

Permit #:1986-AR-3
AFIN: 04-00540
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STATEMENT OF BASIS

for the issuance of Draft Air Permit # 1986-AR-3

PERMITTING AUTHORITY:

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

APPLICANT:

Tyson Foods, Inc. / Cobb Vantress
2125 Country Club Road
Siloam Springs, Arkansas 72761

PERMIT WRITER:

Paul Osmon

PROCESS DESCRIPTION AND SIC CODE:

SIC Description: Prepared Feed and Feed Ingredients for Animals and Fowl
SIC Code: 2048

SUBMITTALS:

December 13, 2002

REVIEWER'S NOTES:

This permit modification raises the throughput limit through the facility to 200,000 tons per year and raises the emission limits accordingly. Emission limits for all sources were re-calculated using the latest AP-42 factors.

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 and recent compliance activities.

APPLICABLE REGULATIONS:

PSD Applicability

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

Has this facility undergone PSD review in the past? N Permit#

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

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

 \$ 250 tpy all other Y/N

PSD Netting

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

Source and Pollutant Specific Regulatory Applicability

Source	Pollutant	Regulation [NSPS, NESHAP (Part 61 & Part 63), or PSD <u>only</u>]
SN-07	NO _x , SO ₂ (record keeping only)	NSPS Subpart Dc

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-2	Air Permit #1986-AR-3	Change
PM	7.1	17.6	10.5
PM ₁₀	4.1	10.0	5.9
SO ₂	0.1	0.1	0
VOC	1.9	4.4	2.5
CO	4.0	3.7	-0.3
NO _x	4.7	4.7	0
Formaldehyde	1.6	4.1	2.5

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 deemed 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?
Formaldehyd	1.5	0.165	1.7	N

Pollutant	TLV (mg/m ³)	PAER (lb/hr) = 0.11*TLV	Proposed lb/hr	Pass?
e				

2nd Tier Screening (PAIL)

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, µg/m ³) = 1/100 of Threshold Limit Value	Modeled Concentration (µg/m ³)	Pass?
Formaldehyde	15	1.7	Y

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 – 0.17 PM ₁₀ – 0.025	Baghouse	90%	Emission factors are in lb/ton and controlled
02		PM/ PM ₁₀ – 0.02	Baghouse	90%	Emission factors in gr/dscf and controlled
03		PM/ PM ₁₀ – 0.02	Baghouse	90%	Emission factors in gr/dscf and controlled
04		PM/ PM ₁₀ – 0.012	Baghouse	90%	Emission factors in lb/ton and controlled

05	AP-42	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 are in lb/10 ⁶ cubic feet and uncontrolled
Fac- ility	Testing	0.001	None	NA	Emission factor is in lbs formaldehyde emitted per lb feed produced.

TESTING REQUIREMENTS:

This permit requires stack testing of the following sources.

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

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 in this permit.				

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

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

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	Feed produced	200,000 tons per 12 month period	Monthly	N
07	Gas fuel Usage	None Subpart Dc Requirement	Monthly	N
Facility	Formaldehyde Usage	138,100 gallons 30 % aqueous solution	Monthly	N

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

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

OPACITY

SN	Opacity %	Justification (NSPS limit, Dept. Guidance, etc)	Compliance Mechanism (daily observation, weekly, control equipment operation, etc)
05, 06	20%	Department Guidance	Control Equipment Operation
01,02, 03, 04	10%	Department Guidance	Control Equipment Operation
07	5%	Department Guidance	Natural Gas Fuel

DELETED CONDITIONS:

The previous permit contained the following deleted Specific Conditions.

Former SC	Justification for removal
	No S.C.'s removed

VOIDED, SUPERSEDED OR SUBSUMED PERMITS

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

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CONCURRENCE BY:

The following supervisor concurs with the permitting decision:

Thomas Rheume, P.E.