

ADEQ MINOR SOURCE AIR PERMIT

Permit No. : 2058-AR-1

IS ISSUED TO:

Pet Solutions, LLC
RR 1, Box 306, Mt. Tabor Road
Danville, AR 72833
Yell County
AFIN: 75-00333

THIS PERMIT IS PET SOLUTIONS, LLC'S AUTHORITY TO CONSTRUCT, MODIFY, OPERATE, AND/OR MAINTAIN THE EQUIPMENT AND/OR FACILITY IN THE MANNER AS SET FORTH IN THE DEPARTMENT'S MINOR SOURCE AIR PERMIT AND THE APPLICATION. THIS PERMIT IS ISSUED PURSUANT TO THE PROVISIONS OF THE ARKANSAS WATER AND AIR POLLUTION CONTROL ACT (ARK. CODE ANN. SEC. 8-4-101 *ET SEQ.*) AND THE REGULATIONS PROMULGATED THEREUNDER, AND IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

Michael Bonds
Chief, Air Division

Date

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List of Acronyms and Abbreviations

A.C.A.	Arkansas Code Annotated
AFIN	ADEQ Facility Identification Number
CFR	Code of Federal Regulations
CO	Carbon Monoxide
HAP	Hazardous Air Pollutant
lb/hr	Pound Per Hour
No.	Number
NO _x	Nitrogen Oxide
PM	Particulate Matter
PM10	Particulate Matter Smaller Than Ten Microns
SO ₂	Sulfur Dioxide
Tpy	Tons Per Year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

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Section I: FACILITY INFORMATION

PERMITTEE: Pet Solutions, LLC

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PERMIT NUMBER: 2058-AR-1

FACILITY ADDRESS: 10511 Gauge Road
Danville, AR 72833

MAILING ADDRESS P.O. Box 806
Dardenelle, AR 72834

COUNTY: Yell

CONTACT POSITION: Lewis Gray, Operations Manager

TELEPHONE NUMBER: (479) 576-2050

REVIEWING ENGINEER: Michael H. Watt

UTM North South (Y): Zone 15: 3899 km

UTM East West (X): Zone 15: 486 km

Section II: INTRODUCTION

Summary of Permit Activity

Pet Solutions, LLC operates a poultry by-product plant near Danville. The purpose of the rendering facility is to transform inedible meat processing by-products from poultry processors into grease/oils and protein solids (bone meal) which can be used as ingredients in the animal feed processing industry. This modification removes one Natural Gas Boiler (SN-02) and installs a new Natural Gas Boiler (SN-05).

Process Description

The “primary” liquid feedstock is trucked to the plant in various sized tanker trucks and open top trailers. Upon arriving at the facility, the material is received in the “high building” and dumped into the receiving bin. The raw material is then transported directly to the cookers. The composition of the combined materials processed at this facility is typically 15% fat (tallow/grease), 20% protein solids, and 65% moisture by weight.

The “cooking” process is performed in five to eight horizontal, cylindrical, non-pressurized vessels equipped with a steam jacket and agitator. The steam is provided by two natural gas boilers (SN-01 and SN-05) located in the boiler building. Materials placed in the cookers are dehydrated thereby facilitating the separation of the fats and proteins. Cooking time is dependent upon various factors that include the consistency of the waste and ambient temperatures inside the plant.

Vapor emissions vented from the cookers pass through a condensate knockout (cyclone) and then enter the multistage scrubber (SN-03) that is located on the processing facility roof. Two 1,000 gallon tanks located in the boiler room provide either a sodium hypochlorite or chlorine dioxide solution to the scrubber for odor abatement. Each tank is supplied with the oxidizing solution to maintain a minimum of 200 ORP reading. Then, this solution is supplied to two of the three scrubber stages. In addition, the main processing building contains various air duct drops to the cooker and screw-press areas that route plant ventilation emissions through the scrubber system.

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Upon completion of the cooking process, material from the batch cookers is dumped into a percolator drain pan. The percolator drain pan contains a screen that separates the liquid fat from the protein solids. From the drain pan, the protein solids, which still contain about 25% fat, are conveyed to a press. The press completes the separation of fat from solids, and yields protein solids that have a residual fat content of about 10%. These solids are then ground and screened to produce protein (bone) meal. The meal is stored in holding bins that are located adjacent to the ship-out area (SN-04). The fat from both the press and the drain pan is pumped to the two grease storage tanks for shipping. Both grease and bone meal are stored and shipped from the load-out area located on the southeast portion of the rendering facility.

Regulations

The following table contains the regulations applicable to this permit.

Regulations
Arkansas Air Pollution Control Code, Regulation 18, effective February 15, 1999
New Source Performance Standards, 40 CFR, Part 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

The following table is a summary of emissions from the facility. This table, in itself, is not an enforceable condition of the permit.

Total Allowable Emissions

TOTAL ALLOWABLE EMISSIONS		
Pollutant	Emission Rates	
	lb/hr	tpy
PM	0.6	1.9
PM ₁₀	0.6	1.9
SO ₂	0.2	0.2
VOC	0.6	1.7
CO	4.5	19.3
NO _x	5.3	23.0

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Section III: PERMIT HISTORY

Permit #2058-A was issued to Pet Solutions, LLC on March 19, 2004. This facility was previously owned and operated by J & B Farms. In early 2002, J & B Farms ceased operation and voided the existing air permit. This permit allowed the new operator to reopen the facility and begin production. The facility was to be operated in the same manner as previously permitted without any new equipment.

Section IV: EMISSION UNIT INFORMATION

Specific Conditions

1. The permittee shall not exceed the emission rates set forth in the following table.
 [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
01	Natural Gas Boiler (20.0 MMBTU/hr)	PM	0.2	0.7
		PM ₁₀	0.2	0.7
		SO ₂	0.1	0.1
		VOC	0.2	0.5
		CO	1.7	7.2
		NO _x	2.0	8.6
02	Natural Gas Boiler (13.4 MMBTU/hr)	Removed From Service		
03	Horizontal Counterflow Wet Scrubber	VOC	0.1	0.4
04	Load-Out Shipping	PM	0.1	0.1
		PM ₁₀	0.1	0.1
05	Natural Gas Boiler (33.48 MMBTU/hr)	PM	0.3	1.1
		PM ₁₀	0.3	1.1
		SO ₂	0.1	0.1
		VOC	0.3	0.8
		CO	2.8	12.1
		NO _x	3.3	14.4

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2. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Limit	Regulatory Citation
01	5%	§18.501 of Regulation #18
04	5%	§18.501 of Regulation #18
05	5%	§18.501 of Regulation #18

3. The permittee shall not cause or permit the emission of air contaminants, including odors or water vapor and including an air contaminant whose emission is not otherwise prohibited by Regulation #18, if the emission of the air contaminant constitutes air pollution within the meaning of A.C.A. §8-4-303. [§18.901 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
4. The permittee will not conduct operations in such a manner as to unnecessarily cause air contaminants and other pollutants to become airborne. [§18.801 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
5. The permittee shall immediately clean any spills to insure that nuisance odors do not leave the property boundary. [§18.901 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
6. The permittee shall process only poultry by-products. The permittee may also process whole hogs which must be processed immediately upon arrival at the facility. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
7. All rendering raw material received at the plant site shall be placed in the rendering process building immediately or shall not be stored outside for a period longer than 18 hours, unless this material is stored under refrigerated conditions. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
8. The scrubber affiliated with this plant shall be maintained and operated in serviceable condition as prescribed by the manufacturer and demonstrated during operation of this plant. [§18.1104 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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9. The permittee shall use only natural gas to fuel the boilers. [§18.1004 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
10. The Oxidation Reduction Potential (ORP) of the scrubber shall be maintained at a minimum of 200. [§18.1004 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
11. To demonstrate compliance with Specific Condition #10, the permittee shall monitor and record the ORP once every 8 hours during operation. These records shall be maintained on-site and shall be provided to Department personnel upon request. [§18.1004 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
12. The permittee shall maintain a negative pressure inside the building. [§18.1004 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
13. To demonstrate compliance with Specific Condition #12, the permittee shall test the building pressure once a month. This test shall consist of a smoke test, anemometer, or other test to demonstrate that the airflow is into the building at all openings except the scrubber discharge. These records shall be maintained on-site and shall be provided to Department personnel upon request. [§18.1004 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
14. All doors, windows, and other openings to the facility shall be kept closed when not in use. [§18.1004 of Regulation #18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
15. The permittee shall submit notification of the date of construction, anticipated startup, and actual startup of the Natural Gas Boiler (SN-05). [60.48c(a) of 40 CFR Part 60, Subpart Dc and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
16. The permittee shall maintain records of the amount of natural gas burned in SN-05 on a monthly basis. This shall be done by a separate flow meter or as a percentage of the total gas used at the facility based on a BTU rating. These records shall be kept on-site for a period of 2 years following the date of each record. [60.48c(g) and (i) of 40 CFR Part 60, Subpart Dc and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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Section V: INSIGNIFICANT ACTIVITIES

The following sources are insignificant activities. Any activity that has a state or federal applicable requirement shall be considered a significant activity even if this activity meets the criteria of §304 of Regulation 26 or listed in the table below. Insignificant activity determinations rely upon the information submitted by the permittee in an application dated September 21, 2004.

Description	Category
There were none.	

Section VI: GENERAL CONDITIONS

1. Any terms or conditions included in this permit that specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.). Any terms or conditions included in this permit that specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute.
2. This permit does not relieve the owner or operator of the equipment and/or the facility from compliance with all applicable provisions of the Arkansas Water and Air Pollution Control Act and the regulations promulgated under the Act. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
3. The permittee will notify the Department in writing within thirty (30) days after commencement of construction, completion of construction, first operation of equipment and/or facility, and first attainment of the equipment and/or facility target production rate. [§19.704 of Regulation #19 and/or A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
4. Construction or modification must commence within eighteen (18) months from the date of permit issuance. [§19.410(B) of Regulation #19 and/or §18.309(B) of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
5. The permittee must keep records for five years to enable the Department to determine compliance with the terms of this permit such as hours of operation, throughput, upset conditions, and continuous monitoring data. The Department may use the records, at the discretion of the Department, to determine compliance with the conditions of the permit. [§19.705 of Regulation #19 and/or §18.1004 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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6. A responsible official must certify any reports required by any condition contained in this permit and submit any reports to the Department at the address below. [§19.705 of Regulation #19 and/or §18.1004 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Arkansas Department of Environmental Quality
Air Division
ATTN: Compliance Inspector Supervisor
Post Office Box 8913
Little Rock, AR 72219

7. The permittee will test any equipment scheduled for testing, unless stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) newly constructed or modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start up of the permitted source or (2) existing equipment already operating according to the time frames set forth by the Department. The permittee must notify the Department of the scheduled date of compliance testing at least fifteen (15) days in advance of such test. The permittee must submit compliance test results to the Department within thirty (30) days after the completion of testing. [§19.702 of Regulation #19 and/or §18.1002 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
8. The permittee will provide: [§19.702 of Regulation #19 and/or §18.1002 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- a. Sampling ports adequate for applicable test methods
 - b. Safe sampling platforms
 - c. Safe access to sampling platforms
 - d. Utilities for sampling and testing equipment
9. The permittee will operate equipment, control apparatus and emission monitoring equipment within their design limitations. The permittee will maintain in good condition at all times equipment, control apparatus and emission monitoring equipment. [§19.303 of Regulation #19 and/or §18.1104 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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10. If the permittee exceeds an emission limit established by this permit, the permittee will be deemed in violation of said permit and will be subject to enforcement action. The Department may forego enforcement action for emissions exceeding any limits established by this permit provided the following requirements are met: [§19.601 of Regulation #19 and/or §18.1101 of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
 - a. The permittee demonstrates to the satisfaction of the Department that the emissions resulted from an equipment malfunction or upset and are not the result of negligence or improper maintenance, and the permittee took all reasonable measures to immediately minimize or eliminate the excess emissions.
 - b. The permittee reports the occurrence or upset or breakdown of equipment (by telephone, facsimile, or overnight delivery) to the Department by the end of the next business day after the occurrence or the discovery of the occurrence.
 - c. The permittee must submit to the Department, within five business days after the occurrence or the discovery of the occurrence, a full, written report of such occurrence, including a statement of all known causes and of the scheduling and nature of the actions to be taken to minimize or eliminate future occurrences, including, but not limited to, action to reduce the frequency of occurrence of such conditions, to minimize the amount by which said limits are exceeded, and to reduce the length of time for which said limits are exceeded. If the information is included in the initial report, the information need not be submitted again.

11. The permittee shall allow representatives of the Department upon the presentation of credentials: [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
 - a. To enter upon the permittee's premises, or other premises under the control of the permittee, where an air pollutant source is located or in which any records are required to be kept under the terms and conditions of this permit;
 - b. To have access to and copy any records required to be kept under the terms and conditions of this permit, or the Act;
 - c. To inspect any monitoring equipment or monitoring method required in this permit;
 - d. To sample any emission of pollutants; and
 - e. To perform an operation and maintenance inspection of the permitted source.

12. The Department issued this permit in reliance upon the statements and presentations made in the permit application. The Department has no responsibility for the adequacy or proper functioning of the equipment or control apparatus. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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13. The Department may revoke or modify this permit when, in the judgment of the Department, such revocation or modification is necessary to comply with the applicable provisions of the Arkansas Water and Air Pollution Control Act and the regulations promulgated the Arkansas Water and Air Pollution Control Act. [§19.410(A) of Regulation #19 and/or §18.309(A) of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
14. This permit may be transferred. An applicant for a transfer must submit a written request for transfer of the permit on a form provided by the Department and submit the disclosure statement required by Arkansas Code Annotated '8 1 106 at least thirty (30) days in advance of the proposed transfer date. The permit will be automatically transferred to the new permittee unless the Department denies the request to transfer within thirty (30) days of the receipt of the disclosure statement. The Department may deny a transfer on the basis of the information revealed in the disclosure statement or other investigation or, deliberate falsification or omission of relevant information. [§19.407(B) of Regulation #19 and/or §18.307(B) of Regulation #18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
15. This permit shall be available for inspection on the premises where the control apparatus is located. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
16. This permit authorizes only those pollutant emitting activities addressed herein. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
17. This permit supersedes and voids all previously issued air permits for this facility. [Regulation #18 and #19 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
18. The permittee must pay all permit fees in accordance with the procedures established in Regulation No. 9. [A.C.A §8-1-105(c)]

Appendix A
40 CFR 60 Subpart Dc

