

**TECHNICAL REVIEW AND EVALUATION  
OF APPLICATION FOR  
AIR QUALITY PERMIT No. 76941**

**I. INTRODUCTION**

This Class II air quality permit is issued to Rose Acre Farms, Inc., the Permittee, for the operation of the Desert Valley Egg Farm and Feed Terminal. The facility is located at 52749 68th Street, Salome, Arizona 85348.

**A. Company Information**

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

**B. Attainment Classification (Source: 40 CFR §81.303)**

This facility is located in an area that is in attainment or unclassified for all criteria 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 fired boiler which is used to process eggs for consumer use. Chickens are fed grain that is primarily comprised of corn. The Desert Valley Egg Farm receives, stores, and processes primarily corn grain, along with soybean meal and dried distiller's grains (DDGs). The egg farm 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 13 back up diesel generators for use in case of power loss. In addition, 16 portable propane heaters are moved to various locations as needed during

winter months and used only when temperatures drop below 60 degrees to heat layer houses. Propane heaters may also be used to warm young chicks if needed. The heaters are only used to ensure a safe controlled temperature climate for housed chickens and the generators are only 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 an approximately 75-foot extension with fine mesh screening.

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

**III. LEARNING SITE EVALUATION**

In accordance with ADEQ's Environmental Permits and Approvals Near Learning Sites Policy, the Department conducted 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.

Upon review of ADEQ's database, it was determined that there are no learning sites within two miles of the facility.

**IV. EMISSIONS**

The facility has a potential-to-emit (PTE) more than the Minor NSR thresholds for nitrogen oxides (NO<sub>x</sub>) and particulate matter with an aerodynamic diameter less than 10 microns (PM<sub>10</sub>). The facility's PTE is provided in Table 1 below:

**Table 1: Potential to Emit**

Pollutant	Emissions (tons per year)	Minor NSR Thresholds	Minor NSR Triggered?
NO <sub>x</sub>	33.02	20	Yes
PM <sub>10</sub>	13.04	7.5	Yes
PM <sub>2.5</sub>	3.03	5	No
CO	8.71	50	No

SO <sub>2</sub>	0.07	20	No
VOC	1.84	20	N/A

**V. MINOR NSR REVIEW**

Minor NSR is triggered for PM<sub>10</sub> and NO<sub>x</sub> because the emissions of these pollutants are greater than their corresponding Minor NSR threshold.

In order to meet the requirements under Minor NSR, a facility may either elect to conduct a modeling analysis or implement reasonably available control technology (RACT). Rose Acre Farms Inc. elected to implement RACT for PM<sub>10</sub> and NO<sub>x</sub>. The feed mill and distribution system are the major source of PM<sub>10</sub> emissions. Truck unloading will occur inside a building and the material will be transported through enclosed drag conveyor and elevator system to the storage bins. Fugitive dust from haul roads will be controlled by either paving or implementing compacted recycled asphalt. The emergency generators are the source of NO<sub>x</sub> emissions. These engines are subject to 40 CFR 60 Subpart IIII which, under the Minor NSR regulations, is considered presumptive RACT.

**VI. APPLICABLE REGULATIONS**

Table 2 identifies applicable regulations and verification as to why that standard applies.

**Table 2: Applicable Regulations**

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Unit	Control Device	Rule	Discussion
Boiler and Heaters	N/A	A.A.C. R18-2-724	The boiler and heaters are all less than 10 mmBtu/hr, and are therefore not subject to 40 CFR 60 Subpart Dc. Instead, they are subject to A.A.C. R18-2-724, 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 are subject to 40 CFR 60 Subpart IIII.
Feed Storage and Distribution System	Receiving hopper underground inside enclosed building open on each end.	A.A.C. R18-2-730	These standards are applicable to the feed storage and distribution system. The Feed Storage and Distribution System are not subject to 40 CFR 60 Subpart DD because the permanent storage capacity is not more the 2.5 million U.S. bushels.
Solid Manure Handling	In-house Drying System And Fine Mesh Screening at Layer House Exhausts	A.A.C. R18-2-730	Solid manure handling is subject to these requirements because it is considered an unclassified source.
Fugitive dust sources	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 at the facility.
Abrasive Blasting	Wet blasting; Dust collecting equipment; 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	This standard is applicable to any spray painting operation.

Demolition/renovation operations	N/A	A.A.C. R18-2-1101.A.8	This standard is applicable to any asbestos related demolition or renovation operations.
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## VII. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

### A. Emergency Internal Combustion Engines

1. The Permittee is required to record the date, time, duration of generator operation, and the reason the engine was operated. The Permittee is required to maintain monthly and 12-month rolling totals of time operated and the reason for operation.
2. The Permittee is required to maintain engine certifications as well as fuel supplier certifications.

### B. Feed Storage and Distribution Systems

1. The Permittee is required to show compliance with the opacity standards by conducting a monthly survey of visible emission. If the results of the initial survey appear on an instantaneous basis to exceed the applicable standard, then the Permittee is required to conduct a six-minute observation.
2. The Permittee is required to keep records of the name of the observer, the time, the date, the location of the observation, and the results of all surveys and observations.
3. The Permittee is required to keep records of any corrective action taken to lower the opacity of any emission point and any excess emission reports.

### C. Solid Manure Handling

1. The Permittee is required to record each date that manure is removed from the hen houses.
2. The Permittee is required to record the corresponding date that the manure is either removed from the site or stored outside under a weather proof covering.

### D. Fugitive Dust

1. The Permittee is required to record the dates and types of dust control measures employed.

2. The Permittee is required to show compliance with the opacity standards by conducting a monthly survey of visible emission from fugitive dust sources. If the results of the initial survey appear on an instantaneous basis to exceed the applicable standard, then the Permittee is required to conduct a six-minute observation.
3. The Permittee is required to keep records of the name of the observer, the time, the date, the location of the observation, and the results of all surveys and observations.
4. The Permittee is required to keep records of any corrective action taken to lower the opacity of any emission point and any excess emission reports.
5. The Permittee is required to pave or implement compacted recycled asphalt on haul roads.

**E. Periodic Activities**

1. The Permittee is required to record the date, duration, and pollution control measures of any abrasive blasting project.
2. The Permittee is required to record the date, duration, quantity of paint used, any applicable SDS, and pollution control measures of any spray painting project.
3. The Permittee is required to maintain records of all asbestos related demolition or renovation projects. The required records include the "NESHAP Notification for Renovation and Demolition Activities" form and all supporting documents.

**VIII. LIST OF ABBREVIATIONS**

A.A.C.....	Arizona Administrative Code
ADEQ.....	Arizona Department of Environmental Quality
Btu/ft <sup>3</sup> .....	British Thermal Units per Cubic Foot
Btu/hr.....	British Thermal Units per Hour
CFR .....	Code of Federal Regulations
CO.....	Carbon Monoxide
EPNG .....	El Paso Natural Gas Company
FERC .....	Federal Energy Regulatory Commissions
HAP.....	Hazardous Air Pollutant
hp .....	Horsepower
lb/hr .....	Pound per Hour
NO <sub>x</sub> .....	Nitrogen Oxides
PM .....	Particulate Matter
PM <sub>10</sub> .....	Particulate Matter Nominally less than 10 Micrometers
SO <sub>x</sub> .....	Sulfur Oxides
VOC .....	Volatile Organic Compound

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