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STATE OF ILLINOIS
Pollution Control Board

MEMO

*from the desk of Scott J. Nally
Environmental Manager
Perdue Farms Incorporated*

RO1-88

May 9, 2001

P.C.#3

RE: Testimony Regarding Amendments to the Livestock Waste Regulations

The following are summary points as they pertain to my testimony to the Illinois Pollution Control Board on April 30, 2001 on the matter of Livestock Waste Regulations - Code 506 - Construction Standards:

Introduction:

My name is Scott Nally and I am employed by Perdue Farms Incorporated as the Regional Environmental Manager. I reside in southwestern Indiana. My job responsibilities include managing and insuring environmental compliance for Perdue Farm facilities located within several mid-western and eastern states. My educational background consists of a Bachelor of Science degree from North Carolina State University and a Master of Science degree from the University of Wyoming. I have 11+ years work experience in dealing with poultry environmental issues, including several appointments to various governmental task forces.

General Information:

Poultry, specifically turkey, manure is generated and stored within a roofed building during the growth cycle of the flock. The exterior surroundings of the buildings are graded to prevent storm water from entering the interior of the buildings. The interior of the buildings consist of an earthen floors covered with wood shavings or rice hulls. The purpose of the bedding material is to provide a soft walking surface for the flock and to absorb any moisture generated during the flock cycle. At the end of a flock cycle, the bedding material, manure/litter, is either de-caked or entirely cleaned out. The removed material is land applied in accordance with accepted agronomic practices.

Current Construction Practices:

Most turkey farms consist of three barns, one brooder barn and two grow-out barns
The typical flock cycle is 13-14 weeks for Hens and 18-19 weeks for Toms
The typical dimensions of each barn is 40' x 500', approximately 20,000 sq ft
The barn's basic structure is metal truss/panel design
The supports and truss' are set on 10' center concrete piers
The concrete curbs between the piers are rodent barriers and have no structural purpose
The watering system is low pressure low volume on-demand drinkers, not over flows
The ventilation system is designed to move large volumes of air throughout the barn
The air movement removes moisture from each barn, evaporation helps cool
The building design is 17+ yrs old and is used throughout the midwest & eastern United States

Nally, Scott J., cont.

Environmental Exposure:

The environmental exposure/risk on a turkey farm is minimal. The areas of potential environmental concern are: litter/manure storage, land application of litter/manure and daily mortality disposal. The current construction practices employed by the poultry industry follow recognized good management techniques and established standards. The building design specifications address basic engineering requirements without placing undue economic constraints on the turkey grower. The proposed part of the rule focuses on construction standards and addresses the least of the poultry environmental exposure concerns, litter/manure storage. For example, each turkey barn is completely enclosed by paneled walls and a water tight roof. The floors are covered with several inches of litter to absorb manure. Therefore, the potential of significant material contacting storm water or surface waters of the state is greatly minimized during storage. The only remaining environmental issue pertaining to litter/manure storage was the issue of ground water contamination or the leaching of significant material to ground water. Perdue's management team asked the University of Illinois to help determine the potential environmental risk of litter/manure to ground water. The goal was to provide scientific data to determine if construction modifications were warranted.

University of Illinois Study:

Perdue Farms Incorporated and the University of Illinois conducted a study to determine the degree of leaching from earthen poultry barn floors in Illinois. Three existing farms were chosen for the study. The farms were from different counties and were chosen as worst case scenarios. The farms chosen were all greater than 12 years old. The results demonstrated our original premise that poultry litter/manure storage has minimal environmental exposure and does not warrant additional costs associated with the implementation of regulations aimed at higher risk livestock manure storage facilities.

Question of Cost:

The additional costs associated with the implementations of the proposed regulation to the turkey industry in Illinois have been determined. The cost to construct a typical 3-house turkey farm unit is approximately \$309,000. The additional cost to add concrete floors to each barn is \$20,200/barn or \$60,600 per farm unit, plus professional engineering services. A substantial increase to an already slim cash flow situation. An alternative media has been tried at one farm location to achieve the hydraulic conductivity proposed in the standard without the associated costs of concrete. The media was Bentonite clay, blended with in-situ soil at predetermined proportions. The cost of the alternative media was \$6,000/barn, plus sampling and professional engineering services. The results of the alternative media trial posed other concerns and will probably not be pursued in the future. The use of a synthetic liner is cost prohibitive since the barns are 20,000 sqft per building, 60,000 sqft per farm unit. Therefore, if poultry is included in the proposed construction standard, it will limit the industry's ability to add additional farms and repair/replace existing farms within the state of Illinois. The lending institutions will dictate financing requirements. This impact will also affect the property tax base in several counties in southern Illinois.

Nally, Scott J., cont.

Manure Solids:

The question of percent solids of manures was asked during the testimony. According to Midwest Planning Services (MWPS-18), the percent solids in semi-solid manure, not liquid systems, is as follows: Swine 15-20%, Dairy 18-21%, Sheep 28%, Horse 46%, Poultry 30-75%. Turkey manure is generally 30-45%.

Recommendations:

The proposed construction standards of liquid lagoons, perimeter monitoring, concrete requirements and professional engineering services are not relevant to poultry operations. The proposed construction standards add undo economic hardship to a poultry grower, while not addressing the potential environmental risks associated with this type of livestock operation. I am not sure who represented the poultry industry, if anybody, on the Livestock Management Facility Advisory Committee, but these issues should have been discussed and resolved prior to review by the Illinois Pollution Control Board. I would recommend that qualified specialists within the Department of Animal Sciences at the University of Illinois at Urbana-Champaign conduct a formal review of the proposed rules and assist in adding further clarification to distinguish liquid, semi-liquid and dry manure handling facilities. I would offer any services, including my own, as needed. I realize the time restraints, but lets not be hasty in the adoption of a rule that has such a large potential economic impact without fist allowing the experts an opportunity to review and comment.

Respectfully submitted,



Scott Nally
Regional Environmental Manager
Perdue Farms Incorporated