TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

APPLICANT

Purina Mills, LLC
890 North Prairie Industrial Parkway
Mulberry, Florida 33860

Land O' Lakes Purina Feed, LLC

Facility ID No. 1050157

PROJECT

Project No. 1050157-009-AC
Application for Minor Air Construction Permit
Project Name: Replace Cyclone in Pellet Mill System 2 and Permit Modifications

COUNTY

Polk County, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Air Resource Management
Southwest District Office
Temple Terrace, Florida 33637-7600

July 3,2013

Prepared by Nwankaku Onwunli and David Zell

GENERAL PROJECT INFORMATION

Air Pollution Regulations

Projects at stationary sources with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following applicable chapters: 62-4 (Permits); 62-204 (Air Pollution Control – General Provisions); 62-210 (Stationary Sources – General Requirements); 62-212 (Stationary Sources – Preconstruction Review); 62-213 (Operation Permits for Major Sources of Air Pollution); 62-296 (Stationary Sources - Emission Standards); and 62-297 (Stationary Sources – Emissions Monitoring). Specifically, air construction permits are required pursuant to Rules 62-4, 62-210 and 62-212, F.A.C.

In addition, the U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial categories. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department adopts these federal regulations on a quarterly basis in Rule 62-204.800, F.A.C.

Glossary of Common Terms

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of this permit.

I. Facility Description:

This animal feed manufacturing facility receives dry materials such as corn, wheat, soybeans, minerals, alfalfa, peanuts or cottonseed that are either ground or pelletized in a process ultimately resulting in a finished feed product that is bagged or shipped by truck.

II. Project Description:

A. Applicant:

Mr. Steve Furst, Plant Manager
Purina Mills, LLC
890 North Prairie Industrial Parkway
Mulberry, Florida 33860

B. Professional Engineer:

Robert E. Wallace III, P.E.
Environmental Engineering Consultants, Inc.
5119 North Florida Avenue
Tampa, Florida 33603

C. Project Location:
890 North Prairie Industrial Parkway
Mulberry, Florida 33860

D. Project Summary:

This project replaces the cyclone associated with Pellet Mill System No. 2 (EU ID No. 005) and modifies the permit requirements for the facility as described below.

This project consists of the following:

- Replacement of the cyclone and airlock on Pellet Mill System #2 (EU No. 005).
- Reclassification of the Truck/ Railcar Dry Material Receiving System (EU No. 002) from a permitted emissions unit to an exempt from permitting emissions source/activity *(see Exempt Emissions Sources/Activities below)*.
- Reclassification of the Bagging and Truck Loadout System (EU No. 006) from a permitted emissions unit to an exempt from permitting emissions source/activity *(see Exempt Emissions Sources/Activities below)*.
- Removal of the tons per any consecutive 12-month period particulate matter (PM) emissions limitations for EU Nos. 003, 004, 005 and 007.
- Increasing the permitted maximum hours of operation as shown below:
- from 2,080 to 8,760 hours in any 12 consecutive month for EU No. 003 (Grinding System);
- from 8,320 combined hours for both pellet mill systems to 8,760 hours in any 12 consecutive month for each pellet mill system (EU Nos. 004 and 005); and

- from 390 to 8,760 hours in any 12 consecutive month for EU No. 007 (Mineral Unloading System).
- Converting the Daily Average Maximum Throughput limits from limitations to operating capacities for the purposes of compliance testing only.
- Removal of tons per any consecutive 12-month period Equivalent Maximum Throughput references for EU Nos. 003, 007 and 008.
- Establishment of a maximum tons per any consecutive 12-month period combined throughput rate limitation for EU Nos. 004 and 005 (set at same level as previous combined Equivalent Maximum Throughput for these EU's).
- Establishment of maximum tons per any consecutive 12-month period facility dry non-mineral material receiving rate limitation (set at same level as previous Equivalent Maximum Throughput for Truck/Railcar Receiving System (previously EU No. 002)).
- Modification (reduction) of recordkeeping requirements in accordance with the above modifications to operating hour and process rate requirements.
- Permit changes required as part of conversion to the new permit document formats.

E. Application Information:

Application Received and Complete on: April 15, 2013

III. Applicable State and Federal Regulations

This project is subject to the preconstruction review requirements of Chapter 403, Florida Statutes and Chapters 62-204 through 62-297, Florida Administrative Code (F.A.C.), as indicated below.

Subject to:	**Y/N**	**Comments**
Rule 62-210.300, F.A.C. – Permits Required	Y	subject to general permitting requirements
Rule 62-212.400, F.A.C. - Prevention of Significant Deterioration	N	facility is not a PSD major source
Rule 62-296.320(4), F.A.C. - General Particulate Emission Limiting Standards	Y	raw material handling operations could be a source of unconfined particulate matter emissions or subject to process weight table;
Rules 62-296.320(1) and (2), F.A.C. - General Pollutant Emission Limiting Standards (VOCs and Odor)	Y	materials used in this process can be a source of odors
Rule 62-296.401-418, F.A.C. - Stationary Source Emission Standards	N	there is no applicable source category
Rule 62-296.500, F.A.C. - Reasonably Available Control Technology (VOC)	N	Polk County is not an air quality maintenance area for ozone
Rule 62-296.700, F.A.C. - Reasonably Available Control Technology (PM)	N	this facility was established after the PM RACT applicability date for existing sources and is considered a new source, therefore not subject to PM RACT rule
Rule 62-204.800, F.A.C. - Standards of	N	there is no applicable source category

Subject to:	Y/N	Comments
Performance for New Stationary Sources (NSPS)		
Rule 62-204.800, F.A.C. National Emission Standard for Hazardous Air Pollutants (NESHAPS – 40 CFR 61)	N	there is no applicable source category
Rule 62-204.800, F.A.C. National Emission Standard for Hazardous Air Pollutants for Source Categories a.k.a. MACT (NESHAPS –40 CFR 63)	N	there is no applicable source category
Chapter 62-213, F.A.C. - Operation Permits for Major Sources of Air Pollution	N	facility is a synthetic non-Title V source
Rule 62-297.310, F.A.C. - General Compliance Test Requirements, F.A.C.	Y	VE and/or PM testing is required for EU No(s). 003,004, 005, 007, and 008. Compliance is demonstrated via recordkeeping.

IV. Summary of Potential to Emit (PTE) Changes from Previous Construction Permit No. 1050157-00008-AC *(See II. D. Project Summary above for changes to permit.)*

Pollutant	Emissions Unit /Activity Description	Previous Permitted PTE [1] (TPY)	Permitted PTE as Modified [2] (TPY)	Change in Permitted PTE (TPY)
PM/PM10	EU No. 003 - Grinding System w/baghouse	0.374	1.58	+1.21
	EU No. 004 - Pellet Mill System No. 1 w/cyclone	24.96	26.28	+ 1.32
	EU No. 005 - Pellet Mill System No. 2 w/cyclone			
	EU No. 007 - Mineral Loading System w/clone/baghouse combo	0.039	0.88	+ 0.84
	EU No. 008 - Grain Cleaning System w/baghouse	*insignificant*	< 1.0 TPY	< + 1.0
	Truck/Railcar Ingredient Receiving System *(Exempt from permitting – previously EU No. 002)*	15.0	< 1.0 TPY	(< -14.0)
	Bagging and Truck Loadout System *(Exempt from permitting – previously EU No. 006)*	0.033	< 1.0 TPY	< +1.0
	Facility Total	**40.41**	**< 31.74**	**~ (-8.63)**

[1] *Previous Potential to Emit (PTE) Notes* -

- Previous Grinding System PTE based on PM limit and operation for 2,080 hours/year
- Previous Pellet Mills PTE based on combined PM limit and 8,320 hours/year total combined operation for both mills
- Previous Mineral Loading System PTE based on PM limit and operation for 2,080 hours/year
- Previous Grain Cleaning System PTE based on PM limit and operation for 2,080 hours/year
- Previous Truck/Railcar Ingredient Receiving System PTE based on PM limit of 14.4 lbs/hr as if operations were uncontrolled and emitted to the atmosphere, and operation for 2,080 hours/year
- Previous Bagging and Truck Loadout System PTE based on PM limit of 0.032 and operation for 2,080 hours/year

[2] *Potential to Emit (PTE) as Modified Notes* -

- Grinding System PTE based on PM limit and operation for 8,760 hours/year
- Pellet Mills PTE based on combined PM limit and 8,760 hours/year operation
- Mineral Loading System PTE based on PM limit and operation for 8,760 hours/year
- Grinding system PTE based on PM limit and operation for 8,760 hours/year
- Truck/Railcar Ingredient Receiving System PTE based on operations being enclosed
- Previous Bagging and Truck Loadout System PTE based on operations being enclosed

V. Conclusions

The emission limits proposed by the applicant will meet all of the requirements of Chapters 62-204 through 297, F.A.C.

The General and Specific Conditions listed in the proposed permit (attached) will assure compliance with all the applicable requirements of Chapters 62-204 through 297, F.A.C.

VI. Preliminary Determination

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. Additional details of this analysis may be obtained by contacting the project engineer at the Florida Department of Environmental Protection Air Resource Management, Southwest District 13051 North Telecom Parkway, Temple Terrace, Florida 33637-7600.

Pursuant to Section 403.087, Florida Statutes and Section 62-4.070, Florida Administrative Code, the Department hereby gives notice of its intent to issue a permit to construct the aforementioned air pollution source in accordance with the draft permit and its conditions as stipulated (see attached).