



SYNTHETIC MINOR OPERATING PERMIT

PERMITTEE: TYSON FARMS, INC.
FACILITY NAME: RIVER VALLEY INGREDIENTS – HANCEVILLE
LOCATION: HANCEVILLE, ALABAMA

PERMIT NUMBER	DESCRIPTION OF EQUIPMENT, ARTICLE OR DEVICE
702-0010-X013	Plant A with Biofilter, one (1) Spray Tower, and one (1) 35,000 ACFM Packed Tower Pre-Scrubber, one (1) 10,000 Btu/hr Pre-heater/Cooker, three (3) 44,000 Btu/hr Cookers, and three (3) 100,000 ACFM Packed Tower Scrubbers (Scrubbers #1-3)

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, Ala. Code §§22-28-1 to 22-28-23, as amended, the Alabama Environmental Management Act, Ala. Code §§22-22A-1 to 22-22A-17, as amended, and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

ISSUANCE DATE: DRAFT

**RIVER VALLEY INGREDIENTS – HANCEVILLE
HANCEVILLE, ALABAMA
(PERMIT NO.: 702-0010-X013)
PROVISOS**

1. This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.
2. This permit is not transferable. Upon sale or legal transfer, the new owner or operator must apply for a permit within thirty (30) days.
3. A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants.
4. The permittee shall keep this permit under file or on display at all times at the site where the facility for which the permit is issued is located and shall make the permit readily available for inspection by any or all persons who may request to see it.
5. Each point of emission, which requires testing, will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.
6. All air pollution control equipment shall be operated at all times while this process is operational. In the event of scheduled maintenance, unscheduled maintenance, or a breakdown of the pollution control equipment, the process shall be shutdown as expeditiously as possible (unless this act and subsequent re-start would clearly cause greater emissions than continuing operations of the process for a short period). The Department shall be notified of all such events **that exceed 1 hour** within 24 hours. The notification shall include all pertinent facts, including the duration of the process operating without the control device and the level of excess emissions which have occurred. Records of all such events, regardless of reporting requirements, shall be made and maintained for a period of five years. These records shall be available for inspection.
7. In the event there is a breakdown of air pollution control or process equipment in such a manner as to cause increased emission of air contaminants for a period greater than **1 hour**, the person responsible for such equipment shall notify the Air Division within an additional 24 hours and provide a statement giving all pertinent facts, including the duration of the breakdown. The Air Division shall be notified when the breakdown has been corrected.
8. This process, including all air pollution control devices and capture systems for which this permit is issued, shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is

PERMIT NO. 702-0010-X013

properly operated and maintained so as to minimize the emission of air contaminants shall be established.

9. This permit expires and the application is cancelled if construction has not begun within 24 months of the date of issuance of the permit.
10. On completion of construction of the device(s) for which this permit is issued, written notification of the fact is to be submitted to the Chief of the Air Division. The notification shall indicate whether the device(s) was constructed as proposed in the application. The device(s) shall not be operated until authorization to operate is granted by the Chief of the Air Division. Failure to notify the Chief of the Air Division of completion of construction and/or operation without authorization could result in revocation of this permit.
11. Submittal of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require stack emission testing at any time.
12. Additions and revisions to the conditions of this Permit will be made, if necessary, to ensure that the Department's air pollution control rules and regulations are not violated.
13. Nothing in this permit or conditions thereto shall negate any authority granted to the Air Division pursuant to the Alabama Environmental Management Act or regulations issued thereunder.
14. This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.
15. The Air Division must be notified in writing at least 10 working days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.

To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:

- a. The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.
- b. A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedure requires probe cleaning).

PERMIT NO. 702-0010-X013

- c. A description of the process(es) to be tested, including the feed rate, any operating parameter used to control or influence the operations, and the rated capacity.
- d. A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.

A pretest meeting may be held at the request of the source owner or the Department. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.

All test reports must be submitted to the Air Division within forty five (45) days of the actual completion of the test, unless an extension of time is specifically approved by the Air Division.

- 16. Records will be maintained of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the process equipment and any malfunction of the air pollution control equipment. These records will be kept in a permanent form suitable for inspection and will be retained for at least two years following the date of each occurrence.
- 17. Precautions shall be taken to minimize fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.

Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:

- a. by the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;
- b. by reducing the speed of vehicular traffic to a point below that at which dust emissions are created;
- c. by paving;
- d. by the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;

Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.

- 18. The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.

PERMIT NO. 702-0010-X013

19. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.
20. These units are subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.01(1), "*Control of Particulate Emissions – Visible Emissions*".
21. These units are subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.04(1), "*Control of Particulate Emissions – Process Industries – General*".
22. The opacity of emissions from these units shall not exceed twenty (20%) percent opacity on a six (6) minute average, except for one six (6) minute period per sixty (60) minute period of not more than forty (40%) percent opacity.
23. Particulate emissions from these sources shall not exceed the allowable set by ADEM Admin. Code r. 335-3-4-.04(1).
24. Facility-wide emissions of volatile organic compounds (VOC) shall not exceed 99.0 tons in any consecutive twelve (12) month period.
25. Facility-wide emissions of particulate matter (PM/PM₁₀) shall not exceed 99.0 tons in any consecutive twelve (12) month period.
26. The pressure differential across the biofilter shall not drop below 0.1 in. H₂O or exceed 10.0 in. H₂O. If the pressure differential deviates from this range, corrective action shall be initiated to bring the pressure differential within an acceptable range.
27. The biofilter may be bypassed for up to 200 hours per year for maintenance purposes, etc., during which emissions from Plant A shall be vented to Scrubbers #1 and #2.
28. The pre-scrubber may be bypassed for up to 200 hours per year for maintenance purposes, etc., during which emissions from Plant A shall be vented directly to the biofilter.
29. All fugitive odorous emissions from the Plant A building shall be scrubbed.
30. A pH of no less than 2.0 or greater than 4.0 for the chlorine dioxide generators shall be maintained for the scrubber sumps which use chlorine dioxide as the oxidizing agent as determined by hourly sampling and analysis.
31. An air Oxidation Reduction Potential (ORP) of greater than 250 shall be maintained for the scrubber sumps which use chlorine dioxide as the oxidizing agent as determined by hourly sampling and analysis.
32. A minimum of two (2) gallons of React-Ox per scrubber per day shall be used for the scrubber sumps which use React-Ox to control odor.

PERMIT NO. 702-0010-X013

33. The paved-concrete area where raw materials are received shall be cleaned periodically.
34. If testing is required, the particulate matter (PM/PM₁₀) emissions, including both filterable and condensable particulate, shall be determined by Method 5 of 40 CFR 60, Appendix A, and Method 202 of 40 CFR 51, Appendix M, or by another method approved by the Department.
35. If testing is required, visible emissions shall be determined by Method 9 of 40 CFR 60, Appendix A.
36. If testing is required, the volatile organic compound (VOC) emissions shall be determined by Methods 18, 25, 25A, or 25B of 40 CFR 60, Appendix A, or by another method approved by the Department.
37. A properly maintained and operated device shall be utilized to measure the pressure differential across the biofilter. Pressure differential readings shall be recorded at least once per week.
38. A record of the inlet gas temperature to the biofilter shall be maintained on a continuous chart recorder. An audible alarm must be installed which will respond if the inlet temperature exceeds 130°F. Records shall be maintained of any corrective actions taken to reduce the inlet gas temperature to an appropriate level.
39. Records of the liquid flow rates for the scrubbers shall be maintained. Readings shall be recorded at least once per eight-hour shift.
40. Records shall be maintained documenting the sampling and analysis results for the chlorine dioxide scrubber requirements.
41. Records shall be maintained documenting the amount of React-Ox used in each scrubber per day.
42. Records shall be maintained indicating the time, duration, and reason whenever the biofilter or pre-scrubber is bypassed.
43. Records shall be maintained of all problems which affect the odor reducing capability of the air pollution control equipment.
44. All records shall be maintained in a permanent form suitable for inspection for at least five (5) years following the date of generation.
45. A semiannual report shall be submitted to the Department by the 30th day following the end of each six-month period (January 1st through June 30th and July 1st through December 31st). This report shall include any deviations from permit requirements during that period and shall be certified by a responsible official as to its truth, accuracy, and completeness. If no

deviations occurred during that period, a written statement stating as such shall be submitted.

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PERMITTEE: TYSON FARMS, INC.
FACILITY NAME: RIVER VALLEY INGREDIENTS - HANCEVILLE
LOCATION: HANCEVILLE, ALABAMA

PERMIT NUMBER	DESCRIPTION OF EQUIPMENT, ARTICLE OR DEVICE
702-0010-X018	70.0 MMBtu/hr Boiler No. 11 99.0 MMBtu/hr Boiler No. 12 99.0 MMBtu/hr Boiler No. 13 81.102 MMBtu/hr Boiler No. 14 99.894 MMBtu/hr Boiler No. 15 99.894 MMBtu/hr Boiler No. 16 20,735 Gallon Diesel Storage Tank

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, Ala. Code §§22-28-1 to 22-28-23, as amended, the Alabama Environmental Management Act, Ala. Code §§22-22A-1 to 22-22A-17, as amended, and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

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**RIVER VALLEY INGREDIENTS - HANCEVILLE
HANCEVILLE, ALABAMA
(PERMIT NO.: 702-0010-X018)
PROVISOS**

1. This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.
2. This permit is not transferable. Upon sale or legal transfer, the new owner or operator must apply for a permit within thirty (30) days.
3. A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants.
4. The permittee shall keep this permit under file or on display at all times at the site where the facility for which the permit is issued is located and shall make the permit readily available for inspection by any or all persons who may request to see it.
5. Each point of emission, which requires testing, will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.
6. All air pollution control equipment shall be operated at all times while this process is operational. In the event of scheduled maintenance, unscheduled maintenance, or a breakdown of the pollution control equipment, the process shall be shutdown as expeditiously as possible (unless this act and subsequent re-start would clearly cause greater emissions than continuing operations of the process for a short period). The Department shall be notified of all such events **that exceed 1 hour** within 24 hours. The notification shall include all pertinent facts, including the duration of the process operating without the control device and the level of excess emissions which have occurred. Records of all such events, regardless of reporting requirements, shall be made and maintained for a period of five years. These records shall be available for inspection.
7. In the event there is a breakdown of air pollution control or process equipment in such a manner as to cause increased emission of air contaminants for a period greater than **1 hour**, the person responsible for such equipment shall notify the Air Division within an additional 24 hours and provide a statement giving all pertinent facts, including the duration of the breakdown. The Air Division shall be notified when the breakdown has been corrected.
8. This process, including all air pollution control devices and capture systems for which this permit is issued, shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is

PERMIT NO. 702-0010-X018

properly operated and maintained so as to minimize the emission of air contaminants shall be established.

9. This permit expires and the application is cancelled if construction has not begun within 24 months of the date of issuance of the permit.
10. On completion of construction of the device(s) for which this permit is issued, written notification of the fact is to be submitted to the Chief of the Air Division. The notification shall indicate whether the device(s) was constructed as proposed in the application. The device(s) shall not be operated until authorization to operate is granted by the Chief of the Air Division. Failure to notify the Chief of the Air Division of completion of construction and/or operation without authorization could result in revocation of this permit.
11. Submittal of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require stack emission testing at any time.
12. Additions and revisions to the conditions of this Permit will be made, if necessary, to ensure that the Department's air pollution control rules and regulations are not violated.
13. Nothing in this permit or conditions thereto shall negate any authority granted to the Air Division pursuant to the Alabama Environmental Management Act or regulations issued thereunder.
14. This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.
15. The Air Division must be notified in writing at least 10 working days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.

To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:

- (a) The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.
- (b) A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedure requires probe cleaning).

PERMIT NO. 702-0010-X018

- (c) A description of the process(es) to be tested, including the feed rate, any operating parameter used to control or influence the operations, and the rated capacity.
- (d) A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.

A pretest meeting may be held at the request of the source owner or the Department. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.

All test reports must be submitted to the Air Division within forty five (45) days of the actual completion of the test, unless an extension of time is specifically approved by the Air Division.

- 16. Records will be maintained of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the process equipment and any malfunction of the air pollution control equipment. These records will be kept in a permanent form suitable for inspection and will be retained for at least two years following the date of each occurrence.
- 17. Precautions shall be taken to minimize fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.

Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:

- a. by the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;
- b. by reducing the speed of vehicular traffic to a point below that at which dust emissions are created;
- c. by paving;
- d. by the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;

Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.

- 18. The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.

PERMIT NO. 702-0010-X018

19. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.
20. The diesel storage tank is subject to the applicable requirements of 40 CFR 60 Subpart Kb, *“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”*.
21. The boilers are subject to the applicable requirements of 40 CFR 60 Subpart Dc, *“Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units”*.
22. The boilers shall be operated as gas-fired boilers, as defined in §63.11237, so as not to be subject to the requirements of 40 CFR 63 Subpart JJJJJ, *“National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources”* as per §63.11195(e). These boilers may burn only natural gas, except during periods of natural gas curtailment or up to 48 hours per year for maintenance and testing purposes, during which No. 2 fuel oil may be burned.
23. The boilers are subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.01(1), *“Control of Particulate Emissions – Visible Emissions”*.
24. The boilers are subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.03(1), *“Control of Particulate Emissions – Fuel Burning Equipment”*.
25. The boilers are subject to the applicable requirements of ADEM Admin. Code r. 335-3-5-.01(1), *“Control of Sulfur Compound Emissions – Fuel Combustion”*.
26. Facility-wide emissions of volatile organic compounds (VOC) shall not exceed 99.0 tons in any consecutive twelve (12) month period.
27. Facility-wide emissions of particulate matter (PM/PM₁₀) shall not exceed 99.0 tons in any consecutive twelve (12) month period.
28. Facility-wide emissions of sulfur dioxide (SO₂) shall not exceed 99.0 tons in any consecutive twelve (12) month period.
29. Facility-wide emissions of nitrogen oxide (NO_x) shall not exceed 99.0 tons in any consecutive twelve (12) month period.
30. Facility-wide emissions of carbon monoxide (CO) shall not exceed 99.0 tons in any consecutive twelve (12) month period.
31. Combined NO_x emissions from all combustion sources included in Synthetic Minor Operating Permits Nos. 702-0010-X008 and –X018 shall not exceed 94.0 TPY in any consecutive twelve (12) month period.

PERMIT NO. 702-0010-X018

32. Combined PM/PM₁₀ emissions from all combustion sources included in Synthetic Minor Operating Permits Nos. 702-0010-X008 and –X018 shall not exceed 69.0 TPY in any consecutive twelve (12) month period.
33. Combined CO emissions from all combustion sources included in Synthetic Minor Operating Permits Nos. 702-0010-X008 and –X018 shall not exceed 99.0 TPY in any consecutive twelve (12) month period.
34. Combined SO₂ emissions from all combustion sources included in Synthetic Minor Operating Permits Nos. 702-0010-X008 and –X018 shall not exceed 85.0 TPY in any consecutive twelve (12) month period.
35. Combined natural gas usage shall not exceed 2,357,142,857 scf for all combustion sources included in Synthetic Minor Operating Permits Nos. 702-0010-X008 and –X018 in any consecutive twelve month (12) month period.
36. Combustion emissions from Boiler No. 11 shall not exceed the following:

Pollutant	Fuel Type	
	NG (lb/10 ⁶ scf)	No. 2 FO (lb/10 ³ gal)
NO _x	100	20
CO	84	5
PM/PM ₁₀	7.6	2
SO ₂	0.6	142S ¹

¹ S indicates the weight percent of sulfur in the oil should be multiplied by the value given. For example, if the fuel is 1% sulfur, then S = 1.

37. Combustion emissions from Boilers No. 12-16 shall not exceed the following:

Pollutant	Fuel Type	
	NG (lb/10 ⁶ scf)	No. 2 FO (lb/10 ³ gal)
NO _x	32	20
CO	84	5
PM/PM ₁₀	7.6	2
SO ₂	0.6	142S ¹

¹ S indicates the weight percent of sulfur in the oil should be multiplied by the value given. For example, if the fuel is 1% sulfur, then S = 1.

PERMIT NO. 702-0010-X018

38. Only ultra-low sulfur No. 2 fuel oil, with a sulfur content not to exceed 0.0015% by weight as determined by procedures found in ASTM D129-00 or an equivalent method as approved by the Department, shall be burned by the boilers.
39. The opacity of emissions from these boilers shall not exceed twenty (20%) percent opacity on a six (6) minute average, except for one six (6) minute period per sixty (60) minute period of not more than forty (40%) percent opacity.
40. When burning fuel oil, the opacity from these boilers shall not exceed twenty (20%) percent opacity on a six (6) minute average, except for one six (6) minute period per hour of not more than twenty seven (27%) percent opacity.
41. If testing is required, the particulate matter (PM/PM₁₀) emissions, including both filterable and condensable particulate, shall be determined by Method 5 of 40 CFR 60, Appendix A, and Method 202 of 40 CFR 51, Appendix M, or by another method approved by the Department.
42. If testing is required, the sulfur dioxide (SO₂) emission shall be determined by Method 6 of 40 CFR 60, Appendix A, or by another method approved by the Department.
43. If testing is required, the nitrogen oxide (NO_x) emissions shall be determined by Method 7 of 40 CFR 60, Appendix A, or by another method approved by the Department.
44. If testing is required, visible emissions shall be determined by Method 9 of 40 CFR 60, Appendix A.
45. If testing is required, the carbon monoxide (CO) emissions shall be determined by Method 10 or 10B of 40 CFR 60, Appendix A, or by another method approved by the Department.
46. An instantaneous visible emissions check shall be conducted daily for any boiler burning fuel oil. If any visible emissions are observed, a visible emissions observation (VEO) shall be conducted according to Method 9 for a minimum of twelve (12) minutes.
47. Records shall be maintained of the sulfur content of any No. 2 fuel oil burned in these boilers.
48. If utilized, fuel oil supplier certificates shall contain the name of the oil supplier and a statement from the oil supplier that the oil complies with the sulfur content limit.
49. Records shall be maintained of the monthly and twelve (12) month rolling total of each fuel burned in these boilers.
50. Records shall be maintained of the twelve (12) month rolling total of NO_x, PM/PM₁₀, CO, and SO₂ emissions from all combustion sources included in Synthetic Minor Operating Permits Nos. 702-0010-X008 and -X018, updated on a monthly basis.

PERMIT NO. 702-0010-X018

51. Annual NO_x emissions from natural gas combustion from Boiler No. 11, as determined on a rolling twelve (12) month total, shall be calculated as follows:

$$\frac{\text{Tons NO}_x}{\text{12-month period}} = \frac{100 \text{ lb}}{10^6 \text{ scf}} * \frac{X \text{ scf}}{\text{12-month period}} * \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where X = recorded natural gas combustion during the 12-month period.

52. Annual NO_x emissions from natural gas combustion from Boilers No. 12-16, as determined on a rolling twelve (12) month total, shall be calculated as follows:

$$\frac{\text{Tons NO}_x}{\text{12-month period}} = \frac{32 \text{ lb}}{10^6 \text{ scf}} * \frac{X \text{ scf}}{\text{12-month period}} * \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where X = recorded natural gas combustion during the 12-month period.

53. Annual PM/PM₁₀ emissions from natural gas combustion, as determined on a rolling twelve (12) month total, shall be calculated as follows:

$$\frac{\text{Tons PM/PM}_{10}}{\text{12-month period}} = \frac{7.6 \text{ lb}}{10^6 \text{ scf}} * \frac{X \text{ scf}}{\text{12-month period}} * \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where X = recorded natural gas combustion during the 12-month period.

54. Annual CO emissions from natural gas combustion, as determined on a rolling twelve (12) month total, shall be calculated as follows:

$$\frac{\text{Tons CO}}{\text{12-month period}} = \frac{84 \text{ lb}}{10^6 \text{ scf}} * \frac{X \text{ scf}}{\text{12-month period}} * \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where X = recorded natural gas combustion during the 12-month period.

55. Annual SO₂ emissions from natural gas combustion, as determined on a rolling twelve (12) month total, shall be calculated as follows:

$$\frac{\text{Tons CO}}{\text{12-month period}} = \frac{0.6 \text{ lb}}{10^6 \text{ scf}} * \frac{X \text{ scf}}{\text{12-month period}} * \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where X = recorded natural gas combustion during the 12-month period.

56. Annual NO_x emissions from No. 2 fuel oil combustion, as determined on a rolling twelve (12) month total, shall be calculated as follows:

$$\frac{\text{Tons NO}_x}{\text{12-month period}} = \frac{20 \text{ lb}}{10^3 \text{ gallons}} * \frac{X \text{ gallons}}{\text{12-month period}} * \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where X = recorded FO combustion during the 12-month period.

57. Annual PM/PM₁₀ emissions from No. 2 fuel oil combustion, as determined on a rolling twelve (12) month total, shall be calculated as follows:

$$\frac{\text{Tons PM/PM}_{10}}{\text{12-month period}} = \frac{2 \text{ lb}}{10^3 \text{ gallons}} * \frac{X \text{ gallons}}{\text{12-month period}} * \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where X = recorded FO combustion during the 12-month period.

58. Annual CO emissions from No. 2 fuel oil combustion, as determined on a rolling twelve (12) month total, shall be calculated as follows:

$$\frac{\text{Tons CO}}{\text{12-month period}} = \frac{5 \text{ lb}}{10^3 \text{ gallons}} * \frac{X \text{ gallons}}{\text{12-month period}} * \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where X = recorded FO combustion during the 12-month period.

59. Annual SO₂ emissions from No. 2 fuel oil combustion, as determined on a rolling twelve (12) month total, shall be calculated as follows:

$$\frac{\text{Tons CO}}{\text{12-month period}} = \frac{142*S}{10^3 \text{ gallons}} * \frac{X \text{ gallons}}{\text{12-month period}} * \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where S = percent sulfur in the fuel oil and X = recorded FO combustion during the 12-month period.

60. All records shall be maintained in a permanent form suitable for inspection for at least five (5) years following the date of generation.

PERMIT NO. 702-0010-X018

61. Initial notification of the date of construction and actual startup of any new boiler shall be submitted to the Department in accordance with 40 CFR 60.48c(a).
62. Semiannual boiler reports shall be submitted to the Department no later than the 30th day of the month following each six-month reporting period (January 1st through June 30th and July 1st through December 31st) in accordance with 40 CFR 60.48c(e), (f), (g), and (j).
63. A semiannual monitoring report shall be submitted to the Department no later than the 30th day of the month following each six-month reporting period (January 1st through June 30th and July 1st through December 31st). This report shall include any deviations from permit requirements during that period and shall be certified by a responsible official as to its truth, accuracy, and completeness. If no deviations occurred during that period, a written statement stating as such shall be submitted.

DRAFT

SYNTHETIC MINOR OPERATING PERMIT

PERMITTEE: TYSON FARMS, INC.
FACILITY NAME: RIVER VALLEY INGREDIENTS – HANCEVILLE
LOCATION: HANCEVILLE, ALABAMA

<u>PERMIT NUMBER</u>	<u>DESCRIPTION OF EQUIPMENT, ARTICLE OR DEVICE</u>
702-0010-X008	Rendering Plant (Plant B) with two (2) 55,000 SCFM Regenerative Thermal Oxidizers (RTOs) and one (1) 110,000 ACFM Pre-Scrubber, two (2) 100,000 ACFM Packed Bed Scrubbers, 50,000 ACFM Packed Bed Scrubber, 113,000 ACFM Packed Bed Scrubber, 150,000 ACFM Cross Flow Scrubber, 12,000 ACFM Venturi Scrubber, 15,000 ACFM Venturi Scrubber, and Two (2) 28,000 CFM Feather Dryers with a Cyclone and Spray Tower Each; Biofilter as Backup

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, Ala. Code §§22-28-1 to 22-28-23, as amended, the Alabama Environmental Management Act, Ala. Code §§22-22A-1 to 22-22A-17, as amended, and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

ISSUANCE DATE: DRAFT

**RIVER VALLEY INGREDIENTS – HANCEVILLE
HANCEVILLE, ALABAMA
(PERMIT NO.: 702-0010-X008)
PROVISOS**

1. This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.
2. This permit is not transferable. Upon sale or legal transfer, the new owner or operator must apply for a permit within thirty (30) days.
3. A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants.
4. The permittee shall keep this permit under file or on display at all times at the site where the facility for which the permit is issued is located and shall make the permit readily available for inspection by any or all persons who may request to see it.
5. Each point of emission, which requires testing, will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.
6. All air pollution control equipment shall be operated at all times while this process is operational. In the event of scheduled maintenance, unscheduled maintenance, or a breakdown of the pollution control equipment, the process shall be shutdown as expeditiously as possible (unless this act and subsequent re-start would clearly cause greater emissions than continuing operations of the process for a short period). The Department shall be notified of all such events **that exceed 1 hour** within 24 hours. The notification shall include all pertinent facts, including the duration of the process operating without the control device and the level of excess emissions which have occurred. Records of all such events, regardless of reporting requirements, shall be made and maintained for a period of five years. These records shall be available for inspection.
7. In the event there is a breakdown of air pollution control or process equipment in such a manner as to cause increased emission of air contaminants for a period greater than **1 hour**, the person responsible for such equipment shall notify the Air Division within an additional 24 hours and provide a statement giving all pertinent facts, including the duration of the breakdown. The Air Division shall be notified when the breakdown has been corrected.
8. This process, including all air pollution control devices and capture systems for which this permit is issued, shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is

PERMIT NO. 702-0010-X008

properly operated and maintained so as to minimize the emission of air contaminants shall be established.

9. This permit expires and the application is cancelled if construction has not begun within 24 months of the date of issuance of the permit.
10. On completion of construction of the device(s) for which this permit is issued, written notification of the fact is to be submitted to the Chief of the Air Division. The notification shall indicate whether the device(s) was constructed as proposed in the application. The device(s) shall not be operated until authorization to operate is granted by the Chief of the Air Division. Failure to notify the Chief of the Air Division of completion of construction and/or operation without authorization could result in revocation of this permit.
11. Submittal of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require stack emission testing at any time.
12. Additions and revisions to the conditions of this Permit will be made, if necessary, to ensure that the Department's air pollution control rules and regulations are not violated.
13. Nothing in this permit or conditions thereto shall negate any authority granted to the Air Division pursuant to the Alabama Environmental Management Act or regulations issued thereunder.
14. This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.
15. The Air Division must be notified in writing at least 10 working days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.

To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:

- (a) The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.
- (b) A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedure requires probe cleaning).

PERMIT NO. 702-0010-X008

- (c) A description of the process(es) to be tested, including the feed rate, any operating parameter used to control or influence the operations, and the rated capacity.
- (d) A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.

A pretest meeting may be held at the request of the source owner or the Department. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.

All test reports must be submitted to the Air Division within forty five (45) days of the actual completion of the test, unless an extension of time is specifically approved by the Air Division.

16. **Within 180 days of initial startup**, emission tests are to be conducted by persons familiar with and using the EPA Sampling Train and Test Procedure as described in the Code of Federal Regulations, Title 40, Part 60, for the following pollutants from the RTO stacks. Written tests results are to be reported to the Air Division within 45 days of completion of testing.

Particulates	(X)	Carbon Monoxide	()
Sulfur Dioxide	(X)	Nitrogen Oxides	(X)
Volatile Organic Compounds	(X)	Visible Emissions	()

17. Emissions tests for the RTO stacks are to be conducted for the following pollutants at intervals not to exceed **five (5) years** following the date of initial compliance testing. All test reports must be submitted to the Air Division within 45 days of completion of testing.

Particulates	(X)	Carbon Monoxide	()
Sulfur Dioxide	(X)	Nitrogen Oxides	(X)
Volatile Organic Compounds	(X)	Visible Emissions	()

18. Records will be maintained of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the process equipment and any malfunction of the air pollution control equipment. These records will be kept in a permanent form suitable for inspection and will be retained for at least two years following the date of each occurrence.

19. Precautions shall be taken to minimize fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.

Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:

- a. by the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;

PERMIT NO. 702-0010-X008

- b. by reducing the speed of vehicular traffic to a point below that at which dust emissions are created;
- c. by paving;
- d. by the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;

Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.

- 20. The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.
- 21. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.
- 22. These units are subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.01(1), "*Control of Particulate Emissions – Visible Emissions*".
- 23. These units are subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.04(1), "*Control of Particulate Emissions – Process Industries – General*".
- 24. The opacity of emissions from these units shall not exceed twenty (20%) percent opacity on a six (6) minute average, except for one six (6) minute period per sixty (60) minute period of not more than forty (40%) percent opacity.
- 25. Particulate emissions from these sources shall not exceed the allowable set by ADEM Admin. Code r. 335-3-4-.04(1).
- 26. Facility-wide emissions of volatile organic compounds (VOC) shall not exceed 99.0 tons in any consecutive twelve (12) month period.
- 27. Facility-wide emissions of particulate matter (PM/PM₁₀) shall not exceed 99.0 tons in any consecutive twelve (12) month period.
- 28. Facility-wide emissions of sulfur dioxide (SO₂) shall not exceed 99.0 tons in any consecutive twelve (12) month period.
- 29. Facility-wide emissions of nitrogen oxide (NO_x) shall not exceed 99.0 tons in any consecutive twelve (12) month period.

PERMIT NO. 702-0010-X008

- 30. Facility-wide emissions of carbon monoxide (CO) shall not exceed 99.0 tons in any consecutive twelve (12) month period.
- 31. Combined natural gas usage shall not exceed 2,357,142,857 scf for all combustion sources included in Synthetic Minor Operating Permits Nos. 702-0010-X008 and –X018 in any consecutive twelve (12) month period.
- 32. Combined NO_x emissions from the RTO stacks shall not exceed 2.36 lb/hr when the RTOs and pre-scrubber are operating.
- 33. Combined VOC emissions from the RTO stacks shall not exceed 4.50 lb/hr when the RTOs and pre-scrubber are operating.
- 34. Combined PM/PM₁₀ emissions from the RTO stacks shall not exceed 5.88 lb/hr when the RTOs and pre-scrubber are operating.
- 35. Combined SO₂ emissions from the RTO stacks shall not exceed 2.20 lb/hr when the RTOs and pre-scrubber are operating.
- 36. Combustion emissions from the RTOs and dryers shall not exceed the following:

Pollutant	lb/10⁶ scf	lb/MMBtu
NO _x	100 ¹	0.08 ¹
CO	84	
PM/PM ₁₀	7.6	
SO ₂	0.6	

¹ 100 lb/MMscf is the NO_x emission factor for the dryers; 0.08 lb/MMBtu is the factor for the RTOs

- 37. Combined NO_x emissions from fuel combustion from all combustion sources included in Synthetic Minor Operating Permits Nos. 702-0010-X008 and –X018 shall not exceed 94.0 TPY in any consecutive twelve month (12) month period.
- 38. Combined PM/PM₁₀ emissions from fuel combustion from all sources included in Synthetic Minor Operating Permits Nos. 702-0010-X008 and –X018 shall not exceed 69.0 TPY in any consecutive twelve month (12) month period.
- 39. Combined CO emissions from fuel combustion from all combustion sources included in Synthetic Minor Operating Permits Nos. 702-0010-X008 and –X018 shall not exceed 99.0 TPY in any consecutive twelve month (12) month period.
- 40. Combined SO₂ emissions from fuel combustion from all combustion sources included in Synthetic Minor Operating Permits Nos. 702-0010-X008 and –X018 shall not exceed 85.0 TPY in any consecutive twelve month (12) month period.

PERMIT NO. 702-0010-X008

41. The temperature in the combustion chamber of each RTO shall not drop 50°F below the average temperature established during the most recent compliance test while that RTO is operating. If the temperature does drop below this level, corrective action shall be initiated to bring the temperature within an acceptable range.
42. The liquid flow rate in the pre-scrubber shall not drop below the average flow rate established during the most recent compliance test. If the flow rate does drop below this level, corrective action shall be initiated to bring the flow rate within an acceptable range.
43. The pressure differential across the pre-scrubber shall not drop below 0.5 in. H₂O or exceed 7.0 in. H₂O. If the pressure differential deviates from this range, corrective action shall be initiated to bring the pressure differential within an acceptable range.
44. The facility is limited to the use of natural gas only as a fuel for the RTOs and dryers. Any plans to change the type of fuel must receive prior approval from the Department.
45. The RTOs may be bypassed for up to 200 hours per year for maintenance purposes, etc., during which emissions from Plant B shall be vented to the biofilter.
46. The pre-scrubber may be bypassed for up to 200 hours per year for maintenance purposes, etc., during which emissions from Plant B shall be vented directly to the RTOs.
47. When emissions are vented to the biofilter, the pressure differential across the biofilter shall not drop below 0.1 in. H₂O or exceed 10.0 in. H₂O. If the pressure differential deviates from this range, corrective action shall be initiated to bring the pressure differential within an acceptable range.
48. All fugitive odorous emissions from the Plant B building shall be scrubbed.
49. A minimum of three (3) gallons of React-Ox per scrubber per day shall be used in the scrubber sumps in the 100,000 ACFM Packed Bed Scrubbers, 113,000 ACFM Packed Bed Scrubber, and the 150,000 ACFM Packed Bed Scrubber. A minimum of two (2) gallons of React-Ox per day shall be used in the scrubber sump in the 50,000 ACFM Packed Bed Scrubber.
50. The paved/concrete area where raw materials are received shall be cleaned periodically.
51. If testing is required, the particulate matter (PM/PM₁₀) emissions, including both filterable and condensable particulate, shall be determined by Method 5 of 40 CFR 60, Appendix A, and Method 202 of 40 CFR 51, Appendix M, or by another method approved by the Department.
52. If testing is required, the sulfur dioxide (SO₂) emission shall be determined by Method 6 of 40 CFR 60, Appendix A, or by another method approved by the Department.

PERMIT NO. 702-0010-X008

- 53. If testing is required, the nitrogen oxide (NO_x) emissions shall be determined by Method 7 of 40 CFR 60, Appendix A, or by another method approved by the Department.
- 54. If testing is required, visible emissions shall be determined by Method 9 of 40 CFR 60, Appendix A.
- 55. If testing is required, the carbon monoxide (CO) emissions shall be determined by Method 10 or 10B of 40 CFR 60, Appendix A, or by another method approved by the Department.
- 56. If testing is required, the volatile organic compound (VOC) emissions shall be determined by Methods 18, 25, 25A, or 25B of 40 CFR 60, Appendix A, or by another method approved by the Department.
- 57. A monitoring device that continuously measures and records the combustion chamber temperature of each RTO shall be installed, calibrated, maintained, and operated according to the manufacturer's specifications.
- 58. A pressure gauge shall be installed across the pre-scrubber to determine the pressure differential across the control device. Pressure differential readings shall be recorded at least once per week.
- 59. A pressure gauge shall be installed on the biofilter to determine the pressure differential across the control device. Pressure differential readings shall be recorded at least once per week when emissions are vented to the biofilter.
- 60. Records shall be maintained of the monthly and twelve (12) month rolling totals of fuel combusted in each combustion device.
- 61. Records shall be maintained of the twelve (12) month rolling total of NO_x, PM/PM₁₀, CO, and SO₂ emissions from all combustion sources included in Synthetic Minor Operating Permits Nos. 702-0010-X008 and -X018, updated on a monthly basis.
- 62. Annual NO_x emissions from fuel combustion for the dryers, as determined on a rolling twelve (12) month total, shall be calculated as follows:

$$\frac{\text{Tons NO}_x}{\text{12-month period}} = \frac{100 \text{ lb}}{10^6 \text{ scf}} * \frac{X \text{ scf}}{\text{12-month period}} * \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where X = recorded natural gas combustion during the 12-month period.

PERMIT NO. 702-0010-X008

63. Annual NO_x emissions from fuel combustion for the RTOs, as determined on a rolling twelve (12) month total, shall be calculated as follows:

$$\frac{\text{Tons NO}_x}{\text{12-month period}} = \frac{0.08 \text{ lb}}{10^6 \text{ Btu}} * \frac{X \text{ Btu}}{\text{12-month period}} * \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where X = recorded natural gas combustion during the 12-month period.

64. Annual PM/PM₁₀ emissions from fuel combustion, as determined on a rolling twelve (12) month total, shall be calculated as follows:

$$\frac{\text{Tons PM/PM}_{10}}{\text{12-month period}} = \frac{7.6 \text{ lb}}{10^6 \text{ scf}} * \frac{X \text{ scf}}{\text{12-month period}} * \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where X = recorded natural gas combustion during the 12-month period.

65. Annual CO emissions from fuel combustion, as determined on a rolling twelve (12) month total, shall be calculated as follows:

$$\frac{\text{Tons CO}}{\text{12-month period}} = \frac{84 \text{ lb}}{10^6 \text{ scf}} * \frac{X \text{ scf}}{\text{12-month period}} * \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where X = recorded natural gas combustion during the 12-month period.

66. Annual SO₂ emissions from fuel combustion, as determined on a rolling twelve (12) month total, shall be calculated as follows:

$$\frac{\text{Tons CO}}{\text{12-month period}} = \frac{0.6 \text{ lb}}{10^6 \text{ scf}} * \frac{X \text{ scf}}{\text{12-month period}} * \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

Where X = recorded natural gas combustion during the 12-month period.

67. Records shall be maintained indicating the time, duration, and reason whenever the RTOs or pre-scrubber are bypassed.

68. A record of the inlet gas temperature to the biofilter shall be maintained on a continuous chart recorder when emissions are vented to the biofilter. An audible alarm must be installed which will respond if the inlet temperature exceeds 130°F. Records shall be

PERMIT NO. 702-0010-X008

maintained of any corrective actions taken to reduce the inlet gas temperature to an appropriate level.

69. Records of the liquid flow rates for the scrubbers shall be maintained. Readings shall be recorded at least once per eight-hour shift.
70. Records shall be maintained documenting the amount of React-Ox used each day in each scrubber.
71. A record shall be maintained of all problems which affect the odor reducing capability of the air pollution control equipment.
72. All records shall be maintained in a permanent form suitable for inspection for at least five (5) years following the date of generation.
73. A semiannual report shall be submitted to the Department by the 30th day following the end of each six-month period (January 1st through June 30th and July 1st through December 31st). This report shall include any deviations from permit requirements during that period and shall be certified by a responsible official as to its truth, accuracy, and completeness. If no deviations occurred during that period, a written statement stating as such shall be submitted.