

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 2058-AR-5 AFIN: 75-00051

1. PERMITTING AUTHORITY:

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

2. APPLICANT:

Pet Solutions, LLC
RR 1, Box 306, Mt. Tabor Rd. - Co. Rd. 50, 2 miles south, 1 mile west of Centerville
Danville, Arkansas 72833

3. PERMIT WRITER:

Andrea Sandage

4. PROCESS DESCRIPTION AND NAICS CODE:

NAICS Description: Rendering and Meat Byproduct Processing
NAICS Code: 311613

5. SUBMITTALS:

5/17/2010 5/24/2010 6/7/2010

6. REVIEWER'S NOTES:

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. Pet Solutions requested an authorization to allow usage of Balcone fuel cubes in the Wood Fired Boiler SN-06.

The total change in emissions for this De Minimis change includes an increase of 4.9 tpy VOC and 0.62 tpy Total HAPs.

7. COMPLIANCE STATUS:

The following summarizes the current compliance of the facility including active/pending enforcement actions and recent compliance activities and issues.

There are no known current active/pending enforcement actions or recent compliance activities related to this facility.

8. PSD APPLICABILITY:

a. Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N

b. Is the facility categorized as a major source for PSD? N
Single pollutant ≥ 100 tpy and on the list of 28 or single pollutant ≥ 250 tpy and not on list?

If yes, explain why this permit modification not PSD?

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
SN-05 and SN-06	None, Recordkeeping only	NSPS Part 60, Subpart Dc Standards of Performance for Small Industrial-Commercial-Institutional

10. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

11. MODELING:

Criteria Pollutants

Examination of the source type, location, plot plan, land use, emission parameters, and other available information indicate that modeling is not warranted at this time.

Non-Criteria Pollutants:

1st Tier Screening (PAER)

Estimated hourly emissions from the following sources were compared to the Presumptively Acceptable Emission Rate (PAER) for each compound. The Department has deemed the PAER to be the product, in lb/hr, of 0.11 and the Threshold Limit Value (mg/m³), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

Pollutant	TLV (mg/m ³)	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
Benzene	1.60	0.176	0.0638	Pass

Pollutant	TLV (mg/m ³)	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
Formaldehyde	1.50	0.165	0.2420	Fail
Phenol	19.25	2.117	0.0161	Pass
PAH 16 (POM)	0.200	0.0220	0.0616	Fail

2nd Tier Screening (PAIL)

AERMOD air dispersion modeling was performed on the estimated hourly emissions from the following sources, in order to predict ambient concentrations beyond the property boundary. The Presumptively Acceptable Impact Level (PAIL) for each compound has been deemed by the Department to be one one-hundredth of the Threshold Limit Value as listed by the ACGIH.

Pollutant	PAIL (µg/m ³) = 1/100 of Threshold Limit Value	Modeled Concentration (µg/m ³)	Pass?
Formaldehyde	15	1.9018	Pass
PAH 16 (POM)	2	0.4841	Pass

12. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01	Removed From Service				
02	Removed From Service				
03	Estimate	N/A	N/A	N/A	Just odor abatement equipment
04	AP-42	Grain Loading	None	N/A	They used Grain loading to estimate the offloading of their product which shouldn't be as dusty.

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
05	AP-42 except for NOx (see comment on this Table)	Natural Gas	None	N/A	<ul style="list-style-type: none"> Will use Landfill methane gas (emission calculation for NOx is based on an average (0.38 lb NOx /MMBTU) of a default emission factor range of 0.22 -0.54 lb NOx /MMBTU Initial performance test for NOx for the verification of the emission factors is required
06	AP-42	Wood factors	Multiclone	N/A	test will verify CO and VOC (The initial performance test was performed on April 11, 2006)
07	AP-42	Dump pit Table 9.9.1-1	None	N/A	Max raw meal processed 17,000 tons/year
	AP-42	Conveyor & Handling Table 9.9.1-2	None	N/A	
08	Estimate	N/A	Wet Scrubber	Not Rated	Wet Scrubber #2 for Odor Abatement equipment

13. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
05 (Using landfill gas)	NOx	7E	initial only	no good data available
06 (Using poultry fat or Balcone cubes)	NOx	7E	initial only for each fuel type	No data

Permit #: 2058-AR-5

AFIN: 75-00051

Page 5 of 6

14. MONITORING OR CEMS

The permittee must monitor the following parameters with CEMS or other monitoring equipment (temperature, pressure differential, etc.)

SN	Parameter or Pollutant to be Monitored	Method (CEM, Pressure Gauge, etc.)	Frequency	Report (Y/N)
N/A				

15. RECORDKEEPING REQUIREMENTS:

The following are items (such as throughput, fuel usage, VOC content, etc.) that must be tracked and recorded.

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
03 & 08	ORP	200 mA	Every 8 Hours	N
05	Natural Gas Usage	No limit	Monthly	N
06	Cardboard Poultry fat Poultry meal Sludge Balcone Cubes	15.8 tons per day 1.9 tons per day 4.8 tons per day 11.3 tons per day 12.0 tons per day	daily	N
07	Meal	3900 tons/12 consecutive month	monthly	N

16. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
SN-04	5%	§18.501 of Regulation 18	----
SN-05	5%	§18.501 of Regulation 18	----
SN-06	20%	§19.503 of Regulation 19	----
SN-07	5%	§18.501 of Regulation 18	----

Permit #: 2058-AR-5

AFIN: 75-00051

Page 6 of 6

17. DELETED CONDITIONS:

Former SC	Justification for removal
	N/A

18. GROUP A INSIGNIFICANT ACTIVITIES

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
No Insignificant Activity was reported with this modification.								

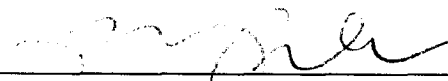
19. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

List all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
2058-AR-4

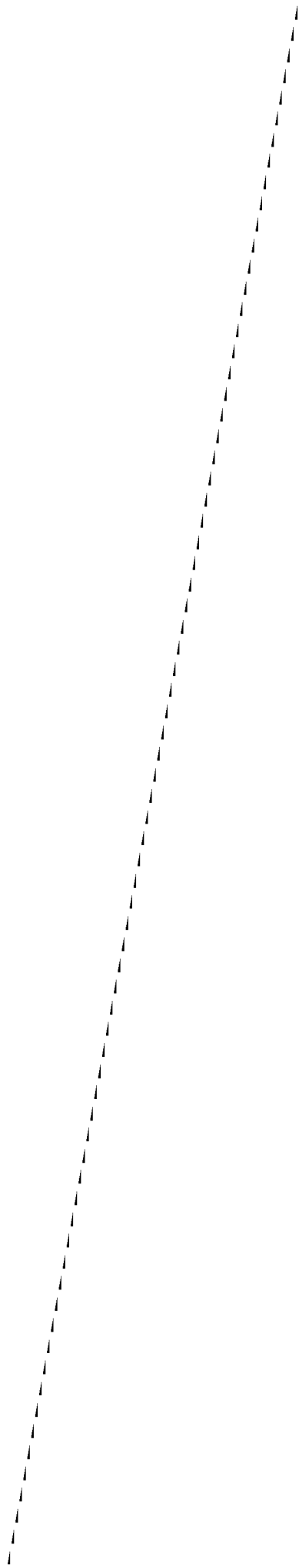
20. CONCURRENCE BY:

The following supervisor concurs with the permitting decision.



Paula Parker, P.E.

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION



Fee Calculation for Minor Source

Revised 03-01-10

Facility Name: Pet Solutions, LLC

Permit Number: 2058-AR-5

AFIN: 75-00051

			Old Permit		New Permit
\$/ton factor	22.07	Permit Predominant Air Contaminant	83.3		83.3
Minimum Fee \$	400	Net Chargeable Emission Increase	0		
Minimum Initial Fee \$	500	Permit Modification Fee \$	400		
		Initial Permit Fee \$	0		
Check if Administrative Amendment	<input type="checkbox"/>	Annual Chargeable Emissions (tpy)	83.3		

Pollutant (tpy)	Old Permit	New Permit	Change
PM	41.8	41.8	0
PM ₁₀	41.4	41.4	0
SO ₂	3.2	3.2	0
VOC	3.7	8.6	4.9
CO	87.5	87.5	0
NO _x	83.3	83.3	0
Formaldehyde	0	0.49	0.49
PAH 16	0	0.13	0.13

