Ohio | Department of Agriculture

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FACT SHEET

Hi-Q Egg Products, LLC
Draft Permit to Install and Draft Permit to Operate

General overview of the farm

Hi-Q Egg Products, LLC is proposing the construction of a new egg laying facility at 22450 Davis Road, West Mansfield, Ohio. The Union County farm would be in York Township, which is in the Upper Scioto Watershed. Hi-Q Egg Products, LLC is owner of the facility, with Jeffry Henning and Steven George listed as LLC members.

Overview of Permit to Install

Hi-Q Egg Products, LLC's draft Permit to Install (PTI) is to construct 15 layer houses with 400,000 layers each, for a total design capacity of six million layers. These barns would be constructed as belt-battery systems with manure belts installed under each cage row that transfer the manure out of the housing barns and into separate manure storage barns. Three separate manure storage barns would be constructed to house the manure from the respective layer houses. Manure storage barn #1 (150 ft. wide by 795 ft. long) would store manure from 2.4 million layers and have a capacity of approximately 1,849,453 cubic feet of manure storage. Manure storage barn #2 (150 ft. wide by 525 ft. long) would store manure from approximately 1.6 million layers and have a capacity of approximately 1,215,874 cubic feet of manure storage. Manure storage barn #3 (150 ft. wide by 660 ft. long) would store manure from approximately two million layers and have a capacity of approximately 1,531,016 cubic feet of manure storage. Each of the proposed manure storage barns are considered to be fabricated structures by Ohio Department of Agriculture (ODA) rules and are required to have 120 days of manure storage capacity. Each of these structures would have approximately 282 days of manure storage available.

In addition to the solid manure storage structures, this draft PTI also includes the proposed installation of a lagoon treatment system for the eggwash and process wastewater generated at the facility. This system would consist of two treatment cells, each with a capacity of approximately 3,834,387 gallons. These cells would be aerated extensively and would serve primarily as treatment cells, with no manure storage accounted for in either. The third cell would provide secondary aeration treatment, but would also serve at the storage cell for the lagoon system. This cell would have a storage capacity of approximately 15,563,940 gallons. The predicted annual liquid manure production (including rainfall) is 23,500,747 gallons; therefore, the facility will have approximately 242 days of liquid storage. Such a manure storage and treatment system is required by ODA rules to have a minimum of 180 days of manure storage.

Overview of Permit to Operate

Hi-Q Egg Products, LLC also has a draft Permit to Operate (PTO) for the entire farm. The PTO is drafted to regulate operations with plans for manure management, insect and rodent control,

mortality management, and emergency response. It would be valid for a five-year period, at which time the owner would be required to renew the operating permit.

The facility proposes to generate approximately 74,157 tons of solid manure annually. This solid manure would be sold or given to others, who would utilize the organic nutrients as a replacement for commercial fertilizer in crop production. The solid manure nutrient analysis, estimated from actual manure analysis from a similar type facility, is as follows:

Total nitrogen (N) per ton of manure = 49.0 lbs.
Phosphate (P_2O_5) per ton of manure = 54.4 lbs.
Potash (K_2O) per ton of manure = 33.2 lbs.

All of the approximately 23.5 million gallons of egg processing wastewater generated at the facility would be managed on approximately 268 acres of cropland adjacent to the facility and owned by Hi-Q Egg Products. The farm proposes to install center pivots on approximately 160 acres of this 268 acres available. Application of the entire annual wastewater production over the 160 acres would equate to approximately 5.5 inches of wastewater being applied annually over these growing crops. A corn/soybean/wheat rotation was used for a nutrient balance, with an expected yield for corn at 175 bushels per acre, an expected yield for wheat at 80 bushels per acre, and an expected yield for soybeans at 55 bushels per acre. The liquid manure nutrient analysis of this processed wastewater, estimated from an actual analysis from a similar facility, is as follows:

Total N per 1,000 gallons of manure = 1.25 lbs.
P_2O_5 per 1,000 gallons of manure = 0.42 lbs.
K_2O per 1,000 gallons of manure = 0.91 lbs

An Insect and Rodent Control plan is required as part of the draft PTO to minimize the presence and negative effects of insects and rodents. Hi-Q Egg Products, LLC's Insect and Rodent Control Plan includes daily inspections of all layer barns for water leaks and spilled feed that could contribute to enhanced fly breeding activity. Visual inspections would be performed weekly throughout the manure storage barns and layer houses. Rodent traps are to be placed in and around the housing barns and in the manure storage building and these would be checked and replaced on a weekly basis. Other areas that would be inspected, cleaned and maintained on a continual basis include the feed system, storage areas, drainage and vegetation around the facility, walkways and exhaust fans. More detail on the Insect and Rodent Control Plan can be found in the draft Permit to Operate.

A Mortality Management Plan is also required for the disposal of dead chickens. Approved methods for disposal are burying, burning, rendering or composting. Hi-Q Egg Products, LLC has selected rendering and landfilling as their methods of disposal. Buildings would be searched and recorded daily for mortality. Any dead birds would be immediately removed and placed in plastic bags that are sealed and removed from the facility.

An Emergency Response Plan is the last plan required by the draft PTO to ensure accidents or emergencies are handled quickly and efficiently to maintain the safety of the environment,

wildlife and water supplies. In the case of a liquid spill, a contractor would be called to mobilize equipment, a dike would be built in the most logical place to contain the spill, corrections would be made to halt the cause, and the manure that is temporarily contained would be removed from the temporary structure and placed back in the manure storage structure or land applied. An emergency response map is contained in the draft permit, which shows areas for a temporary dike, drainage direction, and areas that temporary dike material would be located. In case of a catastrophic mortality event, either a rendering service or a sanitary landfill would be chosen for disposal of a high volume of birds.

Finally, an Operating Record is contained in the draft PTO that includes all forms and information that must be maintained by the facility to show compliance with ODA rules. These records include inspection of the manure storage or treatment structures, manure characterization, land applications, insect and rodent control, distribution and utilization of manure and mortality management. These records would be inspected by the department a minimum of twice annually.

The permit application was prepared by Menke Consulting of Greenville, Ohio; TriCar Ltd. of Columbus, Ohio, and Mote and Associates of Greenville, Ohio.