

STATEMENT OF BASIS

for the issuance of Draft Air Permit #1986-AR-2

1. PERMITTING AUTHORITY:

Arkansas Department of Environmental Quality
8001 National Drive
Post Office Box 8913
Little Rock, Arkansas 72219-8913

2. APPLICANT:

Tyson Foods, Inc / Cobb Vantress – Siloam Springs Feed Mill
North Country Club Road
Siloam Spring, Arkansas 72761

3. PERMIT WRITER:

Paul Osmon

4. PROCESS DESCRIPTION AND SIC CODE:

SIC Description: Animal Foods Feed Mill
SIC Code: 2048

5. SUBMITTALS:

September 30, 2002

6. REVIEWER'S NOTES:

Tyson Foods, Inc. has completed the construction phase of a new feed mill located in Siloam Springs Industrial Park on North Country Club Road approximately one mile north of its intersection with Cheri Whitlock Drive (State Highway No. 204) and the feed mill will be operated by its wholly owned subsidiary – Cobb Vantress. During the start-up of the facility, it was discovered that the permit application did not disclose that the feed produced would be for baby chicks and that formaldehyde would be added to the feed as a biocide because the chicks could potentially be for export. This will result in formaldehyde emissions from the facility which are now included in the permit.

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 active/pending enforcement actions related to this facility.

8. APPLICABLE REGULATIONS:

A. Applicability

Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, et cetera) N

Has this facility underwent PSD review in the past (Y/N) N Permit # _____

Is this facility categorized as a major source for PSD? (Y/N)

\$ 100 tpy and on the list of 28 (100 tpy)? (Y/N) N

\$ 250 tpy all other (Y/N) N

1. PSD Netting

Was netting performed to avoid PSD review in this permit? N

2. Source and Pollutant Specific Regulatory Applicability

Source	Pollutant	Regulation [NSPS, NESHAP (Part 61 & Part 63), or PSD <u>only</u>]
07	Record keeping only	40 CFR 60, Subpart Dc

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 1986-AR-1	Air Permit 1986-AR-2	Change
PM	7.1	7.1	0
PM ₁₀	4.1	4.1	0
SO ₂	0.1	0.1	0
VOC	0.3	1.9	1.6
CO	4.0	4.0	0
NO _x	4.7	4.7	0

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Plant Wide Permitted Emissions (ton/yr)			
Pollutant	Air Permit 1986-AR-1	Air Permit 1986-AR-2	Change
Formaldehyde	0	1.6	1.6

10. MODELING:

A. 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.

11. 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 deemed PAER to be the product, in lb/hr, of 0.11 and the Threshold Limit Value (mg/m^3), 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?
Formaldehyde	1.5	0.165	1.7	N

ISCST3 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 was deemed by the Department to be one one-hundredth of the Threshold Limit Value, as listed by the ACGIH.

Pollutant	(PAIL, $\mu\text{g}/\text{m}^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu\text{g}/\text{m}^3$)	Pass?
Formaldehyde	15	1.3	Y

12. CALCULATIONS:

SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (Emission factor controlled/uncontrolled, etc)
01	AP-42	PM – 0.0107 PM ₁₀ – 0.0025	baghouse	PM – 99% PM ₁₀ – 90%	Emission factors are in lb/ton and uncontrolled
02		PM ₁₀ – 0.02	baghouse		Emission factor is in gr/dscf and controlled
03		PM ₁₀ – 0.02	baghouse		Emission factor is in gr/dscf and controlled
04		PM -0.012 PM ₁₀ – 0.012	baghouse		Emission factors are in lb/ton and controlled
05		PM – 0.15 PM ₁₀ – 0.075	cyclone		Emission factors are in lb/ton and controlled
06		PM – 0.0033 PM ₁₀ – 0.0008	None	NA	Emission factors are in lb/ton and uncontrolled
07		PM ₁₀ – 7.6 SO ₂ – 0.6 VOC – 5.5 CO – 84 NO _x - 100	None	NA	Emission factors in lbs/10 ⁶ Cubic feet fuel and uncontrolled
Facility	Facility tests	0.001	None	NA	Emission factor is in lb formaldehyde/lb feed produced

13. TESTING REQUIREMENTS:

This permit requires stack testing of the following sources.

SN(s)	Pollutant	Test Method	Test Interval	Justification For Test Requirement
				No stack testing in this permit.

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)**
		No monitoring or CEMS		

* 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	Limit (as established in permit)	Frequency*	Report (Y/N)**
Facility	Grain Throughput	74,000 tons per 12 month period.	Monthly	N
Facility	Boiler Fuel Usage	None (Subpart Dc Requirement)	Monthly	N
Facility	Aqueous Formaldehyde Purchases	55,000 gallons of 30% solution per 12 months	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)
05, 06	20%	Department Guidance	None Required
01, 02, 03, 04	10%	Department Guidance	Control Equipment
07	5%	Department Guidance	Natural Gas fuel

17. DELETED CONDITIONS:

The previous permit contained the following deleted Specific Conditions.

Former SC	Justification for removal
	No deleted conditions

18. VOIDED, SUPERSEDED OR SUBSUMED PERMITS

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

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19. CONCURRENCE BY:

The following supervisor concurs with the permitting decision:

Thomas Rheume, P.E.