of conditions identified in the standard batch, and a nonstandard batch does not constitute a process change. The notification must include all of the information in (a)(10)(i)(A) through (C) of this condition.

(A) A description of the process change.

(B) Revisions to any of the information reported in the original notification of compliance status report under (d) of this condition.

(C) Information required by the notification of compliance status report under (d) of this condition for changes involving the addition of processes or equipment at the affected source.

(ii) You must submit a report 60 days before the scheduled implementation date of any of the changes identified in (a)(10)(ii)(A), (B), or (C) of this condition.

(A) Any change to the information contained in the precompliance report.

(B) A change in the status of a control device from small to large.

(C) A change from Group 2 to Group 1 for any emission point except for batch process vents that meet the conditions specified in 40 CFR §63.2460(b)(6)(i).

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §63.2520(e)

E34-12. (a) You must meet each emission limit in Table 4 to this subpart FFFF that applies to your storage tanks, and you must meet each applicable requirement specified in (b) through (e) of this condition.

(b) [Reserved]

(c) *Exceptions to subparts SS and WW of this part 63.* (1) If you conduct a performance test or design evaluation for a control device used to control emissions only from storage tanks, you must establish operating limits, conduct monitoring, and keep records using the same procedures as required in subpart SS of this part 63 for control devices used to reduce emissions from process vents instead of the procedures specified in 40 CFR §§63.985(c), 63.998(d)(2)(i), and 63.999(b)(2).

(2) When the term "storage vessel" is used in subparts SS and WW of this part 63, the term "storage tank," as defined in 40 CFR §63.2550 applies for the purposes of this subpart.

(d) *Planned routine maintenance.* The emission limits in Table 4 to this subpart for control devices used to control emissions from storage tanks do not apply during periods of planned routine maintenance. Periods of planned routine maintenance of each control device, during which the control device does not meet the emission limit specified in Table 4 to this subpart, must not exceed 240 hours per year (hr/yr). You may submit an application to the Administrator requesting an extension of this time limit to a total of 360 hr/yr. The application must explain why the extension is needed, it must indicate that no material will be added to the storage tank between the time the 240-hr limit is exceeded and the control device is again operational, and it must be submitted at least 60 days before the 240-hr limit will be exceeded.

(e) *Vapor balancing alternative.* As an alternative to the emission limits specified in Table 4 to this subpart, you may elect to implement vapor balancing in accordance with 40 CFR §63.1253(f), except as specified in paragraphs (e)(1) through (3) of this section.

(1) When 40 CFR §63.1253(f)(6)(i) refers to a 90 percent reduction, 95 percent applies for the purposes of this subpart.

(2) To comply with 40 CFR §63.1253(f)(6)(i), the owner or operator of an offsite cleaning or reloading facility must comply with 40 CFR §§63.2445 through 63.2550 instead of complying with 40 CFR §63.1253(f)(7)(ii), except as specified in paragraph (e)(2)(i) or (ii) of this section.

(i) The reporting requirements in 40 CFR §63.2520 do not apply to the owner or operator of the offsite cleaning or reloading facility.

(ii) As an alternative to complying with the monitoring, recordkeeping, and reporting provisions in 40 CFR §§63.2445 through 63.2550, the owner or operator of an offsite cleaning or reloading facility may comply as specified in 40 CFR §63.2535(a)(2) with any other subpart of this part 63 which has monitoring, recordkeeping, and reporting provisions as specified in 40 CFR §63.2535(a)(2).

(3) You may elect to set a pressure relief device to a value less than the 2.5 pounds per square inch gage pressure (psig) required in 40 CFR §63.1253(f)(5) if you provide rationale in your notification of compliance status report explaining why the alternative value is sufficient to prevent breathing losses at all times.

(4) You may comply with the vapor balancing alternative in 40 CFR §63.1253(f) when your storage tank is filled from a barge. All requirements for tank trucks and railcars specified in 40 CFR §63.1253(f) also apply to barges, except as specified in 40 CFR §63.2470(e)(4)(i).

(i) When 40 CFR §63.1253(f)(2) refers to pressure testing certifications, the requirements in 40 CFR 61.304(f) apply for barges.

(ii) [Reserved]

Table 4 to Subpart FFFF of Part 63—Emission Limits for Storage Tanks

As required in 40 CFR §63.2470, you must meet each emission limit in the following table that applies to your storage tanks:

For each . . .	For which . . .	Then you must . . .
1. Group 1 storage tank	a. The maximum true vapor pressure of total HAP at the storage temperature is ≥76.6 kilopascals	i. Reduce total HAP emissions by ≥95 percent by weight or to ≤20 ppmv of TOC or organic HAP and ≤20 ppmv of hydrogen halide and halogen HAP by venting emissions through a closed vent system to any combination of control devices (excluding a flare); or
		ii. Reduce total organic HAP emissions by venting emissions through a closed vent system to a flare; or
		iii. Reduce total HAP emissions by venting emissions to a fuel gas system or process in accordance with §63.982(d) and the requirements referenced therein.
	b. The maximum true vapor pressure of total HAP at the storage temperature is <76.6 kilopascals	i. Comply with the requirements of subpart WW of this part, except as specified in 40 CFR §63.2470; or
		ii. Reduce total HAP emissions by ≥95 percent by weight or to ≤20 ppmv of TOC or organic HAP and ≤20 ppmv of hydrogen halide and halogen HAP by venting emissions through a closed vent system to any combination of control devices (excluding a flare); or
		iii. Reduce total organic HAP emissions by venting emissions through a closed vent system to a flare; or
		iv. Reduce total HAP emissions by venting emissions to a fuel gas system or process in accordance with 40 CFR §63.982(d) and the requirements referenced therein.
2. Halogenated vent stream from a Group 1 storage tank	You use a combustion control device to control organic HAP emissions	Meet one of the emission limit options specified in Item 2.a.i or ii. in Table 1 to this subpart.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §63.2470 (and Appendix Table 4)

E34-13. (a) You must comply with each emission limit and work practice standard in table 5 to this subpart FFFF that applies to your transfer racks, and you must meet each applicable requirement in paragraphs (b) and (c) of this section.

(b) When the term "high throughput transfer rack" is used in subpart SS of this part 63 of 40 CFR, the term "Group 1 transfer rack," as defined in 40 CFR §63.2550, applies for the purposes of this subpart.

Table 5 to Subpart FFFF of Part 63—Emission Limits and Work Practice Standards for Transfer Racks

As required in 40 CFR §63.2475, you must meet each emission limit and work practice standard in the following table that applies to your transfer racks:

For each . . .	**You must . . .**
1. Group 1 transfer rack	a. Reduce emissions of total organic HAP by ≥98 percent by weight or to an outlet concentration ≤20 ppmv as organic HAP or TOC by venting emissions through a closed-vent system to any combination of control devices (except a flare); or
	b. Reduce emissions of total organic HAP by venting emissions through a closed-vent system to a flare; or
	c. Reduce emissions of total organic HAP by venting emissions to a fuel gas system or process in accordance with 40 CFR §63.982(d) and the requirements referenced therein; or
	d. Use a vapor balancing system designed and operated to collect organic HAP vapors displaced from tank trucks and railcars during loading and route the collected HAP vapors to the storage tank from which the liquid being loaded originated or to another storage tank connected by a common header.
2. Halogenated Group 1 transfer rack vent stream for which you use a combustion device to control organic HAP emissions	a. Use a halogen reduction device after the combustion device to reduce emissions of hydrogen halide and halogen HAP by ≥99 percent by weight, to ≤0.45 kg/hr, or to ≤20 ppmv; or b. Use a halogen reduction device before the combustion device to reduce the halogen atom mass emission rate to ≤0.45 kg/hr or to a concentration ≤20 ppmv.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §63.2475 (and Appendix Table 5)

E34-14. (a) You must meet each requirement in table 6 to this subpart FFFF that applies to your equipment leaks, except as specified in (b) through (d) of this condition.

(b) If you comply with either subpart H or subpart UU of this part 63 of 40 CFR, you may elect to comply with the provisions in (b)(1) through (5) of this condition as an alternative to the referenced provisions in subpart H or subpart UU of this part.

(1) The requirements for pressure testing in 40 CFR §63.179(b) or §63.1036(b) may be applied to all processes, not just batch processes.

(2) For the purposes of this subpart, pressure testing for leaks in accordance with 40 CFR §63.179(b) or §63.1036(b) is not required after reconfiguration of an equipment train if flexible hose connections are the only disturbed equipment.

(3) For an existing source, you are not required to develop an initial list of identification numbers for connectors as would otherwise be required under 40 CFR §63.1022(b)(1) or §63.181(b)(1)(i).

(4) For connectors in gas/vapor and light liquid service at an existing source, you may elect to comply with the requirements in 40 CFR §63.169 or §63.1029 for connectors in heavy liquid service, including all associated recordkeeping and reporting requirements, rather than the requirements of 40 CFR §63.174 or §63.1027.

(5) For pumps in light liquid service in an MCPU that has no continuous process vents and is part of an existing source, you may elect to consider the leak definition that defines a leak to be 10,000 parts per million (ppm) or greater as an alternative to the values specified in 40 CFR §63.1026(b)(2)(i) through (iii) or 40 CFR §63.163(b)(2).

(c) If you comply with 40 CFR part 65, subpart F, you may elect to comply with the provisions in (c)(1) through (9) of this condition as an alternative to the referenced provisions in 40 CFR part 65, subpart F.

(1) The requirements for pressure testing in 40 CFR §65.117(b) may be applied to all processes, not just batch processes.

(2) For the purposes of this subpart, pressure testing for leaks in accordance with 40 CFR §65.117(b) is not required after reconfiguration of an equipment train if flexible hose connections are the only disturbed equipment.

(3) For an existing source, you are not required to develop an initial list of identification numbers for connectors as would otherwise be required under 40 CFR §65.103(b)(1).

(4) You may elect to comply with the monitoring and repair requirements specified in §65.108(e)(3) as an alternative to the requirements specified in 40 CFR §65.108(a) through (d) for any connectors at your affected source.

(5) For pumps in light liquid service in an MCPU that has no continuous process vents and is part of an existing source, you may elect to consider the leak definition that defines a leak to be 10,000 ppm or greater as an alternative to the values specified in 40 CFR §65.107(b)(2)(i) through (iii).

(6) When 40 CFR part 65, subpart F refers to the implementation date specified in 40 CFR §65.1(f), it means the compliance date specified in 40 CFR §63.2445.

(7) When 40 CFR §§65.105(f) and 65.117(d)(3) refer to 40 CFR §65.4, it means 40 CFR §63.2525.

(8) When 40 CFR §65.120(a) refers to 40 CFR §65.5(d), it means 40 CFR §63.2515.

(9) When 40 CFR §65.120(b) refers to 40 CFR §65.5(e), it means 40 CFR §63.2520.

(d) The provisions of this section do not apply to bench-scale processes, regardless of whether the processes are located at the same plant site as a process subject to the provisions of this subpart.

Table 6 to Subpart FFFF of Part 63—Requirements for Equipment Leaks

As required in 40 CFR §63.2480, you must meet each requirement in the following table that applies to your equipment leaks:

For all . . .	**And that is part of . . .**	**You must . . .**
1. Equipment that is in organic HAP service	a. Comply with the requirements of subpart UU of this part 63 and the requirements referenced therein, except as specified in 40 CFR §63.2480(b) and (d); or	
	b. Comply with the requirements of subpart H of this part 63 and the requirements referenced therein, except as specified in 40 CFR §63.2480(b) and (d); or	

	c. Comply with the requirements of 40 CFR part 65, subpart F and the requirements referenced therein, except as specified in 40 CFR §63.2480(c) and (d).	
2. Equipment that is in organic HAP service at a new source	a. Any MCPU	i. Comply with the requirements of subpart UU of this part 63 and the requirements referenced therein; or ii. Comply with the requirements of 40 CFR part 65, subpart F.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §63.2480 (and Appendix Table 6)

E34-15. (a) You must meet each emission limit in Table 1 to this subpart FFFF that applies to your continuous process vents, and you must meet each applicable requirement specified in (b) through (c) of this condition.

(b) For each continuous process vent, you must either designate the vent as a Group 1 continuous process vent or determine the total resource effectiveness (TRE) index value as specified in 40 CFR §63.115(d), except as specified in (b)(1) through (3) of this condition.

(1) You are not required to determine the Group status or the TRE index value for any continuous process vent that is combined with Group 1 batch process vents before a control device or recovery device because the requirements of 40 CFR §63.2450(c)(2)(i) apply to the combined stream.

(2) When a TRE index value of 4.0 is referred to in 40 CFR §63.115(d), TRE index values of 5.0 for existing affected sources and 8.0 for new and reconstructed affected sources apply for the purposes of this subpart FFFF.

(3) When 40 CFR §63.115(d) refers to "emission reductions specified in 40 CFR §63.113(a)," the reductions specified in Table 1 to this subpart FFFF apply for the purposes of this subpart.

(c) If you use a recovery device to maintain the TRE above a specified threshold, you must meet the requirements of 40 CFR §63.982(e) and the requirements referenced therein, except as specified in 40 CFR §63.2450 and (c)(1) of this condition.

(1) When 40 CFR §63.993 uses the phrase "the TRE index value is between the level specified in a referencing subpart and 4.0," the phrase "the TRE index value is >1.9 but ≤5.0" applies for an existing affected source, and the phrase "the TRE index value is >5.0 but ≤8.0" applies for a new and reconstructed affected source, for the purposes of this subpart FFFF.

(2) [Reserved]

TABLE 1 TO SUBPART FFFF OF PART 63—EMISSION LIMITS AND WORK PRACTICE STANDARDS FOR CONTINUOUS PROCESS VENTS

As required in 40 CFR §63.2455, you must meet each emission limit and work practice standard in the following table that applies to your continuous process vents:

For each . . .	For which . . .	Then you must . . .
1. Group 1 continuous process vent	a. Not applicable	i. Reduce emissions of total organic HAP by ≥98 percent by weight or to an outlet process concentration ≤20 ppmv as organic HAP or TOC by venting emissions through a closed-vent system to any combination of control devices (except a flare); or

		ii. Reduce emissions of total organic HAP by venting emissions through a closed vent system to a flare; or
		iii. Use a recovery device to maintain the TRE above 1.9 for an existing source or above 5.0 for a new source.
2. Halogenated Group 1 continuous process vent stream	a. You use a combustion control device to control organic HAP emissions	i. Use a halogen reduction device after the combustion device to reduce emissions of hydrogen halide and halogen HAP by ≥99 percent by weight, or to ≤0.45 kg/hr, or to ≤20 ppmv; or ii. Use a halogen reduction device before the combustion device to reduce the halogen atom mass emission rate to ≤0.45 kg/hr or to a concentration ≤20 ppmv.
3. Group 2 continuous process vent at an existing source	You use a recovery device to maintain the TRE level >1.9 but ≤5.0	Comply with the requirements in 40 CFR §63.993 and the requirements referenced therein.
4. Group 2 continuous process vent at a new source	You use a recovery device to maintain the TRE level >5.0 but ≤8.0	Comply with the requirements in 40 CFR §63.993 and the requirements referenced therein.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §63.2455 (and Appendix Table 1)

Subpart VV—Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006

E34-16. Standards: General (40 CFR §60.482-1). (a) Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of 40 CFR §§60.482-1 through 60.482-10 or §60.480(e) for all equipment within 180 days of initial startup.

(b) Compliance with 40 CFR §§60.482-1 to 60.482-10 will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in 40 CFR §60.485.

(c)(1) An owner or operator may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR §§60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, and 60.482-10 as provided in §60.484.

(2) If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR §60.482-2, §60.482-3, §60.482-5, §60.482-6, §60.482-7, §60.482-8, or §60.482-10, an owner or operator shall comply with the requirements of that determination.

(d) Equipment that is in vacuum service is excluded from the requirements of 40 CFR §§60.482-2 to 60.482-10 if it is identified as required in 40 CFR §60.486(e)(5).

(e) Equipment that an owner or operator designates as being in VOC service less than 300 hours (hr)/yr is excluded from the requirements of 40 CFR §§60.482-2 through 60.482-10 if it is identified as required in 40 CFR §60.486(e)(6) and it meets any of the conditions specified in (e)(1) through (3) of this condition.

(1) The equipment is in VOC service only during startup and shutdown, excluding startup and shutdown between batches of the same campaign for a batch process.

(2) The equipment is in VOC service only during process malfunctions or other emergencies.

(3) The equipment is backup equipment that is in VOC service only when the primary equipment is out of service.

(f) [Reserved]

(g) If the storage vessel is shared with multiple process units, the process unit with the greatest annual amount of stored materials (predominant use) is the process unit the storage vessel is assigned to. If the storage vessel is shared equally among process units, and one of the process units has equipment subject to subpart VVa of this part, the storage vessel is assigned to that process unit. If the storage vessel is shared equally among process units, none of which have equipment subject to subpart VVa of this part, the storage vessel is assigned to any process unit subject to this subpart. If the predominant use of the storage vessel varies from year to year, then the owner or operator must estimate the predominant use initially and reassess every 3 years. The owner or operator must keep records of the information and supporting calculations that show how predominant use is determined. All equipment on the storage vessel must be monitored when in VOC service.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.482-1

E34-17. Standards: Pumps in light liquid service (40 CFR §60.482-2). (a)(1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR §60.485(b), except as provided in 40 CFR §60.482-1(c) and (f) and (d), (e), and (f) of this condition. A pump that begins operation in light liquid service after the initial startup date for the process unit must be monitored for the first time within 30 days after the end of its startup period, except for a pump that replaces a leaking pump and except as provided in 40 CFR §60.482-1(c) and (f) and (d), (e), and (f) of this condition.

(2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal, except as provided in 40 CFR §60.482-1(f).

(b)(1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(2) If there are indications of liquids dripping from the pump seal, the owner or operator shall follow the procedure specified in either (b)(2)(i) or (ii) of this condition. This requirement does not apply to a pump that was monitored after a previous weekly inspection if the instrument reading for that monitoring event was less than 10,000 ppm and the pump was not repaired since that monitoring event.

(i) Monitor the pump within 5 days as specified in 40 CFR §60.485(b). If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. The leak shall be repaired using the procedures in paragraph (c) of this section.

(ii) Designate the visual indications of liquids dripping as a leak, and repair the leak within 15 days of detection by eliminating the visual indications of liquids dripping.

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR §60.482-9.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the practices described in (c)(2)(i) and (ii) of this condition, where practicable.

(i) Tightening the packing gland nuts;

(ii) Ensuring that the seal flush is operating at design pressure and temperature.

(d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of (a) of this condition, provided the requirements specified in (d)(1) through (6) of this condition are met.

(1) Each dual mechanical seal system is—

(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or

(ii) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of 40 CFR §60.482-10; or

(iii) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

(2) The barrier fluid system is in heavy liquid service or is not in VOC service.

(3) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(4)(i) Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

(ii) If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in either paragraph (d)(4)(ii)(A) or (B) of this section.

(A) Monitor the pump within 5 days as specified in 40 CFR §60.485(b) to determine if there is a leak of VOC in the barrier fluid. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(B) Designate the visual indications of liquids dripping as a leak.

(5)(i) Each sensor as described in (d)(3) of this condition is checked daily or is equipped with an audible alarm.

(ii) The owner or operator determines, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(iii) If the sensor indicates failure of the seal system, the barrier fluid system, or both, based on the criterion established in (d)(5)(ii) of this condition, a leak is detected.

(6)(i) When a leak is detected pursuant to (d)(4)(ii)(A) of this condition, it shall be repaired as specified in paragraph (c) of this section.

(ii) A leak detected pursuant to (d)(5)(iii) of this condition shall be repaired within 15 days of detection by eliminating the conditions that activated the sensor.

(iii) A designated leak pursuant to (d)(4)(ii)(B) of this condition shall be repaired within 15 days of detection by eliminating visual indications of liquids dripping.

(e) Any pump that is designated, as described in 40 CFR §60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of (a), (c), and (d) of this condition if the pump:

(1) Has no externally actuated shaft penetrating the pump housing,

(2) Is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in 40 CFR §60.485(c), and

(3) Is tested for compliance with (e)(2) of this condition initially upon designation, annually, and at other times requested by the Administrator.

(f) If any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system or to a control device that complies with the requirements of 40 CFR §60.482-10, it is exempt from (a) through (e) of this condition.

(g) Any pump that is designated, as described in 40 CFR §60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of (a) and (d)(4) through (6) of this condition if:

(1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with (a) of this condition; and

(2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in (c) of this condition if a leak is detected.

(h) Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of (a)(2) and (d)(4) of this condition, and the daily requirements of (d)(5) of this condition, provided that each pump is visually inspected as often as practicable and at least monthly.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.482-2

E34-18. Standards: Compressors (40 CFR **§60.482-3**): (a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in 40 CFR §60.482-1(c) and (h), (i), and (j) of this condition.

(b) Each compressor seal system as required in (a) shall be:

(1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or

(2) Equipped with a barrier fluid system degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of 40 CFR §60.482-10; or

(3) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

(c) The barrier fluid system shall be in heavy liquid service or shall not be in VOC service.

(d) Each barrier fluid system as described in (a) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

(e)(1) Each sensor as required in (d) shall be checked daily or shall be equipped with an audible alarm.

(2) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(f) If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under (e)(2), a leak is detected.

(g)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR §60.482-9.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(h) A compressor is exempt from the requirements of (a) and (b) of this condition, if it is equipped with a closed vent system to capture and transport leakage from the compressor drive shaft back to a process or fuel gas system or to a control device that complies with the requirements of 40 CFR §60.482-10, except as provided in (i) of this condition.

(i) Any compressor that is designated, as described in 40 CFR §60.486(e) (1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of (a)-(h) if the compressor:

(1) Is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the methods specified in 40 CFR §60.485(c); and

(2) Is tested for compliance with (i)(1) of this condition initially upon designation, annually, and at other times requested by the Administrator.

(j) Any existing reciprocating compressor in a process unit which becomes an affected facility under provisions of 40 CFR §60.14 or §60.15 is exempt from (a) through (e) and (h) of this condition, provided the owner or operator demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of (a) through (e) and (h) of this condition.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.482-3

E34-19. Standards: Pressure relief devices in gas/vapor service (40 CFR §60.482-4): (a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR §60.485(c).

(b)(1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR §60.482-9.

(2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR §60.485(c).

(c) Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR §60.482-10 is exempted from the requirements of (a) and (b) of this condition.

(d)(1) Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of (a) and (b) of this condition, provided the owner or operator complies with the requirements in (d)(2) of this condition.

(2) After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR §60.482-9.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.482-4

E34-20. Standards: Sampling connection systems (40 CFR §60.482-5): (a) Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR §60.482-1(c) and (c) of this condition.

(b) Each closed-purge, closed-loop, or closed-vent system as required in (a) of this condition shall comply with the requirements specified in (b)(1) through (4) of this condition.

(1) Gases displaced during filling of the sample container are not required to be collected or captured.

(2) Containers that are part of a closed-purge system must be covered or closed when not being filled or emptied.

(3) Gases remaining in the tubing or piping between the closed-purge system valve(s) and sample container valve(s) after the valves are closed and the sample container is disconnected are not required to be collected or captured.

(4) Each closed-purge, closed-loop, or closed-vent system shall be designed and operated to meet requirements in either (b)(4)(i), (ii), (iii), or (iv) of this condition.

(i) Return the purged process fluid directly to the process line.

(ii) Collect and recycle the purged process fluid to a process.

(iii) Capture and transport all the purged process fluid to a control device that complies with the requirements of 40 CFR §60.482-10.

(iv) Collect, store, and transport the purged process fluid to any of the following systems or facilities:

(A) A waste management unit as defined in 40 CFR §63.111, if the waste management unit is subject to and operated in compliance with the provisions of 40 CFR part 63, subpart G, applicable to Group 1 wastewater streams;

(B) A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266;

(C) A facility permitted, licensed, or registered by a state to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261;

(D) A waste management unit subject to and operated in compliance with the treatment requirements of §61.348(a), provided all waste management units that collect, store, or transport the purged process fluid to the treatment unit are subject to and operated in compliance with the management requirements of 40 CFR §§61.343 through 61.347; or

(E) A device used to burn off-specification used oil for energy recovery in accordance with 40 CFR part 279, subpart G, provided the purged process fluid is not hazardous waste as defined in 40 CFR part 261.

(c) In situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (a) and (b) of this section.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.482-5

E34-21. Standards: Open-ended valves or lines. (40 CFR §60.482-6): (a)(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR §60.482-1(c) and (d) and (e) of this condition.

(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.

(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

(c) When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with (a) at all other times.

(d) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of (a), (b) and (c) of this condition.

(e) Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in (a) through (c) of this condition are exempt from the requirements of (a) through (c) of this condition.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.482-6

E34-22. Standards: Valves in gas/vapor service and in light liquid service (40 CFR §60.482-7): (a)(1) Each valve shall be monitored monthly to detect leaks by the methods specified in 40 CFR §60.485(b) and shall comply with (b) through (e) of this condition, except as provided in (f), (g), and (h) of this condition, 40 CFR §60.482-1(c) and (f), and 40 CFR §§60.483-1 and 60.483-2.

(2) A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for the process unit must be monitored according to (a)(2)(i) or (ii), except for a valve that replaces a leaking valve and except as provided in (f), (g), and (h) of this condition, 40 CFR §60.482-1(c), and §§60.483-1 and 60.483-2.

(i) Monitor the valve as in (a)(1) of this condition. The valve must be monitored for the first time within 30 days after the end of its startup period to ensure proper installation.

(ii) If the valves on the process unit are monitored in accordance with 40 CFR §60.483-1 or §60.483-2, count the new valve as leaking when calculating the percentage of valves leaking as described in 40 CFR §60.483-2(b)(5). If less than 2.0 percent of the valves are leaking for that process unit, the valve must be monitored for the first time during the next scheduled monitoring event for existing valves in the process unit or within 90 days, whichever comes first.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c)(1)(i) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.

(ii) As an alternative to monitoring all of the valves in the first month of a quarter, an owner or operator may elect to subdivide the process unit into 2 or 3 subgroups of valves and monitor each subgroup in a different month during the quarter, provided each subgroup is monitored every 3 months. The owner or operator must keep records of the valves assigned to each subgroup.

(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.

(d)(1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR §60.482-9.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(e) First attempts at repair include, but are not limited to, the following best practices where practicable:

(1) Tightening of bonnet bolts;

(2) Replacement of bonnet bolts;

(3) Tightening of packing gland nuts;

(4) Injection of lubricant into lubricated packing.

(f) Any valve that is designated, as described in 40 CFR §60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of (a) if the valve:

(1) Has no external actuating mechanism in contact with the process fluid,

(2) Is operated with emissions less than 500 ppm above background as determined by the method specified in 40 CFR §60.485(c), and

(3) Is tested for compliance with (f)(2) of this condition initially upon designation, annually, and at other times requested by the Administrator.

(g) Any valve that is designated, as described in 40 CFR §60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of (a) if:

(1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with (a), and

(2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

(h) Any valve that is designated, as described in 40 CFR §60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of (a) if:

(1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.

(2) The process unit within which the valve is located either becomes an affected facility through 40 CFR §60.14 or §60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor, and

(3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.482-7

E34-23. Standards: Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors (40 CFR §60.482-8): (a) If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures:

(1) The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR §60.485(b) and shall comply with the requirements of (b) through (d) of this condition.

(2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR §60.482-9.

(2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(d) First attempts at repair include, but are not limited to, the best practices described under 40 CFR §§60.482-2(c)(2) and 60.482-7(e).

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.482-8

E34-24. Standards: Delay of repair (40 CFR §60.482-9): (a) Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. Monitoring to verify repair must occur within 15 days after startup of the process unit.

(b) Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.

(c) Delay of repair for valves will be allowed if:

(1) The owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and

(2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with 40 CFR §60.482-10.

(d) Delay of repair for pumps will be allowed if:

(1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and

(2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

(e) Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

(f) When delay of repair is allowed for a leaking pump or valve that remains in service, the pump or valve may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive monthly monitoring instrument readings are below the leak definition.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.482-9

E34-25. Standards: Closed vent systems and control devices (40 CFR §60.482-10): (a) Owners or operators of closed vent systems and control devices used to comply with provisions of this subpart shall comply with the provisions of this section.

(b) Vapor recovery systems (for example, condensers and absorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent.

(c) Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 °C.

(d) Flares used to comply with this subpart shall comply with the requirements of 40 CFR §60.18.

(e) Owners or operators of control devices used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs.

(f) Except as provided in (i) through (k) of this condition, each closed vent system shall be inspected according to the procedures and schedule specified in (f)(1) and (f)(2) of this condition.

(1) If the vapor collection system or closed vent system is constructed of hard-piping, the owner or operator shall comply with the requirements specified in (f)(1)(i) and (f)(1)(ii) of this condition:

(i) Conduct an initial inspection according to the procedures in §60.485(b); and

(ii) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

(2) If the vapor collection system or closed vent system is constructed of ductwork, the owner or operator shall:

(i) Conduct an initial inspection according to the procedures in 40 CFR §60.485(b); and

(ii) Conduct annual inspections according to the procedures in 40 CFR §60.485(b).

(g) Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in (h) of this condition.

(1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(2) Repair shall be completed no later than 15 calendar days after the leak is detected.

(h) Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.

(i) If a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of (f)(1)(i) and (f)(2) of this condition.

(j) Any parts of the closed vent system that are designated, as described in (l)(1) of this condition, as unsafe to inspect are exempt from the inspection requirements of (f)(1)(i) and (f)(2) of this condition if they comply with the requirements specified in (j)(1) and (j)(2) of this condition:

(1) The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with (f)(1)(i) or (f)(2) of this condition; and

(2) The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

(k) Any parts of the closed vent system that are designated, as described in (l)(2) of this condition, as difficult to inspect are exempt from the inspection requirements of (f)(1)(i) and (f)(2) of this condition if they comply with the requirements specified in (k)(1) through (k)(3) of this condition:

(1) The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and

(2) The process unit within which the closed vent system is located becomes an affected facility through 40 CFR §§60.14 or 60.15, or the owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and

(3) The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum.

(l) The owner or operator shall record the information specified in (l)(1) through (l)(5) of this condition.

(1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.

(2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.

(3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR §60.486(c).

(4) For each inspection conducted in accordance with 40 CFR §60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(5) For each visual inspection conducted in accordance with (f)(1)(ii) of this condition during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(m) Closed vent systems and control devices used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.482-10

E34-26. Alternative standards for valves—allowable percentage of valves leaking (40 CFR §60.483-1): (a) An owner or operator may elect to comply with an allowable percentage of valves leaking of equal to or less than 2.0 percent.

(b) The following requirements shall be met if an owner or operator wishes to comply with an allowable percentage of valves leaking:

(1) An owner or operator must notify the Administrator that the owner or operator has elected to comply with the allowable percentage of valves leaking before implementing this alternative standard, as specified in §60.487(d).

(2) A performance test as specified in paragraph (c) of this section shall be conducted initially upon designation, annually, and at other times requested by the Administrator.

(3) If a valve leak is detected, it shall be repaired in accordance with 40 CFR §60.482-7(d) and (e).

(c) Performance tests shall be conducted in the following manner:

(1) All valves in gas/vapor and light liquid service within the affected facility shall be monitored within 1 week by the methods specified in 40 CFR §60.485(b).

(2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(3) The leak percentage shall be determined by dividing the number of valves for which leaks are detected by the number of valves in gas/vapor and light liquid service within the affected facility.

(d) Owners and operators who elect to comply with this alternative standard shall not have an affected facility with a leak percentage greater than 2.0 percent, determined as described in 40 CFR §60.485(h).

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.483-1

E34-27. Alternative standards for valves—skip period leak detection and repair (40 CFR §60.483-2): (a)(1) An owner or operator may elect to comply with one of the alternative work practices specified in paragraphs (b)(2) and (3) of this section.

(2) An owner or operator must notify the Administrator before implementing one of the alternative work practices, as specified in 40 CFR §60.487(d).

(b)(1) An owner or operator shall comply initially with the requirements for valves in gas/vapor service and valves in light liquid service, as described in 40 CFR §60.482-7.

(2) After 2 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 1 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

(3) After 5 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 3 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

(4) If the percent of valves leaking is greater than 2.0, the owner or operator shall comply with the requirements as described in 40 CFR §60.482-7 but can again elect to use this section.

(5) The percent of valves leaking shall be determined as described in 40 CFR §60.485(h).

(6) An owner or operator must keep a record of the percent of valves found leaking during each leak detection period.

(7) A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for a process unit following one of the alternative standards in this section must be monitored in accordance with 40 CFR §60.482-7(a)(2)(i) or (ii) before the provisions of this section can be applied to that valve.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.483-2

E34-28. Equivalence of means of emission limitation (40 CFR §60.484): (a) Each owner or operator subject to the provisions of this subpart may apply to the Administrator for determination of equivalence for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in this subpart.

(b) Determination of equivalence to the equipment, design, and operational requirements of this subpart will be evaluated by the following guidelines:

(1) Each owner or operator applying for an equivalence determination shall be responsible for collecting and verifying test data to demonstrate equivalence of means of emission limitation.

(2) The Administrator will compare test data for demonstrating equivalence of the means of emission limitation to test data for the equipment, design, and operational requirements.

(3) The Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the equipment, design, and operational requirements.

(c) Determination of equivalence to the required work practices in this subpart will be evaluated by the following guidelines:

(1) Each owner or operator applying for a determination of equivalence shall be responsible for collecting and verifying test data to demonstrate equivalence of an equivalent means of emission limitation.

(2) For each affected facility for which a determination of equivalence is requested, the emission reduction achieved by the required work practice shall be demonstrated.

(3) For each affected facility, for which a determination of equivalence is requested, the emission reduction achieved by the equivalent means of emission limitation shall be demonstrated.

(4) Each owner or operator applying for a determination of equivalence shall commit in writing to work practice(s) that provide for emission reductions equal to or greater than the emission reductions achieved by the required work practice.

(5) The Administrator will compare the demonstrated emission reduction for the equivalent means of emission limitation to the demonstrated emission reduction for the required work practices and will consider the commitment in (c)(4).

(6) The Administrator may condition the approval of equivalence on requirements that may be necessary to assure operation and maintenance to achieve the same emission reduction as the required work practice.

(d) An owner or operator may offer a unique approach to demonstrate the equivalence of any equivalent means of emission limitation.

(e)(1) After a request for determination of equivalence is received, the Administrator will publish a notice in the FEDERAL REGISTER and provide the opportunity for public hearing if the Administrator judges that the request may be approved.

(2) After notice and opportunity for public hearing, the Administrator will determine the equivalence of a means of emission limitation and will publish the determination in the FEDERAL REGISTER.

(3) Any equivalent means of emission limitations approved under this section shall constitute a required work practice, equipment, design, or operational standard within the meaning of section 111(h)(1) of the Clean Air Act.

(f)(1) Manufacturers of equipment used to control equipment leaks of VOC may apply to the Administrator for determination of equivalence for any equivalent means of emission limitation that achieves a reduction in emissions of VOC achieved by the equipment, design, and operational requirements of this subpart.

(2) The Administrator will make an equivalence determination according to the provisions of (b), (c), (d), and (e) of this condition.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.484

E34-29. Test methods and procedures (40 CFR §60.485): (a) In conducting the performance tests required in 40 CFR §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this condition, except as provided in 40 CFR §60.8(b).

(b) The owner or operator shall determine compliance with the standards in 40 CFR §§60.482-1 through 60.482-10, 60.483, and 60.484 as follows:

(1) Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used:

(i) Zero air (less than 10 ppm of hydrocarbon in air); and

(ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane.

(c) The owner or operator shall determine compliance with the no detectable emission standards in 40 CFR §§60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows:

(1) The requirements of (b) shall apply.

(2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(d) The owner or operator shall test each piece of equipment unless he demonstrates that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used:

(1) Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference—see §60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment.

(2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid.

(3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, paragraphs (d) (1) and (2) of this section shall be used to resolve the disagreement.

(e) The owner or operator shall demonstrate that a piece of equipment is in light liquid service by showing that all the following conditions apply:

(1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 °C (1.2 in. H_2O at 68 °F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference—see §60.17) shall be used to determine the vapor pressures.

(2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 °C (1.2 in. H_2O at 68 °F) is equal to or greater than 20 percent by weight.

(3) The fluid is a liquid at operating conditions.

(f) Samples used in conjunction with (d), (e), and (g) of this condition shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare.

(g) The owner or operator shall determine compliance with the standards of flares as follows:

(1) Method 22 shall be used to determine visible emissions.

(2) A thermocouple or any other equivalent device shall be used to monitor the presence of a pilot flame in the flare.

(3) The maximum permitted velocity for air assisted flares shall be computed using the following equation:

$$V_{max} = K_1 + K_2 H_T$$

Where:

V_{max} = Maximum permitted velocity, m/sec (ft/sec)

H_T = Net heating value of the gas being combusted, MJ/scm (Btu/scf).

K_1 = 8.706 m/sec (metric units)

= 28.56 ft/sec (English units)

K_2 = 0.7084 m^4/(MJ-sec) (metric units)

= 0.087 ft^4/(Btu-sec) (English units)

(4) The net heating value (H_T) of the gas being combusted in a flare shall be computed using the following equation:

$$H_T = K\sum_{i=1}^{n} C_i H_i$$

Where:

K = Conversion constant, 1.740 × 10^{-7} (g-mole)(MJ)/(ppm-scm-kcal) (metric units) = 4.674 × 10^{-6} [(g-mole)(Btu)/(ppm-scf-kcal)] (English units)

C_i = Concentration of sample component "i," ppm

H_i = Net heat of combustion of sample component "i" at 25 °C and 760 mm Hg (77 °F and 14.7 psi), kcal/g-mole

(5) Method 18 or ASTM D6420-99 (2004) (where the target compound(s) are those listed in Section 1.1 of ASTM D6420-99, and the target concentration is between 150 parts per billion by volume and 100 parts per million by volume) and ASTM D2504-67, 77 or 88 (Reapproved 1993) (incorporated by reference—see §60.17) shall be used to determine the concentration of sample component "i."

(6) ASTM D2382-76 or 88 or D4809-95 (incorporated by reference—see §60.17) shall be used to determine the net heat of combustion of component "i" if published values are not available or cannot be calculated.

(7) Method 2, 2A, 2C, or 2D, as appropriate, shall be used to determine the actual exit velocity of a flare. If needed, the unobstructed (free) cross-sectional area of the flare tip shall be used.

(h) The owner or operator shall determine compliance with 40 CFR §60.483-1 or §60.483-2 as follows:

(1) The percent of valves leaking shall be determined using the following equation:

$\%V_L = (V_L/V_T) * 100$

Where:

$\%V_L$ = Percent leaking valves

V_L = Number of valves found leaking

V_T = The sum of the total number of valves monitored

(2) The total number of valves monitored shall include difficult-to-monitor and unsafe-to-monitor valves only during the monitoring period in which those valves are monitored.

(3) The number of valves leaking shall include valves for which repair has been delayed.

(4) Any new valve that is not monitored within 30 days of being placed in service shall be included in the number of valves leaking and the total number of valves monitored for the monitoring period in which the valve is placed in service.

(5) If the process unit has been subdivided in accordance with 40 CFR §60.482-7(c)(1)(ii), the sum of valves found leaking during a monitoring period includes all subgroups.

(6) The total number of valves monitored does not include a valve monitored to verify repair.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.485

E34-30. Recordkeeping requirements (40 CFR §60.486): (a)(1) Each owner or operator subject to the provisions of this subpart shall comply with the recordkeeping requirements of this section.

(2) An owner or operator of more than one affected facility subject to the provisions of this subpart may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility.

(b) When each leak is detected as specified in 40 CFR §§60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following requirements apply:

(1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.

(2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR §60.482-7(c) and no leak has been detected during those 2 months.

(3) The identification on equipment except on a valve, may be removed after it has been repaired.

(c) When each leak is detected as specified in 40 CFR §§60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:

(1) The instrument and operator identification numbers and the equipment identification number.

(2) The date the leak was detected and the dates of each attempt to repair the leak.

(3) Repair methods applied in each attempt to repair the leak.

(4) "Above 10,000" if the maximum instrument reading measured by the methods specified in 40 CFR §60.485(a) after each repair attempt is equal to or greater than 10,000 ppm.

(5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.

(7) The expected date of successful repair of the leak if a leak is not repaired within 15 days.

(8) Dates of process unit shutdowns that occur while the equipment is unrepaired.

(9) The date of successful repair of the leak.

(d) The following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR §60.482-10 shall be recorded and kept in a readily accessible location:

(1) Detailed schematics, design specifications, and piping and instrumentation diagrams.

(2) The dates and descriptions of any changes in the design specifications.

(3) A description of the parameter or parameters monitored, as required in §60.482-10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.

(4) Periods when the closed vent systems and control devices required in 40 CFR §§60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame.

(5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR §§60.482-2, 60.482-3, 60.482-4, and 60.482-5.

(e) The following information pertaining to all equipment subject to the requirements in 40 CFR §§60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for equipment subject to the requirements of this subpart.

(2)(i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR §§60.482-2(e), 60.482-3(i) and 60.482-7(f).

(ii) The designation of equipment as subject to the requirements of 40 CFR §60.482-2(e), §60.482-3(i), or §60.482-7(f) shall be signed by the owner or operator. Alternatively, the owner or operator may establish a mechanism with their permitting authority that satisfies this requirement.

(3) A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR §60.482-4.

(4)(i) The dates of each compliance test as required in 40 CFR §§60.482-2(e), 60.482-3(i), 60.482-4, and 60.482-7(f).

(ii) The background level measured during each compliance test.

(iii) The maximum instrument reading measured at the equipment during each compliance test.

(5) A list of identification numbers for equipment in vacuum service.

(6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with 40 CFR §60.482-1(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr.

(f) The following information pertaining to all valves subject to the requirements of 40 CFR §60.482-7(g) and (h) and to all pumps subject to the requirements of 40 CFR §60.482-2(g) shall be recorded in a log that is kept in a readily accessible location:

(1) A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump.

(2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.

(g) The following information shall be recorded for valves complying with 40 CFR §60.483-2:

(1) A schedule of monitoring.

(2) The percent of valves found leaking during each monitoring period.

(h) The following information shall be recorded in a log that is kept in a readily accessible location:

(1) Design criterion required in 40 CFR §§60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and

(2) Any changes to this criterion and the reasons for the changes.

(i) The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR §60.480(d):

(1) An analysis demonstrating the design capacity of the affected facility,

(2) A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol, and

(3) An analysis demonstrating that equipment is not in VOC service.

(j) Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location.

(k) The provisions of 40 CFR §60.7 (b) and (d) do not apply to affected facilities subject to this subpart.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.486

E34-31. Reporting requirements (40 CFR §60.487): (a) Each owner or operator subject to the provisions of this subpart shall submit semiannual reports to the Technical Secretary and Administrator beginning six months after the initial startup date.

(b) The initial semiannual report to the Technical Secretary and Administrator shall include the following information:

(1) Process unit identification.

(2) Number of valves subject to the requirements of 40 CFR §60.482-7, excluding those valves designated for no detectable emissions under the provisions of 40 CFR §60.482-7(f).

(3) Number of pumps subject to the requirements of 40 CFR §60.482-2, excluding those pumps designated for no detectable emissions under the provisions of 40 CFR §60.482-2(e) and those pumps complying with 40 CFR §60.482-2(f).

(4) Number of compressors subject to the requirements of 40 CFR §60.482-3, excluding those compressors designated for no detectable emissions under the provisions of 40 CFR §60.482-3(i) and those compressors complying with 40 CFR §60.482-3(h).

(c) All semiannual reports to the Technical Secretary and Administrator shall include the following information, summarized from the information in 40 CFR §60.486:

(1) Process unit identification.

(2) For each month during the semiannual reporting period,

(i) Number of valves for which leaks were detected as described in 40 CFR §60.482-7(b) or §60.483-2,

(ii) Number of valves for which leaks were not repaired as required in 40 CFR §60.482-7(d)(1),

(iii) Number of pumps for which leaks were detected as described in 40 CFR §60.482-2(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii),

(iv) Number of pumps for which leaks were not repaired as required in 40 CFR §60.482-2(c)(1) and (d)(6),

(v) Number of compressors for which leaks were detected as described in 40 CFR 40 CFR §60.482-3(f),

(vi) Number of compressors for which leaks were not repaired as required in 40 CFR §60.482-3(g)(1), and

(vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

(3) Dates of process unit shutdowns which occurred within the semiannual reporting period.

(4) Revisions to items reported according to (b) if changes have occurred since the initial report or subsequent revisions to the initial report.

(d) An owner or operator electing to comply with the provisions of 40 CFR §60.483-1 or §60.483-2 shall notify the Technical Secretary and Administrator of the alternative standard selected 90 days before implementing either of the provisions.

(e) An owner or operator shall report the results of all performance tests in accordance with 40 CFR §60.8 of the General Provisions. The provisions of 40 CFR §60.8(d) do not apply to affected facilities subject to the provisions of this subpart except that an owner or operator must notify the Technical Secretary and Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests.

(f) The requirements of (a) through (c) of this condition remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of (a) through (c) of this condition, provided that they comply with the requirements established by the State.

(g) The permittee shall comply with condition E2(d) of this permit for semiannual reporting of compliance monitoring information for subpart VV.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.487

E35. Emission Source

53-0081-54	Source Identification:	Alcohol Area
		Denatured Alcohol Storage Tank T-5901, PES #54A
		Denatured Alcohol Storage Tank T-5902, PES #54B
		NESHAP subpart FFFF
	Stack(s):	PES #54A
		PES #54B

Control Equipment: The tanks have no emission controls.

Conditions E35-1 through E35-3 apply to source 53-0081-54.

E35-1. The stated design storage capacity for each tank is 300,000 gallons. The annual throughput shall not exceed a total of 126,000,000 gallons of alcohol per year for this source.

Tenn. Comp. R. & Regs. 1200-03-09, Construction Permit 958558P

Compliance Method: A log of the turnover rate for each tank must be maintained at the source location and kept available for inspection by the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five (5) years.

E35-2. The following emission allowables are subject to fees:

PES #54A, 2.1 ton/yr of volatile organic compounds

PES #54B, 2.1 ton/yr of volatile organic compounds

Tenn. Comp. R. & Regs. 1200-03-26

Compliance Method: Pay annual emission fees in accordance with condition E1.

National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing (MON)

E35-3. The application dated October 25, 2017, indicates that this source (53-0081-54) is subject to 40 CFR 63 subpart FFFF (National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing). The applicability of this rule to the processes associated with this source follows:

Process ID	Applicability of rule 40 CFR 63 subpart FFFF
PES 54A	Applicable per rule (group 2 storage tank)
PES 54B	Applicable per rule (group 2 storage tank)

Compliance Method: The permittee shall comply with conditions E2(c), E34-9, E34-10, E34-11, E34-12, E34-14, and E34-15 for these storage tanks.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR 63.2435

E36. Emission Source

53-0081-55	Source Identification:	Alcohol Area
		Alcohol Storage and Loadout, PES #55
		Alcohol Head Tank, Alcohol Storage Tank 11, Alcohol Storage Tank 12, Alcohol Storage Tank 13, and Alcohol Storage Tank 14,
		NESHAP subpart FFFF
	Stack(s):	PES #55
	Control Equipment:	Scrubber K-5960, PES #55

Conditions E36-1 through E36-3 apply to source 53-0081-55.

E36-1. The annual throughput shall not exceed 126,000,000 gallons of alcohol per year for this source.

Tenn. Comp. R. & Regs. 1200-03-09, Construction Permit 958558P

Compliance Method: A log of the turnover rate must be maintained at the source location and kept available for inspection by the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five (5) years.

E36-2. The following emission allowables are subject to fees:

Volatile organic compounds: 8.0 tons/yr

Tenn. Comp. R. & Regs. 1200-03-26

Compliance Method: Pay annual emission fees in accordance with condition E1.

National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing (MON)

E36-3. The application dated October 25, 2017, indicates that this source (53-0081-55) is subject to 40 CFR 63 subpart FFFF (National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing). The applicability of this rule to the processes associated with this source follows:

Process ID	Applicability of rule 40 CFR 63 subpart FFFF
PES 55	Applicable per rule (group 2 transfer operations)

Compliance Method: The permittee shall comply with conditions E2(c), E34-9, E34-10, E34-11, E34-12, E34-13, E34-14, and E34-15 for this source.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR 63.2435

E37. Emission Source

53-0081-59	Source Identification:	Alcohol Area
		Natural Gasoline Storage Tank T-5906
		NESHAP subpart FFFF
	Stack(s):	PES #59
	Control Equipment:	No Control

Conditions E37-1 through E37-3 apply to source 53-0081-59.

E37-1. The stated design storage capacity for this storage tank is 30,000 gallons, with a throughput of 6,570,000 gallons of gasoline per year.

Tenn. Comp. R. & Regs. 1200-03-09, Construction Permit 958558P

Compliance Method: A log of the turnover rate must be maintained at the source location and kept available for inspection by the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five (5) years.

E37-2. The following emission allowables are subject to fees:

Volatile organic compounds: 1.4 ton/yr

Tenn. Comp. R. & Regs. 1200-03-26

Compliance Method: Pay annual emission fees in accordance with condition E1.

National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing (MON)

E37-3. The application dated October 25, 2017, indicates that this source (53-0081-59) is subject to 40 CFR 63 subpart FFFF (National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing). The applicability of this rule to the processes associated with this source follows:

Process ID	Applicability of rule 40 CFR 63 subpart FFFF
PES 59	Applicable per rule (group 2 storage tank)

Compliance Method: The permittee shall comply with conditions E2(c), E34-9, E34-10, E34-11, E34-12, E34-14, and E34-15 for this storage tank.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR 63.2435

E38. Emission Source

53-0081-61	Source Identification:	Alcohol Area
		Fuel Additive Storage Tank T-5903
		NESHAP subpart FFFF
	Stack(s):	PES #61
	Control Equipment:	No Control

Conditions E38-1 through E38-3 apply to source 53-0081-61.

E38-1. The stated design storage capacity for this storage tank is 6,500 gallons, with a throughput of 594,000 gallons of fuel additive per year.

Tenn. Comp. R. & Regs. 1200-03-09, Construction Permit 958558P

Compliance Method: A log of the turnover rate must be maintained at the source location and kept available for inspection by the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five (5) years.

E38-2. The following emission allowables are subject to fees:

Volatile organic compounds: 1.9 ton/yr

Tenn. Comp. R. & Regs. 1200-03-26

Compliance Method: Pay annual emission fees in accordance with condition E1.

National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing (MON)

E38-3. The application dated October 25, 2017, indicates that this source (53-0081-61) is subject to 40 CFR 63 subpart FFFF (National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing). The applicability of this rule to the processes associated with this source follows:

Process ID	Applicability of rule 40 CFR 63 subpart FFFF
PES 61	Applicable per rule (group 2 storage tank)

Compliance Method: The permittee shall comply with conditions E2(c), E34-9, E34-10, E34-11, E34-12, E34-14, and E34-15 for this storage tank.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR 63.2435

E39. Emission Source

53-0081-98	Source Identification:	Alcohol Area
		Alcohol Storage Tank T-5904
		NSPS subpart Kb
		NESHAP subpart FFFF
	Stack(s):	PES #98
	Control Equipment:	No Control

Conditions E39-1 through E39-12 apply to source 53-0081-98.

E39-1. Tank storage capacity shall not exceed 1,000,000 gallons.

Tenn. Comp. R. & Regs. 1200-03-09, Construction Permit 958558P

Compliance Method: Compliance with this requirement shall be assured by annual compliance certification.

E39-2. Volatile Organic Compounds (VOC) emitted from this source (tank) shall not exceed 0.4 tons per year.

Tenn. Comp. R. & Regs. 1200-03-09, Construction Permit 958558P

Compliance Method: The potential to emit volatile organic compounds from this source is less than five tons per year. In accordance with Tenn. Comp. R. & Regs. 1200-03-09-.04(5)(c)3. and by annual certification of compliance, the permittee shall be considered to meet the monitoring and related record keeping and reporting requirements.

E39-3. Reserved

E39-4. Reserved

E39-5. Reserved

National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing (MON)

E39-6. The application dated October 25, 2017, indicates that this source (53-0081-54) is subject to 40 CFR 63 subpart FFFF (National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing). The applicability of this rule to the processes associated with this source follows:

Process ID	Applicability of rule 40 CFR 63 subpart FFFF
PES 98	Applicable per rule (group 2 storage tank)

Compliance Method: The permittee shall comply with conditions E2(c), E34-9, E34-10, E34-11, E34-12, and E34-14 for this storage tank.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR 63.2435

New Source Performance Standards (NSPS) - Subpart Kb for Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

E39-7. The application dated October 25, 2017, indicates that this source (53-0081-54) is subject to New Source Performance Standards (NSPS) Subpart Kb for Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984.

Compliance Method: The permittee shall comply with conditions E39-8 through E39-12 for this storage tank.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR 60.110b

E39-8. Standard for volatile organic compounds (VOC) (40 CFR §60.112b): (a) The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 containing a volatile organic liquid (VOL) that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following:

(1) A fixed roof in combination with an internal floating roof meeting the following specifications:

(i) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

(ii) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

(A) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

(B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

(C) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

(iii) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

(iv) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

(v) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(vi) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

(vii) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

(viii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(ix) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

The permit application dated October 25, 2017, indicates that this tank is provided with a fixed roof and internal floating roof.

(2) An external floating roof. An external floating roof means a pontoon-type or double-deck type cover that rests on the liquid surface in a vessel with no fixed roof. Each external floating roof must meet the following specifications:

(i) Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

(A) The primary seal shall be either a mechanical shoe seal or a liquid-mounted seal. Except as provided in 40 CFR §60.113b(b)(4), the seal shall completely cover the annular space between the edge of the floating roof and tank wall.

(B) The secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion except as allowed in 40 CFR §60.113b(b)(4).

(ii) Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are to be gasketed. Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(iii) The roof shall be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.

(3) A closed vent system and control device meeting the following specifications:

(i) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, subpart VV, 40 CFR §60.485(b).

(ii) The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (40 CFR §60.18) of the General Provisions.

(4) A system equivalent to those described in (a)(1), (a)(2), or (a)(3) of this condition as provided in 40 CFR §60.114b of this subpart.

(b) The owner or operator of each storage vessel with a design capacity greater than or equal to 75 m^3 which contains a VOL that, as stored, has a maximum true vapor pressure greater than or equal to 76.6 kPa shall equip each storage vessel with one of the following:

(1) A closed vent system and control device as specified in 40 CFR §60.112b(a)(3).

(2) A system equivalent to that described in (b)(1) as provided in 40 CFR §60.114b of this subpart.

(c) Reserved

(1) Reserved

(2) Reserved

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR 60.112b

E39-9. Testing and procedures (40 CFR §60.113b): The owner or operator of each storage vessel as specified in §60.112b(a) shall meet the requirements of (a), (b), or (c) of this condition. The applicable paragraph for a particular storage vessel depends on the control equipment installed to meet the requirements of 40 CFR §60.112b.

(a) After installing the control equipment required to meet 40 CFR §60.112b(a)(1) (permanently affixed roof and internal floating roof), each owner or operator shall:

(1) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

(2) For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in 40 CFR §60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in 40 CFR §60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in (a)(4) of this condition at least every 5 years; or

(ii) Visually inspect the vessel as specified in (a)(2) of this condition.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in (a)(2) and (a)(3)(ii) of this condition and at intervals no greater than 5 years in the case of vessels specified in (a)(3)(i) of this condition.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by (a)(1) and (a)(4) of this condition to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why

the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet 40 CFR §60.112b(a)(2) (external floating roof), the owner or operator shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of (b)(1)(i) and (b)(1)(ii) of this condition.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

(i) Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in (b)(2)(ii) of this condition shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in (b)(4) of this condition.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in (b)(4) (i) and (ii) of this condition:

(i) The accumulated area of gaps between the tank wall and the mechanical shoe or liquid-mounted primary seal shall not exceed 212 cm^2 per meter of tank diameter, and the width of any portion of any gap shall not exceed 3.81 cm.

(A) One end of the mechanical shoe is to extend into the stored liquid, and the other end is to extend a minimum vertical distance of 61 cm above the stored liquid surface.

(B) There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.

(ii) The secondary seal is to meet the following requirements:

(A) The secondary seal is to be installed above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in paragraph (b)(2)(iii) of this section.

(B) The accumulated area of gaps between the tank wall and the secondary seal shall not exceed 21.2 cm^2 per meter of tank diameter, and the width of any portion of any gap shall not exceed 1.27 cm.

(C) There are to be no holes, tears, or other openings in the seal or seal fabric.

(iii) If a failure that is detected during inspections required in (b)(1) of §60.113b(b) cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in §60.115b(b)(4). Such extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(5) Notify the Administrator 30 days in advance of any gap measurements required by (b)(1) of this condition to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by (b)(6) of this condition, the owner or operator shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance of refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(c) The owner or operator of each source that is equipped with a closed vent system and control device as required in §60.112b (a)(3) or (b)(2) (other than a flare) is exempt from 40 CFR §60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by 40 CFR §60.7(a)(1) or, if the facility is exempt from 40 CFR §60.7(a)(1), as an attachment to the notification required by 40 CFR §60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with (c)(1) of this condition, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

(d) The owner or operator of each source that is equipped with a closed vent system and a flare to meet the requirements in 40 CFR §60.112b (a)(3) or (b)(2) shall meet the requirements as specified in the general control device requirements, 40 CFR §60.18 (e) and (f).

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR 60.113b

E39-10. Alternative means of emission limitation (40 CFR **§60.114b**): (a) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in emissions at least equivalent to the reduction in emissions achieved by any requirement in 40 CFR §60.112b, the Administrator will publish in the FEDERAL REGISTER a notice permitting the use of the alternative means for purposes of compliance with that requirement.

(b) Any notice under paragraph (a) of this section will be published only after notice and an opportunity for a hearing.

(c) Any person seeking permission under this section shall submit to the Administrator a written application including:

(1) An actual emissions test that uses a full-sized or scale-model storage vessel that accurately collects and measures all VOC emissions from a given control device and that accurately simulates wind and accounts for other emission variables such as temperature and barometric pressure.

(2) An engineering evaluation that the Administrator determines is an accurate method of determining equivalence.

(d) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve the same emissions reduction as specified in 40 CFR §60.112b.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR 60.114b

E39-11. Reporting and recordkeeping requirements (40 CFR **§60.115b**): The owner or operator of each storage vessel as specified in 40 CFR §60.112b(a) shall keep records and furnish reports as required by (a), (b), or (c) of this condition depending upon the control equipment installed to meet the requirements of 40 CFR §60.112b. The owner or operator shall keep copies of all reports and records required by this condition, except for the record required by (c)(1), for at least 2 years. The record required by (c)(1) will be kept for the life of the control equipment.

(a) After installing control equipment in accordance with 40 CFR §60.112b(a)(1) (fixed roof and internal floating roof), the owner or operator shall meet the following requirements.

(1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of 40 CFR §60.112b(a)(1) and 40 CFR §60.113b(a)(1). This report shall be an attachment to the notification required by 40 CFR §60.7(a)(3).

(2) Keep a record of each inspection performed as required by 40 CFR §60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

(3) If any of the conditions described in 40 CFR §60.113b(a)(2) are detected during the annual visual inspection required by 40 CFR §60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(4) After each inspection required by 40 CFR §60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in 40 CFR §60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of 40 CFR §61.112b(a)(1) or 40 CFR §60.113b(a)(3) and list each repair made.

(b) After installing control equipment in accordance with 40 CFR §61.112b(a)(2) (external floating roof), the owner or operator shall meet the following requirements.

(1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of 40 CFR §60.112b(a)(2) and §60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by 40 CFR §60.7(a)(3).

(2) Within 60 days of performing the seal gap measurements required by 40 CFR §60.113b(b)(1), furnish the Administrator with a report that contains:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in 40 CFR §60.113b (b)(2) and (b)(3).

(3) Keep a record of each gap measurement performed as required by 40 CFR §60.113b(b). Each record shall identify the storage vessel in which the measurement was performed and shall contain:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in §60.113b (b)(2) and (b)(3).

(4) After each seal gap measurement that detects gaps exceeding the limitations specified by 40 CFR §60.113b(b)(4), submit a report to the Administrator within 30 days of the inspection. The report will identify the vessel and contain the information specified in (b)(2) of this condition and the date the vessel was emptied or the repairs made and date of repair.

(c) After installing control equipment in accordance with 40 CFR §60.112b (a)(3) or (b)(1) (closed vent system and control device other than a flare), the owner or operator shall keep the following records.

(1) A copy of the operating plan.

(2) A record of the measured values of the parameters monitored in accordance with §60.113b(c)(2).

(d) After installing a closed vent system and flare to comply with 40 CFR §60.112b, the owner or operator shall meet the following requirements.

(1) A report containing the measurements required by 40 CFR §60.18(f) (1), (2), (3), (4), (5), and (6) shall be furnished to the Administrator as required by 40 CFR §60.8 of the General Provisions. This report shall be submitted within 6 months of the initial start-up date.

(2) Records shall be kept of all periods of operation during which the flare pilot flame is absent.

(3) Semiannual reports of all periods recorded under 40 CFR §60.115b(d)(2) in which the pilot flame was absent shall be furnished to the Administrator.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR 60.115b

E39-12. Monitoring of operations (40 CFR §60.116b): (a) The owner or operator shall keep copies of all records required by this condition, except for the record required by (b) of this condition, for at least 5 years. The record required by (b) of this condition will be kept for the life of the source.

(b) The owner or operator of each storage vessel as specified in 40 CFR §60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.

(c) Except as provided in (f) and (g) of this condition, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

(d) Except as provided in (g) of this condition, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor vapor pressure values for each volume range.

(e) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below.

(1) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

(2) For crude oil or refined petroleum products the vapor pressure may be obtained by the following:

(i) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference—see 40 CFR §60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(ii) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

(3) For other liquids, the vapor pressure:

(i) May be obtained from standard reference texts, or

(ii) Determined by ASTM D2879-83, 96, or 97 (incorporated by reference—see §60.17); or

(iii) Measured by an appropriate method approved by the Administrator; or

(iv) Calculated by an appropriate method approved by the Administrator.

(f) The owner or operator of each vessel storing a waste mixture of indeterminate or variable composition shall be subject to the following requirements.

(1) Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in (e) of this condition.

(2) For vessels in which the vapor pressure of the anticipated liquid composition is above the cutoff for monitoring but below the cutoff for controls as defined in 40 CFR §60.112b(a), an initial physical test of the vapor pressure is required; and a physical test at least once every 6 months thereafter is required as determined by the following methods:

(i) ASTM D2879-83, 96, or 97 (incorporated by reference—see 40 CFR §60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference—see 40 CFR §60.17); or

(iii) As measured by an appropriate method as approved by the Administrator.

(g) The owner or operator of each vessel equipped with a closed vent system and control device meeting the specification of 40 CFR §60.112b or with emissions reductions equipment as specified in 40 CFR 65.42(b)(4), (b)(5), (b)(6), or (c) is exempt from the requirements of (c) and (d) of this condition.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR 60.116b

E40. Emission Source

53-0081-99	Source Identification:	Alcohol Area
		Alcohol Barge Loadout Facility
		NESHAP subpart FFFF
	Stack(s):	PES #99
	Control Equipment:	Scrubber K-5970 (CAM)

Conditions E40-1 through E40-3 apply to source 53-0081-99.

E40-1. The annual throughput shall not exceed 126 million gallons of alcohol per year for this source.

Tenn. Comp. R. & Regs. 1200-03-09, Construction Permit 958558P

Compliance Method: A log of the alcohol turnover/loadout rate must be maintained at the source location and kept available for inspection by the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five (5) years.

E40-2. Volatile Organic Compounds (VOC) emitted from this source shall not exceed 37.1 tons/year.

Tenn. Comp. R. & Regs. 1200-03-09, Construction Permit 943048P

Compliance Method: The control device shall be operated whenever barges equipped with vapor recovery systems are utilized with a liquid flow within a normal operating range as defined by facility experience.

Compliance shall be assured by maintaining a wet scrubber liquid flow of 3.5 gallons per minute and by conducting a daily visual inspection of each scrubber by operating personnel in accordance with the CAM plan in appendix 2. A daily record of a visual inspection of the scrubber to insure proper operation of the scrubber shall be maintained. Records shall be retained for a period of not less than five (5) years.

The monitoring device must be operational 95% of the operational time of the source.

National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing (MON)

E40-3. The application dated October 25, 2017, indicates that this source (53-0081-99) is subject to 40 CFR 63 subpart FFFF (National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing). The applicability of this rule to the processes associated with this source follows:

Process ID	Applicability of rule 40 CFR 63 subpart FFFF
PES 99	Applicable per rule (group 2 transfer rack)

Compliance Method: The permittee shall comply with conditions E2(c), E34-9, E34-10, E34-11, E34-13, and E34-14 for this source.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR 63.2435

E41. Emission Source

53-0081-72	Source Identification:	Propanediol Area (includes collective limitations for sources 72, 73 and 74) Fermentation Process NESHAP subpart FFFF
	Stack(s):	PES #72
	Control Equipment:	Reactive Bio-Scrubber
		Significant Modification 1 increases production of propanediol from 915 to 1041 batches per year with resulting emission increases of PM, VOC, ammonia, & acetaldehyde from sources 53-0081-72, 73, & 74. Also, an additional ammonia storage tank and additional filtration, ion exchange, and evaporation equipment were installed to support the production increase. These modifications were authorized by permit 973999 issued July 18, 2018.

Conditions E41-1(SM1) through E41-8(SM1) apply to source 53-0081-72.

E41-1(SM1). The maximum input rate for sources 72, 73, and 74 of dextrose, fermentation broth, and crude propanediol, respectively, shall not exceed 1,041 batches per each source during any period of 12-consecutive months. The maximum production rate for sources 72, 73, and 74 of fermentation broth, crude propanediol, and refined propanediol, respectively, shall not exceed 1,041 batches per each source during any period of 12-consecutive months. Should the permittee need to modify the source(s) in a manner that increases the material input rate(s) and/or production rate(s), a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8), and the applications dated March 28, 2018, and February 11, 2020

Compliance Method: The permittee shall maintain a log of the actual amount of material input and output (production rate) for each source during each calendar month and each period of 12-consecutive months. The log shall be retained for a period of not less than five years.

E41-2(SM1). Volatile organic compound (VOC) emissions from PES #72, PES #73, PES #74, PES #75 and PES #76 shall not exceed a total of 25.0 tons during any period of 12 consecutive months. The VOC amount includes emissions from storage and process tanks associated with propanediol production. The storage and process tanks are considered insignificant emission units.

TAPCR 1200-03-07-.07(2), and the applications dated March 28, 2018, and February 11, 2020

Compliance Method: Compliance with this emission limitation shall be assured by maintaining the control equipment's operating parameters within the range identified during the March 2008 and RTO #2 performance tests as identified in control scenario 1 or 2 (see below) and by complying with the material input and production rate limitations, monitoring, and recordkeeping requirements of condition E41-1(SM1) and the emission limitations, monitoring and recordkeeping requirements of conditions E42-5(SM1), and E43-5(SM1).

A record (start and end times) of which control scenario is used shall be maintained for compliance with this condition. The records shall be retained for a period of not less than five years.

The scrubber liquid flow rate, oxidation reduction potential and pH shall be recorded once daily when the source is in operation. For control scenario 2, the RTO #2 operating temperature shall be continuously recorded and a record of the three hour block average temperature shall be maintained. Records of the parameters shall be retained for a period of not less than five years.

Scenario 1 Scenario 2

Scrubber flow rate: 325 gallons per minute (minimum)	Scrubber flow rate: 170 gallons per minute (minimum when using RTO)
Oxidation reduction potential (ORP): 900 millivolts (minimum)	Oxidation reduction potential (ORP): 900 millivolts (minimum)
pH: 5.5 to 7.5	pH: 5.5 to 7.5
	RTO #2 operating temperature: ≥ 1400 ^{o}F (three hour block average)

E41-3(SM1). Particulate matter (PM) emitted from the fermentation process reactive bio-scrubber stack (PES #72) shall not exceed 0.002 grain per dry standard cubic foot of exhaust gas (2.1 tons per year).

TAPCR 1200-03-07-.01(5), Agreement Letter dated September 27, 2023 (Attachment 7) and the applications dated March 28, 2018, and February 11, 2020

Compliance Method: Compliance with this emission limitation shall be assured by compliance with the material input and production rate limitations, monitoring, and recordkeeping requirements of condition E41-1(SM1) and compliance with the monitoring, and recordkeeping requirements of condition E41-2(SM1).

E41-4(SM1). Volatile organic compounds (VOC) emitted from the fermentation process reactive bio scrubber stack (PES #72) shall not exceed 11.0 tons during any period of 12 consecutive months.

TAPCR 1200-03-07-.07(2), and the applications dated March 28, 2018, and February 11, 2020

Compliance Method: Compliance with this emission limitation shall be assured by compliance with the VOC emission limitation, monitoring, and recordkeeping requirements of condition E41-2(SM1) and compliance with the material input and production rate limitations, monitoring, and recordkeeping requirements of condition E41-1(SM1).

E41-5(SM1). Ammonia emitted from the fermentation process reactive bio-scrubber stack (PES #72) shall not exceed 1.4 tons during any period of 12 consecutive months.

TAPCR 1200-03-07-.07(2), and the applications dated March 28, 2018, and February 11, 2020

Compliance Method: Compliance with this emission limitation shall be assured by compliance with the monitoring, and recordkeeping requirements of condition E41-2(SM1) and compliance with the material input and production rate limitations, monitoring, and recordkeeping requirements of condition E41-1(SM1).

E41-6(SM1). Acetaldehyde emitted from the fermentation process bio reactive scrubber stack (PES #72) shall not exceed 1.1 tons during any period of 12 consecutive months.

TAPCR 1200-03-07-.07(2), and the applications dated March 28, 2018, and February 11, 2020

Compliance Method: Compliance with this emission limitation shall be assured by compliance with the monitoring, and recordkeeping requirements of condition E41-2(SM1) and compliance with the material input and production rate limitations, monitoring, and recordkeeping requirements of condition E41-1(SM1).

E41-7(SM1). The regenerative thermal oxidizer shall operate in series with the fermentation reactive scrubber whenever butanediol is manufactured.

TAPCR 1200-03-09-.03(8), Letter dated March 20, 2013 (Attachment 7)

Compliance Method: A continuous monitoring system shall be calibrated, maintained and operated on the thermal oxidizer for measuring operating temperature. For purposes of this condition continuous shall mean temperature measurements no less than once per minute. The output of this system shall be recorded as a 3-hour block average. The permittee shall operate the thermal oxidizer at or above the 3-hour block average temperature of 1400 F.

National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing (MON)

E41-8(SM1). The application dated October 25, 2017, indicates that this source (53-0081-72) is subject to 40 CFR 63 subpart FFFF (National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing). The applicability of this rule to the processes associated with this source follows:

Process ID	Applicability of rule 40 CFR 63 subpart FFFF
PES 72	Exempt per rule

TAPCR 1200-03-09-.03(8) and 40 CFR 63.2435

Compliance Method: The permittee shall certify annually the exempt status of this source with respect to 40 CFR 63 subpart FFFF per condition E2(b).

E42. Emission Source

53-0081-73	Source Identification:	Propanediol Area
		Separation Process
		NESHAP subpart FFFF
	Stack(s):	Evaporator PES #73
		Biomass Dryer Scrubber PES #74
	Control Equipment:	Evaporator (No control)
		Wet Scrubber
		Significant Modification 1: see source description for source 53-0081-72

Conditions E42-1(SM1) through E42-7(SM1) apply to source 53-0081-73.

E42-1(SM1). The maximum input rate of fermentation broth for this source shall not exceed 1,041 batches during any period of 12-consecutive months. The maximum production rate of crude propanediol for this source shall not exceed 1,041 batches during any period of 12-consecutive months. Should the permittee need to modify the source(s) in a manner that increases the input and/or production rate, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change. TAPCR 1200-03-09-.03(8), and the applications dated March 28, 2018, and February 11, 2020

Compliance Method: Compliance with these limitations shall be demonstrated by compliance with the material input and production limitations, monitoring, and recordkeeping requirements of condition E41-1(SM1).

Evaporator PES #73

E42-2(SM1). Particulate matter (PM) emitted from the evaporator process stack (PES #73) shall not exceed 0.001 grain per dry standard cubic foot of exhaust gas (0.0023 ton per year).

TAPCR 1200-03-07-.01(5), agreement letter dated September 27, 2023 (Attachment 7) and the applications dated March 28, 2018, and February 11, 2020

Compliance Method: Compliance with this emission limit shall be assured by compliance with the material input and production limitations, monitoring, and recordkeeping requirements of condition E42-1(SM1)..

E42-3(SM1). Volatile organic compounds (VOC) emitted from the evaporator process stack (PES #73) shall not exceed 1.1 tons during any period of 12 consecutive months.

TAPCR 1200-03-07-.07(2), and the applications dated March 28, 2018, and February 11, 2020

Compliance Method: Compliance shall be assured by compliance with the material input and production limitations, monitoring, and recordkeeping requirements of condition E42-1(SM1).

Biomass Dryer Scrubber PES #74

E42-4(SM1). Particulate matter (PM) emitted from the biomass dryers' process scrubber stack (PES #74) shall not exceed 0.005 grain per dry standard cubic foot of exhaust gas (5.1 tons per year).

TAPCR 1200-03-07-.01(5), agreement letter dated September 27, 2023 (Attachment 7) and the applications dated March 28, 2018, and February 11, 2020

Compliance Method: Compliance with this emission limit shall be assured by compliance with the material input and production limitations, monitoring, and recordkeeping requirements of condition E42-1(SM1).

E42-5(SM1). Volatile organic compounds (VOC) emitted from the biomass dryers' process scrubber stack (PES #74) shall not exceed 11.0 tons during any period of 12 consecutive months.

TAPCR 1200-03-07-.07(2), and the applications dated March 28, 2018, and February 11, 2020

Compliance Method: Compliance shall be assured by maintaining the control equipment's operating parameters within the range identified during the performance test conducted in March 2008 (see below) and compliance with the material input and production limitations, monitoring, and recordkeeping requirements of condition E42-1(SM1).

The scrubber liquid flow rates and pH shall be recorded once daily when the source is in operation. Records of the parameters shall be retained for a period of not less than five years. The minimum scrubber liquid flow rate and maximum scrubber liquid pH are specified below.

Bottom scrubber flow rate ≥ 40 gpm

Top scrubber flow rate ≥ 20 gpm

pH ≤ 7.5

E42-6(SM1). Ammonia emitted from the biomass dryers' process scrubber stack (PES #74) shall not exceed 7.0 tons during any period of 12 consecutive months.

TAPCR 1200-03-07-.07(2), and the applications dated March 28, 2018, and February 11, 2020

Compliance Method: Compliance shall be assured by compliance with the monitoring, and recordkeeping requirements of condition E42-5(SM1) and compliance with the material input and production limitations, monitoring, and recordkeeping requirements of condition E42-1(SM1).

E42-7(SM1). The application dated October 25, 2017, indicates that this source (53-0081-73) is subject to 40 CFR 63 subpart FFFF (National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing). The applicability of this rule to the processes associated with this source follows:

Process ID	Applicability of rule 40 CFR 63 subpart FFFF
PES 73	Applicable per rule (group 2 continuous process vent)
PES 74	Not applicable

TAPCR 1200-03-09-.03(8) and 40 CFR 63.2435

Compliance Method: The permittee shall comply with conditions E2(c), E34-9, E34-10, E34-11, E34-14, and E34-15 for this source.

E43. Emission Source

53-0081-74	Source Identification:	Propanediol Area
		Refining Process
		NESHAP subpart FFFF
	Stack(s):	Hydrogenation Reactor PES #75
		Distillation Column Scrubber PES #76
	Control Equipment:	Hydrogenation Reactor (No control)
		Wet Scrubber
		Significant Modification 1: see source description for 53-0081-72

Conditions E43-1(SM1) through E43-6(SM1) apply to source 53-0081-74.

E43-1(SM1). The maximum input rate of crude propanediol for this source shall not exceed 1,041 batches during any period of 12-consecutive months. The maximum production rate of refined propanediol for this source shall not exceed 1,041 batches during any period of 12-consecutive months. Should the permittee need to modify the source(s) in a manner that increases the input and/or production rate, a construction permit or Title V modification shall first be applied for and received in accordance with TAPCR 1200-03-09-.01 or TAPCR 1200-03-09-.02(11)(d)1(i)(V) prior to making the change.

TAPCR 1200-03-09-.03(8), and the applications dated March 28, 2018, and February 11, 2020

Compliance Method: Compliance with these limitations shall be demonstrated by compliance with the material input and production limitations, monitoring, and recordkeeping requirements of condition E41-1(SM1).

Hydrogenation Reactor PES #75

E43-2(SM1). Particulate matter (PM) emitted from the hydrogenation stack (PES #75) shall not exceed a maximum of 0.001 grain per dry standard cubic foot of exhaust gas (0.0005 ton per year).

TAPCR 1200-03-07-.01(5), agreement letter dated September 27, 2023 (Attachment 7), applications dated March 28, 2018, and February 11, 2020

Compliance Method: Compliance with this emission limit shall be assured by compliance with the material input and production limitations, monitoring, and recordkeeping requirements of condition E43-1(SM1).

E43-3(SM1). Volatile organic compounds (VOC) emitted from the hydrogenation stack (PES #75) shall not exceed 1.3 tons during any period of 12 consecutive months.

TAPCR1200-03-07-.07(2), applications dated March 28, 2018, and February 11, 2020

Compliance Method: Compliance with this emission limitation shall be assured by compliance with the material input and production limitations, monitoring, and recordkeeping requirements of condition E43-1(SM1).

Distillation Column Scrubber PES #76

E43-4(SM1). Particulate matter (PM) emitted from the distillation scrubber stack (PES #76) shall not exceed a maximum of 0.001 grain per dry standard cubic foot of exhaust gas (0.00051 ton per year).

TAPCR 1200-03-07-.01(5), agreement letter dated September 27, 2023 (Attachment 7), applications dated March 28, 2018, and February 11, 2020

Compliance Method: Compliance with this emission limit shall be assured by compliance with the material input and production limitations, monitoring, and recordkeeping requirements of condition E43-1(SM1).

E43-5(SM1). Volatile organic compounds emitted from the distillation scrubber stack (PES #76) shall not exceed 0.6 tons during any period of 12 consecutive months.

TAPCR 1200-03-07-.07(2), applications dated March 28, 2018, and February 11, 2020

Compliance Method: Compliance with this emission limitation shall be assured by maintaining the control equipment's operating parameters within the range identified during the performance test conducted in March 2008 (see below) and by compliance with the material input and production limitations, monitoring, and recordkeeping requirements of condition E43-1(SM1).

The scrubber liquid flow rate shall be recorded once daily when the source is in operation. Records of the parameter shall be retained for a period of not less than five years. The minimum scrubber liquid flow rate is specified below.

Scrubber flow rate ≥ 1.5 gpm

E43-6(SM1). The application dated October 25, 2017, indicates that this source (53-0081-74) is subject to 40 CFR 63 subpart FFFF (National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing). The applicability of this rule to the processes associated with this source follows:

Process ID	Applicability of rule 40 CFR 63 subpart FFFF
PES 75	Exempt
PES 76	Applicable per rule (group 2 continuous process vent)

TAPCR 1200-03-09-.03(8) and 40 CFR 63.2435

Compliance Method: The permittee shall comply with conditions E2(c), E34-9, E34-10, E34-11, E34-14, and E34-15 for this source.

E44. Emission Source

53-0081-15	Source Identification:	Utilities Area
		Anaerobic Wastewater Treatment Flare (combustion of biogas)
		Flare will be used when the gluten and SSD fiber dryers are off-stream
		Biogas may also be combusted in the coal boilers.
	Stack(s):	Emergency Flare PES #15
	Control Equipment:	Flare

Conditions E44-1 through E 44-2 apply to source 53-0081-15.

E44-1. Emissions from the gluten dryer (PES#9) the SSD fiber dryer (PES#12) or the flare (PES#15) shall not exceed the following when biogas is combusted:

Pollutant	Emission Rate
Particulate Matter (TSP)	3.4 tons per year
Sulfur dioxide (SO2)	21 tons per year
Carbon Monoxide (CO)	36.8 tons per year
Nitrogen Oxides (NOx)	43.8 tons per year
Volatile Organic Compounds (VOC)	2.4 tons per year

Tenn. Comp. R. & Regs. 1200-03-09, Construction Permit 960547P

Compliance Method: A log of monthly biogas produced must be maintained at the source location and kept available for inspection by the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five (5) years.

Compliance with the emission limits for particulate matter, nitrogen oxides, carbon monoxide, and volatile organic compounds are based upon calculations using EPA, AP-42 emission factors. Sulfur dioxide emissions are based on the concentration of hydrogen sulfide from waste water treatment.

Routine maintenance, as required to maintain specified emission limits, shall be performed on the flare. Whenever, the inspection or maintenance of the biogas scrubber or blowers occurs that requires biogas from the anaerobic digester be isolated to allow that maintenance be performed safely, the flare shall operate to combust the biogas at all times when biogas may be vented to it. Maintenance records shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five (5) years.

E44-2. A daily log tracking SO2 emissions from the gluten dryer (PES #9), SSD fiber dryer (PES #12) and flare (PES #15) must be kept that readily shows compliance with the 12-month rolling SO2 limitation.

Tenn. Comp. R. & Regs. 1200-03-09, Construction Permit 962482P

Compliance Method: A log of the SO2 emissions for this source that assures compliance with this condition must be maintained at the source location and made available for inspection by the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five (5) years.

E45. Emission Source

53-0081-29	Source Identification:	Utilities Area Removed from service
	Stack(s):	Not applicable
	Control Equipment:	Not applicable

Conditions E45-1 and E45-2 apply to source 53-0081-29.

E45-1. Reserved

E45-2. Reserved

E46. Emission Source

53-0081-30	Source Identification:	Utilities Area Removed from service
	Stack(s):	Not applicable
	Control Equipment:	Not applicable

Conditions E46-1 and E46-2 apply to source 53-0081-30.

E46-1. Reserved

E46-2. Reserved

E47. Emission Source

53-0081-32	Source Identification:	Utilities Area Removed from service
	Stack(s):	Not applicable
	Control Equipment:	Not applicable

Conditions E47-1 and E47-2 apply to source 53-0081-32.

E47-1. Reserved

E47-2. Reserved

E48. Emission Source

53-0081-34	Source Identification:	Utilities Area
		Boiler #1, Natural GasFired (PES #34)
		Boiler #2, Natural GasFired (PES #35)
		Boiler #3, Natural Gas/ #2 Fuel Oil/ Fermentation (PDO) Byproduct Fired (PES #36)
	Stack(s):	BHS
	Control Equipment:	

Conditions E48-1 through E48-33 apply to source 53-0081-34.

E48-1. The stated design heat input rate for Boilers #1 and #2 is 94 million British Thermal Units per hour (MMBtu/hr) each, burning natural gas only based on a daily average

Tenn. Comp. R. & Regs. 1200-03-09, construction permit 970307F

Compliance Method: The Technical Secretary may require the company to prove compliance with this limit.

E48-2. The stated design heat input rate for Boiler #3 is 180 million Btu per hour on a daily average

Tenn. Comp. R. & Regs. 1200-03-09, construction permit 970307F

Compliance Method: The Technical Secretary may require the company to prove compliance with this limit.

E48-3. Natural gas only shall be used as a fuel for Boilers #1 and #2. Boilers #1 and #2 shall not combust more than 400 million cubic feet of natural gas on a 12-month rolling total basis.

Tenn. Comp. R. & Regs. 1200-03-09, construction permit 970307F

Compliance Method: The permittee shall maintain records at the source location of the fuel usage for Boilers #1 and #2 that readily show compliance with the fuel usage limit. This log must be retained for a period of not less than five (5) years.

E48-4. Natural gas only shall be used as fuel for Boiler #3. Combustion of no. 2 fuel oil and propanediol fermentation (PDO) byproduct may be used during natural gas curtailment.

Tenn. Comp. R. & Regs. 1200-03-06-.01(7) and 1200-03-10-.02(2)(a), permit application dated May 11, 2015, supplemental information dated September 8, 2015, construction permit 970307F

Compliance Method: The permittee shall maintain records of the fuel usage for Boiler #3. These records must be maintained at the source location and kept available for inspection by the Technical Secretary or an authorized representative. These records must be retained for a period of not less than five (5) years.

Tenn. Comp. R. & Regs. 1200-03-09

E48-5. Reserved

E48-6. The sulfur content of the no. 2 fuel oil shall not exceed 1.0 percent by weight.

Tenn. Comp. R. & Regs. 1200-03-06-.01(7) and 1200-03-10-.02(2)(a), permit application dated May 11, 2015, construction permit 970307F

Compliance Method: A certification from the fuel supplier of the sulfur content (by weight) for each shipment of fuel oil, must be maintained at the source location and kept available for inspection by the Technical Secretary or an authorized representative. The certifications must be retained for a period of not less than five (5) years.

E48-7. Particulate matter (TSP) emitted from this source shall not exceed 0.1 pounds per million Btu (36.8 pounds per hour) and 9.4 tons per year.

Tenn. Comp. R. & Regs. 1200-03-06-.02(2) and 1200-03-06-.01(7), permit application dated May 11, 2015, construction permit 970307F

Compliance Method: Compliance with this requirement shall be assured by operating the boilers as designed and complying with conditions E48-1, E48-2, E48-3, and E48-4.

E48-8. Sulfur dioxide (SO2) emitted from this source shall not exceed 71.6 tons per year.

Tenn. Comp. R. & Regs. 1200-03-14-.01(3), permit application dated May 11, 2015, construction permit 970307F

Compliance Method: Compliance with this requirement shall be assured by operating the boilers as designed and complying with conditions E48-1, E48-2, E48-3, E48-4, and E48-6. .

E48-9. Volatile organic compounds (VOC) emitted from this source shall not exceed 5.5 tons per year.

Tenn. Comp. R. & Regs. 1200-03-06-.01(7), permit application dated May 11, 2015, construction permit 970307F

Compliance Method: Compliance with this requirement shall be assured by operating the boilers as designed and complying with conditions E48-1, E48-2, E48-3, and E48-4.

E48-10. Carbon monoxide (CO) emitted from this source shall not exceed 85.5 tons per year.

Tenn. Comp. R. & Regs. 1200-03-06-.01(7), permit application dated May 11, 2015, construction permit 970307F

Compliance Method: Compliance with this requirement shall be assured by operating the boilers as designed and complying with conditions E48-1, E48-2, E48-3, and E48-4.

E48-11. Nitrogen oxides (NO_X) emitted from this source shall not exceed 78.7 tons per year.

Tenn. Comp. R. & Regs. 1200-03-06-.01(7), permit application dated May 11, 2015, construction permit 970307F

Compliance Method: Compliance with this requirement shall be assured by operating the boilers as designed and complying with conditions E48-1, E48-2, E48-3, and E48-4.

E48-12. To control emissions of nitrogen oxides (NO_X) from Boiler #3, the permittee shall use only low-NO_X burners.

Tenn. Comp. R. & Regs. 1200-03-06-.01(7), permit application dated May 11, 2015, construction permit 970307F

Compliance Method: Compliance with this requirement shall be assured by installing and maintaining low NOx technology for Boiler #3 and by annual certification by the Responsible Official.

40 CFR Part 63 Subpart DDDDD: National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

Boilers #1 and #2: existing units designed to burn gas 1 fuels (94 million Btu per hour each)

Boiler #3: existing unit designed to burn gas 1 fuels (180 million Btu per hour)

E48-13. You are subject to 40 CFR part 63 subpart DDDDD if you own or operate an industrial, commercial, or institutional boiler or process heater as defined in 40 CFR §63.7575 that is located at, or is part of, a major source of HAP, except as specified in 40 CFR §63.7491. For purposes of 40 CFR part 63 subpart DDDDD, a major source of HAP is as defined in 40 CFR §63.2.

40 CFR §63.7485, Tenn. Comp. R. & Regs. 1200-03-09-.03(8)

E48-14. 40 CFR part 63 subpart DDDDD applies to new, reconstructed, and existing affected sources as described below:

The affected source of 40 CFR part 63 subpart DDDDD is the collection at a major source of all existing industrial, commercial, and institutional boilers and process heaters (Boilers #1, #2 and #3) within a subcategory as defined in 40 CFR §63.7575.

A boiler or process heater is existing if it is not new or reconstructed.

40 CFR §63.7490, Tenn. Comp. R. & Regs. 1200-03-09-.03(8)

E48-15. If you have an existing boiler or process heater, you must comply with 40 CFR part 63 subpart DDDDD no later than January 31, 2016, except as provided in 40 CFR §63.6(i). Primary Products Ingredients Americas LLC requested an extension of the NESHAP compliance date for Boilers #1 and #2 pursuant to 40 CFR §63.6(i). The Division granted the extension until January 31, 2017, in a letter dated June 11, 2015.

You must meet the notification requirements in 40 CFR §63.7545 according to the schedule in 40 CFR §63.7545 and in 40 CFR part 63 subpart A. Some of the notifications must be submitted before you are required to comply with the emission limits and work practice standards in 40 CFR part 63 subpart DDDDD. Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR §63.7495

The permittee submitted a Notification of Compliance Status Report dated March 16, 2017, to address the requirements of this condition.

E48-16. The permittee must meet the requirements in paragraphs (1) and (3) of this condition, except as provided in paragraphs (b) and (e) of this condition. You must meet these requirements at all times the affected unit is operating, except as provided in paragraph (f) of this condition.

(1) You must meet each emission limit and work practice standard in Tables 1 through 3, and 11 through 13 of 40 CFR part 63 subpart DDDDD to your boiler or process heater, for each boiler or process heater at your source, except as provided under 40 CFR §63.7522. The output-based emission limits, in units of pounds per million Btu of steam output, in Tables 1 or 2 of 40 CFR part 63 subpart DDDDD are an alternative applicable only to boilers and process heaters that generate steam. The output-based emission limits, in units of pounds per megawatt-hour, in Tables 1 or 2 of 40 CFR part 63 subpart DDDDD are an alternative applicable only to boilers that generate electricity.

Work Practice Standards (Units designed to burn gas 1 fuels)	
If your unit is:	You must meet the following:
A new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of 10 million Btu per hour or greater	Conduct a tune-up of the boiler or process heater annually as specified in 40 CFR §63.7540. Units in either the Gas 1 or Metal Process Furnace subcategories will conduct this tune-up as a work practice for all regulated emissions under 40 CFR part 63 subpart DDDDD. Units in all other subcategories will conduct this tune-up as a work practice for dioxins/furans.
An existing boiler or process heater located at a major source facility, not including limited use units	Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. A facility that operates under an energy management program compatible with ISO 50001 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items a. to e. appropriate for the on-site technical hours listed in 40 CFR §63.7575:
	a. A visual inspection of the boiler or process heater system.
	b. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints.

	c. An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator.
	d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.
	e. A review of the facility's energy management practices and provide recommendations for improvements consistent with the definition of energy management practices, if identified.
	f. A list of cost-effective energy conservation measures that are within the facility's control.
	g. A list of the energy savings potential of the energy conservation measures identified.
	h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

(2) Intentionally left blank

(3) At all times, you must operate and maintain any affected source (as defined in 40 CFR §63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Technical Secretary that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(b) As provided in 40 CFR §63.6(g), EPA may approve use of an alternative to the work practice standards in this permit.

(e) Boilers in the units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13 of 40 CFR part 63 subpart DDDDD, or the operating limits in Table 4 40 CFR part 63 subpart DDDDD.

(f) These standards apply at all times the affected unit is operating, except during periods of startup and shutdown during which time you must comply only with Table 3 of 40 CFR part 63 subpart DDDDD.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR §63.7500

The permittee submitted a Notification of Compliance Status Report dated March 16, 2017, to address the requirements of this condition. The report stated that the initial tune-up for all boilers has been completed and that an energy assessment has been performed.

E48-17. You must be in compliance with the emission limits, work practice standards, and operating limits in 40 CFR part 63 subpart DDDDD. These limits apply to you at all times the affected unit is operating except for the periods noted in 40 CFR §63.7500(f).

(c) Intentionally left blank

(d) Intentionally left blank

Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR §63.7505

E48-18. reserved

Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR §63.7510

E48-19. reserved

Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR §63.7515

E48-20. reserved

Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR §63.7520

E48-21. reserved

Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR §63.7521

E48-22. reserved

Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR §63.7522

E48-23. reserved

Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR 63.7525

E48-24. reserved

(a) Intentionally left blank

(b) Intentionally left blank

(c) Intentionally left blank

(d) Intentionally left blank

(e) Intentionally left blank

(f) Intentionally left blank

(g) Intentionally left blank

(h) Intentionally left blank

(i) Intentionally left blank

Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR §63.7530

E48-25. Reserved

Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR §63.7535

E48-26. You must demonstrate continuous compliance with each emission limit in Tables 1 and 2 or 11 through 13 of 40 CFR part 63 subpart DDDDD, the work practice standards in Table 3 of 40 CFR part 63 subpart DDDDD, and the operating limits in Table 4 of 40 CFR part 63 subpart DDDDD that applies to you according to the methods specified in Table 8 of 40 CFR part 63 subpart DDDDD and paragraphs (a)(1) through (19) of 40 CFR §63.7540.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR §63.7540

E48-27. Reserved

Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR §63.7541

E48-28. (a) You must submit to the Technical Secretary all of the notifications in 40 CFR §§63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(c) through (h) that apply to you by the dates specified.

(b) and (c) Intentionally left blank

(d) Intentionally left blank

(e) Intentionally left blank

(f) (g) and (h) Intentionally left blank

The reports, notifications and results of any performance test shall be sent or emailed to the Technical Secretary at:

Hard copy to: Adobe pdf copy to:

Technical Secretary
Division of Air Pollution Control
William R. Snodgrass Tennessee Tower
312 Rosa Parks Avenue, 15TH Floor
Nashville, TN 37243

Air.Pollution.Control@tn.gov

Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR §63.7545

E48-29. (a) You must submit each report in Table 9 of 40 CFR part 63 subpart DDDDD that applies to you.

(b) Unless the Technical Secretary has approved a different schedule for submission of reports under 40 CFR §63.10(a), you must submit each report, according to paragraph (h) of this condition, by the date in Table 9 of 40 CFR part 63 subpart DDDDD and according to the requirements in paragraphs (b)(1) through (4) of this condition. For units that are subject only to a requirement to conduct an annual, biennial, or 5-year tune-up according to 40 CFR §63.7540(a)(10), (11), or (12), respectively, and not subject to emission limits or operating limits, you may submit only an annual, biennial, or 5-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of this condition, instead of a semi-annual compliance report.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in 40 CFR §63.7495 and ending on July 31 or January 31, whichever date is the first date that occurs at least 180 days (or 1, 2, or 5 years, as applicable, if submitting an annual, biennial, or 5-year compliance report) after the compliance date that is specified for your source in 40 CFR §63.7495.

(2) The first compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for each boiler or process heater in 40 CFR §63.7495. The first annual, biennial, or 5-year compliance report must be postmarked or submitted no later than January 31.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual, biennial, and 5-year compliance reports must cover the applicable 1-, 2-, or 5-year periods from January 1 to December 31.

(4) Each subsequent compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. Annual, biennial, and 5-year compliance reports must be postmarked or submitted no later than January 31.

(c) A compliance report must contain information in 40 CFR §63.7550(c) depending on how the facility chooses to comply with the limits set in this rule.

(d) For each deviation from an emission limit or operating limit in 40 CFR part 63 subpart DDDDD that occurs at an individual boiler or process heater where you are not using a CMS to comply with that emission limit or operating limit, the compliance report must additionally contain the information required in 40 CFR §63.7550(d).

(e) For each deviation from an emission limit, operating limit, and monitoring requirement in 40 CFR part 63 subpart DDDDD occurring at an individual boiler or process heater where you are using a CMS to comply with that emission limit or operating limit, the compliance report must additionally contain the information required in paragraphs (e)(1) through (9) of 40 CFR §63.7550. This includes any deviations from your site-specific monitoring plan as required in 40 CFR §63.7505(d).

(f)-(g) [Reserved]

(h) You must submit the reports according to the procedures specified in paragraphs (h)(1) through (3) of this condition.

(1) Within 60 days after the date of completing each performance test (defined in 40 CFR §63.2) as required by 40 CFR part 63 subpart DDDDD you must submit the results of the performance tests, including any associated fuel analyses, required by 40 CFR part 63 subpart DDDDD and the compliance reports required in 40 CFR §63.7550(b) to the EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). Performance test data must be submitted in the file format generated through use of the EPA's Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/index.html*). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Permittees who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with

the CBI omitted must be submitted to the EPA via CDX as described earlier in this paragraph. At the discretion of the Administrator, you must also submit these reports, including the confidential business information, to the Administrator in the format specified by the Administrator. For any performance test conducted using test methods that are not listed on the ERT Web site, the permittee shall submit the results of the performance test in paper submissions to the Administrator and Technical Secretary (see condition E48-28 for Technical Secretary address).

(2) Intentionally left blank

(3) You must submit all reports required by Table 9 of 40 CFR part 63 subpart DDDDD electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). However, if the reporting form specific to 40 CFR part 63 subpart DDDDD is not available in CEDRI at the time that the report is due the report you must submit the report to the Administrator (and Technical Secretary) at the appropriate address listed in 40 CFR §63.13 (see condition E48-28 for Technical Secretary address). At the discretion of the Administrator, you must also submit these reports, to the Administrator in the format specified by the Administrator.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR §63.7550

E48-30. (a) You must keep records according to paragraphs (a)(1) and (2) of this condition.

(1) A copy of each notification and report that you submitted to comply with 40 CFR part 63 subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in 40 CFR §63.10(b)(2)(xiv).

(2) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in 40 CFR §63.10(b)(2)(viii).

(b) For each CEMS, COMS, and continuous monitoring system you must keep records according to paragraphs (b)(1) through (5) of 40 CFR §63.7555.

(c) You must keep the records required in Table 8 of 40 CFR part 63 subpart DDDDD including records of all monitoring data and calculated averages for applicable operating limits, such as opacity, pressure drop, pH, and operating load, to show continuous compliance with each emission limit and operating limit that applies to you.

(d) For each boiler or process heater subject to an emission limit in Tables 1, 2, or 11 through 13 of 40 CFR part 63 subpart DDDDD, you must also keep the applicable records in paragraphs (d)(1) through (11) of 40 CFR §63.7555.

(e) If you elect to average emissions consistent with 40 CFR §63.7522, you must additionally keep a copy of the emission averaging implementation plan required in 40 CFR §63.7522(g), all calculations required under 40 CFR §63.7522, including monthly records of heat input or steam generation, as applicable, and monitoring records consistent with 40 CFR §63.7541.

(f) (g) and (h) Intentionally left blank

Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR §63.7555

E48-31. (a) Your records must be in a form suitable and readily available for expeditious review, according to 40 CFR §63.10(b)(1).

(b) As specified in 40 CFR §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site, or they must be accessible from onsite (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR §63.10(b)(1). You can keep the records off site for the remaining 3 years.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR §63.7560

E48-32. Table 10 of 40 CFR part 63 subpart DDDDD shows which parts of the General Provisions in 40 CFR §§63.1 through 63.15 apply to you.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR §63.7565

E48-33. NOx SIP Call Requirements

The permitee shall comply with the applicable provisions of the NOx SIP Call Rule of Tenn. Comp. R. & Regs. 1200-03-27-.12 (NOx SIP Call Requirements for Stationary Boilers and Combustion Turbines) including the applicable monitoring, recordkeeping, and reporting requirements of 40 CFR Part 75.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and Tenn. Comp. R. & Regs. 1200-03-27-.12

E49. Emission Source

53-0081-39	Source Identification:	Utilities Area Removed from service
	Stack(s):	Not applicable
	Control Equipment:	Not applicable

Conditions E49-1 and E49-2 apply to source 53-0081-39.

E49-1. Reserved

E49-2. Reserved

E50. Emission Source

53-0081-43	Source Identification:	Utilities Area No. 2 Fuel Oil Storage Tank
	Stack(s):	No. 2 Fuel Oil Storage Tank PES #43
	Control Equipment:	No control

Conditions E50-1 through E50-2 apply to source 53-0081-43.

E50-1. Capacity shall not exceed 6,700,000 gallons per year.

Tenn. Comp. R. & Regs. 1200-03-09, Operating Permit 019891P

Compliance Method: A log of the turnover rate must be maintained at the source location and kept available for inspection by the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five (5) years.

E50-2. Volatile organic compounds emitted from this source shall not exceed 0.012 pounds per hour (0.1 tons per year for fees).

Tenn. Comp. R. & Regs. 1200-03-18-.03(2), Operating Permit 019891P

Compliance Method: The potential to emit volatile organic compounds from this source (53-0081-43) is less than five tons per year. In accordance with Tenn. Comp. R. & Regs. 1200-03-09-.04(5)(c)3. and by annual certification of compliance, the permittee shall be considered to meet the monitoring and related record keeping and reporting requirements of Tenn. Comp. R. & Regs. 1200-03-09-.02(11)(e)1.(iii), and the compliance requirements of Tenn. Comp. R. & Regs. 1200-03-09-.02(11)(e)3.(i). The permittee shall submit annually a compliance certification for volatile organic compounds from source (53-0081-43).

E51. Emission Source

53-0081-44	Source Identification:	Utilities Area Removed from service
	Stack(s):	Not applicable
	Control Equipment:	Not applicable

Conditions E51-1 through E51-3 apply to source 53-0081-44.

E51-1. Reserved

E51-2. Reserved

E51-3. Reserved

E52. Emission Source

53-0081-60	Source Identification:	Utilities Area Removed from service
	Stack(s):	Not applicable
	Control Equipment:	Not applicable

Conditions E52-1 and E52-2 apply to source 53-0081-60.

E52-1. Reserved

E52-2. Reserved

E53. Emission Source

53-0081-71	Source Identification:	Utilities Area
		Twelve Emergency Electrical Generator Engines (4-stroke lean burn internal combustion)
	Stack(s):	PES #71 A through L
	Control Equipment:	No control

Conditions E53-1 through E53-9 apply to source 53-0081-71.

E53-1. The stated design heat input capacity for each engine is 17.61 million Btu per hour (mmBtu/hr) at HHV, and total heat input for this source is 211.32 mmBtu/hr at HHV for all twelve engines.

Tenn. Comp. R. & Regs. 1200-03-09

Compliance Method: A log of the fuel (natural gas) usage rate in a form that demonstrates compliance with this condition must be maintained at the source location and made available for inspection by the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five (5) years.

E53-2. Particulate matter emitted from this source shall not exceed 0.1 pounds per hour (0.4 tons per year) for all twelve engines.

Tenn. Comp. R. & Regs. 1200-03-06-.01(7), Construction Permit 954963P

Compliance Method: Compliance with this requirement shall be assured by annual compliance certification as required by condition E2.(b).

E53-3. Sulfur Dioxide (SO_2) emitted from this source shall not exceed 0.6 pounds per hour (2.6 tons per year) for all twelve engines.

Tenn. Comp. R. & Regs. 1200-03-06-.01(7), Construction Permit 954963P

Compliance Method: Compliance with this requirement shall be assured by annual compliance certification as required by condition E2.(b).

E53-4. Volatile organic compounds (VOC) emitted from this source shall not exceed 25.4 tons per year for all twelve engines.

Tenn. Comp. R. & Regs. 1200-03-06-.01(7), Construction Permit 954963P

Compliance Method Compliance with this requirement shall be assured by compliance with conditions E53-6 and E53-7.

E53-5. Visible emissions from this source shall not exceed ten (10) percent opacity except for one six minute period per one (1) hour or more than twenty-four (24) minutes in any twenty-four (24) hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (6 minute average).

Tenn. Comp. R. & Regs. 1200-03-05-.03(6) and 1200-03-05-.01(1)

Compliance Method: The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996, and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

E53-6. Operating time shall not exceed 1200 hours per year for each engine. This limitation is established to avoid PSD review pursuant to Rule 1200-03-06-.01(7) of the Tennessee Air Pollution Control Regulations and is based upon the information contained in the agreement letter dated October 19, 2001, from the permittee.

Tenn. Comp. R. & Regs. 1200-03-06-.01(7), Construction Permit 954963P

Compliance Method: A log of the operating hours and fuel usage in a form that readily shows compliance with this condition and condition E53-1 must be maintained at the source location and kept available for inspection by the Technical Secretary or an authorized representative. This log must be retained for a period of not less than five years.

E53-7. Natural gas only shall be used as fuel for this source.

Tenn. Comp. R. & Regs. 1200-03-09, Construction Permit 954963P

Compliance Method: Compliance with this requirement shall be assured by annual compliance certification as required by condition E2.(b).

E53-8. Fees for nitrogen oxide emissions of 32.9 tons per year shall be paid in accordance with TENN. COMP. R. & REGS. 1200-03-26-.02(2)(d)3.

Tenn. Comp. R. & Regs. 1200-03-26

E53-9. The permittee shall comply with all applicable federal and state regulations concerning the operation of this source. This includes but is not limited to, federal regulations published under 40 CFR part 63 for sources of hazardous air pollutants and 40 CFR part 60, New Source Performance Standards.

This source shall operate in accordance with the terms of this permit and the information submitted in the approved permit application.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8)

E54. Emission Source

53-0081-09	Source Identification:	Wetmill / Feedhouse Area Source moved to E17a.
	Stack(s):	
	Control Equipment:	

Conditions E54-1 through E54-2 apply to source 53-0081-09.

E54-1. Reserved

E54-2. Reserved

E55. Emission Source

53-0081-100	Source Identification:	Emergency Internal Combustion (IC) Engines Diesel Fired (CI) Emergency Fire Pump rated at 206 horsepower PES #100

Conditions E55-1 through E55-23 apply to source 53-0081-100

E55-1. The horsepower rating for this source is 206 brake horsepower.

Tenn. Comp. R. & Regs. 1200-03-09 and the application dated June 24, 2014

Compliance Method: Compliance with this condition shall be assured by annual compliance certification as required by condition E2.(b).

E55-2. Only diesel fuel with a maximum concentration of 0.5 weight percent sulfur shall be used as fuel for this source.

Tenn. Comp. R. & Regs. 1200-03-09 and the application dated June 24, 2014

Compliance Method: Compliance with this requirement shall be demonstrated by maintaining records of fuel usage and sulfur content.

E55-3. Particulate Matter (TSP) emitted from this source shall not exceed 0.6 pounds (lb) per million Btus (MM Btu) (0.31 pounds per hour).

Tenn. Comp. R. & Regs. 1200-03-06-.02(2)

Compliance Method: Compliance with this requirement shall be assured by operating the diesel equipment as designed and complying with condition E55-2.

E55-4. Sulfur dioxide (SO_2) emitted from this source shall not exceed 0.15 pounds per hour based on a daily average.

Tenn. Comp. R. & Regs. 1200-03-14-.01(3)

Compliance Method: Compliance with this requirement shall be assured by operating the diesel equipment as designed and complying with condition E55-2.

E55-5. Volatile organic compounds (VOC) emitted from this source shall not exceed 0.19 pounds per hour based on a daily average.

Tenn. Comp. R. & Regs. 1200-03-07-.07(2)

Compliance Method Compliance with this requirement shall be assured by operating the diesel equipment as designed and complying with condition E55-2.

E55-6. Nitrogen oxides (NOx) emitted from this source shall not exceed 2.31 pounds per hour based on a daily average.

Tenn. Comp. R. & Regs. 1200-03-07-.07(2)

Compliance Method: Compliance with this requirement shall be assured by operating the diesel equipment as designed and complying with condition E55-2.

E55-7. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for one (1) six-minute period per one (1) hour period and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

Tenn. Comp. R. & Regs. 1200-03-05-.01(1) and 1200-03-05-.03(6)

Compliance Method: The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996, and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

E55-8. The following annual emissions are based on a total of 600 hours of operation (500 emergency hours) will be used to calculate annual emission fees:

Annual Emissions for Fees (tons per year)				
PM	SO2	NOx	VOC	CO
0.05	0.05	0.69	0.06	0.15

Tenn. Comp. R. & Regs. 1200-03-26-.02(6)

Compliance Method: Compliance with this requirement shall be assured by annual compliance certification as required by condition E2.(b).

NESHAP (National Emission Standards for Hazardous Air Pollutants) Stationary RICE (reciprocating internal combustion engines)

40 CFR Part 63 Subpart ZZZZ: National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

E55-9. The owner/operator must comply with the emission limitations in 40 CFR part 63 subpart ZZZZ Table 2c.

Table 2c:

a. Change oil and filter every 500 hours of operation or annually, whichever comes first.

b. Inspect air cleaner every 1,000 hours or operation or annually, whichever comes first.

c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first.

d. During periods of startup, the owner/operator must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

Footnote: If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirement on the schedule required in Table 2c of 40 CFR part 63 subpart ZZZZ, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, State, or local law under which the risk was deemed unacceptable.

40 CFR §63.6602

E55-10. The owner/operator must be in compliance with the emission limitation and operating limitations in 40 CFR part 63 subpart ZZZZ that apply to the owner/operator at all times.

40 CFR §63.6605(a)

E55-11. At all times the owner/operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Technical Secretary with may include, but not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

40 CFR §63.6605(b)

E55-12. The owner/operator must operate and maintain the stationary RICE according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine consistent with good air pollution control practice for minimizing emissions.

40 CFR §63.6625(e)

E55-13. The owner/operator must install a non-resettable hour meter if one is not already installed.

40 CFR §63.6625(f)

E55-14. The owner/operator must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in 40 CFR part 63 subpart ZZZZ Tables 1a, 2a, 2c, and 2d apply.

40 CFR §63.6625(h)

E55-15. If you own or operate a stationary CI (compression ignition) engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to 40 CFR part 63 subpart ZZZZ or in items 1 or 4 of Table 2d to 40 CFR part 63 subpart ZZZZ, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to 40 CFR part 63 subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to 40 CFR part 63 subpart ZZZZ. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner/operator is not required to change the oil. If any of the limits are exceeded, the engine owner/operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner/operator must change the oil within 2 days or before commencing operation, whichever is later. The owner/operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

40 CFR §63.6625(i)

E55-16. The owner/operator must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d of 40 CFR part 63 subpart ZZZZ that apply to you according to methods specified in Table 6 of 40 CFR part 63 subpart ZZZZ.

Table 2c:

a. Change oil and filter every 500 hours of operation or annually, whichever comes first.

b. Inspect air cleaner every 1,000 hours or operation or annually, whichever comes first.

c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first.

Footnote: Sources have the option to utilize an oil analysis program as described in 40 CFR §63.6625(i) in order to extend the specified oil change requirement in Table 2d of 40 CFR part 63 subpart ZZZZ.

40 CFR §63.6640(a)

E55-17. The owner/operator must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d of 40 CFR part 63 subpart ZZZZ that apply to you. These instances are deviations from the emission and operating limitations in 40 CFR part 63 subpart ZZZZ. These deviations must be reported according to the requirements in 40 CFR §63.6650.

40 CFR §63.6640(b)

E55-18. The owner/operator must also report each instance in which you did not meet the requirements in Table 8 of 40 CFR part 63 subpart ZZZZ that apply to you.

40 CFR §63.6640(e)

E55-19. The owner/operator must operate the emergency stationary RICE according to the requirements in the following paragraphs. In order for the engine to be considered an emergency stationary RICE under 40 CFR part 63 subpart ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in the following paragraphs is prohibited. If you do not

operate the engine according to the requirements in the following paragraphs, the engine will not be considered an emergency engine under 40 CFR part 63 subpart ZZZZ and must meet all requirements for non-emergency engines.

1-There is no time limit on the use of emergency stationary RICE in emergency situations. (Condition E14-8, annual fee assessment, allows up to 500 hours per year of emergency operation. If the permittee exceeds 500 hours of emergency operation, you shall notify the Technical Secretary in writing so that your annual fee can be adjusted.)

2-You may operate your emergency stationary RICE for any combination of the purposes specified in the following paragraphs for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs 3 and 4 of this condition counts as part of the 100 hours per calendar year allowed by this paragraph.

Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR § 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

3-Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph 2 of this condition. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

4-Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph 2 of this condition. Except as provided in the following paragraphs, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

The power is provided only to the facility itself or to support the local transmission and distribution system.

The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine.

The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

40 CFR §63.6640(f)

E55-20. The owner/operator must keep the records required in Table 6 of 40 CFR part 63 subpart ZZZZ to show continuous compliance with each emission or operating limitation that applies to you.

Table 6:

a. Work or management practices

40 CFR §63.6655(d)

E55-21. The owner/operator must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan.

40 CFR §63.6655(e)

E55-22. The owner/operator must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

40 CFR §63.6655(f)

E56. Emission Source

53-0081-37	Source Identification:	Utilities Area Cogeneration Unit #1 Combustion turbine, duct burner, and heat recovery unit PES #37 Minor Modification 1 removes the requirement of condition E56-23 for sulfur dioxide performance testing for this source, since the performance test was determined to be non-applicable to this source. Significant Modification 1 removes nonapplicable regulatory requirements for Cogeneration units 1 and 2 (sources 53-0081-37 and 38). The NESHAP/MACT requirements of federal rule 40 CFR Part 63 subpart DDDDD for the waste heat boilers (heat recovery steam generators (HRSG)) associated with sources 37 and 38 are removed from permit 573292. The rule was revised and no longer excludes waste heat boilers equipped with auxiliary duct burners which can provide 50% or more of the rated heat input capacity of the boiler from the definition of "waste heat boiler." The rule exempts waste heat boilers from rule applicability. Consequently, the rule requirements of conditions E56-27 through E56-33 and conditions E57-28 through E57-34 of permit 573292 are removed and the conditions marked as "Reserved."

Conditions E56-1 through E56-33(SM1) apply to source 53-0081-37

E56-1. The rated capacities of the gas turbine power generator #1 are 320 million Btu per hour (HHV) input on a daily average and 40,767 Hp at 30.4 MW output at 59 ^{O}F. The rated capacity of the heat recovery steam generator (HRSG) #1 is 182 million Btu per hour input on a daily average

Tenn. Comp. R. & Regs. 1200-03-09, application dated May 11, 2015, construction permit 970310P

The Technical Secretary may require the permittee to prove compliance with these ratings.

E56-2. Only natural gas shall be used as fuel for this source.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and the application dated May 11, 2015, construction permit 970310P

Compliance Method: The permittee shall submit an annual certification of compliance with this condition in accordance with condition E2(b).

E56-3. Particulate matter emitted from this source shall not exceed 0.0032 grains per dry standard cubic foot of exhaust gases (21.5 tons per year).

This emission limitation is established pursuant to Rule 1200-03-07-.01(5) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter dated May 11, 2015, from the permittee. The permittee has requested this limit in order to avoid Rule 1200-03-09-.01(4) or (5).

Tenn. Comp. R. & Regs. 1200-03-07-.01(5), application dated May 11, 2015, construction permit 970310P

Compliance Method: Compliance with this limitation shall be assured by the emission factors and emission calculations contained in the permit application dated November 29, 2016, and the use of only natural gas as fuel for this source.

E56-4. Volatile organic compounds (VOC) emitted from this source shall not exceed 10.2 tons per 12 consecutive months.

Tenn. Comp. R. & Regs. 1200-03-07-.07(2), application dated May 11, 2015, construction permit 970310P

Compliance Method: Compliance with this limitation shall be assured by the emission factors and emission calculations contained in the permit application dated November 29, 2016, and the use of only natural gas as fuel for this source.

E56-5. Carbon monoxide (CO) emitted from this source shall not exceed 77.4 tons per 12 consecutive months.

Tenn. Comp. R. & Regs. 1200-03-07-.07(2), application dated May 11, 2015, construction permit 970310P

Compliance Method: Compliance with this limitation shall be assured by the emission factors and emission calculations contained in the permit application dated November 29, 2016, and the use of only natural gas as fuel for this source.

E56-6. Sulfur dioxide (SO_2) emitted from this source shall not exceed 1.5 tons per 12 consecutive months.

Tenn. Comp. R. & Regs. 1200-03-14-.01(3), application dated May 11, 2015, construction permit 970310P

Compliance Method: Compliance with this limitation shall be assured by the emission factors and emission calculations contained in the permit application dated November 29, 2016, and the use of only natural gas as fuel for this source.

E56-7. Nitrogen oxides (NO_X) emitted from this source shall not exceed 181.3 tons per 12 consecutive months. The NOx limit shall be 163.2 tons per 12 consecutive months when the combustion gases are diverted to feed dryer #2 (PES #19).

Tenn. Comp. R. & Regs. 1200-03-07-.07(2), application dated May 11, 2015, construction permit 970310P

Compliance Method: Compliance with this limitation shall be assured by the emission factors and emission calculations contained in the permit application dated November 29, 2016, the use of only natural gas as fuel for this source, and the continuous NOx emission monitoring system for this source of conditions E56-11, E56-13, and E56-14.

40 CFR part 60 subpart KKKK, Standards of Performance for Stationary Combustion Turbines

E56-8. Nitrogen Oxides (NO_X) emitted from this source shall not exceed the following limits under the operating scenarios as indicated below:

Nitrogen Oxide Emission Limits for New Stationary Combustion Turbines

Combustion Turbine Type	Combustion Turbine Heat Input at Peak Load (HHV)	NOx Emission Standard
New Turbine firing Natural Gas	> 50 MMBtu/h and ≤ 850 MMBtu/h	25 ppm at 15 % O_2 or 150 ng/J of useful output
Turbines operating at less than 75% of peak load, turbines operating at temperatures less than 0 °F	> 30 MW output	96 ppm at 15 percent O_2 or 590 ng/J of useful output (4.7 lb/MWh)

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.4320

Compliance Method: Compliance with these limitations is assured by the continuous NOx emission monitoring system for this source of conditions E56-11, E56-13, and E56-14.

E56-9. The permittee must comply with either paragraph (1) or (2) of this condition.

(1) The permittee must not cause to be discharged into the atmosphere from this source any gases which contain SO_2 in excess of 110 nanograms per Joule (ng/J)(0.90 pounds per megawatt-hour (lb/MWh)) gross output;

(2) The permittee must not burn in this source any fuel which contains total potential sulfur emissions in excess of 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input; or

(3) Intentionally left blank

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.4330(a)

Compliance Method: Compliance with these limitations is assured by the emission factors and emission calculations contained in the permit application dated November 29, 2016, and the use of only natural gas fuel at this source in accordance with condition E56-2.

E56-10. The permittee must operate and maintain the stationary combustion turbine and HSRG, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.4333(a)

Compliance Method: Compliance with this condition is assured by maintaining compliance with the routine maintenance requirements of condition E3-2.

E56-11. The permittee must install, certify, maintain, and operate a continuous emission monitoring system (CEMS) consisting of a NO_X monitor and a diluent gas (oxygen (O_2) or carbon dioxide (CO_2)) monitor to determine the hourly NO_X emission rate in parts per million (ppm) or pounds per million British thermal units (lb/MMBtu); and

For units complying with the output-based standard, install, calibrate, maintain, and operate a fuel flow meter (or flow meters) to continuously measure the heat input to the affected unit; and

For units complying with the output-based standard, install, calibrate, maintain, and operate a watt meter (or meters) to continuously measure the gross electrical output of the unit in megawatt-hours; and

For combined heat and power units complying with the output-based standard, install, calibrate, maintain, and operate meters for useful recovered energy flow rate, temperature, and pressure, to continuously measure the total thermal energy output in British thermal units per hour (Btu/hr).

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.4335(b)

E56-12. The permittee shall assure continuous compliance for NO_X by installing, calibrating, maintaining and operating the following continuous monitoring system:

Continuous emission monitoring as described in conditions E56-11(SM4), E56-13(SM4), and E56-14(SM4).

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.4340(b)

E56-13. (a) Each NO_X diluent CEMS must be installed and certified according to Performance Specification 2 (PS 2) in appendix B to 40 CFR part 60, except the 7-day calibration drift is based on unit operating days, not calendar days. With state approval, Procedure 1 in appendix F to 40 CFR part 60 is not required. Alternatively, a NO_X diluent CEMS that is installed and certified according to appendix A of part 75 of Chapter I is acceptable for use under 40 CFR part 60 subpart KKKK. The relative accuracy test audit (RATA) of the CEMS shall be performed on a lb/MMBtu basis.

(b) As specified in 40 CFR §60.13(e)(2), during each full unit operating hour, both the NO_X monitor and the diluent monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point must be obtained with each monitor for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required for each monitor to validate the NO_X emission rate for the hour.

(c) Each fuel flowmeter shall be installed, calibrated, maintained, and operated according to the manufacturer's instructions. Alternatively, with state approval, fuel flowmeters that meet the installation, certification, and quality assurance requirements of appendix D to 40 CFR part 75 of Chapter I are acceptable for use under 40 CFR part 60 subpart KKKK.

(d) Each watt meter, steam flow meter, and each pressure or temperature measurement device shall be installed, calibrated, maintained, and operated according to manufacturer's instructions.

(e) The owner or operator shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment described in paragraphs (a), (c), and (d) of this condition. For the CEMS and fuel flow meters, the owner or operator may, with state approval, satisfy the requirements of this condition by implementing the QA program and plan described in section 1 of appendix B to 40 CFR part 75 of Chapter I.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.4345

E56-14. For purposes of identifying excess emissions:

(a) All CEMS data must be reduced to hourly averages as specified in 40 CFR §60.13(h).

(b) For each unit operating hour in which a valid hourly average, as described in 40 CFR §60.4345(b), is obtained for both NO_X and diluent monitors, the data acquisition and handling system must calculate and record the hourly NO_X emission rate in units of ppm or lb/MMBtu, using the appropriate equation from method 19 in appendix A of 40 CFR part 60. For any hour in which the hourly average O_2 concentration exceeds 19.0 percent O_2 (or the hourly average CO_2 concentration is less than 1.0 percent CO_2), a diluent cap value of 19.0 percent O_2 or 1.0 percent CO_2 (as applicable) may be used in the emission calculations.

(c) Correction of measured NO_X concentrations to 15 percent O_2 is not allowed.

(d) If you have installed and certified a NO_X diluent CEMS to meet the requirements of part 75 of Chapter I, states can approve that only quality assured data from the CEMS shall be used to identify excess emissions under this 40 CFR part 60 subpart KKKK. Periods where the missing data substitution procedures in subpart D of 40 CFR part 75 are applied are to be reported as monitor downtime in the excess emissions and monitoring performance report required under 40 CFR §60.7(c).

(e) All required fuel flow rate, steam flow rate, temperature, pressure, and megawatt data must be reduced to hourly averages.

(f) Calculate the hourly average NO_X emission rates, in units of the emission standards under 40 CFR §60.4320, using either ppm for units complying with the concentration limit or the appropriate equation for units complying with the output based standard identified in 40 CFR §60.4350(f).

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.4350

E56-15. The permittee must monitor the total sulfur content of the fuel being fired in the turbine, except as provided in condition E56-16. The sulfur content of the fuel must be determined using total sulfur methods described in 40 CFR §60.4415. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than half the applicable limit, ASTM D4084, D4810, D5504, or D6228, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see 40 CFR §60.17), which measure the major sulfur compounds, may be used.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.4360

E56-16. The permittee may elect not to monitor the total sulfur content of the fuel combusted in the turbine, if the fuel is demonstrated not to exceed potential sulfur emissions of 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input for units located in continental areas. You must use one of the following sources of information to make the required demonstration:

(a) The fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the total sulfur content for natural gas use in continental areas is 20 grains of sulfur or less per 100 standard cubic feet, has potential sulfur emissions of less than less than 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input for continental areas; or

(b) Representative fuel sampling data which show that the sulfur content of the fuel does not exceed 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input for continental areas. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of Chapter I is required.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.4365

E56-17. The frequency of determining the sulfur content of the fuel must be as follows:

(a) Intentionally left blank

(b) *Gaseous fuel.* If you elect not to demonstrate sulfur content using options in 40 CFR §60.4365, and the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel must be determined and recorded once per unit operating day.

(c) *Custom schedules.* Notwithstanding the requirements of paragraph (b) of this condition, operators or fuel vendors may develop custom schedules for determination of the total sulfur content of gaseous fuels, based on the design and operation of the affected facility and the characteristics of the fuel supply. Except as provided in paragraphs (c)(1) and (c)(2) of this condition, custom schedules shall be substantiated with data and shall be approved by the Technical Secretary before they can be used to comply with the standard in 40 CFR §60.4330.

(1) The two custom sulfur monitoring schedules set forth in paragraphs (c)(1)(i) through (iv) and in paragraph (c)(2) of this condition are acceptable, without prior Technical Secretary approval:

(i) The owner or operator shall obtain daily total sulfur content measurements for 30 consecutive unit operating days, using the applicable methods specified in 40 CFR part 60 subpart KKKK. Based on the results of the 30 daily samples, the required frequency for subsequent monitoring of the fuel's total sulfur content shall be as specified in paragraph (c)(1)(ii), (iii), or (iv) of this condition, as applicable.

(ii) If none of the 30 daily measurements of the fuel's total sulfur content exceeds half the applicable standard, subsequent sulfur content monitoring may be performed at 12-month intervals. If any of the samples taken at 12-month intervals has a total sulfur content greater than half but less than the applicable limit, follow the procedures in paragraph (c)(1)(iii) of this condition. If any measurement exceeds the applicable limit, follow the procedures in paragraph (c)(1)(iv) of this condition.

(iii) If at least one of the 30 daily measurements of the fuel's total sulfur content is greater than half but less than the applicable limit, but none exceeds the applicable limit, then:

(A) Collect and analyze a sample every 30 days for 3 months. If any sulfur content measurement exceeds the applicable limit, follow the procedures in paragraph (c)(1)(iv) of this condition. Otherwise, follow the procedures in paragraph (c)(1)(iii)(B) of this condition.

(B) Begin monitoring at 6-month intervals for 12 months. If any sulfur content measurement exceeds the applicable limit, follow the procedures in paragraph (c)(1)(iv) of this condition. Otherwise, follow the procedures in paragraph (c)(1)(iii)(C) of this condition.

(C) Begin monitoring at 12-month intervals. If any sulfur content measurement exceeds the applicable limit, follow the procedures in paragraph (c)(1)(iv) of this condition. Otherwise, continue to monitor at this frequency.

(iv) If a sulfur content measurement exceeds the applicable limit, immediately begin daily monitoring according to paragraph (c)(1)(i) of this condition. Daily monitoring shall continue until 30 consecutive daily samples, each having a sulfur content no greater than the applicable limit, are obtained. At that point, the applicable procedures of paragraph (c)(1)(ii) or (iii) of this condition shall be followed.

(2) The owner or operator may use the data collected from the 720-hour sulfur sampling demonstration described in section 2.3.6 of appendix D to part 75 of Chapter I to determine a custom sulfur sampling schedule, as follows:

(i) If the maximum fuel sulfur content obtained from the 720 hourly samples does not exceed 20 grains/100 scf, no additional monitoring of the sulfur content of the gas is required, for the purposes of 40 CFR part 60 subpart KKKK.

(ii) If the maximum fuel sulfur content obtained from any of the 720 hourly samples exceeds 20 grains/100 scf, but none of the sulfur content values (when converted to weight percent sulfur) exceeds half the applicable limit, then the minimum required sampling frequency shall be one sample at 12 month intervals.

(iii) If any sample result exceeds half the applicable limit, but none exceeds the applicable limit, follow the provisions of paragraph (c)(1)(iii) of this condition.

(iv) If the sulfur content of any of the 720 hourly samples exceeds the applicable limit, follow the provisions of paragraph (c)(1)(iv) of this condition.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.4365

E56-18. The permittee must submit reports of excess emissions and monitor downtime, in accordance with 40 CR §60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction.

For each affected unit that performs annual performance tests in accordance with 40 CFR §60.4340(a), you must submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test.

All reports required under 40 CFR §60.7(c) must be postmarked by the 30th day following the end of each 6-month period.

The reports and results of any performance test shall be sent or emailed to the Technical Secretary at:

Hard copy to:	Adobe pdf copy to:
Technical Secretary Division of Air Pollution Control William R. Snodgrass Tennessee Tower, 15TH Floor 312 Rosa Parks Avenue Nashville, TN 37243	Air.Pollution.Control@tn.gov

Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR §60.4375 and 40 CFR §60.4395

E56-19. For the purpose of reports required under §60.7(c), periods of excess emissions and monitor downtime that must be reported are defined as follows:

(a) Intentionally left blank

(b) For turbines using continuous emission monitoring, as described in 40 CFR §§60.4335(b) and 60.4345:

(1) An excess emissions is any unit operating period in which the 4-hour or 30-day rolling average NO_X emission rate exceeds the applicable emission limit in 40 CFR §60.4320. For the purposes of 40 CFR part 60 subpart KKKK, a "4-hour rolling average NO_X emission rate" is the arithmetic average of the average NO_X emission rate in ppm or ng/J (lb/MWh) measured by the continuous emission monitoring equipment for a given hour and the three unit operating hour average NO_X emission rates immediately preceding that unit operating hour. Calculate the rolling average if a valid NO_X emission rate is obtained for at least 3 of the 4 hours. For the purposes of this subpart, a "30-day rolling average NO_X emission rate" is the arithmetic average of all hourly NO_X emission data in ppm or ng/J (lb/MWh) measured by the continuous emission monitoring equipment for a given day and the twenty-nine unit operating days immediately preceding that unit operating day. A new 30-day average is calculated each unit operating day as the average of all hourly NO_X emissions rates for the preceding 30 unit operating days if a valid NO_X emission rate is obtained for at least 75 percent of all operating hours.

(2) A period of monitor downtime is any unit operating hour in which the data for any of the following parameters are either missing or invalid: NO_X concentration, CO_2 or O_2 concentration, fuel flow rate, steam flow rate, steam temperature, steam pressure, or megawatts. The steam flow rate, steam temperature, and steam pressure are only required if you will use this information for compliance purposes.

(3) For operating periods during which multiple emissions standards apply, the applicable standard is the average of the applicable standards during each hour. For hours with multiple emissions standards, the applicable limit for that hour is determined based on the condition that corresponded to the highest emissions standard.

(c) Intentionally left blank

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.4380

E56-20. If you choose the option to monitor the sulfur content of the fuel, excess emissions and monitoring downtime are defined as follows:

(a) For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the combustion turbine exceeds the applicable limit and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.

(b) Intentionally left blank

(c) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime ends on the date and hour of the next valid sample.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.4385

E56-21. The permittee must conduct NOx performance tests on an annual basis (no more than 14 calendar months following the previous performance test). The permittee shall comply with the testing provisions of 40 CFR §60.4400.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR §60.4400

E56-22. Reserved - Intentionally left blank

(a) Intentionally left blank

(b) Intentionally left blank

(c) Intentionally left blank

(d) Intentionally left blank

Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR §60.4405

E56-23(MM1). [Reserved]

E56-24. (a) Except as specified in paragraphs (a)(1),(a)(2), (a)(3), and (a)(4) of this condition, at certain times specified by 40 CFR part 60 subpart A other than the initial performance test which has been completed, and at such other times as may be required by the Administrator under section 114 of the Act, the permittee of such facility shall conduct performance test(s) and furnish the Technical Secretary a written report of the results of such performance test(s).

(1) If a force majeure is about to occur, occurs, or has occurred for which the affected permittee intends to assert a claim of force majeure, the permittee shall notify the Technical Secretary, in writing as soon as practicable following the date the permittee first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.

(2) The permittee shall provide to the Technical Secretary a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the permittee proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure occurs.

(3) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Technical Secretary. The Technical Secretary will notify the permittee in writing of approval or disapproval of the request for an extension as soon as practicable.

(4) Until an extension of the performance test deadline has been approved by the Technical Secretary under paragraphs (a)(1), (2), and (3) of this condition, the permittee of the affected facility remains strictly subject to the requirements of 40 CFR part 60 subpart A.

(b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in 40 CFR part 60 subpart KKKK unless the Technical Secretary (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the permittee of a source has demonstrated by other means to the Technical Secretary's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(c) Performance tests shall be conducted under such conditions as the Technical Secretary shall specify to the plant operator based on representative performance of the affected facility. The permittee shall make available to the Technical Secretary such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

(d) The permittee of an affected facility shall provide the Technical Secretary at least 30 days prior notice of any performance test, except as specified under 40 CFR part 60, to afford the Technical Secretary the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the permittee of an affected facility shall notify the Technical Secretary as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Technical Secretary by mutual agreement.

(e) The permittee of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such facility. This includes (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

(2) Safe sampling platform(s).

(3) Safe access to sampling platform(s).

(4) Utilities for sampling and testing equipment.

(f) Unless otherwise specified in the 40 CFR part 60 subpart KKKK, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the permittee's control, compliance may, upon the Technical Secretary's approval, be determined using the arithmetic mean of the results of the two other runs.

(g) The performance testing shall include a test method performance audit (PA) during the performance test as described in 40 CFR part 60 subpart A.

(h) Unless otherwise specified in the 40 CFR part 60 subpart KKKK, each test location must be verified to be free of cyclonic flow and evaluated for the existence of emission gas stratification and the required number of sampling traverse points. If other procedures are not specified in 40 CFR part 60 subpart KKKK, use the appropriate procedures in Method 1 to check for cyclonic flow and Method 7E to evaluate emission gas stratification and selection of sampling points.

(i) Whenever the use of multiple calibration gases is required by a test method, performance specification, or quality assurance procedure in a 40 CFR part 60 standard or appendix, Method 205 of 40 CFR part 51, appendix M of Chapter I, “Verification of Gas Dilution Systems for Field Instrument Calibrations,” may be used.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.8

40 CFR part 63 subpart YYYY: National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines

E56-25. The permittee must comply with the Initial Notification requirements set forth in 40 CFR §63.6145 but need not comply with any other requirement of 40 CFR part 63 subpart YYYY until EPA takes final action to require compliance and publishes a document in the FEDERAL REGISTER.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §63.6095(d)

40 CFR part 60 subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

E56-26. Heat recovery steam generators that are associated with stationary combustion turbines and that meet the applicability requirements of 40 CFR part 60 subpart KKKK are not subject to 40 CFR part 60 subpart Db.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.40b(i)

E56-27(SM1). Reserved

E56-28(SM1). Reserved

E56-29(SM1). Reserved

E56-30(SM1). Reserved

E56-31(SM1). Reserved

E56-32(SM1). Reserved

E56-33(SM1). Reserved

E57. Emission Source

53-0081-38	Source Identification:	Utilities Area Cogeneration Unit #2 Combustion turbine, duct burner, and heat recovery unit PES #38 Minor Modification 1 removes the requirement of condition E57-24 for sulfur dioxide performance testing for this source, since the performance test was determined to be non-applicable to this source. Significant Modification 1 removes nonapplicable regulatory requirements for Cogeneration units 1 and 2 (sources 53-0081-37 and 38). The NESHAP/MACT requirements of federal rule 40 CFR Part 63 subpart DDDDD for the waste heat boilers (heat recovery steam generators (HRSG)) associated with sources 37 and 38 are removed from permit 573292. The rule was revised and no longer excludes waste heat boilers equipped with auxiliary duct burners which can provide 50% or more of the rated heat input capacity of the boiler from the definition of "waste heat boiler." The rule exempts waste heat boilers from rule applicability. Consequently, the rule requirements of conditions E56-27 through E56-33 and conditions E57-28 through E57-34 of permit 573292 are removed and the conditions marked as "Reserved."

Conditions E57-1 through E57-34(SM1) apply to source 53-0081-38

E57-1. The rated capacities of the gas turbine power generator #2 are 320 million Btu per hour (HHV) input on a daily average and 40,767 Hp at 30.4 MW output at 59 ^{O}F. The rated capacity of the heat recovery steam generator (HRSG) #2 is 182 million Btu per hour input on a daily average.

Tenn. Comp. R. & Regs. 1200-03-09, application dated May 11, 2015, construction permit 970386P

The Technical Secretary may require the permittee to prove compliance with these ratings.

E57-2. Only natural gas shall be used as fuel for this source.

Tenn. Comp. R. & Regs. 1200-03-09, application dated May 11, 2015, construction permit 970386P

Compliance Method: The permittee shall submit an annual certification of compliance with this condition in accordance with condition E2(b).

E57-3. Particulate matter emitted from this source shall not exceed 0.0032 grains per dry standard cubic foot of exhaust gases (21.5 tons per year).

This emission limitation is established pursuant to Rule 1200-03-07-.01(5) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter dated May 11, 2015, from the permittee. The permittee has requested this limit in order to avoid Rule 1200-03-09-.01(4) or (5).

Tenn. Comp. R. & Regs. 1200-03-07-.01(5), application dated May 11, 2015, construction permit 970386P

Compliance Method: Compliance with this condition shall be assured by the emission factors and emission calculations contained in the permit application dated November 14, 2016, and the use of only natural gas fuel at this source.

E57-4. Volatile organic compounds (VOC) emitted from this source shall not exceed 10.2 tons per 12 consecutive months.

Tenn. Comp. R. & Regs.. 1200-03-07-.07(2), application dated May 11, 2015, construction permit 970386P

Compliance Method: Compliance with this limitation shall be assured by the emission factors and emission calculations contained in the permit application dated November 14, 2016, and the use of only natural gas fuel at this source.

E57-5. Carbon monoxide (CO) emitted from this source shall not exceed 77.4 tons per 12 consecutive months.

Tenn. Comp. R. & Regs. 1200-03-07-.07(2), application dated May 11, 2015, construction permit 970386P

Compliance Method: Compliance with this limitation shall be assured by the emission factors and emission calculations contained in the permit application dated November 14, 2016, and the use of only natural gas fuel at this source.

E57-6. Sulfur dioxide (SO_2) emitted from this source shall not exceed 1.5 tons per 12 consecutive months.

Tenn. Comp. R. & Regs. 1200-03-14-.01(3), application dated May 11, 2015, construction permit 970386P

Compliance Method: Compliance with this limitation shall be assured by the emission factors and emission calculations contained in the permit application dated November 14, 2016, the use of only natural gas fuel at this source, and the option of using vendor certification of fuel sulfur content or fuel sampling per conditions E57-16 and E57-17.

E57-7. Nitrogen oxides (NO_X) emitted from this source shall not exceed 181.3 tons per 12 consecutive months.

Tenn. Comp. R. & Regs. 1200-03-07-.07(2), application dated May 11, 2015, construction permit 970386P

Compliance Method: Compliance with this limitation shall be assured by the emission factors and emission calculations contained in the permit application dated November 14, 2016, and the use of a continuous NOx emission monitoring system per conditions E57-12, E57-14 and E57-15.

E57-8. Reserved (intentionally left blank

40 CFR part 60 subpart KKKK, Standards of Performance for Stationary Combustion Turbines

E57-9. Nitrogen Oxides (NO_X) emitted from this source shall not exceed the following limits under the operating scenarios as indicated below:

Nitrogen Oxide Emission Limits for New Stationary Combustion Turbines

Combustion Turbine Type	Combustion Turbine Heat Input at Peak Load (HHV)	NOx Emission Standard
New Turbine firing Natural Gas	> 50 MMBtu/h and ≤ 850 MMBtu/h	25 ppm at 15 % O_2 or 150 ng/J of useful output
Turbines operating at less than 75% of peak load, turbines operating at temperatures less than 0 °F	> 30 MW output	96 ppm at 15 percent O_2 or 590 ng/J of useful output (4.7 lb/MWh)

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.4320

Compliance Method: Compliance with these limitations is assured by operating the continuous NOx emission monitoring system for this source of conditions E57-12, E57-14 and E57-15.

E57-10. The permittee must comply with either paragraph (1) or (2) of this condition.

(1) The permittee must not cause to be discharged into the atmosphere from this source any gases which contain SO_2 in excess of 110 nanograms per Joule (ng/J)(0.90 pounds per megawatt-hour (lb/MWh)) gross output;

(2) The permittee must not burn in this source any fuel which contains total potential sulfur emissions in excess of 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input; or

(3) Intentionally left blank

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.4330(a)

Compliance Method: Compliance with these limitations is assured by the use of only natural gas fuel at this source in accordance with condition E57-2.

E57-11. The permittee must operate and maintain the stationary combustion turbine and HSRG, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.4333(a)

Compliance Method: Compliance with this condition is assured by maintaining compliance with the routine maintenance condition E3-2.

E57-12. The permittee must install, certify, maintain, and operate a continuous emission monitoring system (CEMS) consisting of a NO_X monitor and a diluent gas (oxygen (O_2) or carbon dioxide (CO_2)) monitor to determine the hourly NO_X emission rate in parts per million (ppm) or pounds per million British thermal units (lb/MMBtu); and

For units complying with the output-based standard, install, calibrate, maintain, and operate a fuel flow meter (or flow meters) to continuously measure the heat input to the affected unit; and

For units complying with the output-based standard, install, calibrate, maintain, and operate a watt meter (or meters) to continuously measure the gross electrical output of the unit in megawatt-hours; and

For combined heat and power units complying with the output-based standard, install, calibrate, maintain, and operate meters for useful recovered energy flow rate, temperature, and pressure, to continuously measure the total thermal energy output in British thermal units per hour (Btu/hr).

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.4335(b)

E57-13. The permittee shall assure continuous compliance for NO_X by installing, calibrating, maintaining and operating the following continuous monitoring system:

Continuous emission monitoring as described in conditions E57-12(SM4), E57-14(SM4) and E57-15(SM4).

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.4340(b)

E57-14. (a) Each NO_X diluent CEMS must be installed and certified according to Performance Specification 2 (PS 2) in appendix B to 40 CFR part 60, except the 7-day calibration drift is based on unit operating days, not calendar days. With state approval, Procedure 1 in appendix F to 40 CFR part 60 is not required. Alternatively, a NO_X diluent CEMS that is installed and certified according to appendix A of part 75 of Chapter I is acceptable for use under 40 CFR part 60 subpart KKKK. The relative accuracy test audit (RATA) of the CEMS shall be performed on a lb/MMBtu basis.

(b) As specified in 40 CFR §60.13(e)(2), during each full unit operating hour, both the NO_X monitor and the diluent monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point must be obtained with each monitor for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required for each monitor to validate the NO_X emission rate for the hour.

(c) Each fuel flowmeter shall be installed, calibrated, maintained, and operated according to the manufacturer's instructions. Alternatively, with state approval, fuel flowmeters that meet the installation, certification, and quality assurance requirements of appendix D to 40 CFR part 75 of Chapter I are acceptable for use under 40 CFR part 60 subpart KKKK.

(d) Each watt meter, steam flow meter, and each pressure or temperature measurement device shall be installed, calibrated, maintained, and operated according to manufacturer's instructions.

(e) The owner or operator shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment described in paragraphs (a), (c), and (d) of this condition. For the CEMS and fuel flow meters, the owner or operator may, with state approval, satisfy the requirements of this condition by implementing the QA program and plan described in section 1 of appendix B to 40 CFR part 75 of Chapter I.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.4345

E57-15. For purposes of identifying excess emissions:

(a) All CEMS data must be reduced to hourly averages as specified in 40 CFR §60.13(h).

(b) For each unit operating hour in which a valid hourly average, as described in 40 CFR §60.4345(b), is obtained for both NO_X and diluent monitors, the data acquisition and handling system must calculate and record the hourly NO_X emission rate in units of ppm or lb/MMBtu, using the appropriate equation from method 19 in appendix A of 40 CFR part 60. For any hour in which the hourly average O_2 concentration exceeds 19.0 percent O_2 (or the hourly average CO_2 concentration is less than 1.0 percent CO_2), a diluent cap value of 19.0 percent O_2 or 1.0 percent CO_2 (as applicable) may be used in the emission calculations.

(c) Correction of measured NO_X concentrations to 15 percent O_2 is not allowed.

(d) If you have installed and certified a NO_X diluent CEMS to meet the requirements of part 75 of Chapter I, states can approve that only quality assured data from the CEMS shall be used to identify excess emissions under this 40 CFR part 60 subpart KKKK. Periods where the missing data substitution procedures in subpart D of 40 CFR part 75 are applied

are to be reported as monitor downtime in the excess emissions and monitoring performance report required under 40 CFR §60.7(c).

(e) All required fuel flow rate, steam flow rate, temperature, pressure, and megawatt data must be reduced to hourly averages.

(f) Calculate the hourly average NO_X emission rates, in units of the emission standards under 40 CFR §60.4320, using either ppm for units complying with the concentration limit or the appropriate equation for units complying with the output based standard identified in 40 CFR §60.4350(f).

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.4350

E57-16. The permittee must monitor the total sulfur content of the fuel being fired in the turbine, except as provided in condition E57-17. The sulfur content of the fuel must be determined using total sulfur methods described in 40 CFR §60.4415. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than half the applicable limit, ASTM D4084, D4810, D5504, or D6228, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see 40 CFR §60.17), which measure the major sulfur compounds, may be used.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.4360

E57-17. The permittee may elect not to monitor the total sulfur content of the fuel combusted in the turbine, if the fuel is demonstrated not to exceed potential sulfur emissions of 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input for units located in continental areas. You must use one of the following sources of information to make the required demonstration:

(a) The fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the total sulfur content for natural gas use in continental areas is 20 grains of sulfur or less per 100 standard cubic feet, has potential sulfur emissions of less than less than 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input for continental areas; or

(b) Representative fuel sampling data which show that the sulfur content of the fuel does not exceed 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input for continental areas. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of Chapter I is required.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.4365

E57-18. The frequency of determining the sulfur content of the fuel must be as follows:

(a) Intentionally left blank

(b) *Gaseous fuel.* If you elect not to demonstrate sulfur content using options in 40 CFR §60.4365, and the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel must be determined and recorded once per unit operating day.

(c) *Custom schedules.* Notwithstanding the requirements of paragraph (b) of this condition, operators or fuel vendors may develop custom schedules for determination of the total sulfur content of gaseous fuels, based on the design and operation of the affected facility and the characteristics of the fuel supply. Except as provided in paragraphs (c)(1) and (c)(2) of this condition, custom schedules shall be substantiated with data and shall be approved by the Technical Secretary before they can be used to comply with the standard in 40 CFR §60.4330.

(1) The two custom sulfur monitoring schedules set forth in paragraphs (c)(1)(i) through (iv) and in paragraph (c)(2) of this condition are acceptable, without prior Technical Secretary approval:

(i) The owner or operator shall obtain daily total sulfur content measurements for 30 consecutive unit operating days, using the applicable methods specified in 40 CFR part 60 subpart KKKK. Based on the results of the 30 daily samples, the required frequency for subsequent monitoring of the fuel's total sulfur content shall be as specified in paragraph (c)(1)(ii), (iii), or (iv) of this condition, as applicable.

(ii) If none of the 30 daily measurements of the fuel's total sulfur content exceeds half the applicable standard, subsequent sulfur content monitoring may be performed at 12-month intervals. If any of the samples taken at 12-month intervals has a total sulfur content greater than half but less than the applicable limit, follow the procedures in paragraph (c)(1)(iii) of this condition. If any measurement exceeds the applicable limit, follow the procedures in paragraph (c)(1)(iv) of this condition.

(iii) If at least one of the 30 daily measurements of the fuel's total sulfur content is greater than half but less than the applicable limit, but none exceeds the applicable limit, then:

(A) Collect and analyze a sample every 30 days for 3 months. If any sulfur content measurement exceeds the applicable limit, follow the procedures in paragraph (c)(1)(iv) of this condition. Otherwise, follow the procedures in paragraph (c)(1)(iii)(B) of this condition.

(B) Begin monitoring at 6-month intervals for 12 months. If any sulfur content measurement exceeds the applicable limit, follow the procedures in paragraph (c)(1)(iv) of this condition. Otherwise, follow the procedures in paragraph (c)(1)(iii)(C) of this condition.

(C) Begin monitoring at 12-month intervals. If any sulfur content measurement exceeds the applicable limit, follow the procedures in paragraph (c)(1)(iv) of this condition. Otherwise, continue to monitor at this frequency.

(iv) If a sulfur content measurement exceeds the applicable limit, immediately begin daily monitoring according to paragraph (c)(1)(i) of this condition. Daily monitoring shall continue until 30 consecutive daily samples, each having a sulfur content no greater than the applicable limit, are obtained. At that point, the applicable procedures of paragraph (c)(1)(ii) or (iii) of this condition shall be followed.

(2) The owner or operator may use the data collected from the 720-hour sulfur sampling demonstration described in section 2.3.6 of appendix D to part 75 of Chapter I to determine a custom sulfur sampling schedule, as follows:

(i) If the maximum fuel sulfur content obtained from the 720 hourly samples does not exceed 20 grains/100 scf, no additional monitoring of the sulfur content of the gas is required, for the purposes of 40 CFR part 60 subpart KKKK.

(ii) If the maximum fuel sulfur content obtained from any of the 720 hourly samples exceeds 20 grains/100 scf, but none of the sulfur content values (when converted to weight percent sulfur) exceeds half the applicable limit, then the minimum required sampling frequency shall be one sample at 12 month intervals.

(iii) If any sample result exceeds half the applicable limit, but none exceeds the applicable limit, follow the provisions of paragraph (c)(1)(iii) of this condition.

(iv) If the sulfur content of any of the 720 hourly samples exceeds the applicable limit, follow the provisions of paragraph (c)(1)(iv) of this condition.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.4365

E57-19. The permittee must submit reports of excess emissions and monitor downtime, in accordance with 40 CFR §60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction.

For each affected unit that performs annual performance tests in accordance with 40 CFR §60.4340(a), you must submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test.

All reports required under 40 CFR §60.7(c) must be postmarked by the 30th day following the end of each 6-month period.

The reports and results of any performance test shall be sent or emailed to the Technical Secretary at:

Hard copy to:	Adobe pdf copy to:
Technical Secretary Division of Air Pollution Control William R. Snodgrass Tennessee Tower, 15TH Floor 312 Rosa Parks Avenue Nashville, TN 37243	Air.Pollution.Control@tn.gov

Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR §60.4375 and 40 CFR §60.4395

E57-20. For the purpose of reports required under §60.7(c), periods of excess emissions and monitor downtime that must be reported are defined as follows:

(a) Intentionally left blank

(b) For turbines using continuous emission monitoring, as described in 40 CFR §§60.4335(b) and 60.4345:

(1) An excess emissions is any unit operating period in which the 4-hour or 30-day rolling average NO_X emission rate exceeds the applicable emission limit in 40 CFR §60.4320. For the purposes of 40 CFR part 60 subpart KKKK, a "4-hour rolling average NO_X emission rate" is the arithmetic average of the average NO_X emission rate in ppm or ng/J (lb/MWh) measured by the continuous emission monitoring equipment for a given hour and the three unit operating hour average NO_X emission rates immediately preceding that unit operating hour. Calculate the rolling average if a valid

NO_X emission rate is obtained for at least 3 of the 4 hours. For the purposes of this subpart, a "30-day rolling average NO_X emission rate" is the arithmetic average of all hourly NO_X emission data in ppm or ng/J (lb/MWh) measured by the continuous emission monitoring equipment for a given day and the twenty-nine unit operating days immediately preceding that unit operating day. A new 30-day average is calculated each unit operating day as the average of all hourly NO_X emissions rates for the preceding 30 unit operating days if a valid NO_X emission rate is obtained for at least 75 percent of all operating hours.

(2) A period of monitor downtime is any unit operating hour in which the data for any of the following parameters are either missing or invalid: NO_X concentration, CO_2 or O_2 concentration, fuel flow rate, steam flow rate, steam temperature, steam pressure, or megawatts. The steam flow rate, steam temperature, and steam pressure are only required if you will use this information for compliance purposes.

(3) For operating periods during which multiple emissions standards apply, the applicable standard is the average of the applicable standards during each hour. For hours with multiple emissions standards, the applicable limit for that hour is determined based on the condition that corresponded to the highest emissions standard.

(c) Intentionally left blank

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.4380

E57-21. If you choose the option to monitor the sulfur content of the fuel, excess emissions and monitoring downtime are defined as follows:

(a) For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the combustion turbine exceeds the applicable limit and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.

(b) Intentionally left blank

(c) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime ends on the date and hour of the next valid sample.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.4385

E57-22. The permittee must conduct NOx performance tests on an annual basis (no more than 14 calendar months following the previous performance test). The permittee shall comply with the testing provisions of 40 CFR §60.4400.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR §60.4400

E57-23. Intentionally left blank

(a) Intentionally left blank

(b) Intentionally left blank

(c) Intentionally left blank

(d) Intentionally left blank

Tenn. Comp. R. & Regs. 1200-03-09-.03(8), 40 CFR §60.4405

E57-24(MM1). [Reserved]

E57-25. (a) Except as specified in paragraphs (a)(1),(a)(2), (a)(3), and (a)(4) of this condition, at certain times specified by 40 CFR part 60 subpart A other than an initial performance test which has been completed, and at such other times as may be required by the Administrator under section 114 of the Act, the permittee of such facility shall conduct performance test(s) and furnish the Technical Secretary a written report of the results of such performance test(s).

(1) If a force majeure is about to occur, occurs, or has occurred for which the affected permittee intends to assert a claim of force majeure, the permittee shall notify the Technical Secretary, in writing as soon as practicable following the date the permittee first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.

(2) The permittee shall provide to the Technical Secretary a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the permittee proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure occurs.

(3) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Technical Secretary. The Technical Secretary will notify the permittee in writing of approval or disapproval of the request for an extension as soon as practicable.

(4) Until an extension of the performance test deadline has been approved by the Technical Secretary under paragraphs (a)(1), (2), and (3) of this condition, the permittee of the affected facility remains strictly subject to the requirements of 40 CFR part 60 subpart A.

(b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in 40 CFR part 60 subpart KKKK unless the Technical Secretary (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the permittee of a source has demonstrated by other means to the Technical Secretary's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(c) Performance tests shall be conducted under such conditions as the Technical Secretary shall specify to the plant operator based on representative performance of the affected facility. The permittee shall make available to the Technical Secretary such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

(d) The permittee of an affected facility shall provide the Technical Secretary at least 30 days prior notice of any performance test, except as specified under 40 CFR part 60, to afford the Technical Secretary the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the permittee of an affected facility shall notify the Technical Secretary as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Technical Secretary by mutual agreement.

(e) The permittee of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such facility. This includes (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

(2) Safe sampling platform(s).

(3) Safe access to sampling platform(s).

(4) Utilities for sampling and testing equipment.

(f) Unless otherwise specified in the 40 CFR part 60 subpart KKKK, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the permittee's control, compliance may, upon the Technical Secretary's approval, be determined using the arithmetic mean of the results of the two other runs.

(g) The performance testing shall include a test method performance audit (PA) during the performance test as described in 40 CFR part 60 subpart A.

(h) Unless otherwise specified in the 40 CFR part 60 subpart KKKK, each test location must be verified to be free of cyclonic flow and evaluated for the existence of emission gas stratification and the required number of sampling traverse

points. If other procedures are not specified in 40 CFR part 60 subpart KKKK, use the appropriate procedures in Method 1 to check for cyclonic flow and Method 7E to evaluate emission gas stratification and selection of sampling points.

(i) Whenever the use of multiple calibration gases is required by a test method, performance specification, or quality assurance procedure in a 40 CFR part 60 standard or appendix, Method 205 of 40 CFR part 51, appendix M of Chapter I, "Verification of Gas Dilution Systems for Field Instrument Calibrations," may be used.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.8

40 CFR part 63 subpart YYYY: National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines

E57-26. The permittee must comply with the Initial Notification requirements set forth in 40 CFR §63.6145 but need not comply with any other requirement of 40 CFR part 63 subpart YYYY until EPA takes final action to require compliance and publishes a document in the FEDERAL REGISTER.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §63.6095(d)

40 CFR part 60 subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

E57-27. Heat recovery steam generators that are associated with stationary combustion turbines and that meet the applicability requirements of 40 CFR part 60 subpart KKKK are not subject to 40 CFR part 60 subpart Db.

Tenn. Comp. R. & Regs. 1200-03-09-.03(8) and 40 CFR §60.40b(i)

E57-28(SM1). Reserved

E57-29(SM1). Reserved

E57-30(SM1). Reserved

E57-31(SM1). Reserved

E57-32(SM1). Reserved

E57-33(SM1). Reserved

E57-34(SM1). Reserved

Note: All emission limitations in parentheses throughout this document are for informational purposes only.

END OF SIGNIFICANT MODIFICATION #1 TO PERMIT NUMBER: 573292

ATTACHMENT 1
OPACITY MATRIX DECISION TREE for VISIBLE EMISSION EVALUATION METHOD 9

Dated June 18, 1996
Amended September 11, 2013

Decision Tree PM for Opacity for Sources Utilizing EPA Method 9*

Notes:

PM = Periodic Monitoring required by 1200-03-09-.02(11)(e)(iii).

This Decision Tree outlines the criteria by which major sources can meet the periodic monitoring and testing requirements of Title V for demonstrating compliance with the visible emission standards set forth in the permit. It is not intended to determine compliance requirements for EPA's Compliance Assurance Monitoring (CAM) Rule (formerly referred to as Enhanced Monitoring – Proposed 40 CFR 64).

Examine each emission unit using this Decision Tree to determine the PM required.*

Use of continuous emission monitoring systems eliminates the need to do any additional periodic monitoring.

Visible Emission Evaluations (VEEs) are to be conducted utilizing EPA Method 9. The observer must be properly certified to conduct valid evaluations.

Typical Pollutants
Particulates, VOC, CO, SO_2, NO_x, HCl, HF, HBr, Ammonia, and Methane.

Initial observations are to be repeated within 90 days of startup of a modified source, if a new construction permit is issued for modification of the source.

A VEE conducted by TAPCD personnel after the Title V permit is issued will also constitute an initial reading.

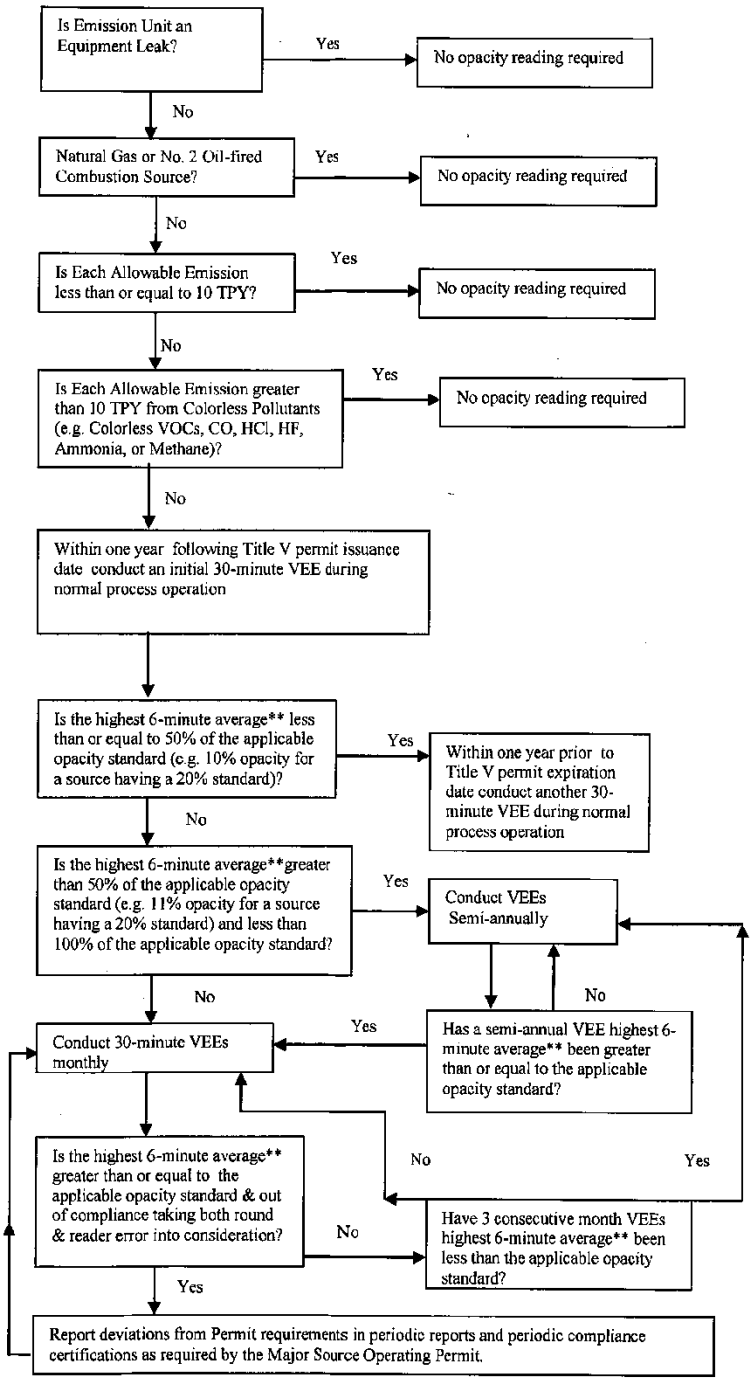
Reader Error
EPA Method 9, Non-NSPS or NESHAPS stipulated opacity standards:
The TAPCD guidance is to declares non-compliance when the highest six-minute average** exceeds the standard plus 6.8% opacity (e.g. 26.8% for a 20% standard).

EPA Method 9, NSPS or NESHAPS stipulate opacity standards:
EPA guidance is to allow only engineering round. No allowance for reader error is given.

*Not applicable to Asbestos manufacturing subject to 40 CFR 61.142

**Or second highest six-minute average, if the source has an exemption period stipulated in either the regulations or in the permit.

Dated June 18, 1996
Amended September 11, 2013



ATTACHMENT 2

Compliance Assurance Monitoring (CAM) Plan dated October 2017

COMPLIANCE ASSURANCE MONITORING PLAN

Primary Products Ingredients Americas LLC

Loudon, Tennessee

Source ID: 53-0081

October 2017

Compliance Assurance Monitoring Plan
Primary Products Ingredients Americas LLC
Loudon, TN
Source ID: 53-0081

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SUMMARY

COMPLIANCE ASSURANCE MONITORING

Compliance Assurance Monitoring
Primary Products Ingredients Americas LLC
Loudon, TN
Source ID: 53-0081

The following information addresses compliance assurance monitoring requirements for the Primary Products Ingredients Americas LLC, Loudon facility. Primary Products Ingredients Americas LLC utilized EPA regulation 40 CFR Part 64, EPA guidance documents and information presented by the Tennessee Department of Environment & Conservation, Air Pollution Control Division.

Each emission unit at the facility was reviewed and determined to be either exempt or non-exempt from the compliance assurance monitoring (CAM) requirements. As stated in 40 CFR 64.2 applicability determinations requiring CAM are based on if the unit satisfies all of the following criteria:

(1) The unit is subject to an emission limitation or standard for the applicable regulated air pollutant. [i.e. emits particulate matter (PM_{10} only), sulfur dioxide (SO_2), volatile organic compounds (VOC), Nitrogen Oxides (NOx), Carbon Monoxide (CO) and Hazardous Air Pollutants (HAPs)]

(2) The unit uses a control device to achieve compliance with any such emission limitation or standard unless it is considered inherent process equipment where it is not considered a control device; and

(3) The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100% of the amount, in tons per year, required for a source to be classified as a major source.

Primary Products Ingredients Americas LLC categorized each emission unit by the type of pollutant emitted that is regulated by CAM. Once the emission units were segregated by pollutant, an evaluation was completed to determine which CAM requirements were applicable for each pollutant and emission unit.

Many of the emission units have applicable requirements. These requirements are listed in the source's Title V Operating Permit, #561515 [renewal permit 573292] or recently issued construction permits, #971336P and #971677P.

Emission units emitting criteria pollutants and HAPs, which have applicable CAM requirements and control devices that are not considered inherent process equipment, were evaluated for specific monitoring requirements.

Finally, the CAM applicable units were further evaluated to determine if continuous monitoring will be required. Continuous monitoring is required for large pollutant specific emission units (PSEU's). Specifically, emission units with post control emissions that exceed the major source threshold (i.e. 100 tons/year, etc.).

Primary Products Ingredients Americas LLC, Loudon utilized the above criteria in determining a unit's applicability to the CAM requirements. After reviewing all of the emission units at the Loudon facility for CAM applicability, it was determined that the emission units listed in Table 1 were required to have a CAM plan.

This document contains two sections. The CAM plans required for the emission units listed in Table 1 are located in Section 1. In Section 2, each emission unit not meeting the CAM applicability requirements is listed with an explanation of why that emission unit is considered exempt.

Table I
Emission Units Requiring a CAM Plan

Stack ID	Emission Unit Description	Pollutant Requiring CAM	Allowable Emission Rate (tons/yr)	Basis for Emission Rate Determination
Corn Receiving & Handling				
PES #1	Corn Unloading	PM_{10}	7.6	Permit Condition
PES #2	Elevator Dust System	PM_{10}	5.2	Permit Condition
Corn Steeping & Milling				
PES #3	Steephouse & Millhouse Aspiration	SO2	27.1	Permit Condition
Feedhouse				
FHS #3	Cracked Corn Conveying (PES #6)	PM_{10}	22.8	Permit Condition
	Feed Cooler (PES #20)			
	Feed Milling (PES #21)			
	Pellet Loadout (PES #52)			
FHS #1	Germ Dryer #1 (PES #7)	PM_{10}	35.7	Permit Condition
	Feed Dryer #3 (PES #94)			
	Germ Pre-Dryer (PES #95)			
	Gluten Dryer (PES #9)			
	Feed Dryer #1 (PES #18)			
	Feed Dryer #2 (PES #19)			
FHS #1	Germ Dryer #1 (PES #7)	SO2	99.6	Permit Condition
	Feed Dryer #3 (PES #94)			
	Germ Pre-Dryer (PES #95)			
	Gluten Dryer (PES #9)			
	Feed Dryer #1 (PES #18)			
	Feed Dryer #2 (PES #19)			
FHS #1	Germ Dryer #1 (PES #7)	CO	134	Permit Condition
	Feed Dryer #3 (PES #94)			
	Germ Pre-Dryer (PES #95)			
	Gluten Dryer (PES #9)			
	Feed Dryer #1 (PES #18)			
	Feed Dryer #2 (PES #19)			
FHS #1	Germ Dryer #1 (PES #7)	VOC	49	Permit Condition
	Feed Dryer #3 (PES #94)			
	Germ Pre-Dryer (PES #95)			
	Gluten Dryer (PES #9)			
	Feed Dryer #1 (PES #18)			
	Feed Dryer #2 (PES #19)			
PES #10	Pellet Cooler #1	PM_{10}	7.5	Permit Condition
PES #11	Pellet Cooler #2	PM_{10}	7.5	Permit Condition
PES #17	Gluten Meal Conveying/Loadout	PM_{10}	11.3	Permit Condition
PES #62A	Loading Barge Facility	PM_{10}	2.8	Permit Condition
PES #62B	Unloading Barge Facility	PM_{10}	1.6	Permit Condition
Refinery				
PES #23	Carbon Regeneration Furnace	PM_{10}	4.4	Permit Condition
		CO	21.9	Permit Condition
		VOC	21.9	Permit Condition
PES #24	Soda Ash System	PM_{10}	2.3	Permit Condition
PES #26	Filter Aid System	PM_{10}	0.8	Permit Condition

Stack ID	Emission Unit Description	Pollutant Requiring CAM	Allowable Emission Rate (tons/yr)	Basis for Emission Rate Determination
PES #90B	Starch Spray Dryer	PM_{10}	23.5	Permit Condition
PES #91E	Truck Loadout	PM_{10}	1.3	Permit Condition
PES #91F	Tote & Bag Packer System	PM_{10}	6	Permit Condition
PES #91H	Tote Feed Bin Vent Dust Collector	PM_{10}	1.9	Permit Condition
PES #93	Dryer Cooler	PM_{10}	4.8	Permit Condition
Alcohol				
PES #28A	Fermentation Process	VOC	23	Permit Condition
PES #28B	Propagators System w/RTO	VOC	1.9	Permit Condition
PES #99	Barge Loadout	VOC	37.1	Permit Condition
Utilities				
PES #37	Cogeneration Unit #1	NOx	181.3	Permit Condition
PES #38	Cogeneration Unit #2	NOx	181.3	Permit Condition
Propanediol				
None				

SECTION 1

COMPLIANCE ASSURANCE MONITORING PLANS

Corn Unloading System (PES #1)

The following compliance assurance monitoring plan addresses the Corn Unloading (PES #1) operations.

I. Background

A. Emission Unit: Corn Unloading System (PES #1)
B. Pollutant: PM_{10}, Opacity
C. Applicable Requirements: Title V Operating Permit 561515, Condition E4-2

D. Emissions Control Technology: Baghouse

II. Monitoring Approach

A. Indicator 64.6(c)(1)(i): Visible emissions will be used as an indicator

B. Measurement Approach 64.6(c)(1)(ii): Visible emissions from the baghouse exhaust will be monitored daily. If visible emissions are observed then the Plant Coordinator, a Method 9 Trained Observer, will verify the presence of visible emissions.

C. Indicator Range 64.6(c)(2): The indicator level is no visible emissions

D. QIP Threshold: No more than six excursions above the indicator range in any semi-annual reporting period.

E. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: Observations are performed at the emission point.

b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The Plant Coordinator will be a Method 9 trained observer.

d. Monitoring Frequency, Data Collection and Averaging period 64.3(b)(4): Visible emission observations will be performed daily. Records will be kept indicating if visible emissions were present or not. There is no averaging period.

III. Justification

Visible emissions are selected as the performance indicator because it is indicative of operation of the baghouse in a manner necessary to comply with the particulate emission standard. According to the manufacturer's specifications of the baghouse when it is working properly, the baghouse exhaust will meet the specified grain loading and exhibit

no visible emissions. Conversely, the manufacturer's specifications of the baghouse also indicate that when the baghouse is not operating properly, there will be visible emissions from the exhaust. Any increase in visible emissions indicates reduced performance of a particulate control device, therefore, the presence of visible emissions is used as a performance indicator.

The selected indicator range is no visible emissions. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. An indicator range of no visible emissions was selected because an increase in visible emissions is indicative of an increase in particulate emissions.

The selected QIP threshold for baghouse visible emissions is 6 excursions in any semi-annual reporting period. This level is 3 percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

IV. Minimum Data Availability 64.6(c)(4): Not applicable.

Elevator Dust System (PES #2)

The following compliance assurance monitoring plan addresses the Corn Elevator (PES #2) operations.

I. Background

A. Emission Unit: Corn Elevators (PES #2)
B. Pollutant: PM_{10}, Opacity
C. Applicable Requirements: Title V Operating Permit 561515, Condition E5-2

D. Emissions Control Technology: Baghouse

II. Monitoring Approach

A. Indicator 64.6(c)(1)(i): Visible emissions will be used as an indicator.

B. Measurement Approach 64.6(c)(1)(ii): Visible emissions from the baghouse exhaust will be monitored daily. If visible emissions are observed then the Plant Coordinator, a Method 9 Trained Observer, will verify the presence of visible emissions.

C. Indicator Range 64.6(c)(2): The indicator level is no visible emissions

D. QIP Threshold: No more than six excursions above the indicator range in any semi-annual reporting period.
E. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: Observations are performed at the emission point.

b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The Plant Coordinator will be a Method 9 trained observer.

d. Monitoring Frequency, Data Collection and Averaging period 64.3(b)(4): Visible emission observations will be performed daily. Records will be kept indicating if visible emissions were present or not. There is no averaging period.

III. Justification

Visible emissions were selected as the performance indicator because it is indicative of operation of the baghouse in a manner necessary to comply with the particulate emission standard. According to the manufacturer's specifications of the baghouse when it is working properly, the baghouse exhaust will meet the specified grain loading and exhibit no visible emissions. Conversely, the manufacturer's specifications of the baghouse also indicate that when the baghouse is not operating properly, there will be visible emissions from the exhaust. Any increase in visible emissions indicates reduced performance of a particulate control device, therefore, the presence of visible emissions is used as a performance indicator.

The selected indicator range is no visible emissions. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. An indicator range of no visible emissions was selected because an increase in visible emissions is indicative of an increase in particulate emissions.

The selected QIP threshold for baghouse visible emissions is 6 excursions in any semi-annual reporting period. This level is 3 percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

IV. Minimum Data Availability 64.6(c)(4): Not applicable.

Steephouse and Millhouse Aspiration (PES #3)

I. Background

A. Emission Unit: Steephouse and Millhouse Aspiration (PES #3 & 4)
B. Pollutant: SO2
C. Applicable Requirements: Title V Operating Permit 561515, Condition E6-4

D. Emissions Control Technology: Scrubber

II. Monitoring Approach

A. Indicator 64.6(c)(1)(i): Scrubber liquid flow and pH will be used as indicators.

B. Measurement Approach 64.6(c)(1)(ii): Scrubber liquid flow will be assured by maintaining an average daily current in amperes to the scrubber liquid pump. The average daily current is based on one minute averages which are averaged over a 24-hour period.

pH is monitored once per day to assure sufficient caustic to the scrubber. A sample is taken from the sample port on the scrubber recirculation system. A pH meter is utilized to determine the pH.

C. Indicator Range 64.6(c)(2): The indicator level is an average daily current of 27 amperes and a minimum pH of 6.

D. QIP Threshold: No more than six excursions above the indicator range in any semi-annual reporting period.

E. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: Amperage meter is located at the scrubber liquid pump.

b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The accuracy of the amperage meter will be verified by a second hand-held current probe measured at the scrubber liquid pump. This validation check will be conducted at least annually. The acceptance criterion will be +/- 0.2 amperes. The pH meter will be calibrated at least annually. The acceptance criterion will be +/- 0.3 pH units.

d. Monitoring Frequency, Data Collection and Averaging Period 64.3(b)(4): Scrubber liquid flow will be assured by maintaining an average daily current in amperes to the scrubber liquid pump.. The average daily current is based on

one minute averages which are averaged over a 24-hour period. In addition, a daily visual inspection of the scrubber will be conducted by operating personnel. A daily record of the average daily current (amperes) and visual inspections will be maintained. The averaging period for the current flow will be 24-hours while there is no averaging period for the visual inspections.

pH is monitored once per day to assure sufficient caustic to the scrubber utilizing a pH meter that electronically records one minute averages. The electronic pH meter reading is manually recorded into the Title V log by an operator once per day.

III. Justification

Scrubber liquid flow and pH was selected as the performance indicators because it is indicative of operation of the scrubber to comply with the SO2 emission limits. When the scrubber pump for scrubber liquid flow and caustic are operating properly, there will be sufficient scrubber liquid flow and caustic addition to maintain the SO2 removal efficiency of the scrubber.

The selected indicator ranges are maintaining average daily current amperage of 27 amperes and a minimum pH of 6. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. Indicator ranges of maintaining average daily current amperage of 27 amperes and minimum pH were selected because manufacturing design specifications indicated that by maintaining this amperage and pH the appropriate SO2 removal efficiency can be obtained.

The selected QIP threshold for maintaining the average daily current amperage of 27 amperes and minimum pH of is 6 excursions in any semi-annual reporting period. This level is 3 percent of the total scrubber liquid flow and minimum pH measurements. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

IV. Minimum Data Availability 64.6(c)(4): Not applicable

Feed House Stack #3 (PES #6, 20, 21 & 52)

The following compliance assurance monitoring plan addresses the following emission units which utilize cyclones and a wet scrubber to control PM_{10} emissions. The combined emissions are ducted through Feed House Stack #3.

- Cracked Corn Conveying (PES #6)
- Feed Cooler (PES #20)
- Feed Milling (PES #21)
- Pellet Loadout (PES #52)

I. Background

A. Emission Unit: Feed House Stack #3 (FHS #3)
B. Pollutant: PM_{10}
C. Applicable Requirements: Title V Operating Permit 561515, Condition E8-2
D. Emissions Control Technology: Wet Scrubber

II. Monitoring Approach

A. Indicator 64.6(c)(1)(i): Scrubber liquid flow will be used as an indicator.

B. Measurement Approach 64.6(c)(1)(ii): Scrubber liquid flow will be assured by maintaining an average daily current in amperes to the scrubber liquid pump. The average daily current is based on one minute averages which are averaged over a 24-hour period.

C. Indicator Range 64.6(c)(2): The indicator level is an average daily current of 8 amperes.

D. QIP Threshold: No more than six excursions above the indicator range in any semi-annual reporting period.

E. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: Amperage meter is located at the scrubber liquid pump.

b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The accuracy of the amperage meter will be verified by a second hand-held amp probe measured at the scrubber liquid pump. This validation check will be conducted at least annually. The acceptance criterion will be +/- 0.2 amperes.

d. Monitoring Frequency, Data Collection and Averaging Period 64.3(b)(4): Scrubber liquid flow will be assured by maintaining an average daily current in amperes to the scrubber liquid pump.. The average daily current is based on one minute averages which are averaged over a 24-hour period. In addition, a daily visual inspection of the scrubber will be conducted by operating personnel. A daily record of the average current flow (amperes) and visual inspections will be maintained. The averaging period for the current flow will be 24-hours while there is no averaging period for the visual inspections.

III. Justification

Current flow was selected as the performance indicator because it is indicative of operation of the scrubber pump providing the minimum scrubber liquid flow to comply with the particulate emission limit. When the scrubber pump is operating properly, there will be sufficient scrubber liquid flow to maintain the particulate removal efficiency of the scrubber.

The selected indicator range is maintaining an average daily current of 8 amperes. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. An indicator range of maintaining an average daily current of 8 amperes was selected because manufacturing design specifications indicated that by maintaining this current flow the appropriate particulate removal efficiency can be obtained.

The selected QIP threshold for maintaining the average daily current is 6 excursions in any semi-annual reporting period. This level is 3 percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

The particulate matter emissions from the Feed House Stack #3 were measured at 1.36 pounds per hour during source emissions testing on April 28, 2009. This value demonstrates compliance with the allowable particulate emissions rate of 5.2 pounds per hour. The control equipment operational parameter has met the compliance value during the source emissions testing.

IV. Minimum Data Availability 64.6(c)(4): Not applicable

Feed House Stack #1 (PES #7, 9, 18, 19, 94 & 95)

The following compliance assurance monitoring plan addresses the following emission units which utilize cyclones and wet scrubbers to control PM_{10} and SO2 emissions. The combined emissions are ducted through Feed House Stack #1.

- Germ Dryer #1 (PES #7)
- Gluten Dryer #1 (PES #9)
- Feed Dryer #1 (PES #18)
- Feed Dryer #2 (PES #19)
- Feed Dryer #3 (PES #94)
- Germ Pre-Dryer (PES #95)

I. Background

A. A. Emission Units: Germ Dryer #1, Gluten Dryer, Feed Dryer #1, Feed Dryer #2,
Feed Dryer #3 & Germ Pre-Dryer

B. Pollutant: PM_{10} & SO2

C. Applicable Requirements: Title V Operating Permit 561515, Condition E9-3(SM4)

D. Emissions Control Technology: Scrubbers

II. Monitoring Approach

A. Indicator 64.6(c)(1)(i): Scrubber liquid flow, pH and damper position will be used as indicators.

B. Measurement Approach 64.6(c)(1)(ii): Scrubber liquid flow will be assured by maintaining either an average daily scrubber liquid flow in gallons per minute or an average daily current in amperes to the scrubber liquid pump. The average daily scrubber liquid flow or current is based on one minute averages which are averaged over a 24-hour period.

pH is monitored once per day to assure sufficient caustic to the scrubber utilizing a pH meter that electronically records one minute averages. The electronic pH meter reading is manually recorded into the Title V log by an operator once per day.

C. Indicator Range 64.6(c)(2): The indicator levels are listed in Table 1 below.

Description and PES #	Minimum Flow Rate (gallons per minute)	Average daily current to scrubber pump (amperes)	Minimum pH of scrubber liquid
Gluten Dryer (PES #9)	170	N/A	6.5
Feed Dryer #1 (PES #18)	235	N/A	6.5
Feed Dryer #2 (PES #19)	235	N/A	6.5
Feed Dryer #3 (PES #94)	300	6.2	5.5
Germ Pre-Dryer (PES #95)	300	6.2	5.5
Germ Dryer #1 (PES #7)	300	6.2	5.5

D. QIP Threshold: No more than six excursions above the indicator range in any semi-annual reporting period.

E. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: Flow and amperage meters are located at the scrubbers or the scrubber liquid pumps.

b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The flow/amperage meters will be calibrated at least annually. The acceptance criterion will be +/- 5 gallons/minute or the accuracy of the amperage meter will be verified by a second hand-held current probe measured at the scrubber liquid pumps. This validation check will be conducted at least annually. The acceptance criterion will be +/- 0.2 amperes. The pH meters will be calibrated at least annually. The acceptance criterion will be +/- 0.3 pH units.

d. Monitoring Frequency, Data Collection and Averaging Period 64.3(b)(4): Scrubber liquid flow will be assured by maintaining an average scrubber liquid flow in gallons per minute or average daily current in amperes to the scrubber liquid pumps. The average scrubber liquid flow and daily current is based on

one minute averages which are averaged over a 24-hour period. The average daily scrubber liquid flow in gallons per minute will be determined from the average scrubber flow over the hours that the scrubbers are in operation for that day. The average daily electrical current in amperes will be determined from the average current in amperes over the hours that the scrubber pumps are in operation for that day. In addition, a daily visual inspection of the scrubbers will be conducted by operating personnel. A daily record of the average scrubber liquid flow, current flow (amperes) and visual inspections will be maintained. The averaging period for the scrubber liquid and current flow will be 24-hours while there is no averaging period for the visual inspections.

The pH level of the scrubber liquid shall be monitored and recorded once daily. A daily record of the pH will be maintained. The pH meter electronically records one minute averages.

III. Justification

Scrubber liquid flow, pH and damper position were selected as the performance indicators because it is indicative of operation of the scrubbers to comply with the PM_{10} and SO2 emission limits. When the scrubber pumps for scrubber liquid flow and/or caustic are operating properly, there will be sufficient scrubber liquid flow to maintain the particulate and SO2 removal efficiency of the scrubbers.

The selected indicator ranges are listed in Table 1. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. The indicator ranges were selected because manufacturing design specifications indicated that by maintaining the indicator ranges the appropriate particulate and SO2 removal efficiency can be obtained.

The selected QIP threshold for maintaining the indicator ranges are 6 excursions in any semi-annual reporting period. This level is 3 percent of the scrubber liquid flow, minimum pH and damper position measurements. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

The particulate matter emissions from the Feed House Stack #1 were measured at 4.57 pounds per hour (20.0 tons/year) during source emissions testing on August 29, 2017. This value demonstrates compliance with the allowable particulate emissions rate 35.7 tons/year.

All control equipment operational parameters met the compliance values in Table 1.

V. Minimum Data Availability 64.6(c)(4): Not applicable

Feed House Stack #1 (PES #7, 9, 18, 19, 94 & 95)

The following compliance assurance monitoring plan addresses the following emission units utilizing RTOs to control VOC and CO emissions. The combined emissions are ducted through Feed House Stack #1.

- Germ Dryer #1 (PES #7)
- Gluten Dryer (PES #9)
- Feed Dryer #2 (PES #19)
- Feed Dryer #3 (PES #94)
- Germ Pre-Dryer (PES #95)

I. Background

B. Emission Units: Germ Dryer #1, Gluten Dryer, Feed Dryer #1, Feed Dryer #2, Feed Dryer #3 & Germ Pre-Dryer
B. Pollutant: VOCs & CO
C. Applicable Requirements: Title V Operating Permit 561515, Condition E9-4(SM4)
D. Emissions Control Technology: Regenerative Thermal Oxidizers (RTO) #1, #2 & #3

II. Monitoring Approach

A. Indicator 64.6(c)(1)(i): Chamber temperature will be used as an indicator.

B. Measurement Approach 64.6(c)(1)(ii): Chamber temperature will be measured by a thermocouple and will be assured by maintaining a 3-hour average minimum temperature in Fahrenheit degrees to the chamber. The 3-hour average is based on one minute averages which are averaged over a 3-hour period.

C. Indicator Range 64.6(c)(2): The indicator level will be a minimum incinerator chamber temperature of 1500 degrees Fahrenheit.

D. QIP Threshold: No more than 40 excursions above the indicator range in any semi-annual reporting period.
E. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: Thermocouple is located in the RTO incinerator chamber.
b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The accuracy of the thermocouple will be verified by a second hand-held meter inserted into the incinerator chamber. This validation check will be conducted at least annually. The acceptance criterion will be +/- 30 degrees Fahrenheit.

d. Monitoring Frequency, Data Collection and Averaging Period 64.3(b)(4): The average incineration temperature in degrees Fahrenheit will be determined over the hours that the RTO is in operation for that day. A continuous monitoring system shall collect incineration temperature once per minute. A record of the average incineration temperature (Fahrenheit) will be maintained. The averaging period for the incineration temperature will be recorded as 3-hour averages.

III. Justification

Incineration temperature was selected as the performance indicator because it is indicative of the destruction efficiency to comply with the VOC and CO emission limit. When the RTO is operating properly, there will be sufficient incineration to maintain the VOC and CO removal efficiency of the RTO.

The selected indicator range is > 1500 degrees Fahrenheit since the destruction efficiency is greater than 95% for VOCs and 65% for CO. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. An indicator range of maintaining an incineration temperature greater than 1500 degrees Fahrenheit was selected because manufacturing design specifications indicated that by maintaining this incineration temperature the appropriate VOC and CO removal efficiency can be obtained.

The selected QIP threshold for maintaining the minimum 1500 degrees Fahrenheit is 40 excursions in any semi-annual reporting period. This level is 3 percent of the total incineration temperature measurements recorded as three-hour averages. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

The carbon monoxide emissions from the Feed House Stack #1 were measured at 24.2 pounds per hour during source emissions testing on October 1, 2010. This value demonstrates compliance with the carbon monoxide emissions limit of 134 tons per year.

The volatile organic compounds emissions from the Feed House Stack #1 were measured at 8.21 pounds per hour during source emissions testing on October 1, 2010. This value demonstrates compliance with the volatile organic compounds emission limit of 49 tons per year.

The control equipment operational parameters met the compliance values during the source emissions testing.

IV. Minimum Data Availability 64.6(c)(4): Not applicable

Pellet Cooler #1 (PES #10)

The following compliance assurance monitoring plan addresses the Pellet Cooler #1 (PES #10) operations.

I. Background

A. Emission Unit: Pellet Cooler #1 (PES #10)
B. Pollutant: PM_{10}, Opacity
C. Applicable Requirements: Title V Operating Permit 561515, Condition SM1E10-2
D. Emissions Control Technology: Cyclone

II. Monitoring Approach

A. Indicator 64.6(c)(1)(i): Visible emissions will be used as an indicator.

B. Measurement Approach 64.6(c)(1)(ii): Visible emissions from the cyclone exhaust will be monitored daily. If visible emissions are observed then the Plant Coordinator, a Method 9 Trained Observer, will verify the presence of visible emissions.

C. Indicator Range 64.6(c)(2): The indicator level is no visible emissions

D. QIP Threshold: No more than six excursions above the indicator range in any semi-annual reporting period.

E. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: Observations are performed at the emission point.

b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The Plant Coordinator will be a Method 9 trained observer.

d. Monitoring Frequency, Data Collection and Averaging period 64.3(b)(4): Visible emission observations will be performed daily. Records will be kept indicating if visible emissions were present or not. There is no averaging period.

III. Justification

Visible emissions are selected as the performance indicator because it is indicative of operation of the cyclone in a manner necessary to comply with the particulate emission standard. According to the manufacturer's specifications of the cyclone when it is working properly, the cyclone exhaust will meet the specified grain loading and exhibit no visible

emissions. Conversely, the manufacturer's specifications of the cyclone also indicate that when the cyclone is not operating properly, there will be visible emissions from the exhaust. Any increase in visible emissions indicates reduced performance of a particulate control device, therefore, the presence of visible emissions is used as a performance indicator.

The selected indicator range is no visible emissions. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. An indicator range of no visible emissions was selected because an increase in visible emissions is indicative of an increase in particulate emissions.

The selected QIP threshold for cyclone visible emissions is 6 excursions in any semi-annual reporting period. This level is 3 percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

IV. Minimum Data Availability 64.6(c)(4): Not applicable

Pellet Cooler #2 (PES #11)

The following compliance assurance monitoring plan addresses the Pellet Cooler #2 (PES #11) operations.

I. Background

A. Emission Unit: Pellet Cooler #2 (PES #11)
B. Pollutant: PM_{10}, Opacity
C. Applicable Requirements: Title V Operating Permit 561515, Condition SM1E11-2
D. Emissions Control Technology: Cyclone

II. Monitoring Approach

A. Indicator 64.6(c)(1)(i): Visible emissions will be used as an indicator.

B. Measurement Approach 64.6(c)(1)(ii): Visible emissions from the cyclone exhaust will be monitored daily. If visible emissions are observed then the Plant Coordinator, a Method 9 Trained Observer, will verify the presence of visible emissions.

C. Indicator Range 64.6(c)(2): The indicator level is no visible emissions
D. QIP Threshold: No more than six excursions above the indicator range in any semi-annual reporting period.

E. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: Observations are performed at the emission point.

b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The Plant Coordinator will be a Method 9 trained observer.

d. Monitoring Frequency, Data Collection and Averaging period 64.3(b)(4): Visible emission observations will be performed daily. Records will be kept indicating if visible emissions were present or not. There is no averaging period.

III. Justification

Visible emissions are selected as the performance indicator because it is indicative of operation of the cyclone in a manner necessary to comply with the particulate emission standard. According to the manufacturer's specifications of the cyclone when it is working properly, the cyclone exhaust will meet the specified grain loading and exhibit no visible emissions. Conversely, the manufacturer's specifications of the cyclone also indicate that when the cyclone is not operating properly, there will be visible emissions from the exhaust. Any increase in visible emissions indicates reduced performance of a particulate control device, therefore, the presence of visible emissions is used as a performance indicator.

The selected indicator range is no visible emissions. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. An indicator range of no visible emissions was selected because an increase in visible emissions is indicative of an increase in particulate emissions.

The selected QIP threshold for cyclone visible emissions is 6 excursions in any semi-annual reporting period. This level is 3 percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

VI. Minimum Data Availability 64.6(c)(4): Not applicable

Gluten Meal Storage & Loadout (PES #17)

The following compliance assurance monitoring plan addresses the Gluten Meal Storage & Loadout (PES #17) operations.

I. Background

A. Emission Unit: Gluten Meal Storage & Loadout (PES #17)
B. Pollutant: PM_{10}, Opacity
C. Applicable Requirement: Title V Operating Permit 561515, Condition E13-2

D. Emissions Control Technology: Baghouse

II. Monitoring Approach

A. Indicator 64.6(c)(1)(i): Visible emissions will be used as an indicator.

B. Measurement Approach 64.6(c)(1)(ii): Visible emissions from the baghouse exhaust will be monitored daily. If visible emissions are observed then the Plant Coordinator, a Method 9 Trained Observer, will verify the presence of visible emissions.

C. Indicator Range 64.6(c)(2): The indicator level is no visible emissions

D. QIP Threshold: No more than six excursions above the indicator range in any semi-annual reporting period.
E. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: Observations are performed at the emission point.

b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The Plant Coordinator will be a Method 9 trained observer.

d. Monitoring Frequency, Data Collection and Averaging period 64.3(b)(4): Visible emission observations will be performed daily. Records will be kept indicating if visible emissions were present or not. There is no averaging period.

III. Justification

Visible emissions are selected as the performance indicator because it is indicative of operation of the baghouse in a manner necessary to comply with the particulate emission standard. According to the manufacturer's specifications of the baghouse when it is working properly, the baghouse exhaust will meet the specified grain loading and exhibit no visible emissions. Conversely, the manufacturer's specifications of the baghouse also

indicate that when the baghouse is not operating properly, there will be visible emissions from the exhaust. Any increase in visible emissions indicates reduced performance of a particulate control device, therefore, the presence of visible emissions is used as a performance indicator.

The selected indicator range is no visible emissions. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. An indicator range of no visible emissions was selected because an increase in visible emissions is indicative of an increase in particulate emissions.

The selected QIP threshold for baghouse visible emissions is 6 excursions in any semi-annual reporting period. This level is 3 percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

IV. Minimum Data Availability 64.6(c)(4): Not applicable.

Loading Barge Facility (PES #62A)

The following compliance assurance monitoring plan addresses the Loading Barge Facility (PES #62A) operations.

I. Background

A. Emission Unit: Loading Barge Facility (PES #62A)
B. Pollutant: PM_{10}, Opacity
C. Applicable Requirement: Title V Operating Permit 561515, Condition E14-2

D. Emissions Control Technology: Baghouse

II. Monitoring Approach

A. Indicator 64.6(c)(1)(i): Visible emissions will be used as an indicator.

B. Measurement Approach 64.6(c)(1)(ii): Visible emissions from the baghouse exhaust will be monitored daily. If visible emissions are observed then the Plant Coordinator, a Method 9 Trained Observer, will verify the presence of visible emissions.

C. Indicator Range 64.6(c)(2): The indicator level is no visible emissions

D. QIP Threshold: No more than six excursions above the indicator range in any semi-annual reporting period.
E. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: Observations are performed at the emission point.

b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The Plant Coordinator will be a Method 9 trained observer.

d. Monitoring Frequency, Data Collection and Averaging period 64.3(b)(4): Visible emission observations will be performed daily. Records will be kept indicating if visible emissions were present or not. There is no averaging period.

III. Justification

Visible emissions are selected as the performance indicator because it is indicative of operation of the baghouse in a manner necessary to comply with the particulate emission standard. According to the manufacturer's specifications of the baghouse when it is working properly, the baghouse exhaust will meet the specified grain loading and exhibit no visible emissions. Conversely, the manufacturer's specifications of the baghouse also indicate that when the baghouse is not operating properly, there will be visible emissions from the exhaust. Any increase in visible emissions indicates reduced performance of a particulate control device, therefore, the presence of visible emissions is used as a performance indicator.

The selected indicator range is no visible emissions. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. An indicator range of no visible emissions was selected because an increase in visible emissions is indicative of an increase in particulate emissions.

The selected QIP threshold for baghouse visible emissions is 6 excursions in any semi-annual reporting period. This level is 3 percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

IV. Minimum Data Availability 64.6(c)(4): Not applicable.

Unloading Barge Facility (PES #62B)

The following compliance assurance monitoring plan addresses the Unloading barge facility (PES #62B) operations.

I. Background

A. Emission Unit: Unloading Barge Facility (PES #62B)
B. Pollutant: PM_{10}, Opacity
C. Applicable Requirement: Title V Operating Permit 561515, Condition E15-2
D. Emissions Control Technology: Baghouse

II. Monitoring Approach

A. Indicator 64.6(c)(1)(i): Visible emissions will be used as an indicator.

B. Measurement Approach 64.6(c)(1)(ii): Visible emissions from the baghouse exhaust will be monitored daily. If visible emissions are observed then the Plant Coordinator, a Method 9 Trained Observer, will verify the presence of visible emissions.

C. Indicator Range 64.6(c)(2): The indicator level is no visible emissions

D. QIP Threshold: No more than six excursions above the indicator range in any semi-annual reporting period.

E. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: Observations are performed at the emission point.

b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The Plant Coordinator will be a Method 9 trained observer.

d. Monitoring Frequency, Data Collection and Averaging period 64.3(b)(4): Visible emission observations will be performed daily. Records will be kept indicating if visible emissions were present or not. There is no averaging period.

Justification

Visible emissions are selected as the performance indicator because it is indicative of operation of the baghouse in a manner necessary to comply with the particulate emission standard. According to the manufacturer's specifications of the baghouse when it is working properly, the baghouse exhaust will meet the specified grain loading and exhibit no visible emissions. Conversely, the manufacturer's specifications of the baghouse also indicate that when the baghouse is not operating properly, there will be visible emissions

from the exhaust. Any increase in visible emissions indicates reduced performance of a particulate control device, therefore, the presence of visible emissions is used as a performance indicator.

The selected indicator range is no visible emissions. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. An indicator range of no visible emissions was selected because an increase in visible emissions is indicative of an increase in particulate emissions.

The selected QIP threshold for baghouse visible emissions is 6 excursions in any semi-annual reporting period. This level is 3 percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

IV. Minimum Data Availability 64.6(c)(4): Not applicable.

Carbon Regeneration System (PES #23)

The following compliance assurance monitoring plan addresses the carbon regeneration system (PES #23) operations which utilizes two wet scrubbers to control PM_{10} emissions.

I. Background

A. Emission Unit: Carbon Regeneration System (PES #23)
B. Pollutant: PM_{10}
C. Applicable Requirements: Title Permit 561515, Condition E18-3
D. Emissions Control Technology: Scrubbers

II. Monitoring Approach

A. Indicator 64.6(c)(1)(i): Scrubber liquid flow will be used as an indicator.

A. Measurement Approach 64.6(c)(1)(ii): Scrubber liquid flow will be assured by maintaining an average daily scrubber liquid flow in gallons per minute to the scrubbers. The average daily scrubber liquid flow is based on one minute averages which are averaged over a 24-hour period.

B. Indicator Range 64.6(c)(2): The indicator levels are an average daily scrubber flow of 372 gallons per minute to the impingement scrubber and 76 gallons per minute to the venture scrubber.

C. QIP Threshold: No more than six excursions above the indicator range in any semi-annual reporting period.
D. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: Flow meters are located at the scrubbers.

b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The flow meters will be calibrated at least annually. The acceptance criterion will be +/- 5 gallons/minute.

d. Monitoring Frequency, Data Collection and Averaging Period 64.3(b)(4): The average daily scrubber liquid flow in gallons per minute will be determined from the average scrubber flow over the hours that the scrubber is in operation for that day. In addition, a daily visual inspection of the scrubber will be conducted by operating personnel. A daily record of the average scrubber flow (gal/min) and visual inspections will be maintained. The averaging period for the scrubber flow will be 24-hours while there is no averaging period for the visual inspections.

III. Justification

Scrubber liquid flow was selected as the performance indicator because it is indicative of operation of the scrubbers to comply with the particulate emission limit. When the scrubber pumps are operating properly, there will be sufficient scrubber liquid flow to maintain the particulate removal efficiency of the scrubbers.

The selected indicator ranges are maintaining an average scrubber liquid flow of 372 and 76 gallons per minute, respectively. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. The indicator ranges of maintaining an average daily scrubber liquid flow of 372 and 76 gallons per minute were selected because manufacturing design specifications indicated that by maintaining this scrubber liquid flow the appropriate particulate removal efficiency can be obtained.

The selected QIP threshold for maintaining the average daily scrubber liquid flow is 6 excursions in any semi-annual reporting period. This level is 3 percent of the total scrubber liquid flow measurements. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

IV. Minimum Data Availability 64.6(c)(4): Not applicable

The following compliance assurance monitoring plan addresses the Carbon Regeneration System which utilizes an afterburner to control CO emissions. The emissions are ducted through the Carbon Regeneration System stack.

I. Background

A. Emission Units: Carbon Regeneration System

B. Pollutant: CO & VOCs
C. Applicable Requirements: Title Permit 561515, Condition E18-6 & 7
D. Emissions Control Technology: Zero Hearth Afterburner

II. Monitoring Approach

A. Indicator 64.6(c)(1)(i): Chamber temperature will be used as an indicator.

B. Measurement Approach 64.6(c)(1)(ii): Chamber temperature will be measured by a thermocouple and will be assured by maintaining a daily average minimum temperature in Fahrenheit degrees to the chamber. The daily average temperature is based on the hourly average of one-minute averaged data. The hourly averages are averaged over a 24-hour period to determine the daily average minimum temperature.

C. Indicator Range 64.6(c)(2): The indicator level will be a minimum combustion chamber temperature of 1400 degrees Fahrenheit.

D. QIP Threshold: No more than 6 excursions above the indicator range in any semi-annual reporting period.

E. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: Thermocouple is located in the afterburner's combustion chamber.

b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The accuracy of the thermocouple will be verified by a second hand-held meter inserted into the afterburner combustion chamber. This validation check will be conducted at least annually. The acceptance criterion will be +/- 30 degrees Fahrenheit.

d. Monitoring Frequency, Data Collection and Averaging Period 64.3(b)(4): The average combustion temperature in degrees Fahrenheit will be determined over the hours that the afterburner is in operation for that day. A continuous monitoring system shall collect combustion temperature once per minute. A record of the average incineration temperature (Fahrenheit) will be maintained. The averaging period for the incineration temperature will be 24 hours.

III. Justification

Combustion temperature was selected as the performance indicator because it is indicative of the destruction efficiency to comply with the CO and VOC emission limits. When the

afterburner is operating properly, there will be sufficient combustion to maintain the CO and VOC emissions from the afterburner.

The selected indicator range is > 1400 degrees Fahrenheit since the destruction efficiency is greater than 80%. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. An indicator range of maintaining a combustion temperature greater than 1400 degrees Fahrenheit was selected because manufacturing design specifications indicated that by maintaining this combustion temperature the appropriate CO and VOC emissions can be obtained.

The selected QIP threshold for maintaining the minimum 1400 degrees Fahrenheit is 6 excursions in any semi-annual reporting period. This level is 3 percent of the total incineration temperature measurements recorded as daily averages. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

IV. Minimum Data Availability 64.6(c)(4): Not applicable

Soda Ash System (PES #24)

The following compliance assurance monitoring plan addresses the Soda Ash System (PES #24) operations.

I. Background

A. Emission Unit: Soda Ash System (PES #24)
B. Pollutant: PM_{10}, Opacity
C. Applicable Requirement: Title V Operating Permit 561515, Condition E19-2

D. Emissions Control Technology: Mist Eliminator

II. Monitoring Approach

A. Indicator 64.6(c)(1)(i): Visible emissions will be used as an indicator.

B. Measurement Approach 64.6(c)(1)(ii): Visible emissions from the mist eliminator exhaust will be monitored daily. If visible emissions are observed then the Plant Coordinator, a Method 9 Trained Observer, will verify the presence of visible emissions.

C. Indicator Range 64.6(c)(2): The indicator level is no visible emissions

D. QIP Threshold: No more than six excursions above the indicator range in any semi-annual reporting period.

E. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: Observations are performed at the emission point.

b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The Plant Coordinator will be a Method 9 trained observer.

d. Monitoring Frequency, Data Collection and Averaging period 64.3(b)(4): Visible emission observations will be performed daily. Records will be kept indicating if visible emissions were present or not. There is no averaging period.

III. Justification

Visible emissions are selected as the performance indicator because it is indicative of operation of the mist eliminator in a manner necessary to comply with the particulate emission standard. According to the manufacturer's specifications of the mist eliminator when it is working properly, the mist eliminator exhaust will meet the specified grain loading and exhibit no visible emissions. Conversely, the manufacturer's specifications of the mist eliminator also indicate that when the mist eliminator is not operating properly, there will be visible emissions from the exhaust. Any increase in visible emissions indicates reduced performance of a particulate control device, therefore, the presence of visible emissions is used as a performance indicator.

The selected indicator range is no visible emissions. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. An indicator range of no visible emissions was selected because an increase in visible emissions is indicative of an increase in particulate emissions.

The selected QIP threshold for the mist eliminator visible emissions is 6 excursions in any semi-annual reporting period. This level is 3 percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

IV. Minimum Data Availability 64.6(c)(4): Not applicable.

Filter Aid System (PES #26)

The following compliance assurance monitoring plan addresses the Filter Aid System (PES #26) operations.

I. Background

A. Emission Unit: Filter Aid System (PES #26)
B. Pollutant: PM_{10}, Opacity
C. Applicable Requirement: Title V Operating Permit 561515, Condition E20--2

D. Emissions Control Technology: Baghouse

II. Monitoring Approach

A. Indicator 64.6(c)(1)(i): Visible emissions will be used as an indicator.

B. Measurement Approach 64.6(c)(1)(ii): Visible emissions from the baghouse exhaust will be monitored daily. If visible emissions are observed then the Plant Coordinator, a Method 9 Trained Observer, will verify the presence of visible emissions.

C. Indicator Range 64.6(c)(2): The indicator level is no visible emissions.

D. QIP Threshold: No more than six excursions above the indicator range in any semi-annual reporting period.

E. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: Observations are performed at the emission point.

b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The Plant Coordinator will be a Method 9 trained observer.

d. Monitoring Frequency, Data Collection and Averaging period 64.3(b)(4): Visible emission observations will be performed daily. Records will be kept indicating if visible emissions were present or not. There is no averaging period.

III. Justification

Visible emissions are selected as the performance indicator because it is indicative of operation of the baghouse in a manner necessary to comply with the particulate emission standard. According to the manufacturer's specifications of the baghouse when it is working properly, the baghouse exhaust will meet the specified grain loading and exhibit no visible emissions. Conversely, the manufacturer's specifications of the baghouse also

indicate that when the baghouse is not operating properly, there will be visible emissions from the exhaust. Any increase in visible emissions indicates reduced performance of a particulate control device, therefore, the presence of visible emissions is used as a performance indicator.

The selected indicator range is no visible emissions. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. An indicator range of no visible emissions was selected because an increase in visible emissions is indicative of an increase in particulate emissions.

The selected QIP threshold for bin vent visible emissions is 6 excursions in any semi-annual reporting period. This level is 3 percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

IV. Minimum Data Availability 64.6(c)(4): Not applicable.

Starch Spray Dryer (PES #90B)

The following compliance assurance monitoring plan addresses the starch spray dryer (PES #90B) which utilizes a baghouse to control PM_{10} emissions. The remaining sources controlled by baghouses are considered inherent process equipment.

I. Background

A. Emission Unit: Starch Spray Dryer (PES #90B)
B. Pollutant: PM_{10}, Opacity
C. Applicable Requirements: Title V Operating Permit 5461515, Condition E25-3
D. Emissions Control Technology: Baghouse

II. Monitoring Approach

A. Indicator 64.6(c)(1)(i): Visible emissions will be used as an indicator.

B. Measurement Approach 64.6(c)(1)(ii): Visible emissions from the baghouse exhaust will be monitored daily. If visible emissions are observed then the Plant Coordinator, a Method 9 Trained Observer, will verify the presence of visible emissions.

C. Indicator Range 64.6(c)(2): The indicator level is no visible emissions

D. QIP Threshold: No more than six excursions above the indicator range in any semi-annual reporting period.

E. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: Observations are performed at the emission point.

b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The Plant Coordinator will be a Method 9 trained observer.

d. Monitoring Frequency, Data Collection and Averaging period 64.3(b)(4): Visible emission observations will be performed daily. Records will be kept indicating if visible emissions were present or not. There is no averaging period.

III. Justification

Visible emissions were selected as the performance indicator because it is indicative of operation of the baghouse in a manner necessary to comply with the particulate emission standard. According to the manufacturer's specifications of the baghouse when it is working properly, the baghouse exhaust will meet the specified grain loading and exhibit no visible emissions. Conversely, the manufacturer's specifications of the baghouse also indicate that when the baghouse is not operating properly, there will be visible emissions from the exhaust. Any increase in visible emissions indicates reduced performance of a particulate control device, therefore, the presence of visible emissions is used as a performance indicator.

The selected indicator range is no visible emissions. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. An indicator range of no visible emissions was selected because an increase in visible emissions is indicative of an increase in particulate emissions.

The selected QIP threshold for baghouse visible emissions is 6 excursions in any semi-annual reporting period. This level is 3 percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

IV. Minimum Data Availability 64.6(c)(4): Not applicable.

Truck Loadout (PES #91E)

The following compliance assurance monitoring plan addresses the Truck Loadout (PES #91E) operations.

I. Background

A. Emission Unit: Truck Loadout (PES #91E)
B. Pollutant: PM_{10}, Opacity
C. Applicable Requirements: Title V Operating Permit 561515, Condition E31-2
D. Emissions Control Technology: Baghouse

II. Monitoring Approach

A. Indicator 64.6(c)(1)(i): Visible emissions will be used as an indicator.

B. Measurement Approach 64.6(c)(1)(ii): Visible emissions from the baghouse exhaust will be monitored daily. If visible emissions are observed then the Plant Coordinator, a Method 9 Trained Observer, will verify the presence of visible emissions.
C. Indicator Range 64.6(c)(2): The indicator level is no visible emissions

D. QIP Threshold: No more than six excursions above the indicator range in any semi-annual reporting period.

E. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: Observations are performed at the emission point.

b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The Plant Coordinator will be a Method 9 trained observer.

d. Monitoring Frequency, Data Collection and Averaging period 64.3(b)(4): Visible emission observations will be performed daily. Records will be kept indicating if visible emissions were present or not. There is no averaging period.

III. Justification

Visible emissions were selected as the performance indicator because it is indicative of operation of the baghouse in a manner necessary to comply with the particulate emission standard. According to the manufacturer's specifications of the baghouse when it is working properly, the baghouse exhaust will meet the specified grain loading and exhibit no visible emissions. Conversely, the manufacturer's specifications of the baghouse also indicate that when the baghouse is not operating properly, there will be visible emissions from the exhaust. Any increase in visible emissions indicates reduced performance of a

particulate control device, therefore, the presence of visible emissions is used as a performance indicator.

The selected indicator range is no visible emissions. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. An indicator range of no visible emissions was selected because an increase in visible emissions is indicative of an increase in particulate emissions.

The selected QIP threshold for baghouse visible emissions is 6 excursions in any semi-annual reporting period. This level is 3 percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

IV. Minimum Data Availability 64.6(c)(4): Not applicable

Tote & Bag Packer System (PES #91F)

The following compliance assurance monitoring plan addresses the Tote & Bag Packer System (PES #91F) operations.

I. Background

A. Emission Unit: Tote & Bag Packer System (PES #91F)
B. Pollutant: PM_{10}, Opacity
C. Applicable Requirements: Title V Operating Permit 561515, Condition E32-2
D. Emissions Control Technology: Baghouse

II. Monitoring Approach

A. Indicator 64.6(c)(1)(i): Visible emissions will be used as an indicator.

B. Measurement Approach 64.6(c)(1)(ii): Visible emissions from the baghouse exhaust will be monitored daily. If visible emissions are observed then the Plant Coordinator, a Method 9 Trained Observer, will verify the presence of visible emissions.

C. Indicator Range 64.6(c)(2): The indicator level is no visible emissions

D. QIP Threshold: No more than six excursions above the indicator range in any semi-annual reporting period.

E. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: Observations are performed at the emission point.

b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The Plant Coordinator will be a Method 9 trained observer.

d. Monitoring Frequency, Data Collection and Averaging period 64.3(b)(4): Visible emission observations will be performed daily. Records will be kept indicating if visible emissions were present or not. There is no averaging period.

III. Justification

Visible emissions were selected as the performance indicator because it is indicative of operation of the baghouse in a manner necessary to comply with the particulate emission standard. According to the manufacturer's specifications of the baghouse when it is working properly, the baghouse exhaust will meet the specified grain loading and exhibit no visible emissions. Conversely, the manufacturer's specifications of the baghouse also indicate that when the baghouse is not operating properly, there will be visible emissions from the exhaust. Any increase in visible emissions indicates reduced performance of a particulate control device, therefore, the presence of visible emissions is used as a performance indicator.

The selected indicator range is no visible emissions. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. An indicator range of no visible emissions was selected because an increase in visible emissions is indicative of an increase in particulate emissions.

The selected QIP threshold for baghouse visible emissions is 6 excursions in any semi-annual reporting period. This level is 3 percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

IV. Minimum Data Availability 64.6(c)(4): Not applicable

Tote Feed Bin Vent and Dust Collector (PES #91H)

The following compliance assurance monitoring plan addresses the Tote Feed bin Vent and Dust Collector (PES #91H) operations.

I. Background

A. Emission Unit: Tote Feed Bin Vent and Dust Collector (PES #91H)
B. Pollutant: PM_{10}, Opacity
C. Applicable Requirements: Title V Operating Permit 561515, Condition E32a-2(SM3)
D. Emissions Control Technology: Baghouse

II. Monitoring Approach

F. Indicator 64.6(c)(1)(i): Visible emissions will be used as an indicator.

G. Measurement Approach 64.6(c)(1)(ii): Visible emissions from the baghouse exhaust will be monitored daily. If visible emissions are observed then the Plant Coordinator, a Method 9 Trained Observer, will verify the presence of visible emissions.

H. Indicator Range 64.6(c)(2): The indicator level is no visible emissions

I. QIP Threshold: No more than six excursions above the indicator range in any semi-annual reporting period.

J. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: Observations are performed at the emission point.

b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The Plant Coordinator will be a Method 9 trained observer.

d. Monitoring Frequency, Data Collection and Averaging period 64.3(b)(4): Visible emission observations will be performed daily. Records will be kept indicating if visible emissions were present or not. There is no averaging period.

III. Justification

Visible emissions were selected as the performance indicator because it is indicative of operation of the baghouse in a manner necessary to comply with the particulate emission standard. According to the manufacturer's specifications of the baghouse when it is working properly, the baghouse exhaust will meet the specified grain loading and exhibit no visible emissions. Conversely, the manufacturer's specifications of the baghouse also

indicate that when the baghouse is not operating properly, there will be visible emissions from the exhaust. Any increase in visible emissions indicates reduced performance of a particulate control device, therefore, the presence of visible emissions is used as a performance indicator.

The selected indicator range is no visible emissions. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. An indicator range of no visible emissions was selected because an increase in visible emissions is indicative of an increase in particulate emissions.

The selected QIP threshold for baghouse visible emissions is 6 excursions in any semi-annual reporting period. This level is 3 percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

Dryer/Cooler (PES #93)

The following compliance assurance monitoring plan addresses the corn sweetener dryer/cooler (PES #93) operations which utilizes a cyclone and a wet scrubber to control PM_{10} emissions.

I. Background

A. Emission Unit: Dryer/Cooler (PES #93)
B. Pollutant: PM_{10}
C. Applicable Requirements: Title V Operating Permit 561515, Condition E33-2
D. Emissions Control Technology: Scrubber

II. Monitoring Approach

A. Indicator 64.6(c)(1)(i): Scrubber liquid flow will be used as an indicator.

B. Measurement Approach 64.6(c)(1)(ii): Scrubber liquid flow will be assured by maintaining an average daily scrubber liquid flow in gallons per minute to the scrubber. The average daily scrubber liquid flow is based on one minute averages which are averaged over a 24-hour period.

C. Indicator Range 64.6(c)(2): The indicator level is an average daily scrubber flow of 270 gallons per minute.

D. QIP Threshold: No more than six excursions above the indicator range in any semi-annual reporting period.

E. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: Flow meter is located at the scrubber.

b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The flow meter will be calibrated at least annually. The acceptance criterion will be +/- 5 gallons/minute.

d. Monitoring Frequency, Data Collection and Averaging Period 64.3(b)(4): The average daily scrubber liquid flow in gallons per minute will be determined from the average scrubber flow over the hours that the scrubber is in operation for that day. In addition, a daily visual inspection of the scrubber will be conducted by operating personnel. A daily record of the average scrubber flow (gal/min) and visual inspections will be maintained. The averaging period for the scrubber flow will be 24-hours while there is no averaging period for the visual inspections.

III. Justification

Scrubber liquid flow was selected as the performance indicator because it is indicative of operation of the scrubber to comply with the particulate emission limit. When the scrubber pump is operating properly, there will be sufficient scrubber liquid flow to maintain the particulate removal efficiency of the scrubber.

The selected indicator range is maintaining an average scrubber liquid flow of 270 gallons per minute. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. An indicator range of maintaining an average daily scrubber liquid flow of 270 gallons per minute was selected because manufacturing design specifications indicated that by maintaining this scrubber liquid flow the appropriate particulate removal efficiency can be obtained.

The selected QIP threshold for maintaining the average daily scrubber liquid flow is 6 excursions in any semi-annual reporting period. This level is 3 percent of the total scrubber liquid flow measurements. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

IV. Minimum Data Availability 64.6(c)(4): Not applicable

Fermentation Process (PES #28A)

The following compliance assurance monitoring plan addresses the Fermentation Process (PES #28A) which utilizes a scrubber to control VOC emissions.

I. Background

A. Emission Unit: CO2 Scrubber (PES #28A)
B. Pollutant: VOCs
C. Applicable Requirements: Title V Operating Permit 561515, Condition E34-3
D. Emissions Control Technology: Scrubber

II. Monitoring Approach

A. Indicator 64.6(c)(1)(i): Scrubber liquid flow will be used as an indicator.

B. Measurement Approach 64.6(c)(1)(ii): Scrubber liquid flow will be assured by maintaining either an average daily scrubber liquid flow in gallons per minute to the scrubber. The average daily scrubber liquid flow is based on one minute averages which are averaged over a 24-hour period.

C. Indicator Range 64.6(c)(2): The indicator level is an average daily scrubber flow of 100 gallons per minute.

D. QIP Threshold: No more than six excursions above the indicator range in any semi-annual reporting period.

E. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: Flow meter is located at the scrubber.

b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The flow meter will be calibrated at least annually. The acceptance criterion will be +/- 5 gallons per minute.

d. Monitoring Frequency, Data Collection and Averaging Period 64.3(b)(4): The average daily scrubber liquid flow in gallons per minute will be determined from the average scrubber flow over the hours that the scrubber is in operation for that day. In addition, a daily visual inspection of the scrubber will be conducted by operating personnel. A daily record of the average scrubber flow (gal/min) and visual inspections will be maintained. The averaging period for the scrubber flow will be 24-hours while there is no averaging period for the visual inspections.

III. Justification

Scrubber liquid flow was selected as the performance indicator because it is indicative of operation of the scrubber to comply with the particulate emission limit. When the scrubber pump is operating properly, there will be sufficient scrubber liquid flow to maintain the particulate removal efficiency of the scrubber.

The selected indicator range is maintaining an average scrubber liquid flow of 100 gallons per minute. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. An indicator range of maintaining an average daily scrubber liquid flow of 100 gallons per minute was selected because manufacturing design specifications indicated that by maintaining this scrubber liquid flow the appropriate particulate removal efficiency can be obtained.

The selected QIP threshold for maintaining the average daily scrubber liquid flow is 6 excursions in any semi-annual reporting period. This level is 3 percent of the total scrubber liquid flow measurements. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

IV. Minimum Data Availability 64.6(c)(4): Not applicable

Propagators System (PES #28B)

The following compliance assurance monitoring plan addresses the Propagators System (PES #28B) which utilizes a scrubber in series with a Regenerative Thermal Oxidizer (RTO) to control VOC emissions.

I. Background

A. Emission Unit: Propagators Scrubber w/RTO (PES #28B)
B. Pollutant: VOCs
C. Applicable Requirements: Title V Operating Permit 561515, Condition E34-5
D. Emissions Control Technology: Scrubber in series with RTO

II. Monitoring Approach

A. Indicator 64.6(c)(1)(i): Scrubber liquid flow and chamber temperature will be used as indicators.

B. Measurement Approach 64.6(c)(1)(ii): Scrubber liquid flow will be assured by maintaining an average daily scrubber liquid flow in gallons per minute to the scrubber. The average daily scrubber liquid flow is based on one minute averages which are averaged over a 24-hour period.

Chamber temperature will be measured by a thermocouple and will be assured by maintaining a daily average minimum temperature in Fahrenheit degrees to the chamber. The daily average temperature is based on the hourly average of one-minute averaged data. The hourly averages are averaged over a 24-hour period to determine the daily average minimum temperature.

C. Indicator Range 64.6(c)(2): The indicator level is an average daily scrubber flow of 19 gallons per minute and a minimum incinerator temperature of 1500 degrees Fahrenheit.

D. QIP Threshold: No more than six excursions above the indicator ranges in any semi-annual reporting period.

E. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: Flow meter is located at the scrubber and the thermocouple is located in the RTO incinerator chamber.

b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The flow meter will be calibrated at least annually where the acceptance criterion will be +/- 2 gallons per minute. The accuracy of the thermocouple will be verified by a second hand-held meter inserted into the incinerator chamber. This validation check will be conducted at least annually. The acceptance criterion will be +/- 30 degrees Fahrenheit.

d. Monitoring Frequency, Data Collection and Averaging Period 64.3(b)(4): The average daily scrubber liquid flow in gallons per minute will be determined from the average scrubber flow over the hours that the scrubber is in operation for that day. In addition, a daily visual inspection of the scrubber will be conducted by operating personnel. A daily record of the average scrubber flow (gal/min) and visual inspections will be maintained. The averaging period for the scrubber flow will be 24-hours while there is no averaging period for the visual inspections.

The average incineration temperature in degrees Fahrenheit will be determined over the hours that the RTO is in operation for that day. A continuous monitoring system shall collect incineration temperature once per minute. A record of the average incineration temperature (Fahrenheit) will be maintained. The averaging period for the incineration temperature will be 24 hours.

III. Justification

Scrubber liquid flow was selected as the performance indicator because it is indicative of operation of the scrubber to comply with the particulate emission limit. When the scrubber

pump is operating properly, there will be sufficient scrubber liquid flow to maintain the VOC removal efficiency of the scrubber.

The selected indicator range is maintaining an average scrubber liquid flow of 19 gallons per minute. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. An indicator range of maintaining an average daily scrubber liquid flow of 19 gallons per minute was selected because manufacturing design specifications indicated that by maintaining this scrubber liquid flow the appropriate VOC removal efficiency can be obtained.

The selected QIP threshold for maintaining the average daily scrubber liquid flow is 6 excursions in any semi-annual reporting period. This level is 3 percent of the total scrubber liquid flow measurements. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

Incineration temperature was selected as the performance indicator because it is indicative of the destruction efficiency to comply with the VOC emission limit. When the RTO is operating properly, there will be sufficient incineration to maintain the VOC removal efficiency of the RTO.

The selected indicator range is > 1400 degrees Fahrenheit since the destruction efficiency is greater than 95%. When an excursion occurs, corrective action will be initiated action in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. An indicator range of maintaining an incineration temperature greater than 1400 degrees Fahrenheit was selected because manufacturing design specifications indicated that by maintaining this incineration temperature the appropriate VOC removal efficiency can be obtained.

The selected QIP threshold for maintaining the minimum 1400 degrees Fahrenheit is 6 excursions in any semi-annual reporting period. This level is 3 percent of the total incineration temperature measurements recorded as daily averages. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

In accordance with 40 CFR 63, Subpart FFFF (i.e., the Miscellaneous Organic NESHAP), The total organic compounds (TOC) emissions from the Propagators System were measured at 17.1 ppmdv during source emissions testing on September 18, 2008. This value demonstrates compliance with the volatile organic compounds emission limit of 1.9 tons per year.

The control equipment operational parameters met the compliance values during the source emissions testing.

III. Minimum Data Availability 64.6(c)(4): Not applicable

Alcohol Barge Loadout (PES #99)

The following compliance assurance monitoring plan addresses the Alcohol Barge Loadout (PES #99) which utilizes a scrubber to control VOC emissions.

I. Background

A. Emission Unit: Alcohol Barge Loadout scrubber (PES #99)
B. Pollutant: VOCs
C. Applicable Requirements: Title V Operating Permit 561515, Condition E40-2
D. Emissions Control Technology: Scrubber

II. Monitoring Approach

A. Indicator 64.6(c)(1)(i): Scrubber liquid flow will be used as an indicator.

B. Measurement Approach 64.6(c)(1)(ii): Scrubber liquid flow will be assured by maintaining an average daily scrubber liquid flow in gallons per minute to the scrubber. The average daily scrubber liquid flow is based on one minute averages which are averaged over a 24-hour period.

C. Indicator Range 64.6(c)(2): The indicator level is an average daily scrubber flow of 3.5 gallons per minute.

D. QIP Threshold: No more than six excursions above the indicator range in any semi-annual reporting period.

E. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: Flow meter is located at the scrubber.

b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The flow meter will be calibrated at least annually. The acceptance criterion will be +/- 0.5 gallons per minute.

d. Monitoring Frequency, Data Collection and Averaging Period 64.3(b)(4): The average daily scrubber liquid flow in gallons per minute will be determined from the average scrubber flow over the hours that the scrubber is in operation for that day. In addition, a daily visual inspection of the scrubber will be conducted by operating personnel. A daily record of the average scrubber flow (gal/min) and visual inspections will be maintained. The averaging period for the scrubber flow will be 24-hours while there is no averaging period for the visual inspections.

III. Justification

Scrubber liquid flow was selected as the performance indicator because it is indicative of operation of the scrubber to comply with the particulate emission limit. When the scrubber pump is operating properly, there will be sufficient scrubber liquid flow to maintain the particulate removal efficiency of the scrubber.

The selected indicator range is maintaining an average scrubber liquid flow of 3.5 gallons per minute. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. An indicator range of maintaining an average daily scrubber liquid flow of 3.5 gallons per minute was selected because manufacturing design specifications indicated that by maintaining this scrubber liquid flow the appropriate particulate removal efficiency can be obtained.

The selected QIP threshold for maintaining the average daily scrubber liquid flow is 6 excursions in any semi-annual reporting period. This level is 3 percent of the total scrubber liquid flow measurements. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

IV. Minimum Data Availability 64.6(c)(4): Not applicable

Cogeneration Unit #1 (PES #37)

The following compliance assurance monitoring plan addresses Cogeneration Unit #1 (PES #37) operations consisting of combustion natural gas turbine, duct burner and heat recovery unit.

I. Background

A. Emission Unit: Cogeneration Unit #1 (PES #37)
B. Pollutant: NOx
C. Applicable Requirements: Title V Operating Permit 561515, Condition E56-7 (SM4)
D. Emissions Control Technology: Dry Low NOx Emissions Burners

II. Monitoring Approach

A. Indicator 64.6(c)(1)(i): NOx will be used as an indicator.

B. Measurement Approach 64.6(c)(1)(ii): NOx from the exhaust will be monitored utilizing a continuous emissions monitoring system.

C. Indicator Range 64.6(c)(2): The indicator level is <= 25 ppm @15% oxygen at peak load and <= 96 ppm @15% oxygen at less than 75% peak load

D. QIP Threshold: No more than 33 excursions above the indicator range in any semi-annual reporting period.

E. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: CEMs monitor will be located at the exhaust

b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The CEMs monitors will undergo on-stack quality assurance audits on at least an annual basis. The on-stack quality assurance audit shall consist of a repetition of the calibration error portion of Performance Specification 1 utilizing the on-stack audit device.

d. Monitoring Frequency, Data Collection and Averaging period 64.3(b)(4): NOx shall be reduced using the hourly NOx emissions data averaging method.

III. Justification

NOx was selected as the performance indicator because it is indicative of operation of the combustion units in a manner necessary to comply with the NOx emission limitation. When the units are operating properly, the monitored NOx emissions will be less than or equal to the indicator range from the exhaust. Any NOx emissions greater than the

indicator ranges during each 4-hour rolling average operating period indicates excess emissions.

The selected indicator range is <= 25 ppm @15% oxygen at peak load and <= 96 ppm @15% oxygen at less than 75% peak load. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. An indicator range of less than equal <= 25 ppm @15% oxygen at peak load and <= 96 ppm @15% oxygen at less than 75% peak load is indicative of an increase in NOx emissions.

The selected QIP threshold for the NOx emission is 33 excursions in any semi-annual reporting period. This level is 3 percent of the total NOx measurements on a 4-hour rolling averaging period. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

IV. Minimum Data Availability 64.6(c)(4): The minimum data availability is 95% for the NOx monitoring system.

Cogeneration Unit #2 (PES #38)

The following compliance assurance monitoring plan addresses Cogeneration Unit #2 (PES #38) operations consisting of combustion natural gas turbine, duct burner and heat recovery unit.

I. Background

A. Emission Unit: Cogeneration Unit #2 (PES #38)
B. Pollutant: NOx
C. Applicable Requirements: Title V Operating Permit 561515, Condition E57-7(SM4)
D. Emissions Control Technology: Dry Low NOx Emissions Burners

II. Monitoring Approach

A. Indicator 64.6(c)(1)(i): NOx will be used as an indicator.

B. Measurement Approach 64.6(c)(1)(ii): NOx from the exhaust will be monitored utilizing a continuous emissions monitoring system.

C. Indicator Range 64.6(c)(2): The indicator level is <= 25 ppm @15% oxygen at peak load and <= 96 ppm @15% oxygen at less than 75% peak load

D. QIP Threshold: No more than 33 excursions above the indicator range in any semi-annual reporting period.
E. Performance Criteria 64.6(c)(i)(iii)

a. Data Representativeness: CEMs monitor will be located at the exhaust

b. Verification of Operational Status 64.3(b)(2): Not applicable

c. QA/QC Practices and Criteria 64.3(b)(3): The CEMs monitors will undergo on-stack quality assurance audits on at least an annual basis. The on-stack quality assurance audit shall consist of a repetition of the calibration error portion of Performance Specification 1 utilizing the on-stack audit device.

d. Monitoring Frequency, Data Collection and Averaging period 64.3(b)(4): NOx shall be reduced using the hourly NOx emissions data averaging method.

III. Justification

NOx was selected as the performance indicator because it is indicative of operation of the combustion units in a manner necessary to comply with the NOx emission limitation. When the units are operating properly, the monitored NOx emissions will be less than or equal to the indicator range from the exhaust. Any NOx emissions greater than the indicator ranges during each 4-hour rolling average operating period indicates excess emissions.

The selected indicator range is <= 25 ppm @15% oxygen at peak load and <= 96 ppm @15% oxygen at less than 75% peak load. When an excursion occurs, corrective action will be initiated in accordance with the site-specific start-up, shutdown and malfunction plan to correct the situation. All excursions will be documented and reported. An indicator range of less than equal <= 25 ppm @15% oxygen at peak load and <= 96 ppm @15% oxygen at less than 75% peak load is indicative of an increase in NOx emissions.

The selected QIP threshold for the NOx emission is 33 excursions in any semi-annual reporting period. This level is 3 percent of the total NOx measurements on a 4-hour rolling averaging period. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

IV. Minimum Data Availability 64.6(c)(4): The minimum data availability is 95% for the NOx monitoring system.

SECTION 2

SUMMARY OF SOURCES EXEMPT FROM CAM REQUIREMENTS

Compliance Assurance Monitoring
Primary Products Ingredients Americas LLC

SECTION 2
Summary of Sources Exempt from CAM Requirement

PARTICULATE MATTER (PM_{10}) EMISSION UNITS

Tables I & II address the particulate matter emission units at the Loudon facility. The Title V Operating Permit 561515 is applicable to each of the emission units listed in the tables below.

Table I includes emission units that meet criteria (1) & (2) but not criteria (3). The emission units have a control device but do not have a potential to emit (allowable emissions), calculated to include the effect of control devices, the applicable regulated air pollutant in the amount equal to or greater than 100 tons per year (22.8 lbs/hr) required for a source to be classified as a major source. Because the allowable emissions are not greater than 22.8 lb/hr, the emission units are not required to have a CAM plan.

Table I
PM_{10} Emission Units Exempt from CAM Plan Requirements
(The following emission units have 'control devices' but *do not* exceed the emission requirements of criteria (3))

Stack ID	Emission Unit Description	Allowable Emission Rate (tons/yr)	Basis for Emission Rate Determination
Corn Receiving & Handling			
None			
Corn Steeping & Milling			
None			
Feedhouse			
PES #5	Gluten Filter Aspiration	2.5	Permit Condition
PES #14	Gluten Filters/Pumps #7 & 8 Aspiration	1.9	Permit Condition
PES #65	Gluten Filter Vacuum Pumps	1.0	Permit Condition
Refinery			
PES #27	Filter Aid Bulk Bin	0.09	Permit Condition
Alcohol			
PES #28A	Fermentation Process	0.29	Permit Condition
PES #28B	Propagators Scrubber w/RTO	0.8	Permit Condition
Utilities			
None			
Propanediol			
PES #72	Fermentation Process	2.1	Permit Condition
PES #74	Drum Dryer System	5.1	Permit Condition
PES #76	Distillation Column Scrubber	0.0045	Permit Condition

Table II

PM_{10} Emission Units Exempt from CAM Plan Requirements

(The following emission units have 'control devices' which are considered inherent process equipment and meet the FDA requirements in 21 CFR Part 110.20(6) & (7))

Stack ID	Emission Unit Description	Allowable Emission Rate (tons/yr)	Basis for Emission Rate Determination
Corn Receiving & Handling			
None			
Corn Steeping & Milling			
None			
Feedhouse			
PES #68	Germ Conveyor, Storage & Loadout	1.5	Permit Condition
Refinery			
PES #90A	Storage Silo – Railcar Receiver Bin	0.1	Permit Condition
PES #90C	Product Storage Blend Bin	0.36	Permit Condition
PES #90D	Product Storage Blend Bin	0.36	Permit Condition
PES #90H	Unloading Receiver Bin	0.13	Permit Condition
PES #91A	Tote & Bag Packout System	3	Permit Condition
PES #91B	Product Storage Bin	1	Permit Condition
PES #91C	Product Storage Bin	1	Permit Condition
PES #91D	Product Storage Bin	1	Permit Condition
PES # 91G	Product Storage Bin	1	Permit Condition
Alcohol			
None			
Utilities			
None			
Propanediol			
None			

Table II includes emission sources that meet criteria (1) but not criteria (2) since the sources listed in Table II have control devices which are considered inherent process equipment and meet the Food and Drug Administration (FDA) requirements in 21 CFR Part 110.20(6) & (7).

The control equipment on the units listed in Table II are pieces of equipment that Primary Products Ingredients Americas LLC considers to be vital to process operations. The pieces of equipment fitting into this category are product receivers and bin vents. The process flow diagrams submitted in the Title V permit application can be used to demonstrate if the equipment performs as a product receiver or is strictly used as a control device to remove particulate matter. A bin vent is a necessary piece of equipment on each storage bin. The bin vent captures product that would otherwise escape during the filling process as well as keep pests out per FDA requirements.

SULFUR DIOXIDE EMISSION SOURCES

Table III addresses the sulfur dioxide emission sources at the Primary Products Ingredients Americas LLC, Loudon facility.

The sulfur dioxide (SO_2) emission units identified in Table III each have enforceable SO_2 emission limits in Title V Permit 561515. These SO_2 sources do meet criteria (1) & (2) of the compliance monitoring requirements but do not meet criteria (3). Therefore, the emission units are not required to have a CAM plan.

Table III

Sulfur Dioxide Emission Sources Exempt from CAM Plan Requirements

(The following emission units have 'control devices' but *do not* exceed the emission requirements of criteria (3))

Stack ID	Emission Unit Description	Allowable Emission Rate (tons/yr)	Basis for Emission Rate Determination
Corn Receiving & Handling			
None			
Corn Steeping & Milling			
None			
Feedhouse			
PES #5	Gluten Filters Aspiration	4.6	Permit Condition
PES #14	Gluten Filters/Pumps #7 & 8 Aspiration	4.5	Permit Condition
PES #65	Gluten Filter Vacuum Pumps Aspiration	3.8	Permit Condition
Refinery			
PES #23	Carbon Regeneration Furnace	22	Permit Condition
Alcohol			
PES #28B	Propagators System	2.5	Permit Condition
Utilities			
PES #15	Anaerobic Wastewater Treatment Flare	21	Permit Condition
Propanediol			
None			

VOLATILE ORGANIC COMPOUND EMISSION SOURCES

Table IV addresses the volatile organic compounds emission sources at the Loudon facility.

The volatile organic compounds (VOC) emission units identified in Table IV each have enforceable VOC emission limits in the Title V Permit 561515. These VOC sources do meet criteria (1) & (2) of the compliance monitoring requirements but do not meet criteria (3). Therefore, the emission units are not required to have a CAM plan.

Table IV

VOC Emission Sources Exempt from CAM Plan Requirements

(The following emission units have 'control devices' but *do not* exceed the emission requirements of criteria (3))

Stack ID	Emission Unit Description	Allowable Emission Rate (tons/yr)	Basis for Emission Rate Determination
Corn Receiving & Handling			
None			
Corn Steeping & Milling			
PES #3	Steep House and Mill House Aspiration	59	Permit Condition
Feedhouse			
PES #5	Gluten Filters Aspiration	10.5	Permit Condition
PES #14	Gluten Filters/Pumps #7 & 8 Aspiration	7.3	Permit Condition
PES #65	Gluten Filter Vacuum Pumps Aspiration	9.5	Permit Condition
Alcohol			
PES #55	Alcohol Storage Loadout	8	Permit Condition
Utilities			
None			
Propanediol			
PES #72	Fermentation Process	10	Permit Condition
PES #74	Drum Dryer System	11	Permit Condition
PES #76	Distillation Column Scrubber	0.5	Permit Condition

CARBON MONOXIDE EMISSION SOURCES

There are not any other emission sources emitting Carbon Monoxide (CO) with control devices that do not exceed the emission requirements of criteria (3).

NITROGEN OXIDE EMISSION SOURCES

There are not any other emission sources emitting Nitrogen Oxide (NOx) with control devices that do not exceed the emission requirements of criteria (3).

ATTACHMENT 3

Section 1.4 of *AP-42, Fifth Edition, Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources*

NATURAL GAS COMBUSTION

Table 1.4-2

TABLE 1.4-2. EMISSION FACTORS FOR CRITERIA POLLUTANTS AND GREENHOUSE GASES FROM NATURAL GAS COMBUSTION[a]

Pollutant	Emission Factor ($lb/10^6$ scf)	Emission Factor Rating
CO_2[b]	120,000	A
Lead	0.0005	D
N_2O (Uncontrolled)	2.2	E
N_2O (Controlled-low-NO_X burner)	0.64	E
PM (Total)[c]	7.6	D
PM (Condensable)[c]	5.7	D
PM (Filterable)[c]	1.9	B
SO_2[d]	0.6	A
TOC	11	B
Methane	2.3	B
VOC	5.5	C

[a] Reference 11. Units are in pounds of pollutant per million standard cubic feet of natural gas fired. Data are for all natural gas combustion sources. To convert from $lb/10^6$ scf to $kg/10^6$ m^3, multiply by 16. To convert from $lb/10^6$ scf to 1b/MMBtu, divide by 1,020. The emission factors in this table may be converted to other natural gas heating values by multiplying the given emission factor by the ratio of the specified heating value to this average heating value. TOC = Total Organic Compounds. VOC = Volatile Organic Compounds.

[b] Based on approximately 100% conversion of fuel carbon to CO_2. $CO_2[lb/10^6 scf] = (3.67) (CON) (C)(D)$, where CON = fractional conversion of fuel carbon to CO_2, C = carbon content of fuel by weight (0.76), and D = density of fuel, $4.2x10^4$ $lb/10^6$ scf.

[c] All PM (total, condensible, and filterable) is assumed to be less than 1.0 micrometer in diameter. Therefore, the PM emission factors presented here may be used to estimate PM_{10}, $PM_{2.5}$ or PM_1 emissions. Total PM is the sum of the filterable PM and condensible PM. Condensible PM is the particulate matter collected using EPA Method 202 (or equivalent). Filterable PM is the particulate matter collected on, or prior to, the filter of an EPA Method 5 (or equivalent) sampling train.

[d] Based on 100% conversion of fuel sulfur to SO_2.
Assumes sulfur content is natural gas of 2,000 grains/10^6 scf. The SO_2 emission factor in this table can be converted to other natural gas sulfur contents by multiplying the SO_2 emission factor by the ratio of the site-specific sulfur content (grains/10^6 scf) to 2,000 grains/10^6 scf.

ATTACHMENT 4

Section 1.4 of *AP-42, Fifth Edition, Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources*

NATURAL GAS COMBUSTION

Table 1.4-1

Table 1.4-1. EMISSION FACTORS FOR NITROGEN OXIDES (NO_x) AND CARBON MONOXIDE (CO) FROM NATURAL GAS COMBUSTION[a]

Combustor Type (MMBtu/hr Heat Input) [SCC]	NO_x[b]		CO	
	Emission Factor ($lb/10^6$ scf)	Emission Factor Rating	Emission Factor ($lb/10^6$ scf)	Emission Factor Rating
Large Wall-Fired Boilers (>100) [1-01-006-01, 1-02-006-01, 1-03-006-01]				
Uncontrolled (Pre-NSPS)[c]	280	A	84	B
Uncontrolled (Post-NSPS)[c]	190	A	84	B
Controlled - Low NO_x burners	140	A	84	B
Controlled - Flue gas recirculation	100	D	84	B
Small Boilers (<100) [1-01-006-02, 1-02-006-02, 1-03-006-02, 1-03-006-03]				
Uncontrolled	100	B	84	B
Controlled - Low NO_x burners	50	D	84	B
Controlled - Low NO_x burners/Flue gas recirculation	32	C	84	B
Tangential-Fired Boilers (All Sizes) [1-01-006-04]				
Uncontrolled	170	A	24	C
Controlled - Flue gas recirculation	76	D	98	D
Residential Furnaces (<0.3) [No SCC]				
Uncontrolled	94	B	40	B

[a] Reference 11. Units are in pounds of pollutant per million standard cubic feet of natural gas fired. To convert from $lb/10^6$ scf to $kg/10^6$ m^3, multiply by 16. Emission factors are based on an average natural gas higher heating value of 1,020 Btu/scf. To convert from $lb/10^6$ scf to lb/MMBtu, divide by 1,020. The emission factors in this table may be converted to other natural gas heating values by multiplying the given emission factor by the ratio of the specified heating value to this average heating value. SCC = Source Classification Code. ND = no data. NA = not applicable.

[b] Expressed as NO_2. For large and small wall fired boilers with SNCR control, apply a 24 percent reduction to the appropriate NO_x emission factor. For tangential-fired boilers with SNCR control, apply a 13 percent reduction to the appropriate NO_x emission factor.

[c] NSPS=New Source Performance Standard as defined in 40 CFR 60 Subparts D and Db. Post-NSPS units are boilers with greater than 250 MMBtu/hr of heat input that commenced construction modification, or reconstruction after August 17, 1971, and units with heat input capacities between 100 and 250 MMBtu/hr that commenced construction modification, or reconstruction after June 19, 1984

ATTACHMENT 5

RESERVED

ATTACHMENT 6

START-UP, SHUTDOWN, AND MALFUNCTION PLAN (MAINTAINED AT THE FACILITY)

ATTACHMENT 7

Agreement Letters

Proposed language for condition E41-7 of source 53-0081-72

Letter dated March 20, 2013

TATE & LYLE
CONSISTENTLY FIRST IN RENEWABLE INGREDIENTS

TN. DIV. OF
AIR POLLUTION CONTROL
2013 MAR 21 PM 1:56

TATE & LYLE
198 Blair Bend Drive
Loudon TN 37774
USA
Tel +1 865 458 5681
Fax +1 865 408 0590
www.tateandlyle.com

RECEIVED

March 20, 2013

scan

Tennessee Department of Environment
and Conservation
Air Pollution Control Division
9th Floor - L& C Annex
401 Church Street
Nashville, Tennessee 37243-1531

Certified Mail: (7007 2560 0001 0107 6327)

Attention: Barry Stephens, Director

Reference: Comments on Draft Title V Operating Permit #561515
Tate & Lyle Ingredients Americas LLC
Emission Source Reference No. 53-0081
Loudon, Tennessee

Dear Mr. Simpson:

Tate & Lyle Ingredients Americas LLC (Tate & Lyle) appreciates this opportunity to offer comments on the draft Title V Operating Permit #561515 issued via email and for which a public notice was published on February 25, 2013 in the Loudon News-Herald newspaper.

Condition E41-7 (Proposed)

Tate & Lyle requests that the proposed condition which pertains to the minimum operating temperature of the recently installed regenerative thermal oxidizer (RTO) for butanediol production be incorporated into the facility's Title V Operating Permit #561515. In a letter dated June 5, 2012 TDEC required Tate & Lyle to complete an emissions performance test for volatile organic compounds (VOC) where the destruction efficiency would be identified in the test report. Tate & Lyle completed the required emissions performance test for VOC on November 28, 2012. The results of the emissions performance test that includes the RTO destruction efficiency were submitted to TDEC on January 11, 2013.

Tate & Lyle requests that the following proposed condition be incorporated into the facility Title V Operating Permit:

"The regenerative thermal oxidizer shall operate in series with the fermentation reactive scrubber whenever butanediol is manufactured."

TATE & LYLE

CONSISTENTLY FIRST IN RENEWABLE INGREDIENTS

TATE & LYLE
198 Blair Bend Drive
Loudon TN 37774
USA
Tel +1 865 458 5681
Fax +1 865 408 0590
www.tateandlyle.com

Compliance Method: *A continuous monitoring system shall be calibrated, maintained and operated on the thermal oxidizer for measuring operating temperature. For purposes of this condition continuous shall mean temperature measurement no less than once per minute. The output of this system shall be recorded as a 3-hour block average. The Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature of 1400 F.*

I have reviewed this request in its entirety and to the best of my knowledge, and based on information and belief formed after reasonable inquiry, the statements and information contained in this request are true, accurate, and complete.

If you have any questions regarding these comments, please do not hesitate to contact Don Moster at (217) 421-2452.

Sincerely,

Gerald F. Schlueter
Plant Manager

Letter dated September 27, 2023

Primient

East Tennessee Permit Program
Division of Air Pollution Control
William R. Snodgrass TN Tower, 15th Floor
312 Rosa L. Parks Avenue
Nashville, TN 37243

Via Electronic Mail To: Air.Pollution.Control@tn.gov

September 27, 2023

Re: Primary Products Ingredients Americas LLC (Primient)
Title V Operating Permit No. 573292
Source ID 53-0081
Agreement Letter

Dear Sir or Madam:

Primient recently received the draft Significant Permit Modification (SM1) of the facility's Title V Operating Permit (Permit No. 573292). This letter contains mutually agreed emission limits associated with the SM1 revision of Title V Permit No. 573292.

Per TAPCR 1200-3-7-.04(1), "...the concentration of particulate emissions shall not be required to be less than 0.02 grain per dry cubic foot of stack gases corrected to 70° F and 1 atmosphere..." However, in accordance with TAPCR 1200-3-7-.01(5) "upon mutual agreement of the owner or operator of any air contaminant source and the Technical Secretary, an emission limit more restrictive than that otherwise specified in this chapter may be established..."

Primient hereby agrees to limit the concentration of particulate emissions from Sources PES #3 (Steep Area Aspiration), PES #4 (Millhouse Aspiration), and PES #8 (SO2 Absorption Tower) to 0.005 grains per dry standard cubic foot. For the Biomass Dryer particulate emissions as well as the remaining sources associated with the Propanediol area not to be subject to Prevention of Significant Deterioration (PSD)/Non-attainment New Source Review (NSR) as applicable, particulate emissions limitations were required during propanediol project permitting. Primient hereby agrees to limit the concentration of particulate emissions from Source PES #72 (Fermentation Reactive Scrubber) to 0.002 grains per dry standard cubic foot; Sources PES #73 (Evaporator), PES #75 (Hydrogenation Reactor), and PES #76 (Distillation Column) to 0.001 grain per dry standard cubic foot; and Source PES#74 (Biomass "Drum" Dryer) to 0.005 grain per dry standard cubic foot.

Sulfur dioxide process emissions standards are outlined at TAPCR 1200-3-14-.03. Per TAPCR 1200-3-14-.01(3), "upon mutual agreement of the owner or operator of any air contaminant source and the Technical Secretary, an emission limit more restrictive than that otherwise specified in this Chapter may be established..." In the construction permit application dated July 2, 2018 (installation of sulfur burner, molten sulfur storage tank, and SO2 absorption tower),

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Loudon, TN 37774
+1 (865) 458-5681
primient.com

Primient

Primient (then Tate and Lyle) agreed to limit SO2 emissions from PES #3 (Steep Area Aspiration), PES #4 (Millhouse Aspiration), and PES #8 (SO2 Absorption Tower) to 7.05 pounds per hour (30.9 tons per year). Please regard this letter as Primient's agreement to limit SO2 emissions from PES #3, #4, and #8 (emitted via the Millhouse Stack) to 7.05 pounds per hour (30.9 tons per year).

Should the Division have any questions regarding this agreement letter, please contact Bryan Crawford at (865)408-0573 or bryan.crawford@primient.com.

I have reviewed this submittal in its entirety and to the best of my knowledge, and based on information and belief formed after reasonable inquiry, the statements and information contained herein are true, accurate, and complete.

Sincerely,

Edwin H. Hammann

Edwin H. Hammann
Plant Manager, Primient
Loudon, Tennessee

ATTACHMENT 8

Title V Fee Selection Form

DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF AIR POLLUTION CONTROL
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor, Nashville, TN 37243
Telephone: (615) 532-0554, Email: Air.Pollution.Control@TN.gov

TITLE V FEE SELECTION

Type or print and submit to the email address above.

FACILITY INFORMATION

1. Organization's legal name and SOS control number [as registered with the TN Secretary of State (SOS)]

2. Site name (if different from legal name)

3. Site address (St./Rd./Hwy.)	County name
City	Zip code

4. Emission source reference number	**5.** Title V permit number

FEE SELECTION

This fee selection is effective beginning January 1, _____. When approved, this selection will be effective until a new Fee Selection form is submitted. Fee Selection forms must be submitted on or before December 31 of the annual accounting period.

6. Payment Schedule (choose one):

Calendar Year Basis (January 1 – December 31) ☐ Fiscal Year Basis (July 1 – June 30) ☐

7. Payment Basis (choose one):

Actual Emissions Basis ☐ Allowable Emissions Basis ☐ Combination of Actual and Allowable Emissions Basis ☐

8. If Payment Basis is "Actual Emissions" or "Combination of Actual and Allowable Emissions", complete the following table for each permitted source and each pollutant for which fees are due for that source. See instructions for further details.

Source ID	Pollutant	Allowable or Actual Emissions	If allowable emissions: Specify condition number and limit. If actual emissions: Describe calculation method and provide example. Provide condition number that specifies method, if applicable.

8. (Continued)

Source ID	Pollutant	Allowable or Actual Emissions	If allowable emissions: Specify condition number and limit. If actual emissions: Describe calculation method and provide example. Provide condition number that specifies method, if applicable.

CONTACT INFORMATION (BILLING)

9. Billing contact			Phone number with area code
Mailing address (St./Rd./Hwy.)			Fax number with area code
City	State	Zip code	**Email address**

SIGNATURE BY RESPONSIBLE OFFICIAL

Based upon information and belief formed after reasonable inquiry, I, as the responsible person of the above mentioned facility, certify that the information contained in the submittal is accurate and true to the best of my knowledge. As specified in TCA Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

10. Signature		Date
Signer's name (type or print)	**Title**	Phone number with area code

TITLE V PERMIT STATEMENT

Renewal

Revised for Significant Modification 1

Facility Name: Primary Products Ingredients Americas LLC
City: Loudon
County: Loudon

Date Application Received:	**Renewal application received October 30, 2017; Minor Modification 1 application (letter) received April 11, 2019; Significant Modification 1 applications received February 21, 2020, October 28, 2019, & September 29, 2022**
Application Revision Received:	**NA for renewal; Minor Modification 1 application additional information received May 20, 2019; Significant Modification 1: additional information/ revision received November 14, 2022**
Date Application Deemed Complete:	**Renewal application complete October 30, 2017; Minor Modification 1 application complete May 20, 2019; Significant Modification 1 applications complete February 21, 2020, October 28, 2019, & November 14, 2022**

Emission Source Reference Number:	**53-0081**

Permit Number:	573292

INTRODUCTION

This narrative is being provided to assist the reader in understanding the content of the attached Title V operating permit. This Title V Permit Statement is written pursuant to Tennessee Air Pollution Control Rule 1200-03-09-.02(11)(f)1.(v). The primary purpose of the Title V operating permit is to consolidate and identify existing state and federal air requirements applicable to Primary Products Ingredients Americas LLC and to provide practical methods for determining compliance with these requirements. The following narrative is designed to accompany the Title V Operating Permit. It initially describes the facility receiving the permit, then the applicable requirements and their significance, and finally the compliance status with those applicable requirements. This narrative is intended only as an adjunct for the reviewer and has no legal standing. Any revisions made to the permit in response to comments received during the public participation process will be described in an addendum to this narrative.

Acronyms

PSD - Prevention of Significant Deterioration

NESHAP - National Emission Standards for Hazardous Air Pollutants

NSPS - New Source Performance Standards

MACT - Maximum Achievable Control Technology

NSR - New Source Review

I. Identification Information

A. Source Description: Primary Products Ingredients Americas LLC is located in Loudon, Tennessee. The facility is a corn wet milling facility. The facility includes the following emission units or activities.

List and describe emission source(s):

Elevator Area

53-0081-01, Corn Unloading with Dust Collector, PES #1

53-0081-02, Corn cleaning & storage with Elevator Dust Collector, PES #2

53-0081-08, Corn Silo Vents, PES #8

Wetmill/Feedhouse Area

53-0081-03, Steephouse Aspiration, PES #3

53-0081-03, Millhouse Aspiration, PES #4

53-0081-05, Gluten Filter Aspiration, PES #5

53-0081-06, Cracked Corn Conveying, PES #6

53-0081-16, Germ Dryer, PES #7

53-0081-16, Gluten Dryer, PES #9

53-0081-10, Pellet Cooler #1, PES #10

53-0081-11, Pellet Cooler #2, PES #11

53-0081-12, SSD Fiber Dryer, PES #12

53-0081-13, Pellet Cooler #3, PES 13

53-0081-16, Removed from service, PES #16

53-0081-17, Gluten Meal Conveying/Loadout, PES #17

53-0081-16, Feed Dryer #1, PES #18

53-0081-16, Feed Dryer #2, PES 19

53-0081-06, Feed Cooler, PES #20

53-0081-06, Feed Milling Cyclones, PES #21

53-0081-06, Pellet Loadout, PES #52

53-0081-62, Corn Byproducts Loadout, PES #62A

53-0081-62, Corn & Corn Byproducts Unloading, PES #62B

53-0081-64, Germ Dewatering, PES #64

53-0081-65, Vacuum Filter Aspiration, PES #65

53-0081-68, Germ Conveyor, Storage & Loadout Bin, PES #68

53-0081-16, Feed Dryer #3, PES #94

53-0081-16, Germ Pre-dryer, PES #95

53-0081-09, Gluten Filters/Pumps, PES #14

Refinery Area

53-0081-23, Carbon Furnace, PES #23

53-0081-24, Soda Ash Unloading, PES #24

53-0081-26, Filter Aid Supply System, PES #26

53-0081-27, Filter Aid Bulk Bin, PES #27

53-0081-53, HCl System – Bulk Tank, PES #53A

53-0081-53, HCl System – Dilute Acid Tank, PES #53B

53-0081-66, Jet Foam Trap Exhaust, PES #66

53-0081-67, Jet Vapor Condensate Tank, PES #67

53-0081-90, Railcar Receiver Bin, PES #90A

53-0081-90, Spray Dryer, PES #90B

53-0081-90, Product Bin, PES #90C

53-0081-90, Product Bin, PES #90D

53-0081-90, Unloading Receiver, PES #90H

53-0081-90, Bag Dump, PES #90I

53-0081-90, Vacuum Cleaning System, PES #90J

53-0081-91, Tote & Bag Packer Bin Vents, PES #91A

53-0081-91, Starch/Maltodextrin Product Storage Bin, PES #91B

53-0081-91, Starch/Maltodextrin Product Storage Bin, PES #91C

53-0081-91, Starch/Maltodextrin Product Storage Bin, PES #91D

53-0081-91, Truck Loadout Filter Receiver, PES #91E

53-0081-91, Tote & Bag Packer Collector, PES #91F

53-0081-91, Starch/Maltodextrin Product Storage Bin, PES #91G

53-0081-91, Tote Feed Bin Vent and New Feed Bin Dust Collector, PES #91H

53-0081-93, Corn Sweetener Process, PES #93

Alcohol Area

53-0081-28, Carbon Dioxide (CO2) Scrubber, PES #28A

53-0081-28, Propagators Scrubber with RTO, PES #28B

53-0081-54, Denatured Alcohol Storage Tank, PES #54A

53-0081-54, Denatured Alcohol Storage Tank, PES #54B

53-0081-55, Alcohol Storage & Loadout, PES #55

53-0081-59, Natural Gasoline Storage Tank, PES #59

53-0081-61, Fuel Additive Storage Tank, PES #61

53-0081-98, Alcohol Storage Tank, PES #98

53-0081-99, Alcohol Barge Loadout Facility, PES #99

Propanediol Area

53-0081-72, Fermentation Reactive Bioscrubber, PES #72

53-0081-73, Evaporation, PES #73

53-0081-74, Biomass Drum Dryers Scrubber, PES #74

53-0081-75, Hydrogenation, PES #75

53-0081-76, Refining/Distillation

Utilities Area

53-0081-15, Anaerobic Wastewater Treatment Flare, PES #15

53-0081-29, Removed from service, PES #29

53-0081-30, Removed from service, PES #30

53-0081-32, Removed from service, PES #32

53-0081-34, Gas Fired Boiler #1, PES #34

53-0081-34, Gas Fired Boiler #2, PES #35

53-0081-34, Oil/Gas Boiler #3, PES #36

53-0081-37, Cogeneration Unit #1, PES #37

53-0081-38, Cogeneration Unit #2, PES #38

53-0081-39, Removed from service, PES #39

53-0081-43, No. 2 Fuel Oil Storage Tank, PES #43

53-0081-44, Removed from service, PES #44

53-0081-60, Removed from service, PES #60

53-0081-71, Emergency Electrical Generators/ Engines, PES #71

53-0081-100, Emergency Fire Pump Engine, PES #100

Insignificant Activities

Various insignificant activities are listed in the permit application.

B. Facility Classification

1. Attainment or Non-Attainment Area Location

Area *is* designated as an attainment area.

2. Company *is* located in a *Class II area*.

C. Regulatory Status

1. PSD/NSR

This facility is a major source under PSD.

2. Title V Major Source Status by Pollutant

Pollutant	Is the pollutant emitted?	If emitted, what is the facility's status? Major or Non-Major Source Status
PM	Yes	Major
PM_{10}	Yes	Major
SO_2	Yes	Major

VOC	Yes	Major
NO_X	Yes	Major
CO	Yes	Major
GHG (CO2e)*	Yes	Major
Individual HAP	yes	Major
Total HAPs	yes	Major

* Greenhouse gases (GHG)

3. MACT Standards

This facility is a major source for HAPs.

This facility is subject to:

40 CFR part 63 subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants: National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

40 CFR part 63 subpart FFFF, National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing and Miscellaneous Coating Manufacturing

40 CFR part 63 subpart DDDDD, National Emission Standards for Hazardous Air Pollutants: Industrial, Commercial, and Institutional Boilers and Process Heaters

40 CFR part 63 subpart YYYY, National Emission Standards for Hazardous Air Pollutants: Stationary Combustion Turbines (initial notification only)

4. Program Applicability

Are the following programs applicable to the facility?

PSD yes

NESHAP *yes*

NSPS *yes*

II. Compliance Information

A. Compliance Status

Is the facility currently in compliance with all applicable requirements?

Yes

Are there any applicable requirements that will become effective during the permit term?

No

III. Other Requirements

A. Emissions Trading

The facility *is not* involved in an emission trading program.

B. Acid Rain Requirements

This facility *is not* subject to any requirements in Title IV of the Clean Air Act.

C. Prevention of Accidental Releases

Applicable

IV. <u>Public Participation Procedures</u>

Notification of this draft permit was mailed to the following environmental agencies:

1. EPA Region 4 Air Planning Branch
2. North Carolina
3. Knox County
4. Hamilton County
5. Cherokee Nation

<u>Renewal Permit 573292:</u>

Application dated October 25, 2017; letter dated November 20, 2018 (change of responsible official)

The public notice for the draft/ proposed permit was published in the Loudon County *News-Herald* on January 23, 2019.

Cover page: updated application information

Table of Contents: updated condition listing, source listing, and Attachments. Attachment 2 CAM Plan date changed to October 2017 for revised Plan and Attachment 5 marked “Reserved” (expired CAIR permit removed)

General Sections A- D: Replaced with revised sections A, B, C, & D to reference current Tenn. Comp. R. & Regs. vs. outdated TAPCR reference, and added conditions D11 –D14.

Conditions D11, D12, D13, and D14: added per current Title V permit shell conditions for Emission Standards for Hazardous Air Pollutants (D11), Standards of Performance for New Stationary Sources (D12), Gasoline Dispensing Facilities (D13); and Internal Combustion Engines (D14)

Section E (General): for all conditions, changed rule citations to reference current Tenn. Comp. R. & Regs. vs. outdated TAPCR reference

Condition E1: fee table and condition phrasing were updated per current fee reporting language and updated fees

Condition E2: semiannual and annual reporting requirements were updated per current language for Title V permit renewals. In E2(a) (semiannual reporting) removed references to conditions E56-18 and E57-19 which are subject to NSPS reporting requirements for subpart KKKK (ref. cogeneration sources 37 and 38), as an administrative amendment change. Added E2(c) for NESHAP subpart FFFF semiannual reporting and added E2(d) for NSPS subpart VV semiannual reporting. Added E2(e) for annual certification of compliance with facility’s accidental release plan (112r).

Condition E3-10: updated application date to current Title V renewal application and updated responsible official name for new plant manager Edwin H. Hammann per company letter dated November 20, 2018.

Condition E3-11: added condition for current NOx SIP call requirements to replace expired CAIR permit outdated requirements (deleted from Attachment 5)

Conditions E9-2, E9-3, E9-4: updated emission limits and compliance provisions for changes of construction permit 971336P considered significant modifications to the Title V permit.

Condition E9-5: removed requirement from condition for operating time limitation for feed dryer and marked “reserved” (authorized by permit 971336P)

Condition E9-6: added new condition for low NOX technology burner requirement for feed dryer (from permit 971336P)

Conditions E4-1, E5-1, E6-1, E7-1, E8-1, E9-1, E10-1, E11-1, E12-1, E13-1, E14-1, E15-1, E16-1, E17-1, E18-1, E19-1, E20-1, E22-1, E25-1, E26-1, E27-1, E28-1, E29-1, E30-1, E31-1, E32-1, E33-1, E34-1, E42-1, E43-1, E54-1, & E55-2: replaced the word “assures” or “assured” with “demonstrates” or “demonstrated” and made other minor changes

Conditions E34-8 – E34-15 were added to source/ PES 28 (fermenters and propagators) for NESHAP subpart FFFF requirements and conditions E34-16 –E34-31 were added for NSPS subpart VV requirements.

Conditions E39-7 - E39-12 were added to source/ PES 98 (alcohol storage tank T-5904) for NSPS subpart Kb requirements.

Conditions E35-3, E36-3, E37-3, E38-3, E39-6, E40—3, E41-8, E42-7, and E43-6 were added to sources 54, 55, 59, 61, 98, 99, 72, 73, and 74 respectively to address NESHAP subpart FFFF requirements.

Conditions E14-3, E15-3, E17-3, E21-2, E33-3: updated method 9 opacity matrix revision date (September 11, 2013)

Conditions E9-2, E25-2, E48-1, E48-2, E56-1, and E57-1 were revised to indicate that the heat input rate of fuel combustion equipment (boilers and process heaters) is based on a daily average. The compliance method for conditions E9-2 and E12-2 was revised to add the requirement for recordkeeping of the daily average heat input rate. These changes are considered minor modifications to the permit.

Attachment 2: updated CAM Plan dated October 2017 replaced the out-of-date CAM Plan dated April 2012

Attachment 5: marked “Reserved” (expired CAIR permit removed)

Changes to the draft/ proposed permit for final permit issuance after the end of the draft/ proposed permit public notice and EPA review periods:

Conditions A12, A20, and D7 were revised/ updated per the current Division's Title V permit shell/ template dated January 24, 2019.

Renewal permit 573292:

Comments: No comments were received from the public during the draft/ proposed permit 30-day public notice period which commenced January 23, 2019, and ended February 22, 2019. By email response on February 13, 2019, EPA stated the draft/ proposed permit was not targeted for review. EPA's 45-day permit review period ended March 9, 2019.

The final permit was issued on April 1, 2019

Permitting action: Minor Modification 1

Letter dated April 11, 2019, and application dated May 20, 2019.

The permittee requested to remove conditions E56-23 and E57-24 of Title V permit 573292. The conditions require that annual performance tests for sulfur dioxide (SO_2) be performed on the natural gas fired cogeneration units #1 and #2 (source ID 53-0081-37 and 38). Conditions E56-6 and E57-6 state that compliance for the sulfur dioxide emission limits shall be assured by emission factors, emission calculations, and the use of natural gas as fuel. In addition, conditions E56-16(a) and E57-17(a) limit the sulfur content of the fuel for the cogeneration units #1 and #2 by a valid natural gas purchase contract. Consequently, conditions E56-23 and E57-24 will be removed from the permit, since the SO_2 test requirements are not applicable to natural gas fired units per 40 CFR part 60 subpart KKKK, and other current permit requirements provide methods for compliance assurance/demonstration for the sulfur dioxide emission limits of the cogeneration units.

Other changes: for cover page added reference to Letter dated April 11, 2019, and application dated May 20, 2019. Condition E1 for fees was updated for minor modification 1 permit issuance and annual accounting period changes, and condition E3-10 was updated to reference the minor permit modification 1 letter and application for the responsible official, technical contact, and billing contact.

Comments on draft minor modification: EPA submitted a comment on July 10, 2019, as follows: “Can you specify which regulatory language states that “the SO2 test requirements [of 40 CFR 60 Subpart KKKK] are not applicable to natural gas fired units?”

Response to EPA comment: Division’s response of July 18, 2019: From review of NSPS subpart KKKK, 40 CFR 60.4415(a)(1) allows for determination of the sulfur content of the fuel as an option for the performance test requirement, and 40 CFR 60. 4365 (a) provides an exemption from monitoring the sulfur content of the fuel when the fuel quality characteristics are specified in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the total sulfur content of the natural gas use in continental areas is 20 grains of sulfur or less per 100 standard cubic feet, has potential sulfur emissions of less than 26ng SO2/J (0.060 lb SO2/ MMBtu) heat input for continental areas. This is the method (i.e., purchase contract) the company desires to use to avoid the necessity of physically field testing the combustion turbines or collecting/ analyzing natural gas samples. Typically pipeline quality natural gas has very low sulfur content, so compliance with subpart KKKK requirements should be easily achievable.

EPA submitted a second comment on July 23, 2019, in response to the Division’s response and stated: “Thank you very much for your detailed explanation. We have no further comments at this time and you may continue with the permitting process as you see fit.”

Issue date of minor modification 1 permit: July 31, 2019

Permitting Actions for administrative amendments:

Administrative Amendment#1 for permit 573292, Modification number 194185:

Condition E-1: FEE EMISSIONS SUMMARY TABLE FOR MAJOR SOURCE 53-0081

- PM: Allowable emissions changed from 246.13 to 246.83 to match Smoglog Permit Allowable Emission Rate Table
- SO_2: Allowable emissions changed from 289.05 to 294.35 to match Smoglog Permit Allowable Emission Rate Table

- VOC: Allowable emissions changed from 398.06 to 412.96 to match Smoglog Permit Allowable Emission Rate Table
- Added a new row for Miscellaneous Regulated Pollutants, 8.4 for Allowable Emission column, AEAR for Actual Emissions column, and "Includes all fee emissions" in the Comments column.

Issue Date of Administrative Amendment#1: February 10, 2022

Administrative Amendment #2 for permit 573292, Modification number 192334:

This administrative amendment was to revise the "Issued To" name from "Tate & Lyle Ingredients Americas LLC" to "Primary Products Ingredients Americas LLC." In addition, references to "Tate & Lyle" throughout the permit was revised to reflect "Primary Products Ingredients Americas LLC."

Issue Date of Administrative Amendment#2: April 22, 2022

Permitting Action: Significant Modification 1 for permit 573292

Modification number 129478, includes modification log numbers 120867 and 210259 combined with log number 129478

Application dated February 11, 2020, Modification number 129478

Application dated October 24, 2019, Modification number 210259

Application dated September 28, 2022, Modification number 120867

For this significant modification the conditions affected by the modifications and corresponding compliance methods were revised/updated to reflect current standard language and/or to streamline the permit.

53-0081-03: Wetmill/feedhouse Area: Significant Modification 1: Addition of a Sulfur Burner, Molten Sulfur Storage Tank, and a Sulfur Dioxide Absorption Tower (PES #8) with exhaust to existing wet scrubber (K-2004) and millhouse stack (Y-3002). A sulfur burner, molten sulfur storage tank, and a sulfur dioxide absorption tower were installed in the wetmill area to replace the current liquid sulfur dioxide storage system. The project resulted in an increase in emissions of particulate matter, sulfur dioxide, and volatile organic compounds. The project was not subject to PSD review, since emission increases for the project were below PSD threshold significance levels.

Construction of this project was authorized by permit 974410 issued October 8, 2018.

Conditions E6-1 through E6-4: added SM1 suffix to conditions, revised application references in conditions E6-1 – E6-4 & revised input limits reference in condition E6-1, increased emission limits for VOC (+13.5 TPY) & SO2 (+5.3 TPY)in E6-3 and E6-4 & cited application references July 2, 2018, and October 24, 2019. No change to PM emission limit of condition E6-2; however, ton per year amount increased (+0.7 TPY) due to exhaust gas flow rate change. Added lb/hr SO2 emission limit to condition E6-4. Replaced rule cite abbreviation “Tenn. Comp. R. & Regs.” with “TAPCR” in conditions E6-1 – E6-4. In condition E6-2 for PM emission limit and condition E6-4 for SO2 emission limit added reference to agreement letter dated September 27, 2023.

53-0081-72, 73, 74: Propanediol Area: Significant Modification 1: Increases production of propanediol from 915 to 1041 batches per year with resulting emission increases of PM, VOC, ammonia, & acetaldehyde from sources 53-0081-72, 73, & 74. Also, an additional ammonia storage tank and additional filtration, ion exchange, and evaporation equipment were installed to support the production increase. These modifications were authorized by permit 973999 issued July 18, 2018.

53-0081-72 (PES 72): Conditions E41-1 through E41-8: added SM1 suffix to conditions, revised application references & increased input/output limits in condition E41-1, increased VOC emission limits in conditions E41-2 (PES 72-76 + 1 TPY)& E41-4 (PES 72 +1 TPY), increased ammonia emission limit (PES 72 + 0.2 TPY) in condition E41-5 and acetaldehyde emission limit (PES 72 +0.2 TPY) in E41-6. No change to PM emission limit of condition E41-3 (PES 72). In conditions E41-1 through E41-6 cited application references March 28, 2018, & February 11, 2020. In conditions E41-1 – E41-8 replaced rule cite abbreviation “Tenn. Comp. R. & Regs.” with “TAPCR.” In condition E41-3 for PM emission limit added reference to agreement letter dated September 27, 2023.

53-0081-73 (PES 73 & 74): Conditions E42-1 through E42-7: added SM1 suffix to conditions, revised application references & increased input/output limits in condition E42-1, increased VOC emission limit in condition E42-3 (PES 73 +0.1 TPY). No change to PM emission limits of conditions E42-2 (PES 73) & E42-4 (PES 74); however, ton per year emission amount increased for condition E42-2 (PES 73 +0.0002 TPY) due to exhaust gas flow rate change. No change to VOC emission limit of condition E42-5 (PES 74) and ammonia emission limit of

condition E42-6 (PES 74). In conditions E42-1 through E42-6 cited application references March 28, 2018, & February 11, 2020. In conditions E42-1 – E42-7 replaced rule cite abbreviation “Tenn. Comp. R. & Regs.” with “TAPCR.” In conditions E42-2 and E42-4 for PM emission limits added reference to agreement letter dated September 27, 2023.

53-0081-74 (PES 75 & 76): Conditions E43-1 through E43-6: added SM1 suffix to conditions, revised application references & increased input/output limits in condition E43-1, increased VOC emission Limit in condition E43-3 (PES 75 + 0.3 TPY). No change to VOC emission limit of condition E43-5 (PES 76). No change to PM emission limits of conditions E43-2 (PES 75) & E43-4 (PES 76); however, ton per year amounts increased (PES 75 + 0.0003 TPY & PES 76 +0.00006 TPY) due to exhaust gas flow rate change. In conditions E43-1 through E43-5 cited application references March 28, 2018, & February 11, 2020. In conditions E43-1 – E43-6 replaced rule cite abbreviation “Tenn. Comp. R. & Regs.” with “TAPCR.” In conditions E43-2 and E43-4 for PM emission limits added reference to agreement letter dated September 27, 2023.

53-0081-37 and 38 (PES 37 & 38): Cogeneration Units 1 and 2: significant modification 1. Removes nonapplicable regulatory requirements for Cogeneration units 1 and 2 (sources 53-0081-37 and 38). The NESHAP/MACT requirements of federal rule 40 CFR Part 63 subpart DDDDD for the waste heat boilers (heat recovery steam generators (HRSG)) associated with sources 37 and 38 are removed from permit 573292. The rule was revised and no longer excludes waste heat boilers equipped with auxiliary duct burners which can provide 50% or more of the rated heat input capacity of the boiler from the definition of “waste heat boiler.” The rule exempts waste heat boilers from rule applicability. Consequently, the rule requirements of conditions E56-27 through E56-33 and conditions E57-28 through E57-34 of permit 573292 are removed and the conditions marked as “Reserved.”

Conditions E56-27 through E56-33 and E57-28 through E57-34: added SM1 suffix to condition numbers and conditions marked/labeled as “Reserved.”

Other changes to permit 573292 for significant modification 1: cover page: added application references for modification; Table of Contents: added Attachment 7 for agreement letters and Attachment 8 for Title V fee selection form; permit sections A-D conditions replaced with updated/revised permit shell conditions; condition E1 for fees updated for significant modification 1 to current condition language, added Title V fee selection form as

Attachment 8 of permit,& replaced rule cite abbreviation “Tenn. Comp. R. & Regs.” with “TAPCR”; condition E2(a) updated list of conditions for semiannual reporting for significant modification 1; condition E3-10: updated facility technical and billing contact person and referenced significant modification applications.

Date draft/proposed significant modification 1 permit to public notice (placed on TNAPC website): TBD

Date draft/proposed significant modification 1 permit sent to EPA for review: TBD

Comments from public notice review (if applicable): TBD

Comments from EPA review (if applicable): TBD

Date significant modification 1 permit issued: TBD