TECHNICAL REVIEW AND EVALUATION
OF APPLICATION FOR
AIR QUALITY PERMIT NO. 103099

I. INTRODUCTION

This Class II permit renewal is for the continued operation of Rose Acre Farms, Inc.'s Desert Valley Egg Farm. Permit No. 103099 renews and supersedes Permit No. 76941.

A Class II permit is required because the facility's potential to emit (PTE) for all criteria air pollutants, without controls or operating limitations is less than major source thresholds, but greater than significant level thresholds for coarse particulate matter with diameters 10 micrometers or less (PM_{10}) and nitrogen oxides (NO_X).

Company Information

Facility Name:	Desert Valley Egg Farm
Mailing Address:	1657 West Tipton, Seymour, Indiana 47274
Facility Location:	52749 68th Street, Salome, Arizona 85348

A. Attainment Classification

The facility is located in La Paz County which is an area that is designated as in attainment or unclassified for all criteria air pollutants.

II. PROCESS DESCRIPTION

A. Facility Operations

The Desert Valley Egg Farm produces and processes eggs from chickens. The egg farm operation consists of six separate layer houses, each which house approximately 450,000 egg laying chickens. The egg farm consists of a feed mill, a feed storage and distribution system, and an egg processing plant which consists of a propane boiler which is used to process eggs for consumer use. Chickens are fed grain that is primarily comprised of corn. The facility receives, stores, and processes primarily corn grain along with soybean meal and dried distiller grains (DDGs). It can receive and process 15,000 bushels per hour of grain feed.

The site is operated on grid power. Due to the sensitive nature of laying chickens, the site is equipped with 14 emergency engines for use in case of power loss. In addition, 48 0.25 MMBtu per hour propane heaters are used as needed during winter months when temperatures drop below 60 degrees. These may also be used to warm young chicks if needed. Hence, they are exclusively used to ensure a safe controlled temperature climate for chickens while emergency engines are exclusively used to ensure power supply for feed mill and processing operations.

B. Control Devices

The Permittee operates an in-house manure drying system at all times. In addition, the exhaust of each layer house is fully-enclosed with fine mesh screening with an approximately 60-foot extension.

Lastly, unpaved roads are required to be paved or covered with compacted recycled asphalt to control fugitive dust emissions.

III. COMPLIANCE HISTORY

During the previous permit term, the Arizona Department of Environmental Quality (ADEQ) conducted five (5) annual compliance certification report reviews and one (1) physical inspection. No compliance deficiencies were noted during these reviews.

IV. EMISSIONS

The facility's PTE was calculated using a combination of emission factors from the Compilation of Air Pollutant Emissions Factors, AP-42, and California Emissions Inventory Development and Reporting System (CEIDARS). Emissions calculations derived based on 8,760 hours per year of operation except for emergency engines which were calculated based on 500 hours per year of operation. The hammermill is enclosed and thus, emissions were assumed to have 100% control efficiency. These are located inside a building and therefore, do not vent to the atmosphere.

The facility's PTE is provided in Table 1:

Table 1: Potential to Emit (tpy)

Pollutant	Previous PTE	Change in PTE	Current PTE	Minor NSR Triggered?
NO_X	33.02	+1.42	34.44	No
PM_{10}	13.04	+0.05	13.09	No
$PM_{2.5}$	3.03	-0.03	3.00	No
CO	8.71	-0.97	7.74	No
SO_2	0.07	0.00	0.07	No
VOCs	1.84	+0.74	2.58	No

V. APPLICABLE REGULATIONS

Table 2 identifies applicable regulations and why each one applies. The table also contains a discussion of any regulations the emission units are exempt from.

Table 2: Applicable Regulations

Unit & Year	Control Device	Rule	Discussion
Boiler and Heaters	N/A	A.A.C. R18-2-724	The boiler and heaters are all less than 10MMBtu/hr and therefore, they are not subject to 40 Code of Federal Regulations (CFR) 60 Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. Instead, they are subject to A.A.C. R18-2-724 for Standards of Performance for Fossil-fuel Fired Industrial and Commercial Equipment.
Internal Combustion Engines (Emergency Generators)	N/A	40 CFR 60 Subpart IIII	The internal combustion engines were manufactured after 2007 and therefore, they are subject to NSPS 40 CFR 60 Subpart IIII for Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.
Feed Storage and Distribution System	Receiving hopper underground inside enclosed building open on each end.	A.A.C. R18-2-730	A.A.C. R18-2-730 for Unclassified Sources is applicable to the feed storage and distribution system because it is considered an unclassified source.
Solid Manure Handling	In-House Drying System; Fine Mesh Screening at Layer House Exhausts	A.A.C. R18-2-730	A.A.C. R18-2-730 is applicable to solid manure handling because it is considered an unclassified source.
Fugitive Dust	Water Trucks; Dust Suppressants	A.A.C. R18-2 Article 6 A.A.C. R18-2-702	These standards are applicable to all fugitive dust sources.
Abrasive Blasting	Wet blasting; Dust Collectors; Other Approved Methods	A.A.C. R-18-2-702 A.A.C. R-18-2-726	These standards are applicable to any abrasive blasting operation.
Spray Painting	Enclosures	A.A.C. R18-2-702 A.A.C. R-18-2-727	These standards are applicable to any spray painting operation.
Demolition/Renovation	N/A	A.A.C. R18-2-1101.A.12	This standard is applicable to any asbestos related demolition or renovation operations.

VI. PREVIOUS PERMIT REVISIONS AND CONDITIONS

Table 3 addresses the changes made to the sections and conditions from Permit No. 76941:

Table 3: Previous Permit Conditions

Section No.	Determination			Comments
	Added	Revised	Deleted	
Att. "A"		X		General Provisions: Revised to represent the most recent template language.
Att. "B" Section I			X	Relationship of Permit to Applicable State Implementation Plan: Removed because this is a permit renewal.
Att. "B" Section I		X		Facility-Wide Requirements: Revised to represent the most recent template language.
Att. "B" Condition II.B.2	X			Propane Boiler and Heater Requirements: Added monitoring, recordkeeping, and reporting Requirements.
Att. "B" Condition III.B.2.c		X		Emergency Internal Combustion Engines (ICE) Requirements: Updated to reflect most recent rule changes.
Att. "B" Condition III.B.3		X		Emergency Internal Combustion Engines (ICE) Requirements: Updated to reflect most recent rules changes.
Att. "B" Condition V.B.1.b		X		Solid Manure Handling Requirements: Updated citation.
Att. "B" Conditions V.B.2.a-b		X		Solid Manure Handling Requirements: Updated citations.
Att. "B" Conditions VI.B.1-4		X		Poultry House Requirements: Updated citations.
Att. "B" Conditions VII.B.2.a-b		X		Fugitive Dust Requirements: Updated citations.
Att. "C"		X		Equipment List: Revised to reflect the most recent equipment operating at the facility and to include other equipment information.

VII. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

Table 4 contains an inclusive but not an exhaustive list of the monitoring, recordkeeping and reporting requirements prescribed by the air quality permit. The table below is intended to provide insight to the public for how the facility is required to demonstrate compliance with the emission limits in the permit. Records are required be kept for a minimum of 5 years as outlined in Section XII of Attachment "A" of the permit.

Table 4: Permit No. 103099

Emission Unit	Pollutant	Emission Limit	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Feed Storage and Distribution System	PM	20% Opacity for Point Sources 40% Opacity for Non-Point Sources	Conduct a survey of visible emissions on a monthly basis.	N/A	Report any exceedances as excess emissions.
Solid Manure Handling	H_2S	0.03 ppmv	N/A	Maintain records of each date that manure is removed from any hen house and the corresponding date that manure is removed from the site or stored outside under the weather proof covering.	N/A
Boilers	PM	15% Opacity	Conduct a survey of visible emissions on a monthly basis.	N/A	N/A
Internal Combustion Engines (Emergency Generators)	SO_2	15 ppm	N/A	Keep records of fuel supplier certifications or other documentation such as results of laboratory tests.	N/A

Emission Unit	Pollutant	Emission Limit	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Fugitive Dust	PM	40% Opacity	Conduct a survey of visible emissions on a monthly basis.	Record of the dates and types of dust control measures employed, and if applicable, the results of any observations, and any corrective action taken to lower the opacity of any excess emissions.	N/A
Abrasive Blasting	PM	20% Opacity	N/A	Record the date, duration and pollution control measures of any abrasive blasting project.	N/A
Spray Painting	VOC	20% Opacity Control 96% of the Overspray	N/A	Maintain records of the date, duration, quantity of paint used, any applicable material safety data sheets and pollution control measures of any spray painting project.	N/A
Demolition/ Renovation	Asbestos	N/A	N/A	Maintain records of all asbestos related demolition or renovation projects including the "NESHAP Notification for Renovation and Demolition Activities" form and all supporting documents.	N/A

VIII. ENVIRONMENTAL JUSTICE ANALYSIS

The Environmental Protection Agency (EPA) defines Environmental Justice (EJ) to include the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and polices. The goal of completing an EJ assessment in permitting is to provide an opportunity for overburdened populations or communities to allow for meaningful participation in the permitting process. Overburdened is used to describe the minority, low-income, tribal and indigenous populations or communities that potentially experience disproportionate environmental harms and risks due to exposures or cumulative impacts or greater vulnerability to environmental hazards.

This permit renewal will not result in an increase in emissions and thus, it will not result in any additional impacts.

IX. LEARNING SITE EVALUATION

In accordance with ADEQ's Environmental Permits and Approvals near Learning Sites Policy, the Department is required to conduct an evaluation to determine if any nearby learning sites would be adversely impacted by the facility. Learning sites consist of all existing public schools, charter schools and private schools the K-12 level, and all planned sites for schools approved by the Arizona School Facilities Board. The learning sites policy was established to ensure that the protection of children at learning sites is considered before a permit approval is issued by ADEQ.

This permit renewal will not result in an increase in emissions and thus, the facility is exempt from a learning sites evaluation.

X. LIST OF ABBREVIATIONS

A.A.C. ..... Arizona Administrative Code
ADEQ ..... Arizona Department of Environmental Quality
CEIDARS ..... California Emissions Inventory Development and Reporting System
CFR ..... Code of Federal Regulations
CO ..... Carbon Monoxide
DDGs ..... Dried Distiller Grains
EPA ..... Environmental Protection Agency
hr ..... Hour
ICE ..... Internal Combustion Engine
MMBtu ..... Million British Thermal Unit
NESHAP ..... National Emission Standards for Hazardous Air Pollutants
NO_X ..... Nitrogen Oxides
NSPS ..... New Source Performance Standards
PM ..... Particulate Matter
PM_{10} ..... Particulate Matter less than 10 µm Nominal Aerodynamic Diameter
$PM_{2.5}$ ..... Particulate Matter less than 2.5 µm Nominal Aerodynamic Diameter
PTE ..... Potential to Emit
SO_2 ..... Sulfur Dioxide Significant Impact Levels
TPY ..... Tons per Year
VOCs ..... Volatile Organic Compounds
yr ..... Year