



ARKANSAS
Department of Environmental Quality

Hank Bates
Carney, Bates, & Pulliam, PLLC
11311 Arcade Drive, Suite 200
Little Rock, AR 72212

RE: C&H Hog Farm
AFIN: 51-00164; Permit Tracking No.: ARG590001

Dear Mr. Bates:

The Department has received your letter dated May 15, 2013 regarding the above referenced hog farm. The Department believes there is some misconception of the purpose and capabilities of the 2010 Arkansas Phosphorus Index (P-Index). The P-Index is a State sanctioned risk assessment tool developed by the USDA Natural Resources Conservation Service (NRCS), USDA Agricultural Research Station (ARS), the Arkansas Natural Resources Commission (ANRC), and the University of Arkansas (UA). The P-Index is utilized to assess the risk of phosphorus loss in runoff from pastures and hayland and takes many site specific factors and management practices into account. Factors such as soil test phosphorus, water extractable phosphorus, soil erosion, soil runoff, flooding, application method, application timing, and best management practices (BMPs) are needed to calculate the P-Index for a site. The P-Index can be used to assess the risks associated with Nitrogen-based or Phosphorus-based land application rates to comply with Condition No. 3.1 of the CAFO General Permit ARG590000. The P-Index can then be used to fine tune the conservation practices of the facility to minimize the risk of phosphorus getting into Waters of the State.

One of the issues raised by the letter is that soil tests for Fields No. H1-H12, H14, and H16-H17 reflect phosphorus levels that are at optimal or above optimal levels and these levels of soil phosphorus should not allow for the land application of more phosphorus based on UA Soil Test Results. For clarification, the optimum and above optimum soil phosphorus levels are indicative of the agronomic viability of the land application site. The permit does not limit application based solely on agronomic rates but, as stated above, is one of many site specific factors and management practices included in the P-index. The Department requests the soil test results used in the calculations be included to ensure that all relevant information is entered correctly into the spreadsheet used to evaluate the P-Index.

Another issue expressed in the letter is the concern of flooding on several of the land application fields. The Department is aware that several of the permitted fields are expected to flood occasionally according to the Web Soil Survey (www.websoilsurvey.nrcs.usda.gov). Flooding frequency of the land application sites is used as a factor in the calculation of the P-Index. The propensity of a site to flood does not specifically prohibit its use as a land application site. Additionally, in accordance with Condition No. 4.2.1.6 of the CAFO General Permit ARG590000, land application is prohibited while the land application fields are saturated or, in the case of your question, flooded.

This facility intends to agitate and remove solids directly from Pond No. 1 and land apply them to Field Nos. H5-H9. All other fields are planned to receive agitated water from Pond No. 2. At the present time, the facility intends to land apply using a honey wagon which is capable of pumping and land applying thicker fluids such as manure. The P-Index, as submitted, does reflect the land application of solids from

the system by using multiple Nutrient Sources and assigning these sources to specific fields in the P-Index spreadsheet. This allows the plan writer to view the total nutrients applied from each source to a site and determine if the loading rates correlate to an acceptable level of risk.

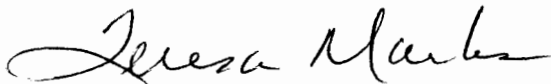
The final technical issues raised in the letter are the assumed nutrient losses and the cells that show as “#N/A,” both from the P-Index Calculation Spreadsheet. The nutrient loss is the amount of nutrients assumed to be lost during the storage and land application of the manure. Though these losses are entered into the spreadsheet, they are not used to calculate the P-Index. The losses are used to aid in the agronomic management of the available nutrients to ensure adequate nutrients are provided to the crop. The P-Index, as a risk-based calculator, takes a worst case scenario approach of assuming that no phosphorus is lost and all is applied.

The omissions mentioned from the spreadsheet (shown as “#N/A”) used to calculate the P-Index Risk Range are actually errors caused by the form of data entry into the spreadsheet. If the number for the soil type is selected from the drop down menu in the spreadsheet cell, then the slope gradient, slope length, and flooding frequency are automatically populated by the spreadsheet. In this case, instead of selecting from the drop down menu the information was typed into the cell, which results in the spreadsheet populating “#N/A” for the slope gradient, slope length and flooding frequency cells. A review of the data provided to the ADEQ shows the correct soil type was provided and entered into the P-Index spreadsheet.

Though Ark Code §8-4-204 allows the Director of the ADEQ to “...revoke, modify, or suspend, in whole or in part, for cause any permit...”, the issues described in your letter are not misrepresentations or omissions of relevant facts on the part of C&H Hog Farm. Therefore, the Department does not agree that revocation of the permit is warranted based on the information supplied in your letter.

Thank you for your cooperation in this matter. If there are any questions concerning this submittal, please contact John Bailey, Permits Branch Manager, of my staff at (501) 682-0629 or by email at bailey@adeq.state.ar.us.

Sincerely,



Teresa Marks
Director

TM:sh

cc: File (AFIN: 51-00164; Permit Tracking No.: ARG590001)