

# STATE OF COLORADO

John W. Hickenlooper, Governor  
Christopher E. Urbina, MD, MPH  
Executive Director and Chief Medical Officer

## **WATER QUALITY CONTROL COMMISSION**

<http://www.cdphe.state.co.us/op/wqcc/index.html>

4300 Cherry Creek Dr. South  
Denver, Colorado 80246-1530  
Phone (303) 692-3463  
Fax (303) 691-7702



**Colorado Department  
of Public Health  
and Environment**

## **NOTICE OF PUBLIC RULEMAKING PROCEEDING BEFORE THE COLORADO WATER QUALITY CONTROL COMMISSION**

### **SUBJECT:**

For consideration of the adoption of revisions to Regulation #61 (5 CCR 1002-61) to resolve issues identified by the Office of Legislative Legal Services related to documents incorporated by reference.

The revisions to Regulation #61 proposed by the Environmental Agriculture Program, along with proposed Statements of Basis, Specific Statutory Authority, and Purpose, are attached to this notice as Exhibit 1. In this attachment, proposed new language is shown with double-underlining and proposed deletions are shown with ~~strikeouts~~. Any alternative proposals related to the subject of this hearing will also be considered.

During the Commission's consideration of whether to approve this notice of rulemaking, the Commission determined that there is not a likelihood of significant controversy during the rulemaking process. Therefore, the Commission has chosen to pursue an alternative rulemaking process consistent with section 24-4-103(4)(a) C.R.S.; and section 21.3(C)(6) of the Procedural Rules. Questions or comments regarding this process are welcome.

It is the goal of the Commission to complete this rulemaking without oral testimony.

### **PARTY STATUS:**

Pursuant to section 21.3(D) of the Commission's Procedural Rules, there shall be no party status for this rulemaking proceeding.

### **WRITTEN COMMENTS AND REBUTTAL STATEMENTS:**

Initial written comments and evidence with respect to the proposed amendments are due in the Commission Office by November 1, 2011. In addition, any written rebuttal statements must be received in the Commission Office by November 30, 2011.

Anyone providing written comments and evidence or rebuttal statements should provide an original plus twenty-five copies to the Commission Office. Anyone for whom the expense of providing these copies presents an economic hardship should contact the Commission Office to make alternative arrangements. Those who wish to receive the written comments and rebuttal statements from other members of the public should so indicate in a cover letter with their submission of written comments.

RULEMAKING DELIBERATION SCHEDULE:

DATE: Monday, December 12, 2011  
TIME: 9:00 a.m.  
PLACE: Florence Sabin Conference Room  
Department of Public Health and Environment  
4300 Cherry Creek Drive South  
Denver, Colorado

At this time and place, the Commission will conduct its deliberations, based on the written comments and evidence submitted.

SPECIFIC STATUTORY AUTHORITY:

The provisions of sections 25-8-202(1)(d) and (2), 25-8-401, 25-8-501.1, and 25-8-504, C.R.S., provide the specific statutory authority for consideration of the regulatory amendments proposed by this notice.

Should the Commission adopt the regulatory language as proposed in this notice or alternative amendments, it will also adopt, in compliance with section 24-4-103(4) C.R.S., an appropriate Statement of Basis, Specific Statutory Authority, and Purpose.

NOTIFICATION OF POTENTIAL MATERIAL INJURY TO WATER RIGHTS:

In accordance with section 25-8-104(2)(d), C.R.S. any person who believes that the actions proposed in this notice have the potential to cause material injury to his or her water rights is requested to fully explain the basis for their claim in the written comments submitted. This explanation should identify and describe the water right(s), and explain how and to what degree the material injury will be incurred.

Dated this 29<sup>th</sup> day of September 2011 at Denver, Colorado.

WATER QUALITY CONTROL COMMISSION

---

Paul D. Frohardt, Administrator

## **EXHIBIT 1**

### **DEPARTMENT OF HEALTH AND ENVIRONMENT**

#### **Water Quality Control Commission**

**5 CCR 1002-61**

#### **COLORADO DISCHARGE PERMIT SYSTEM**

....

#### **61.13 HOUSED COMMERCIAL SWINE FEEDING OPERATIONS**

....

##### **61.13(4) REQUIREMENTS FOR HOUSED COMMERCIAL SWINE FEEDING OPERATIONS**

- (d) Operation and Maintenance Requirements

....

- (xvi) Effluent Limitations for housed commercial swine feeding operations (HCSFOs)

....

- (B) New source operations

- (I) Production areas - Except as provided in subsections 61.13(4)(d)(xvi)(B)(I)(1) and (2) of this section, there shall be no discharge of residual solids or swine feeding process wastewater into surface water from the production area. Operations shall attain the limitations and requirements of this section 61.13(4)(d)(xvi)(B)(I) as of the date of permit coverage.

- (1) Best management practice effluent limitations included in the permit must address the HCSFO's entire production area. In the case of any HCSFO using open surface impoundments or tanks that are used to treat, store or evaporate swine feeding process wastewater for which the Division establishes such effluent limitations, "no discharge of manure, litter, or process wastewater pollutants," as used in this section, means that the storage structure is designed, operated, and maintained in accordance with best management practices established by the Division on a site-specific basis after a technical evaluation of the storage structure. The technical evaluation must address the following elements:

- a. Information to be used in the design of the open surface impoundments or tanks including, but not limited to, the

following: minimum storage periods for rainy seasons, additional minimum capacity for chronic rainfalls, applicable technical standards that prohibit or otherwise limit land application to frozen, saturated, or snow-covered ground, planned emptying and dewatering schedules consistent with the HCSFO's Swine Waste Management Plan, additional storage capacity for swine feeding process wastewater intended to be transferred to another recipient at a later time, and any other factors that would affect the sizing of the open surface impoundments or tanks.

- b. ~~The design of the~~ Open surface impoundments or tanks must be designed using procedures and/or software as determined by the most recent version of the USDA — NRCS Animal Waste Management (AWM) software. HCSFOs may use equivalent design software or procedures as approved by the Division.
- c. All inputs used in the open surface impoundment or tank design including actual climate data for the previous 30 years consisting of historical average monthly precipitation and evaporation values, the number and types of animals, anticipated animal sizes or weights, any added water and residuals, any other process wastewater, and the size and condition of outside areas exposed to rainfall and contributing runoff to the open surface impoundments or tanks. If actual climate data is not available, the best available data from the most proximate weather station(s), such as those utilized by the Colorado State University Colorado Climate Center or the National Oceanic and Atmospheric Administration should be used.
- d. The planned minimum period of storage in months including, but not limited to, the factors for designing an open surface impoundment or tank as listed in paragraph (l)(1)(a) of this section. Alternatively the HCSFO may determine the minimum period of storage by specifying times the storage pond will be emptied consistent with the HCSFO's Swine Waste Management Plan.
- e. Site-specific predicted design specifications including dimensions of the storage facility, residual solids and daily swine feeding process wastewater additions, the size and characteristics of the land application areas, and the total calculated storage period in months.
- f. ~~An~~ Evaluation of the adequacy of the designed open surface impoundments or tanks must use evaluations and simulations approved by the Division using the most recent version of the USDA, NRCS Soil Plant Air Water (SPAW) Hydrology Tool. The evaluation must include all simulation inputs ~~to SPAW~~ including, but not limited to, daily precipitation, temperature, and evaporation data for

the previous 100 years, user-specified soil profiles representative of the HCSFO's land application areas, planned crop rotations consistent with the HCSFO's Swine Waste Management Plan, and the final modeled result of no overflows from the designed open surface impoundments or tanks. For those HCSFOs where 100 years of local weather data for the HCSFO's location is not available, HCSFOs may use a simulation with a confidence interval analysis conducted over a period of 100 years. The Division may approve equivalent evaluation and simulation procedures.

....

## **61.17 CONCENTRATED ANIMAL FEEDING OPERATIONS**

....

### **61.17(6) EFFLUENT LIMITATION REQUIREMENTS FOR CONCENTRATED ANIMAL FEEDING OPERATIONS**

Except where a variance has been granted pursuant to section 61.12, CAFOs must achieve the following effluent limitations:

....

#### **(b) New Source CAFOs**

The following CAFOs that commenced construction after April 14, 2003 are considered new sources and are subject to the following effluent limitations, as applicable.

....

- (iv) Effluent Limitations for new source Large Swine, Poultry, and Veal Calf CAFOs that commenced construction after April 14, 2003
  - (A) Production areas - Except as provided in paragraphs (iv)(A)(I) and (iv)(A)(II) of this section, there shall be no discharge of manure or process wastewater into surface water from the production area. These CAFOs shall attain the limitations and requirements of this section 61.17(6)(b)(iv)(A) as of the date of permit coverage.
    - (I) Any CAFO subject to this subpart may request that the Division establish best management practice effluent limitations designed to ensure no discharge of manure, litter, or process wastewater based upon a site-specific evaluation of the CAFO's open surface manure storage structure. Best management practice effluent limitations included in the permit must address the CAFO's entire production area. In the case of any CAFO using an open surface manure storage structure for which the Division establishes such effluent limitations, "no discharge of manure, litter, or process wastewater pollutants," as used in this section, means that the storage structure is designed, operated, and maintained in accordance with best management practices established by the Division on a site-specific basis after a technical evaluation of the storage structure. The technical evaluation must address the following elements:

- (1) Information to be used in the design of the open manure storage structure including, but not limited to, the following: minimum storage periods for rainy seasons, additional minimum capacity for chronic rainfalls, applicable technical standards that prohibit or otherwise limit land application to frozen, saturated, or snow-covered ground, planned emptying and dewatering schedules consistent with the CAFO's Nutrient Management Plan, additional storage capacity for manure intended to be transferred to another recipient at a later time, and any other factors that would affect the sizing of the open manure storage structure.
- (2) ~~The design of the~~ Open manure storage structures must be designed using procedures and/or software as determined by the most recent version of the USDA, NRCS Animal Waste Management (AWM) software. CAFOs may use equivalent design software or procedures as approved by the Division.
- (3) All inputs used in the open manure storage structure design including actual climate data for the previous 30 years consisting of historical average monthly precipitation and evaporation values, the number and types of animals, anticipated animal sizes or weights, any added water and bedding, any other process wastewater, and the size and condition of outside areas exposed to rainfall and contributing runoff to the open manure storage structure. If actual climate data is not available, the best available data from the most proximate weather station(s), such as those utilized by the Colorado State University Colorado Climate Center or the National Oceanic and Atmospheric Administration should be used.
- (4) The planned minimum period of storage in months including, but not limited to, the factors for designing an open manure storage structure listed in paragraph (A)(1)(1) of this section. Alternatively the CAFO may determine the minimum period of storage by specifying times the storage pond will be emptied consistent with the CAFO's Nutrient Management Plan.
- (5) Site-specific predicted design specifications including dimensions of the storage facility, daily manure and wastewater additions, the size and characteristics of the land application areas, and the total calculated storage period in months.
- (6) ~~An~~ Evaluation of the adequacy of the designed manure storage structure must use evaluations and simulations approved by the Division using the most recent version of the USDA, NRCS Soil Plant Air Water (SPAW) Hydrology Tool. The evaluation must include all simulation inputs ~~to SPAW~~ including, but not limited to, daily precipitation, temperature, and evaporation data for the previous 100 years, user-specified soil profiles representative of the CAFO's land application areas, planned crop rotations consistent with the CAFO's Nutrient Management Plan, and the final modeled result of no overflows from the designed open manure storage structure. For those CAFOs where 100 years of local weather data for the CAFO's location is not available, CAFOs may use a simulation with a confidence interval analysis

conducted over a period of 100 years. The Division may approve equivalent evaluation and simulation procedures.

....

**61.17(8)      ADDITIONAL REQUIREMENTS FOR CONCENTRATED ANIMAL FEEDING OPERATIONS**

....

**(b)      Nutrient Management Plan Requirements**

....

**(xii)      Terms of the Nutrient Management Plan**

- (A)**      Any permit issued to a CAFO must require compliance with the terms of the CAFO's site-specific nutrient management plan. The terms of the nutrient management plan are the information, protocols, best management practices, and other conditions in the nutrient management plan requested by the Division for clarification or justification in order to meet the requirements of paragraph 61.17(8)(b) of this section.
- (B)**      The terms of the nutrient management plan, with respect to protocols for land application of manure, litter, or process wastewater required by paragraph 61.17(8)(b)(x) of this section and, as applicable, 61.17(8), must include:
  - (I)**      The fields available for land application;
  - (II)**      Field-specific rates of application properly developed, as specified in paragraph 61.17(8)(b)(xii)(B)(IV) below, to ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater; and
  - (III)**      Any timing limitations identified in the nutrient management plan concerning land application on the fields available for land application;
  - (IV)**      Description of the rates of application of manure, litter, and process wastewater to be land applied, according to the following specifications:
    - (1)**      Maximum amounts of nitrogen and phosphorus derived from all sources of nutrients, for each crop identified in the nutrient management plan, in chemical forms determined to be acceptable to the Division, in pounds per acre, for each field;
    - (2)**      The outcome of field-specific assessment of potential for nitrogen and phosphorus transport to surface water for each field, using the USDA, NRCS Colorado Phosphorus Index Risk Assessment tool or other Division-approved method;
    - (3)**      The crops to be planted in each field or any other uses such as pasture or fallow fields (including alternative crops identified in

accordance with paragraph 61.17(8)(b)(xii)(B)(IV)(7) of the section);

- (4) The realistic yield goal for each crop or use identified for each field;
- (5) The nitrogen and phosphorus recommendation for each crop or use identified for each field from a method approved by the Division. Such methods may include, but are not limited to, :
  - a) ~~T~~the most current published fertilizer suggestions of the Cooperative Extension in Colorado or adjacent states, or  
t;
  - b) ~~The~~ most current nutrient management planning guidelines for Colorado as published by the USDA, NRCS, ~~or~~
  - c) ~~A method approved by the Division;~~

....



## Environmental Agriculture Program Proposed

### **61.66 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY, AND PURPOSE – DECEMBER 12, 2011 RULEMAKING HEARING; EFFECTIVE DATE JANUARY 31, 2012**

The provisions of 25-8-202(1)(d) and (2), 25-8-401, 25-8-501.1, and 25-8-504, C.R.S., provide the specific statutory authority for the amendments to this regulation adopted by the Commission. The Commission has also adopted, in compliance with 24-4-103(4) C.R.S., the following statement of basis and purpose.

#### **BASIS AND PURPOSE**

In this rule revision, the Commission removed references to outside materials that raised incorporation by reference concerns under Colorado law, C.R.S. § 24-4-103(12.5).

On September 20, 2011, the Division met with stakeholders to discuss this rulemaking approach. Consensus was reached on the approach used in today's rulemaking to address concerns related to the technical requirements incorporated by reference. In addition, the Commission notes that this rulemaking does not remove the requirements for new source concentrated animal feeding operations (CAFOs) and housed commercial swine feeding operations (HCSFOs) to perform certain evaluations related to the design and adequacy of impoundment structures, or to follow certain published nutrient management planning guidelines. Instead, applicable CAFOs and HCSFOs can choose from a number of equivalent technical resources and request approval for use by the Division.

#### **Revised Provisions**

Subsections 61.13(4)(d)(xvi)(B)(I)(1) and 61.17(6)(b)(iv)(A)(I): The Commission adopted provisions requiring the design of open surface impoundments or tanks and open manure storage structures to use procedures and/or software approved by the Division, such as the most recent version of the USDA – NRCS Animal Waste Management (AWM) software, or equivalent.

Subsections 61.13(4)(d)(xvi)(B)(I)(1) and 61.17(6)(b)(iv)(A)(I): the Commission adopted provisions requiring that the adequacy of the open surface impoundments or tanks and manure storage structures be evaluated using simulations approved by the Division, such as the USDA, NRCS Soil Plant Air Water (SPA-W) Hydrology Tool, or equivalent.

Subsection 61.17(8)(b)(xii)(B)(IV)(5): The Commission adopted provisions requiring that the methods used to prepare recommendations for nitrogen and phosphorus use be approved by the Division, and included examples of methods considered approvable.