

## STATEMENT OF BASIS

for the issuance of Draft Air Permit #2058-AR-3 :

**1. PERMITTING AUTHORITY:**

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

**2. APPLICANT:**

Pet Solutions, LLC  
RR 1, Box 306, Mt. Tabor Rd.  
Danville, AR 72833

**3. PERMIT WRITER:** Parviz Mokhtari

**4. PROCESS DESCRIPTION AND NAICS CODE:**

NAICS Description: Independent rendering plant that produces animal feed ingredients from poultry by-products

NAICS Code: 311613

**5. SUBMITTALS:** 8/14/2007

**6. REVIEWERS 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. This permit modification authorizes the following changes:

- Remove SN-01 from service.
- Install and operate five additional cookers (will effect emissions from: SN-05 and SN-06);
- Install additional storage bins (will effect emissions from: SN-04);
- Install and operate meal elevators and aspirator (SN-07);
- Include ash bin/conveyor system on the wood fired boiler (insignificant activity);
- Include the wood chip/sawdust storage piles into the current permit (insignificant activity).
- Allow the facility to burn landfill gas (methane) in the gas boiler.
- Allow the close door condition to be removed for the east entrance door (process building)

and the north entrance door (raw material storage building).

The proposed overall annual permitted emissions will be 2.1 tpy PM, 1.7 tpy PM10, and 30.5 tpy NOx.

**7. COMPLIANCE STATUS:**

The following summarizes the current compliance status 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. APPLICABLE REGULATIONS:**

**PSD Applicability**

Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, et cetera)?	N
Has this facility undergone PSD review in the past?	N
Is this facility categorized as a major source for PSD?	N
100 tpy and on the list of 28 (100 tpy)?	N
250 tpy all other	N

**PSD Netting**

Was netting performed to avoid PSD review in this permit?	N
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Source and Pollutant Specific Regulatory Applicability

Source	Pollutant	Regulation [NSPS, NESHAP (Part 61 & Part 63), or PSD only]
SN-05 and SN-06	None, Recordkeeping only	NSPS Part 60, Subpart Dc Standards of Performance for Small Industrial-Commercial-Institutional

**9. EMISSION CHANGES:**

The following table summarizes plant wide emission changes associated with this permitting action.

Plant Wide Permitted Emissions (ton/yr)			
Pollutant	Air Permit [Previous Permit 2058-AR-2]	Air Permit [Permit #]	Change
PM <sub>10</sub>	39.7	41.4	1.7
PM	39.7	41.8	2.1
SO <sub>2</sub>	3.3	3.2	-0.1
VOC	3.9	3.2	-0.7
CO	96.5	87.5	-9.0
NO <sub>x</sub>	52.8	83.3	30.5

**10. 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.

**Other Modeling**

Odor

Odor modeling for sources emitting styrene: N/A

H<sub>2</sub>S Modeling: N/A

**11. Non-Criteria Pollutants**

N/A

**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				

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
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.
05	AP-42 except for NOx (see comment on this Table)	Natural Gas	None	N/A	<ul style="list-style-type: none"> <li>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</li> <li>Initial performance test for NOx for the verification of the emission factors is required</li> </ul>
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	

**13. TESTING REQUIREMENTS:**

This permit requires stack testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
05 (Using landfill gas)	NOx	7E	initial only	no good data available

**14. MONITORING OR CEMS**

The permittee must monitor the following parameters with CEMs or other monitoring equipment (temperature, pressure differential, etc), frequency of recording and the need for records included in any annual, semiannual or other reports.

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

\* Indicate frequency of recording required for the parameter (Continuously, hourly, daily, etc.)

\*\* Indicates whether the parameter needs to be included in reports.

**15. RECORD KEEPING REQUIREMENTS**

The following are items (such as throughput, fuel usage, VOC content of coating, etc) that must be tracked and recorded, frequency of recording and whether records are needed to be included in any annual, semiannual or other reports.

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

\*Indicate frequency of recording required for the item (Continuously, hourly, daily, etc.)

\*\*Indicates whether the item needs to be included in reports

**16. OPACITY**

SN	Opacity %	Justification (NSPS limit, Dept. Guidance, etc)	Compliance Mechanism (daily observation, weekly, control equipment operation, etc)
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	----

**17. DELETED CONDITIONS:**

The previous permit contained the following deleted Specific Conditions.

Former SC	Justification for removal
	None

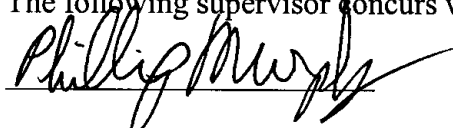
**18. VOIDED, SUPERSEDED OR SUBSUMED PERMITS**

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

Permit #2058-AR-2

**19. CONCURRENCE BY:**

The following supervisor concurs with the permitting decision:



Phillip Murphy, P.E.