

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>

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**Colorado
Department
of Public Health
and Environment**

NOTICE OF PUBLIC RULEMAKING HEARING BEFORE THE COLORADO WATER QUALITY CONTROL COMMISSION

SUBJECT:

For consideration of the adoption of revisions to portions of the Colorado Discharge Permit System Regulations, Regulation #61 (5 CCR 1002-61), regarding permits for concentrated animal feeding operations, including any revisions necessary to provide consistency with State and Federal law. The revisions to Regulation #61 proposed by the Colorado Department of Public Health and Environment's (Department's) Environmental Agriculture Program, along with a proposed Statement of Basis, Specific Statutory Authority, and Purpose, are attached to this notice as Exhibit 1. Proposed new language is shown with double-underlining and proposed deletions are shown with ~~strikeouts~~. Any alternative proposals related to the revisions proposed in Exhibit 1, and developed in response to those proposed revisions, will also be considered.

HEARING SCHEDULE:

DATE: Monday, August 8, 2011
TIME: 2:00 p.m.
PLACE: Florence Sabin Conference Room
Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, Colorado 80246

PUBLIC PARTICIPATION ENCOURAGED:

The Commission encourages all interested persons to provide their opinions or recommendations regarding the matters to be addressed in this rulemaking hearing, either orally at the hearing or in writing prior to or at the hearing. Although oral testimony from those with party status (see below) and other interested persons will be received at the hearing, the time available for such oral testimony may be limited. Written submissions prior to the hearing are encouraged, so that they can be distributed to the Commission for review prior to the hearing. Oral testimony at the hearing should primarily summarize written material previously submitted. The hearing will emphasize Commission questioning of parties and other interested persons about their written prehearing submittals. Introduction of written material at the hearing by those with party status or mailing list status (see below) generally will not be permitted. The Commission requests that all interested persons submit to the Commission Office any available information that may be relevant in considering the noticed proposals.

PARTY STATUS/MAILING LIST STATUS:

Participation as a "party" to this hearing or acquisition of "mailing list status," will require compliance with section 21.3(D) of the Procedural Rules, Regulation #21 (5 CCR 1002-21). Mailing list status will allow receipt of all party documents (except individual exhibits more than five pages in length).

It is not necessary to acquire party status or mailing list status in order to testify or comment. **For each request for party status or mailing list status, please provide the organization's name, a contact person, mailing address, phone number, fax number and email address if available.** Written party status or mailing list status requests are due in the Commission Office on or before:

DATE: Wednesday, May 25, 2011
TIME: 5:00 p.m.

A single copy of the party status or mailing list status request may be transmitted as an email attachment to cdphe.wgcc@state.co.us, submitted by fax to 303-691-7702, mailed or otherwise conveyed so as to be received in the Commission Office no later than this deadline. PLEASE NOTE that, as indicated below, parties will have the option of distributing materials to other parties electronically, except in instances where a party has requested receiving hard copies of documents. Therefore, **anyone requesting party or mailing list status that wishes to receive hard copies of documents instead of emailed copies should so indicate in the party status/ mailing list status request so that this information can be included on the list distributed by the Commission Office.**

PREHEARING STATEMENTS:

PLEASE NOTE that for this hearing two separate deadlines for prehearing statements are established: (1) An original and 13 copies of an initial **Prehearing Statement** from **the Department's Environmental Agriculture Program, as proponent of the revisions proposed in Exhibit 1 attached to this notice**, including written testimony and exhibits providing the basis for the proposals, must be received in the Commission Office no later than **June 1, 2011**; and (2) an original and 13 copies of a **Responsive Prehearing Statement**, including any exhibits, written testimony, and alternative proposals of the Department's Environmental Agriculture Program or **anyone seeking party status and intending to respond to the proponent's proposals** must be received in the Commission Office no later than **June 29, 2011**.

For each deadline, the required number of hard copies of documents must be received in the Commission office by the specified deadline. These requirements are not satisfied by electronic transmission of a facsimile copy or copies. However, **parties are also strongly encouraged to email a copy of their written documents to the Commission Office**, so that materials received can be posted on the Commission's web site. (Please email to cdphe.wgcc@state.co.us.) In addition, copies of these documents must be mailed or hand-delivered by the specified dates to all persons requesting party status or mailing list status, and to the Attorney General's Office representatives for the Commission and the Department's Environmental Agriculture Program, in accordance with a list provided by the Commission Office following the party status/ mailing list status deadline. **Alternatively, parties may email documents to those with party status or mailing list status by the**

specified dates, except to those that the list distributed by the Commission Office identifies as requesting hard copies.

Also **note** that the Commission has prepared a document entitled **Information for Parties to Water Quality Control Commission Rulemaking Hearings**. A copy of this document will be mailed or emailed to all persons requesting party status or mailing list status. It is also posted on the Commission's web site at <http://www.cdphe.state.co.us/op/wgcc/PublicParticipation/HBappC.pdf>. Following the suggestions set forth in this document will enhance the effectiveness of parties' input for this proceeding. **Please note the request that all parties submit two-sided copies of all hearing documents on three-hole punch paper.**

MAILING LIST STATUS COMMENTS:

Those requesting mailing list status shall provide written testimony, if any testimony is to be offered for the hearing, by the above deadline for responsive prehearing statements – i.e., **June 29, 2011**. Copies shall be submitted and distributed in the same manner as noted above for prehearing statements.

PREHEARING CONFERENCE:

DATE: Wednesday, July 6, 2011
TIME: 11:00 a.m.
PLACE: Board Room, Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, Colorado

Attendance at the prehearing conference is mandatory for all persons requesting party status. An opportunity may be available to participate in this prehearing conference by telephone. Persons wishing to participate by telephone should notify the Commission Office as early as possible.

REBUTTAL STATEMENTS:

Written rebuttal statements responding to the prehearing statements due on June 29, 2011 may be submitted by anyone seeking party status or mailing list status. Any such rebuttal statements must be received in the Commission Office by **July 27, 2011**. An original and 13 copies of written rebuttal statements must be received in the Commission Office by this deadline, and submission of an emailed copy as noted above is strongly encouraged. In addition, copies of these documents must be mailed or hand-delivered by that date to all those requesting party status or mailing list status, and to the Attorney General's Office representatives for the Commission and Division. **Alternatively, parties may email documents to those with party status or mailing list status by this deadline**, except to those that the list distributed by the Commission Office identifies as requesting hard copies. No other written materials will be accepted following this deadline except for good cause shown.

SPECIFIC STATUTORY AUTHORITY:

The provisions of sections 25-8-202 and 25-8-401 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 so indicate in the party status request submitted. In order for this potential to be considered fully by the Commission and the other agencies listed in the statute, persons must fully explain the basis for their claim in their prehearing statement which is due in the Commission Office on the date specified above. 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 13th day of April 2011 at Denver, Colorado.

WATER QUALITY CONTROL COMMISSION

Paul D. Frohardt, Administrator

EXHIBIT 1
ENVIRONMENTAL AGRICULTURE PROGRAM

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(1) SCOPE AND PURPOSE

- (a) The provisions in this section 61.13 implement the provisions of section 25-8-501.1, C.R.S. This section also includes permit regulations required by the federal concentrated animal feeding operation (CAFO) regulations as revised effective July 24, 2007 and December 22, 2008.

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61.13(2) SPECIFIC APPLICABILITY

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- (c) Land Application Discharges from a housed commercial swine feeding operation – The discharge of residual solids or swine feeding process wastewater to surface water from a housed commercial swine feeding operation (HCSFO) as a result of the application of that residual solids or swine feeding process wastewater by the HCSFO to land areas under its control is a discharge from that HCSFO subject to permit requirements, except where it is an agricultural storm water discharge. For purposes of this section 61.13, where the residual solids or swine feeding process wastewater has been applied in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the residual solids or swine feeding process wastewater, as specified in those parts of the swine waste management plan that address subsections 61.13(3)(f)(~~vii~~), (viii), (ix), (x) and (~~xv~~)(xvi), a precipitation-related discharge of residual solids or swine feeding process wastewater from land areas under the control of a HCSFO is an agricultural stormwater discharge.

61.13(3) APPLICATIONS AND REQUIRED PLANS

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- (d) Construction Plan Requirements - The construction plan shall contain documentation which demonstrates that each applicable provision of subsection 61.13(4)(c) has been or will be met and which also demonstrates compliance with the water quality setbacks established in subsection 61.13(4)(f). In addition to such documentation, the plan shall include the following information:

- (i) A description of the confined swine feeding operation site(s) and vicinity including a site plan(s) prepared on one or more 7.5' USGS topographic quadrangle maps or a high quality reproduction(s). The site plan(s) shall show:

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- (C) The location of occupied dwellings, public or private schools, and incorporated municipalities, and all private and community domestic water wells, wetlands, streams, and reservoirs which are within 200% of the setback distances specified in subsection 61.13(4)(f) of these regulations.

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- (f) Swine Waste Management Plan —~~The operator or owner shall develop and implement a complete swine waste management plan.~~ A housed commercial swine feeding operation ("HCSFO")~~that existed as of June 30, 2004 shall develop and implement by December 31, 2006 a complete swine waste management plan that also addresses the elements of subsections 61.13(3)(f)(vii) through (xv), which were either revised or added effective June 30, 2004.~~ A new source operation, and an animal feeding operation that becomes a HCSFO after June 30, 2004, shall develop and implement a complete swine waste management plan as of the date of permit coverage. The swine waste management plan ~~shall provide for~~ must comply with the provisions of subsections 61.13(4)(e) and 61.13(4)(f)(iii). The plan shall be prepared under the supervision of a professional engineer registered in the State of Colorado, by the Natural Resources Conservation Service, by a qualified Cooperative Extension Agent, by a certified crop advisor certified by the American Society of Agronomy or by an independent crop consultant certified by the National Alliance of Independent Crop Consultants. The plan shall include sufficient site-specific hydrologic and agronomic information, supplemented by other scientifically supported information, to document that land application of all residual solids and swine feeding process wastewater will be conducted and sustained at or below the agronomic rate of application for crops or vegetation to be grown on the application site(s). The plan shall quantify the disposition of all residual solids and swine feeding process wastewater produced at the facility whether put to beneficial use through land application on-site or transported off-site. The swine waste management plan shall must identify and address the following, ~~if applicable~~:

- (i) Daily, seasonal, and annual quantities and/or flow rates of residual solids and swine feeding process wastewater to be applied to the land area;
- (ii) Concentrations of specific constituents including, but not limited to, nitrogen, phosphorus, heavy metals, and salts present in the residual solids or swine feeding process wastewater as a result of the housed commercial swine feeding operation;
- (iii) Climatic conditions, including temperature and precipitation regime, as they may seasonally affect the plants' ability to uptake nutrients and other constituents present in the wastewater;
- (iv) Soil types in the land application sites;
- (v) Documentation which supports any post-treatment reduction in waste concentration(s) prior to land application;
- (vi) Identify the crops to be planted in each field, or any other uses such as pasture or fallow fields. Identify alternative crops that are not in the planted crop rotation for each field. Identify the realistic yield goal for each crop and alternative crop for each field.

- ~~(vi)~~(vii) The specific land parcels and acreage to receive the residual solids and swine feeding process wastewater and a demonstration that adequate and suitable land is available upon which to land apply the residual solids and swine feeding process wastewater in accordance with the agronomic rate of application;
- ~~(viii)~~(viii) Identify the constituents in residual solids, swine feeding process wastewater, and soils that will be analyzed, and the testing protocols that will be used for the analyses, to ensure the provisions of subsection 61.13(4)(e) are met ;
- ~~(viii)~~(ix) Identification and a description of the methods for determining application rates and setbacks, and the potential for nitrogen and phosphorus transport from land application sites that will ensure the provisions of subsection 61.13(4)(e) and 61.13(4)(f)(iii) are met;
- ~~(ix)~~(x) A description of the planned method of residual solids and swine feeding process wastewater land application, disposal, or other usage, land application equipment leak inspection protocols, and surface water runoff controls and setbacks that will be implemented to prevent wastes from being discharged to waters of the state or beyond the property boundary of the land application site;
- ~~(x)~~(xi) A description of how the permittee will ensure adequate storage of residual solids and swine feeding process wastewater, including procedures to ensure proper operation and maintenance of the storage facilities;
- ~~(xi)~~(xii) A description of how animal mortalities will be managed to ensure that they are not disposed of in any liquid residual solids or swine feeding process wastewater system that is not specifically designed to treat animal mortalities, and are handled in such a way as to prevent the discharge of pollutants to surface waters;
- ~~(xii)~~(xiii) Indicate how the permittee will ensure that clean water is diverted, as appropriate, from the production area;
- ~~(xiii)~~(xiv) Indicate how swine will be prevented from having direct contact with surface water;
- ~~(xiv)~~(xv) A description of how chemicals and other contaminants handled on-site are not disposed of in any residual solids or swine feeding process wastewater storage or treatment system unless specifically designed to treat such chemicals and other contaminants;
- ~~(xv)~~(xvi) Identify specific records that will be maintained to document the implementation and management of the elements required in subsections 61.13(3)(f)(vii) through (xiv), above;
- ~~(xvi)~~(xvii) Feed management practices employed, if any, to reduce nutrient concentrations in swine feeding process wastewater or residual solids; and
- ~~(xvii)~~(xviii) If swine waste is to be applied on property not owned by the permittee, written agreements with landowners for off-site land application must be included in the plan. Agreements entered into after March 30, 1999, with landowners for land application shall allow the Division or its agent to assume the rights of the permittee under the agreement in the event that a facility must be brought to final closure by the state unless alternative treatment and disposal are provided for under the financial assurance plan, subsection 61.13(3)(h). The permittee shall provide notice to each landowner of property on which off-site land application occurs of the Division's authority to enter and inspect premises pursuant to section 25-8-306, C.R.S. The permittee shall provide evidence that any agreement with the landowner entered into after March 30, 1999, provides a right of entry to the Division to monitor for compliance with the permit, either directly in the agreement or by assignment of the permittee's rights under the agreement. The Division may

require that the permittee cease land application on any off-site lands to which the Division is denied entry.

(xix) Changes to Swine Waste Management Plan

(A) Any permit issued to a HCSFO must require the following procedures when a HCSFO owner or operator makes changes to the swine waste management plan previously submitted to the Division:

(I) The HCSFO owner or operator must provide the Division with the most current version of the HCSFO's swine waste management plan and identify changes from the previous version, except that the results of calculations made in accordance with the requirements of paragraph 61.13(4)(e) are not subject to the requirements of this section.

(II) The Division must review the revised swine waste management plan to ensure that it meets the requirements of this section and applicable effluent limitations and standards, including those specified in 61.13(4) below, and must determine whether the changes to the swine waste management plan necessitate revision to the terms of the swine waste management plan incorporated into the permit issued to the HCSFO.

1. If revision to the terms of the swine waste management plan is not necessary, the Division must notify the HCSFO owner or operator and upon such notification the HCSFO may implement the revised swine waste management plan.

2. If the Division determines that the changes to the terms of the swine waste management plan are necessary, the Division must notify the public and make the proposed changes and the information submitted by the HCSFO owner or operator available for public review and comment. The process for public comments, hearing requests, and the hearing process if a hearing is held must follow the procedures applicable to draft permits set forth in 61.5. Once the Division incorporates the changes to the terms of the swine waste management plan into the permit, the Division must notify the owner or operator and inform the public of the final decision concerning changes to the terms and conditions of the permit.

(III) Changes to any terms of the swine waste management plan are incorporated as terms and conditions of the permit. Such changes include, but are not limited to:

1. Addition of new land application areas not previously included in the HCSFO's swine waste management plan;

2. Any changes to the maximum amounts of nitrogen and phosphorus derived from all sources for each crop, as set forth in paragraph 61.13(4)(e) of this section;

3. Addition of any crop or other uses not included in the terms of the HCSFO's swine waste management plan and corresponding field-specific rates of application expressed in accordance with paragraph 61.13(4)(e) of this section; and

4. Changes to site-specific components of the HCSFO's swine waste management plan, where such changes are likely to increase the risk of nitrogen and phosphorus transport to surface water.

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61.13(4) REQUIREMENTS FOR HOUSED COMMERCIAL SWINE FEEDING OPERATIONS

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- (b) Review and Approval of Plans for Existing Facilities.
- (i) Plans submitted pursuant to subsection 61.13(4)(a) shall be available for public review. Any person may submit written comments regarding the submitted plans within 30 days following the deadlines set forth in that subsection.
 - (ii) The permittee shall comply with the provisions of the plans submitted and approved under subsection 61.13(4)(a). The Division may amend or reissue the permit to include all or part of any approved plan as a condition of the permit.
- (c) Facility Design and Construction Requirements.
- (i) Evaporation impoundments shall be of sufficient capacity to retain any planned volume of liquid residual solids and the maximum design volume of swine feeding process wastewater produced during the continuous ten (10) year period of minimum net evaporation based on the entire period of record. Such impoundments shall also be capable of containing any planned volume of liquid residual solids and swine feeding process wastewater, including the runoff resulting from a 25-year, 24-hour storm, or if a new source facility, from a 100-year, 24-hour storm be capable of meeting the requirements set forth in 61.13(4)(d)(xvi)(B) below. The permittee shall confirm that these conditions have been met by conducting a water budget analysis and submitting that analysis with the design calculations. For purposes of the water budget analysis, pan evaporation rates should be utilized.
 - (ii) Open surface impoundments and tanks which are used to treat, store, or evaporate swine feeding process wastewater shall have at least two feet of freeboard above the working liquid level.
 - (iii) Swine feeding process wastewater collection systems in housed units, swine feeding process wastewater conveyance systems, and impoundments and tanks which are used to treat, store, or evaporate swine feeding process wastewater shall be constructed and maintained such that the seepage rate from any such system, tank, or impoundment does not exceed 1×10^{-6} cm/sec.
 - (iv) Facilities for storage of swine feeding process wastewater and liquid residual solids shall be provided to account for periods during which land application cannot occur in accordance with subsection 61.13(4)(e), and to be capable of containing liquid residual solids and swine feeding process wastewater, including the runoff resulting from a 25-year, 24-hour storm or, if a new source facility, from a 100-year, 24-hour storm be capable of meeting the requirements set forth in 61.13(4)(d)(xvi)(B) below. For existing source facilities, the volume of storage to be provided may be based on a site-specific analysis. This analysis shall account for: the peak volume and concentration of swine feeding process wastewater that will be generated during the identified period; seasonal

plant uptake rates; and on-site climatic data or off-site published climatic data. In lieu of such analysis, the permittee shall provide capacity to store the peak volume of swine feeding process wastewater that will be generated during a six-month period.

- (v) Facility designs for new housed commercial swine feeding operations shall be prepared under the supervision of a professional engineer registered in the State of Colorado.
 - (I) Any reduction in swine feeding process wastewater pollutant concentrations as a result of treatment shall be supported by site-specific data or applicable published engineering or agricultural waste management principles and shall include consideration of any applicable odor control requirements.
- (vi) Depth markers shall be installed in all open-surface impoundments and tanks to indicate the design volume (pursuant to subsection 61.13(4)(c)(iv)) and clearly indicate the two-foot freeboard elevation, and the minimum capacity necessary to contain the runoff and direct precipitation of the 25-year, 24-hour storm event ~~or, in the case of a new source operation, the runoff and direct precipitation from a 100-year, 24-hour storm.~~ At a minimum, depth markers should be clearly marked in one (1) foot increments.

(d) Operation and Maintenance Requirements

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

(A) Existing source operations

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(II) Land application areas – Discharges from land application areas are subject to the following requirements.

- (1) Develop and implement the swine waste management plan specified in section 61.13(3)(f) and in accordance with the provisions of subsection 61.13(4)(a)(ii), and the best management practices specified in subsections 61.13(3)(f), 61.13(4)(e), and 61.13(4)(f). ~~Operations shall attain the limitations and requirements of this subsection 61.13(4)(d)(xvi)(A)(II)(1) by December 31, 2006.~~
- (2) Maintain a complete copy of the information for the best management practices required at subsections 61.13(4)(e)(i), (e)(ii)(B), (e)(ii)(C), and (e)(ii)(D), subsections 61.13(4)(f)(iii) and 61.13(4)(d)(xiii), and the records specified at subsections 61.13(4)(j), (j)(i), and (j)(iv). ~~Operations shall attain the limitations and requirements of this subsection 61.13(4)(d)(xvi)(A)(II)(2) by December 31, 2006.~~
- (3) Comply with the land application provisions of subsection 61.13(4)(d). Operations shall attain the limitations and requirements of this subsection 61.13(4) (d)(xvi)(A)(II)(3) as of the date of permit coverage.

(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) ~~Whenever precipitation causes an overflow of residual solids or swine feeding process wastewater, pollutants in the overflow may be discharged into surface water provided: 1) the production area is designed, constructed, operated, and maintained to contain all residual solids and swine feeding process wastewater, including the runoff and direct precipitation from a 100-year, 24-hour storm, at minimum; 2) the production area is operated in accordance with the production area best management practices specified in subsections 61.13(4)(c)(vi) and 61.13(4)(d)(x), (xi), and (xii), and the records specified in subsections 61.13(4)(j)(i), (ii), and (iii); and 3) the production area is operated and maintained in accordance with the provisions of subsection 61.13(4)(d) not pertaining to land application.~~ 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 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 using the most recent version of the USDA, NRCS Soil Plant Air Water (SPAW) Hydrology Tool. The evaluation must include all 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.
- g. The Division may waive the requirement of (l)(1)(f) for a site-specific evaluation of the designed open surface impoundments or tanks and instead authorize a HCSFO to use a technical evaluation developed for a class of specific facilities within a specified geographical area.
- h. Waste management and storage facilities designed, constructed, operated, and maintained consistent with the analysis conducted in paragraphs (l)(1)(a) through (l)(1)(g) of this section and operated in accordance with the additional measures and records required in section

61.13(4)(d) and 61.13(4)(e), will fulfill the requirements of this section.

i. The Division has the discretion to request additional information to support a request for effluent limitations based on a site-specific open surface impoundment or tank.

(2) Where a CAFO has requested and the Division has approved effluent limitations based upon a site-specific alternative technology, pursuant to subsection 61.13(4)(d)(xvii)(B), below. The production area must be operated in accordance with the additional measures and recordkeeping required in section 61.13(4)(d) and 61.13(4)(e).

(3) Provisions for upset/bypass, as provided in 61.8(3)(i) & (j), apply to a new source subject to this provision.

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(xvii) Voluntary Alternative Performance Standards

The owner or operator of a housed commercial swine feeding operation may voluntarily request the Division to establish alternative Colorado Discharge Permit System effluent limitations based upon the operation's proposed use of site-specific alternative technologies. The request shall include the information specified below. The operator shall attain the limitations and requirements of subsection 61.13(4)(d)(xvii), as of the date of permit coverage.

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(B) ~~— New Source Housed Commercial Swine Feeding Operations — A supporting technical analysis and any other relevant information and data that would support such site-specific permit limitations based upon a demonstration that site-specific innovative technologies will achieve overall environmental performance across all media which is equal to or superior to the reductions achieved by baseline standards as provided in subsection 61.13(4)(d)(xvi)(B)(I). The quantity of pollutants discharged from the production area must be accompanied by an equivalent or greater reduction in the quantity of pollutants released to other media from the production area (for example, air emissions from housing and storage) and/or land application areas for all residual solids and swine feeding process wastewater at on-site and off-site locations. The comparison of quantity of pollutants must be made on a mass basis where appropriate. The technical analysis and other relevant information shall include, but not be limited to the following. The Division has the discretion to request additional supporting information to supplement such a request.~~

(I) ~~— Information about the proposed technology that includes, but is not limited to, a description of the technology, manufacturer's name and contact information, if applicable, how the swine feeding process wastewater will be treated, the reason for and goal of using the technology, evidence that documents the performance of the technology.~~

(II) ~~— Reductions in the quantity of pollutants from other media shall be based on the results from a whole farm audit that: 1) evaluates releases that~~

~~occur at the point of waste generation and opportunities for minimizing or eliminating waste production and air emissions; 2) evaluates the waste handling and management systems; 3) evaluates the processes of land application and of off-site transfer of residual solids and swine feeding process wastewater. A report of the whole-farm audit shall be submitted to the Division as part of the request for alternative permit limitations to be established.~~

~~(III) — A document that provides the rationale and justification for the models, analyses, and audits that were used and for conclusions made.~~

~~(IV) — A plan for implementing the innovative technology, including quality assurance practices that the owner or operator will use to ensure the proper functioning of the innovative technology and of changes made to reduce the quantity of pollutants released to non-water media, and an approach for monitoring performance of the technology and of the changes made to reduce the quantity of pollutants released to non-water media.~~

~~(C)~~(B) Where the frequency of discharges to surface waters under alternative performance standards is greater than that from a 25-year, 24-hour ~~100-year, 24-hour~~ storm, as applicable, water quality standards-based effluent limits for pollutants in such discharges shall be set pursuant to the requirements of subsection 61.8(2)(b).

~~(D)~~(C) Where the frequency of discharges to surface waters under alternative performance standards is greater than that from a 25-year, 24-hour ~~100-year, 24-hour~~ storm, as applicable, discharges shall be monitored, recorded, and reported pursuant to the requirements of subsection 61.8(4).

....

(g) State Trust Lands

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(ii) In order to prevent degradation of the physical attributes or value ~~3~~ of any state trust lands relating to water quality:

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(i) Spills and Contamination

....

(v) The requirements of this subsection 61.13(i) shall not apply to spills that qualify as "de minimis" relative to the site-specific conditions, in accordance with a site-specific interpretation of "de minimis" proposed by the permittee and approved by the Division.

(j) Recordkeeping

—Housed commercial swine feeding operations shall maintain on-site a copy of its most current swine waste management plan and make it available to the Division or its designee, upon request. In addition, the operation shall create, and maintain on-site for five years from the date

they are created, and make available to the Division or its designee, upon request, the following complete records:

- (i) All applicable records identified in the swine waste management plan, pursuant to subsection 61.13(3)(f)(xvi);

....

- (k) Monitoring and Reporting for Impoundments and Land Application Activities

....

- (viii) The provisions of subsections 61.13(4)(jk)(i), (ii), and (v), above, shall not apply to non-land-application facilities.

....

61.17 CONCENTRATED ANIMAL FEEDING OPERATIONS

61.17(1) SCOPE AND PURPOSE

- (a) The provisions in this section 61.17 provide permit regulations for concentrated animal feeding operations as the result of the revised federal concentrated animal feeding operation (CAFO) regulations that became effective on April 14, 2003. ~~This section also sets forth the revised compliance dates for nutrient management plans and newly defined CAFOs as reflected in the federal CAFO rule that became effective July 24, 2007, and as revised effective July 24, 2007 and December 22, 2008.~~

....

61.17(2) SPECIFIC APPLICABILITY

....

- (b) Any discharge from a CAFO requires a permit except those that are agricultural storm water discharges as defined in section 61.17(2)(c). The owner or operator of a CAFO must seek coverage under a permit if the CAFO discharges to surface water or proposes to discharge as defined in section 61.17(3)(l) below. Specifically, the CAFO owner or operator must either apply for an individual permit or submit a notice of intent for coverage under a general permit.
- (c) Land Application Discharges from a CAFO – The discharge of manure or process wastewater to surface water from a CAFO as a result of the application of that manure or process wastewater by the CAFO to land areas under its control is a discharge from that CAFO subject to permit requirements, except where it is an agricultural storm water discharge. For purposes of this section 61.17, where the manure or process wastewater has been applied in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure or process wastewater, as specified in those parts of the nutrient management plan that address sections 61.17(8)(b)(vi)–(ix), a precipitation-related discharge of manure or process wastewater from land areas under the control of a CAFO is an agricultural stormwater discharge.
- (d) CAFOs shall comply with the relevant sections of Regulation #61, not superseded by this section 61.17, which shall be incorporated in the permit, where appropriate.

61.17(3) DEFINITIONS

As used in this subsection, the following definitions of terms apply.

- (a) ~~“CHRONIC STORM” means a series of storms that occur during a 10-day period which yield a total precipitation of a magnitude that has a probability of recurring once every ten (10) years.~~ “25-YEAR, 24-HOUR STORM” means a storm of a 24-hour duration which yields a total rainfall of a magnitude which has a probability of recurring once every 25 years.
- (b) ~~“CLOSED FACILITY” means a concentrated animal feeding operation that has ceased operation and for which a permit is not in effect.~~ “CHRONIC STORM” means a series of storms that occur during a 10-day period which yield a total precipitation of a magnitude that has a probability of recurring once every ten (10) years.
- (c) ~~“FREEBOARD” means the vertical distance measured from the liquid surface level (elevation) in an impoundment or tank to the top elevation of the impoundment or tank (for example, berm or wall).~~ “CLOSED FACILITY” means a concentrated animal feeding operation that has ceased operation and for which a permit is not in effect.
- (d) “FREEBOARD” means the vertical distance measured from the liquid surface level (elevation) in an impoundment or tank to the top elevation of the impoundment or tank (for example, berm or wall).
- (e) ~~“LAND APPLICATION SITE” means land under the control of an animal feeding operation or concentrated animal feeding operation.~~ a CAFO operator, whether it is owned, rented, or leased by the CAFO, to which manure or process wastewater from the production area is or may be applied, or where cropping or nutrient budget decisions for the site are made by the CAFO.
-
- (i) ~~“100-YEAR, 24-HOUR STORM” means a storm of a 24-hour duration which yields a total rainfall of a magnitude which has a probability of recurring once every one hundred years.~~ “OPERATOR” means any person who owns, leases, operates, controls, or supervises an animal feeding operation or concentrated animal feeding operation.
- (j) ~~“OPERATOR” means any person who owns, leases, operates, controls, or supervises an animal feeding operation or concentrated animal feeding operation.~~ “OVERFLOW” means the discharge of manure or process wastewater resulting from the filling of an impoundment or tank beyond the point at which no more manure or process wastewater can be contained by the structure.
- (k) “OVERFLOW” means the discharge of manure or process wastewater resulting from the filling of an impoundment or tank beyond the point at which no more manure or process wastewater can be contained by the structure. “PROCESS WASTEWATER” means water directly or indirectly used in the operation of a CAFO for any or all of the following: spillage or overflow from animal or poultry watering systems; washing, cleaning, or flushing pens, barns, manure pits, or other CAFO facilities; direct contact swimming, washing, or spray cooling of animals; or dust control. Process wastewater also includes any water which comes into contact with any raw materials, products, or byproducts including manure, litter, feed, milk, eggs, or bedding.
- (l) ~~“PROCESS WASTEWATER” means water directly or indirectly used in the operation of a CAFO for any or all of the following: spillage or overflow from animal or poultry watering systems; washing, cleaning, or flushing pens, barns, manure pits, or other CAFO facilities; direct contact swimming, washing, or spray cooling of animals; or dust control. Process wastewater also includes any water which comes into contact with any raw materials, products, or byproducts including manure, litter, feed, milk, eggs, or bedding.~~ “PROPOSES TO DISCHARGE” means a

CAFO is designed, constructed, operated or maintained such that a discharge to surface water may occur.

....

- (p) ~~“25-YEAR, 24-HOUR STORM” means a storm of a 24-hour duration which yields a total rainfall of a magnitude which has a probability of recurring once every twenty-five years.~~ “VEGETATED BUFFER” means a narrow, permanent strip of dense perennial vegetation established parallel to the contours of and perpendicular to the dominant slope of the field for the purposes of slowing water runoff, enhancing water infiltration, and minimizing the risk of any potential nutrients or pollutants from leaving the field and reaching surface waters.

- (q) ~~“VEGETATED BUFFER” means a narrow, permanent strip of dense perennial vegetation established parallel to the contours of and perpendicular to the dominant slope of the field for the purposes of slowing water runoff, enhancing water infiltration, and minimizing the risk of any potential nutrients or pollutants from leaving the field and reaching surface waters.~~

....

61.17(5) PERMIT APPLICATIONS

(a) Application Deadlines

- (i) The operator of an operation that was defined as a CAFO under regulations that were in effect prior to June 30, 2004, and continues to be defined as a CAFO under subsection 61.2(17), must submit a complete application for a permit immediately where the operation has discharged.
- (ii) The operator of an operation that became defined as a CAFO after June 30, 2004, but which is not a new source, must submit a complete application for a permit as follows where the operation has discharged:
- (A) For newly constructed operations not subject to effluent limitations guidelines, 180 days prior to the time the CAFO places animals on the operation; or
- ~~(B)~~ For operations defined as CAFOs as of June 30, 2004, and that were not defined as CAFOs prior to that date (e.g., existing operations that become defined as a CAFO as a result of this section 61.17), by February 27, 2009; or
- ~~(C)~~ (B) For other operations (e.g., resulting from an increase in the number of animals), as soon as possible, but no later than 90 days after becoming defined as a CAFO; ~~except that if an operational change that makes the operation a CAFO would not have made it a CAFO prior to June 30, 2004, the operator has until February 27, 2009, or 90 days after becoming defined as a CAFO, whichever is later.~~
- (iii) The operator of a new source CAFO must apply for a permit at least 180 days prior to the time that the operator places animals on the operation.
- (iv) The operator of an animal feeding operation that is designated a CAFO pursuant to subsection 61.17(4), must submit a complete application for a permit no later than 90 days after receiving notice of the designation.

(b) Permit Renewal

–The operator of a CAFO that seeks to continue with permit coverage shall submit a new permit application consistent with section 61.17(5)(c) at least 180 days before the existing permit expires.

(c) Permit Application Requirements (Individual and General Permits)

–All new and existing CAFOs shall provide the following to the Division, at minimum, using the application form provided by the Division:

....

- (ix) Design calculations, drawings, specifications, tables, and other documents prepared by or reviewed by a professional engineer registered in Colorado, that document and certify the following. Such documents prepared by a professional engineer shall contain the professional engineer's seal. Such documents reviewed by a professional engineer shall have an accompanying letter indicating what was reviewed and what is being certified by the professional engineer.

....

- (F) That ~~clean water is diverted, as appropriate, from the structures used to divert stormwater from running onto~~ production areas, manure stockpiles, and composting areas ~~are sized such that will carry the flow expected from the storm event that is applicable to the permit for which coverage is being requested;~~

....

- (xiv) ~~For CAFOs that must seek permit coverage after February 27, 2009, a certification that a nutrient management plan, that meets the requirements of subsection 61.17(8)(b), has been completed and will be implemented upon the date of permit coverage~~A nutrient management plan that, at a minimum, satisfies the requirements specified in section 61.17(8)(b);

....

(d) Permit Review and Processing

CAFO owners or operators must submit a notice of intent (i.e., permit application) when seeking authorization to discharge under a general permit in accordance with 61.17(5)(a). The Division will review these submittals to ensure that the notice of intent includes the information required by 61.17(5)(c), including a nutrient management plan that meets the requirements of 61.17(8)(b) and applicable effluent limitations and standards, including those specified in 61.17(6). When additional information is necessary to complete the notice of intent or clarify, modify, or supplement previously submitted material, the Division may request such information from the owner or operator. If the Division makes a preliminary determination that the notice of intent meets the requirements of 61.17(5)(c) and 61.17(8)(b), the Division will notify the public of the Division's proposal to grant coverage under the permit to the CAFO and make available for public review and comment the notice of intent submitted by the CAFO, including the CAFO's nutrient management plan, and the draft terms of the nutrient management plan to be incorporated into the permit.

For permits, the process for submitting public comments and hearing requests, and the hearing process if a request for a hearing is granted, will follow the procedures applicable to draft permits set forth in section 61.5. For nutrient management plans, the Division may establish an appropriate period of time and process for the public to comment and request a hearing that

differs from those specified in section 61.5. The Division will respond to significant comments received during the comment period and, if necessary, require the CAFO to revise the nutrient management plan in order to be granted permit coverage.

When the Division authorizes coverage for the CAFO owner or operator under the general permit, the terms of the nutrient management plan become incorporated as terms and conditions of the permit for the CAFO. The Division will notify the CAFO owner or operator and inform the public that coverage has been authorized and of the terms of the nutrient management plan incorporated as terms and conditions of the permit applicable to the CAFO.

(e) No Discharge Certification Option

(i) Applicability

- (A) The owner or operator of a CAFO that meets the eligibility criteria in paragraph (d)(ii) of this section may certify to the Division that the CAFO does not discharge or propose to discharge.
- (B) A CAFO owner or operator who certifies that the CAFO does not discharge or propose to discharge is not required to seek coverage under a permit pursuant to section 61.17(2)(b), provided that the CAFO is designed, constructed, operated, and maintained in accordance with the requirements of paragraphs (e)(ii) and (iii) of this section, and subject to the limitations in paragraph (e)(iv) of this section.

(ii) Eligibility Criteria

In order to certify that a CAFO does not discharge or propose to discharge, the owner or operator of a CAFO must document, based on an objective assessment of the conditions at the CAFO, that the CAFO is designed, constructed, operated, and maintained in a manner such that the CAFO will not discharge, as follows:

- (A) The CAFO's production area is designed, constructed, operated and maintained so as not to discharge. The CAFO must maintain documentation that demonstrates that:
 - (I) Any open manure storage structures are designed, constructed, operated, and maintained to achieve no discharge based on a technical evaluation in accordance with the elements of the technical evaluation set forth in section 61.17(6)(b)(iv)(A)(I)(1) through (8);
 - (II) Any part of the CAFO's production area that is not addressed by paragraph (d)(ii)(A)(I) of this section is designed, constructed, operated, and maintained such that there will be no discharge of manure, litter, or process wastewater; and
 - (III) The CAFO implements the additional measures set forth in 61.17(8)(f).
- (B) The CAFO has developed and is implementing an up-to-date nutrient management plan to ensure no discharge from the CAFO, including from all land application areas under the control of the CAFO, that addresses, at a minimum, the following:
 - (I) The elements of 61.17(8)(b)(iii) through (xi) and 61.17(8)(f); and

(II) All site-specific operation and maintenance practices necessary to ensure no discharge, including any practices or conditions established by a technical evaluation pursuant to paragraph (d)(ii)(A)(I) of this section; and

(C) The CAFO must maintain documentation required by this paragraph either on site or at a nearby office, or otherwise make such documentation readily available to the Division upon request.

(iii) Certification Requirements

In order to certify that a CAFO does not discharge or propose to discharge, the CAFO owner or operator must complete and submit to the Division, by certified mail or equivalent method of documentation, a certification that includes, at a minimum, the following information:

(A) The legal name, address and phone number of the CAFO owner or operator;

(B) The CAFO name and address, the county name and the latitude and longitude where the CAFO is located;

(C) A statement that describes the basis for the CAFO's certification that it satisfies the eligibility requirements identified in paragraph (d)(ii) of the section; and

(D) The following certification statement: "I certify under penalty of law that I am the owner or operator of a concentrated animal feeding operation (CAFO), identified as [Name of CAFO], and that said CAFO meets the requirements of 61.17(5)(e). I have read and understand the eligibility requirements of 61.17(5)(e)(ii) for certifying that a CAFO does not discharge or propose to discharge and further certify that this CAFO satisfies the eligibility requirements. As part of this certification, I am including the information required by 61.17(5)(e)(iv). I also understand the conditions set forth in 61.17(5)(e)(iv), (v), and (vi) regarding loss and withdrawal of certification. I certify under penalty of law that this document and all other documents required for this certification were prepared under my direction or supervision and that qualified personnel properly gathered and evaluated the information submitted. Based upon my inquiry of the person or persons directly involved in gathering and evaluating the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."; and

(E) The certification must be signed in accordance with the signatory requirements of 61.4(1).

(iv) Term of Certification

(A) A certification that meets the requirements of paragraphs (e)(ii) and (iii) of this section shall become effective on the date it is submitted, unless the Division establishes an effective date of up to 30 days after the date of submission.

(B) Certification will remain in effect for five years or until the certification is no longer valid or is withdrawn, whichever occurs first.

(C) A certification is no longer valid when a discharge has occurred or when the CAFO ceases to meet the eligibility criteria in paragraph (e)(ii) of the section.

(v) Withdrawal of Certification

(A) At any time, a CAFO may withdraw its certification by notifying the Division by certified mail or equivalent method of documentation. A certification is withdrawn on the date the notification is submitted to the Division. The CAFO does not need to specify any reason for the withdrawal in its notification to the Division.

(B) If a certification becomes invalid in accordance with paragraph (e)(iv) of this section, the CAFO must withdraw its certification within three days of the date on which the CAFO becomes aware that the certification is invalid. Once a CAFO's certification is no longer valid, the CAFO is subject to the requirement in 61.17(5)(a) to seek permit coverage if it discharges or proposes to discharge.

(vi) Recertification

(A) A previously certified CAFO that does not discharge or propose to discharge may recertify in accordance with paragraph (e)(i) of this section, except that where the CAFO has discharged, the CAFO may only recertify if the following additional conditions are met:

(I) The CAFO had a valid certification at the time of the discharge;

(II) The owner or operator satisfies the eligibility criteria of paragraph (e)(ii) of this section, including any necessary modifications to the CAFO's design, construction, operation, and/or maintenance to permanently address the cause of the discharge and ensure that no discharge from this cause occurs in the future;

(III) The CAFO has not previously recertified after a discharge from the same cause;

(IV) The owner or operator submits to the Division for review the following documentation: a description of the discharge, including the date, time, cause, duration, and approximate volume of the discharge, and a detailed explanation of the steps taken by the CAFO to permanently address the cause of the discharge in addition to submitting a certification in accordance with paragraph (d)(iii) of this section; and

(V) Notwithstanding paragraph (e)(iv) of this section, a recertification that meets the requirements of paragraphs (e)(vi)(A)(III) and (IV) of this section shall only become effective 30 days from the date of submission of the recertification documentation.

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:

(a) All Existing Operations CAFOs

- (i) Effluent Limitations for existing Large Horse and Sheep CAFOs – There shall be no discharge of process wastewater into surface water except as follows: whenever precipitation causes an overflow of process wastewater from a production area designed, constructed, operated, and maintained to contain all manure and process wastewater, including the runoff and direct precipitation from a 25-year, 24-hour storm, at minimum, any process wastewater pollutants in the overflow may be discharged into surface water.
- (ii) Effluent Limitations for existing duck CAFOs - Discharges resulting from production areas at dry lot and wet lot duck CAFOs with 5,000 or more ducks shall achieve the following effluent limitations:

Regulated Parameter	Maximum Daily ¹	Maximum Monthly Average ¹	Maximum Daily ²	Maximum Monthly Average ²
BOD ₅	3.66	2.0	1.66	0.91
Fecal coliform	(³)	(³)	(³)	(³)

¹ Pounds per 1000 ducks.

² Kilograms per 1000 ducks.

³ Not to exceed MPN of 400 per 100 ml at any time.

- (iii) Effluent Limitations for existing Large Dairy Cow, Cattle, Swine, Poultry, and Veal Calf CAFOs
 - (A) Production areas - Except as provided in paragraphs (iii)(A)(I) and (iii)(A)(II) of this section, there shall be no discharge of manure or process wastewater into surface water from the production area. These Large CAFOs shall attain the limitations and requirements of this section 61.17(6)(a)(iii)(A) as of the date of permit coverage.
 - (I) Whenever precipitation causes an overflow of manure or process wastewater, pollutants in the overflow may be discharged into surface water provided:
 - 1) ~~The~~the production area is designed, constructed, operated, and maintained to contain all manure and process wastewater, including the runoff and direct precipitation from a 25-year, 24-hour storm, at minimum; and,
 - 2) ~~The~~the production area is operated in accordance with the production area best management practices specified in section 61.17(8)(f)(vii), and the records specified in section 61.17(8)(c), ~~(i), (ii), and (iii)~~ below.
 - (II) Where a CAFO has requested and the Division has approved effluent limitation based upon site-specific alternative technologies, pursuant to section 61.17(7)(a), below.
 - (B) Land application areas – Discharges from land application areas are subject to the following requirements. Existing Large Dairy Cow, Cattle, Swine, Poultry, and Veal Calf CAFOs shall attain the limitations and requirements of this section

61.17(6)(a)(iii)(B) ~~by February 27, 2009, or upon the date of permit coverage, whichever is later.~~

- (I) Develop and implement the nutrient management plan specified in section 61.17(8)(b), and the best management practices specified in section 61.17(8)(b)(x).
 - (II) Maintain a complete copy of the information for the best management practices required by section 61.17(8)(b)(x), and the records specified at sections 61.17(8)(c), (c)(i), and (c)(iv).
- (iv) Small and Medium CAFOs – Effluent limitations for these CAFOs shall be determined by the Division using Best Professional Judgment.

(b) New Source Operations 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.

- (i) Effluent Limitations for new source Large Horse and Sheep CAFOs – There shall be no discharge of process wastewater into surface water except as follows: whenever precipitation causes an overflow of process wastewater from a production area designed, constructed, operated, and maintained to contain all manure and process wastewater, including the runoff and direct precipitation from a 25-year, 24-hour storm, at minimum, any process wastewater pollutants in the overflow may be discharged to surface water.
- (ii) Effluent Limitations for new source duck CAFOs–
 - (A) There shall be no discharge of process wastewater into surface water from dry lot and wet lot duck CAFOs with 5,000 or more ducks except as follows: whenever precipitation causes an overflow of process wastewater from a production area designed, constructed, operated, and maintained to contain all manure and process wastewater, including the runoff and direct precipitation from a 25-year, 24-hour storm, at minimum, any process wastewater pollutants in the overflow may be discharged into surface water.
 - (B) Pretreatment standards – There shall be no introduction of process wastewater to a publicly owned treatment works (POTW) by a new source Duck CAFO with 5,000 or more ducks, except as follows:
 - (I) As provided in 40 CFR 403.7; or
 - (II) Whenever rainfall events cause an overflow of process wastewater from a facility designed, constructed, operated, and maintained to contain all manure and process wastewater, including the runoff and direct precipitation from a 25-year, 24-hour storm, at minimum, any process wastewater pollutants in the overflow may be introduced to a POTW.
- (iii) Effluent Limitations for new source Large Dairy Cows and Cattle other than Veal Calves
 - (A) Such a CAFO that commenced construction after April 14, 2003 shall attain the same limitations and requirements as specified in section 61.17(6)(a)(iii) above, except that the limitations and requirements for land application areas shall be attained as of the date of permit coverage.

- (B) Such a CAFO that commenced discharging as a new source after April 14, 1993, and prior to April 14, 2003, shall be subject to the effluent limitation provisions specified in section 61.17(6)(a)(i), above, for the applicable time period specified in 40 CFR 122.29(d)(1). Thereafter, the source must achieve the standards specified in section 61.17(6)(a)(iii), above.
- (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) ~~Whenever precipitation causes an overflow of manure or process wastewater, pollutants in the overflow may be discharged into surface water provided: 1) the production area is designed, constructed, operated, and maintained to contain all manure and process wastewater, including the runoff and direct precipitation from a 100-year, 24-hour storm, at minimum; and, 2) the production area is operated in accordance with the production area best management practices specified in section 61.17(8)(f)(vii), and the records specified in sections 61.17(8)(c)(i), (ii), and (iii) below.~~ Any CAFO subject to this subpart may request that the Division establish permit 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 structure 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)(I)(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 using the most recent version of the USDA, NRCS Soil Plant Air Water (SPAW) Hydrology Tool. The evaluation must include all 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.
- (7) The Division has the discretion to request additional information to support a request for effluent limitations based on a site-specific open surface manure storage structure.
- (8) The Division may waive the requirement of (A)(I)(6) for a site-specific evaluation of the designed manure storage structure and instead authorize a CAFO to use a technical evaluation developed for a class of specific facilities within a specified geographical area.
- (9) Waste management and storage facilities designed, constructed, operated, and maintained consistent with the analysis conducted in paragraphs (A)(I)(1) through (A)(I)(7) of this section and operated in accordance with the additional measures and records required in section 61.17(8)(c) and 61.17(8)(f) below, will fulfill the requirements of this section.

- (II) ~~Where a CAFO has requested and the Division has approved an effluent limitation based upon site-specific voluntary superior environmental performance standards, pursuant to section 61.17(7)(b), below. The production area must be operated in accordance with the additional measures and recordkeeping required in section 61.17(8)(c) and 61.17(8)(f) below.~~
- (III) Provisions for upset/bypass, as provided in 61.8(3)(i) & (j), apply to a new source subject to this provision.
- (B) Land application areas – ~~Discharges from land application areas are subject to the following requirements.~~ New source Large Swine, Poultry, and Veal Calf CAFOs shall attain the limitations and requirements of this paragraph (B) as of the date of permit coverage.
 - (I) Develop and implement the nutrient management plan specified in section 61.17(8)(b), and the best management practices specified in section 61.17(8)(b)(x).
 - (II) Maintain a complete copy of the information for the best management practices required by section 61.17(8)(b)(x), and the records specified at sections 61.17(8)(c), ~~(c)(i), and (c)(iv).~~
- (v) Effluent Limitations for Large Swine, Poultry, and Veal Calf CAFOs that commenced discharging as a new source after April 14, 1993, and prior to April 14, 2003 -- ~~Such CAFOs shall be subject to the effluent limitation provisions specified in section 61.17(6)(a)(i), above, for the applicable time period specified in 40 CFR 122.29(d)(1). Thereafter, the CAFO must achieve the standards specified in section 61.17(6)(a)(iii), above.~~
- (c) General pretreatment standards – CAFO permittees that introduce process wastewater pollutants into a publicly owned treatment works (POTW) must comply with 40 CFR 403.

61.17(7) VOLUNTARY ALTERNATIVE PERFORMANCE STANDARDS

Pursuant to sections 61.17(6)(a)(iii)(A)(II) and 61.17(6)(b)(iv)(A)(II) above, a Large Dairy Cow, Cattle, Swine, Poultry, or Veal Calf CAFO, may voluntarily request the Division to establish alternative Colorado Discharge Permit System effluent limitations based upon the operation's proposed use of site-specific alternative technologies. The request shall include the information specified below. The owner or operator shall attain the limitations and requirements of subsection 61.17(7)(a) or (b), as applicable, as of the date of permit coverage.

- (a) Large Dairy Cow, Cattle, and Existing Source Swine, Poultry, and Veal Calf CAFOs - A supporting technical analysis and any other relevant information and data that would support such site-specific effluent limitations within the time frame provided by the Division. The supporting technical analysis and other relevant information and data shall consist of, but not be limited to, the following.
 - (i) Information about the proposed innovative technology that includes, but is not limited to, ~~the following:~~
 - (A) A description of the technology, manufacturer's name and contact information;
 - (B) How process wastewater and manure will be treated using the proposed innovative technology;

- (C) The reason for and goal of using the technology;
 - (D) A summary and supporting documents of any research and non-research results that document the performance of the technology;
 - (E) Information about any deviation from research and non-research conditions, and the anticipated impacts of such deviations on the performance of the proposed innovative technology;
- (ii) Results from use of an appropriate technical analysis that calculates the following for discharges from the existing facility, unless an alternative evaluation method is approved by the Division. The calculations shall be based on a site-specific analysis of a storage system designed, constructed, operated, and maintained to contain all manure and process wastewater, including runoff from a 25-year, 24-hour storm. The calculations shall also be based on all daily inputs to the storage system, including manure, all process wastewater, direct precipitation, and runoff, and all daily outputs from the storage system, including losses due to evaporation, sludge removal, and the removal of process wastewater for use on cropland at the CAFO or transported off site.
- (A) A calculation determining the predicted median annual overflow volume from the production area based on a 25-year period of actual rainfall data applicable to the site.
 - (B) Site-specific pollutant data for the CAFO, including colonies of fecal coliform and *Escherichia coli*, and of the mass of ammonia, phosphorus, biological oxygen demand (BOD₅), total suspended solids (TSS), chemical oxygen demand (COD), total organic carbon (TOC), temperature, pH, total dissolved solids (for discharges to the Colorado River System only), and other constituents required by the Division. The pollutant data shall be the result of representative sampling and analysis of all sources of input to the storage system, or other appropriate pollutant data.
 - (C) A predicted annual average discharge of the pollutants identified in subsection 61.17(7)(a)(ii)(B) above, expressed where appropriate as a mass discharge on a daily basis (lbs/day), and calculated considering subsections 61.17(7)(a)(ii) and 61.17(7)(a)(ii)(A) and (B), above.
- (iii) Results from an appropriate analysis that provides the following for the proposed innovative technology:
- (A) A prediction of the median annual volume of process wastewater that will occur over the same 25-year period identified in section 61.17(7)(a)(ii), above.
 - (B) A prediction of the annual average discharge of pollutants identified in subsection 61.17(7)(a)(ii)(B), above, that will be associated with the discharges specified in subsection 61.17(7)(a)(iii)(A), above.
 - (C) A demonstration that the proposed innovative technology will achieve a quantity of pollutants discharged from the production area equal to or less than the quantity of pollutants calculated pursuant to subsection 61.17(7)(a)(ii)(C), above.
- (iv) Documentation that provides the rationale and justification for the models and analysis that were used to address subsections 61.17(7)(a)(iii)(B) and (C) above, and for conclusions made. The Division may, with accompanying justification, request additional

information from the operation for the proposed innovative technology, which may include an on-site inspection.

- (v) A plan for implementing the innovative technology, including quality assurance practices that the permittee will use to ensure the proper functioning of the innovative technology, and an approach for monitoring performance.
- (b) ~~New Source Large Swine, Poultry, and Veal Calf CAFOs – A supporting technical analysis and any other relevant information and data that would support such site-specific permit limitations based upon a demonstration that site-specific innovative technologies will achieve overall environmental performance across all media which is equal to or superior to the reductions achieved by baseline standards as provided in section 61.17(6)(b)(iv)(A). The quantity of pollutants discharged from the production area must be accompanied by an equivalent or greater reduction in the quantity of pollutants released to other media from the production area (for example, air emissions from housing and storage) and/or land application areas for all manure and process wastewater at on-site and off-site locations. The comparison of quantity of pollutants must be made on a mass basis where appropriate. The technical analysis and other relevant information shall include, but not be limited to, the following. The Division has the discretion to request additional supporting information to supplement such a request.~~
 - (i) ~~Information about the proposed innovative technology that includes, but is not limited to, a description of the technology, manufacturer's name and contact information, if applicable, how the process wastewater will be treated, the reason for and goal of using the technology, and evidence that documents the performance of the technology.~~
 - (ii) ~~Reductions in the quantity of pollutants released from other media shall be based on the results from a whole farm audit that: 1) evaluates releases that occur at the point of waste generation and opportunities for minimizing or eliminating waste production and air emissions; 2) evaluates the waste handling and management systems; and, 3) evaluates the processes of land application and of off-site transfer of manure and process wastewater. A report of the whole farm audit shall be submitted to the Division as part of the request for alternative effluent limitations to be established.~~
 - (iii) ~~A document that provides the rationale and justification for the models, analyses, and audits that were used and for conclusions made.~~
 - (iv) ~~A plan for implementing the innovative technology, including quality assurance practices that the permittee will use to ensure the proper functioning of the innovative technology and of changes made to reduce the quantity of pollutants released to non-water media, and an approach for monitoring performance of the technology and of the changes made to reduce the quantity of pollutants released to non-water media.~~
- (c)(b) Where the frequency of discharges to surface waters under alternative performance standards is greater than that from a 25-year, 24-hour or 100-year, 24-hour storm, as applicable, water quality standards-based effluent limits for pollutants in such discharges shall be set pursuant to the requirements of subsection 61.8(2)(b).
- (d)(c) Where the frequency of discharges to surface waters under alternative performance standards is greater than that from a 25-year, 24-hour or 100-year, 24-hour storm, as applicable, discharges shall be monitored, recorded, and reported pursuant to the requirements of subsection 61.8(4).

61.17(8) ADDITIONAL REQUIREMENTS FOR CONCENTRATED ANIMAL FEEDING OPERATIONS

- (a) Production Area Design and Construction Requirements.

- (i) Process wastewater Storage Capacity Requirements - Concentrated animal feeding operations, except existing dry lot and wet lot duck CAFOs with 5,000 or more ducks, shall meet one of the following design and construction standards regarding process wastewater storage capacity. Precipitation data used to comply with design and construction requirements for storage capacity shall be from a document approved by the Division.
 - (A) Small and Medium CAFOs – Process wastewater storage capacity requirements shall be determined by the Division using Best Professional Judgment.
 - (B) Baseline Impoundment and Tank Storage Capacity Requirement for Large CAFOs - Impoundments and tanks for production areas of Large CAFOs (except existing duck CAFOs with 5,000 or more ducks) shall be designed and constructed so that are capable of storing, at minimum, the volume of all liquid manure and process wastewater, including the runoff resulting from a 25-year, 24-hour Storm, except where justified by the Division, the runoff volume resulting from a larger storm event (such as a Chronic Storm). Prior to rebuilding or constructing a new impoundment or tank, the operator or owner is strongly advised to contact the Division for the purpose of determining the required storage capacity standard for permitting purposes.
 - (I) New Source Swine, Poultry, or Veal Calf Operations - Impoundments and tanks for production areas of these new source CAFOs shall be designed and constructed so that ~~these structures are capable of storing, at minimum, the volume of all liquid manure and process wastewater, including the runoff resulting from a 100-year, 24-hour Storm, except where justified by the Division, the runoff volume resulting from a larger storm event (such as a Chronic Storm). Prior to rebuilding or constructing a new impoundment or tank, the permittee is strongly advised to contact the Division for the purpose of determining the required storage capacity standard to an operation for permitting purposes~~ meet the requirements set forth in 61.17(6)(b)(iv).
 - (II) Other New Sources, including Duck CAFOs with 5,000 or More Ducks – New source CAFOs that are not swine, poultry, or veal calf operations shall meet the same baseline storage capacity requirement as specified in subsection 61.17(8)(a)(i)(B) above.
 - (C) Evaporation Storage System Standard - Evaporation impoundment systems shall be designed and constructed to withstand a consecutive 10-year period of maximum recorded rainfall, as determined by a water budget analysis process which includes manure and process wastewater loading during that period and provides sufficient capacity to retain all rainfall and process wastewater from the applicable design storm event without overflow. For purposes of determining the consecutive 10-year period of maximum recorded rainfall, the entire period of record shall be utilized. Such impoundments shall also be capable of containing any planned volume of liquid manure and process wastewater, including the runoff resulting from a 25-year, 24-hour storm ~~or, if a new source Large Swine, Poultry, or Veal Calf Operation, from a 100-year, 24-hour storm. If a new source Swine, Poultry or Veal Calf Operation, such impoundments shall be capable of~~ meeting the requirements set forth in 61.17(6)(b)(iv).
- (ii) Spillways - An impoundment shall have a spillway that is designed and maintained to prevent erosion of the structural integrity of the impoundment, except where the operator requests and the Division approves that a spillway is not required.

- (A) An impoundment that holds a depth of process wastewater that is five feet or less, retains process wastewater for 48 hours or less and, from which any overflow will be captured by a down-gradient impoundment or tank, shall be exempt from this requirement.
 - (B) An operator may request approval from the Division that no spillway ~~beis~~ required for an impoundment where the operator demonstrates that structural integrity of the impoundment will be maintained without a spillway in the event of an overflow.
- (iii) For new source Large CAFOs and newly constructed CAFOs, ~~designs of diversion structures and impoundments for process wastewater, and of structures that divert clean water from running onto production areas, manure stockpiles, and composting areas shall be prepared and certified by a professional engineer registered in the State of Colorado.~~
 - (iv) Clean water shall be diverted, as appropriate. Structures used to divert clean water from running onto feedlots, holding pens, manure and process wastewater storage systems, manure stockpiles, composting areas, and the like shall be sized such that they can carry the flow expected from a 25-year, 24-hour storm. Structures used to divert clean water from running onto ~~For new source Large Swine, Poultry, and Veal Calf CAFOs, such structures shall be sized to carry the flow expected from a 100-year, 24-hour storm~~ capable of meeting the requirements set forth in 61.17(6)(b)(iv).
 - (v) Structures used to divert process wastewater from production areas to impoundments or tanks shall be sized such that they can carry the flow expected from a 25-year, 24-hour storm. For new source Large Swine, Poultry, and Veal Calf ~~operations~~, such structures shall be ~~sized to carry the flow expected from a 100-year, 24-hour storm~~ capable of meeting the requirements set forth in 61.17(6)(b)(iv).
- (b) Nutrient Management Plan Requirements—The permittee shall develop and implement a nutrient management plan by the following deadline: 1) by February 27, 2009 or upon the date of permit coverage for existing source CAFOs, whichever is later; and 2) upon the date of permit coverage for new source CAFOs. The nutrient management plan shall be made available to the Division upon request for review of its compliance with this subsection 61.17(8)(b). At minimum, the nutrient management plan shall include best management practices and procedures necessary to implement applicable effluent limitations and standards. The nutrient management plan must, to the extent applicable:
 - (i) Any permit issued to a CAFO must include a requirement to implement a nutrient management plan that, at a minimum, contains best management practices and procedures necessary to meet the requirements of this section and applicable effluent limitations and standards.
 - (ii) The permittee shall develop and implement a nutrient management plan upon the date of permit coverage for existing and new source CAFOs.
 - ~~(i)(iii)~~ (iii) Ensure adequate storage of manure and process wastewater, including procedures to ensure proper operation and maintenance of the impoundments and tanks. The procedures shall include, but not be limited to:
 - (A) Except during the designed storm event, manure and process wastewater stored in impoundments and terminal tanks shall be removed as necessary to maintain a minimum of two (2) feet of freeboard, except where the operator requests and the Division approves an alternative freeboard level. The request shall include

documentation that the alternative level will protect structural integrity of impoundments and terminal tanks and be functionally equivalent to two feet of freeboard in preventing overflows caused by factors such as wind and receiving direct precipitation.

- (B) For operations that land apply process wastewater, whenever the design capacity of impoundments and tanks is less than the volume required to store runoff from the designed storm event, the structures shall be dewatered to a level that restores the required capacity once soils on a land application site has the water holding capacity to receive process wastewater.
- ~~(ii)~~(iv) Ensure proper management of animal mortalities (that is, dead animals) to ensure that they are not disposed of in a liquid manure, storm water, or process wastewater storage system that is not specifically designed to treat animal mortalities;
- ~~(iii)~~(v) Ensure that clean water is diverted, as appropriate, from the production area;
- ~~(iv)~~(vi) Prevent direct contact of confined animals with surface waters;
- ~~(v)~~(vii) Ensure that chemicals and other contaminants handled on-site are not disposed of in any manure, storm water, or process wastewater storage system unless specifically designed to treat such chemicals and other contaminants;
- ~~(vi)~~(viii) Site-specific conservation practices that have been identified and will be implemented, including as appropriate, buffers or equivalent practices, to control runoff of pollutants to surface water. Such practices shall include, but are not limited to:
 - (A) Solid manure shall be incorporated as soon as possible after application, unless the application site has perennial vegetation or is no-till cropped, or except where the nutrient management plan adequately demonstrates that surface water quality will be protected where manure is not so incorporated.
 - (B) Process wastewater to furrow- or flood-irrigated land application sites shall be applied in a manner that prevents any process wastewater runoff into surface waters.
 - (C) When process wastewater is sprinkler-applied, the soil water holding capacity of the soil shall not be exceeded.
 - (D) Process wastewater shall not be applied to either frozen or flooded land application sites.
 - (E) Manure or process wastewater shall not be land-applied within 150 feet of domestic water supply wells, and within 300 feet of community domestic water supply wells.
- ~~(vii)~~(ix) Identify protocols for appropriate sampling and testing of manure, process wastewater, and soil;
- ~~(viii)~~(x) Establish protocols to land apply manure or process wastewater in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure or process wastewater. Such protocols shall include, but are not limited to:

- (A) No application of manure or process wastewater shall be made to a land application site at a rate that will exceed the capacity of the soil and the planned crops to assimilate nitrate-nitrogen within twelve (12) months of the manure or process wastewater being applied.
- (B) Manure and process wastewater shall be applied as uniformly as possible with properly calibrated equipment.
- ~~(ix)~~(xi) Identify specific records that will be maintained to document the implementation and management of the minimum nutrient management plan elements described in subsections 61.17(8)(b)(i) through ~~(viii)~~(x), above.
- ~~(x)~~(xii) ~~For Large Dairy, Beef Cattle, Swine, Poultry, and Veal Calf CAFOs, the nutrient management plan also shall incorporate the following best management practices based on a field-specific assessment of the potential for nitrogen and phosphorus transport from the field and that addresses the form, source, amount, timing, and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus movement to surface water: Terms of the Nutrient Management Plan~~
 - (A) ~~Determination of Application Rates — Application rates for manure and process wastewater applied to land application sites must minimize phosphorus and nitrogen transport from the sites to surface waters and shall be in accordance with the following standards: 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.~~
 - ~~(I) — Assessments shall be made for each land application site of the potential for phosphorus and nitrogen transport from the site to surface waters and that address the form, source, amount, timing, and method of application of nitrogen and phosphorus to achieve realistic yield goals, while minimizing nitrogen and phosphorus movement to surface water. Phosphorus transport risk assessments shall be made using a transport risk-screening tool approved by the Division and that is current, readily available, peer-reviewed, and appropriate for use in Colorado. The screening tool shall provide for off-site transport risk scores of either low, medium, high, and very high. An initial assessment of the potential for phosphorus and nitrogen transport risk to surface water shall be made prior to manure or process wastewater being applied to an application site after the operator's nutrient management plan is implemented.~~
 - ~~(II) — Phosphorus-based manure and process wastewater application rates shall be made to an application site where the risk of off-site phosphorus transport is scored as high.~~
 - ~~(III) — No application of manure or process wastewater shall be made to a land application site where the risk of off-site phosphorus transport is rated as very high. Where the initial assessment of a land application site is scored as very high, the permittee shall have a three-year period within which to manage the site for the purpose of lowering the phosphorus transport risk assessment rating to high or less. During this period, manure or process wastewater may be applied to the site at either nitrogen- or phosphorus-based rates.~~

- ~~(IV) — No application of manure or process wastewater shall be made to a land application site where the risk of off-site nitrogen transport to surface water is not minimized.~~
- ~~(V) — After an initial assessment is made of potential for phosphorus and/or nitrogen transport from a land application site to surface water, additional assessments shall be made at the following frequency, whichever is sooner:~~
 - ~~(1) — Of both phosphorus and nitrogen transport risk, every five (5) years; or~~
 - ~~(2) — Where a crop management change has occurred, assess phosphorus transport risk within one (1) year after such a change would reasonably result in an increase in the phosphorus transport risk assessment score, and assess nitrogen transport risk within one (1) year after such a change would reasonably result in the nitrogen transport to surface water not being minimized; or~~
 - ~~(3) — Where a phosphorus transport risk assessment score was very high, assess phosphorus transport risk within six (6) months of intending to apply manure or process wastewater, except as provided in section 61.17(8)(b)(x)(A)(III), above; or~~
 - ~~(4) — Where a nitrogen transport risk assessment reveals that nitrogen transport to surface water is not minimized, assess nitrogen transport risk within six (6) months of intending to apply manure or process wastewater.~~
- ~~(VI) — Application rates of manure and process wastewater shall be calculated using: 1) the most current published fertilizer suggestions of Cooperative Extension in Colorado or adjacent states; 2) a method provided in a complete and current Comprehensive Nutrient Management Plan that meets United States Department of Agriculture — Natural Resources Conservation Service standards; or 3) the most current nutrient management planning guidelines for Colorado as published by the United States Department of Agriculture — Natural Resources Conservation Service; or, 4) a method approved by the Division.~~
- ~~(VII) — Where a multi-year phosphorus application was made to a land application site, no additional manure or process wastewater shall be applied to the same site in subsequent years until the applied phosphorus has been removed from the site via harvest and crop removal.~~
- (B) Manure, Process Wastewater, and Soil Sampling — Manure, process wastewater, and soil shall be sampled and analyzed with the following frequency. The results of the analyses shall be used in determining application rates for manure and process wastewater. 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) Manure and process wastewater shall be sampled and analyzed a minimum of once annually for nitrogen and phosphorus content. The fields available for land application;
- (II) The top one foot of soil of land application sites shall be sampled and analyzed for available phosphorus a minimum of once every five years, or as otherwise necessary to meet the transport risk assessment requirements of subsection 61.17(8)(b)(x)(A)(I), above. 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) The most current published fertilizer suggestions of the Cooperative Extension in Colorado or adjacent states;
 - b) The most current nutrient management planning guidelines for Colorado as published by the USDA, NRCS; or
 - c) A method approved by the Division;
 - (6) The methodology by which the nutrient management plan accounts for the following factors when calculating the amounts of manure, litter, and process wastewater to be land applied:
 - a) Results of soil tests conducted in accordance with protocols identified in the nutrient management plan, as required by paragraph 61.17(8)(b)(ix) of this section;

- b) Credits for all nitrogen in the field that will be plant available;
 - c) The amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied;
 - d) Consideration of multi-year phosphorus application;
 - e) Accounting for all other additions of plant available nitrogen and phosphorus to the field;
 - f) The form and source of manure, litter and process wastewater;
 - g) The timing and method of land application; and
 - h) Volatilization of nitrogen and mineralization of organic nitrogen.
- (7) For alternative crops identified in the CAFO's nutrient management plan that are not in the planned crop rotation:
- a) The crops must be listed by field, in addition to the crops identified in the planned crop rotation for that field;
 - b) The nutrient management plan must include realistic crop yield goals and the nitrogen and phosphorus recommendations from sources specified in 61.17(8)(b)(xii)(B)(IV)(5) above;
 - c) Maximum amounts of nitrogen and phosphorus from all sources of nutrients and the amounts of manure, litter, and process wastewater to be applied must be determined in accordance with the methodology described in paragraph 61.17(8)(b)(xii)(B)(IV)(6) of this section.
- (C) ~~Inspect Land Application Equipment — The permittee must periodically inspect for leaks equipment used for land application of manure or process wastewater. At minimum, such inspection shall be made annually and within the six month period prior to the first application of manure or process wastewater, and at least once daily when process wastewater is being applied. If approved by the Division, nutrient management plan terms that meet the requirements of 40 CFR 122.42(e)(5)(i) may also be used to satisfy the requirements of 61.17(8)(b)(xiii).~~
- (D) ~~Setback Requirements — Unless the permittee exercises one of the alternatives provided for in 61.17(8)(b)(x)(D)(I) and (II) below, manure and process wastewater shall not be applied closer than 100 feet to any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads, or other conduits to surface waters.~~
- (I) ~~As a setback alternative, the permittee may substitute the 100-foot setback with a 35-foot wide vegetated buffer where applications of manure or process wastewater are prohibited.~~

- (II) ~~The Division may approve an alternative setback or buffer based on a demonstration by the permittee that a required setback or buffer is not necessary because implementation of alternative conservation practices or land application site conditions will provide pollutant reductions equivalent or better than the reductions that would be achieved by the 100-foot setback.~~

(xiii) The following projections must be included in the nutrient management plan submitted to the Division, but are not terms of the nutrient management plan:

- (A) The CAFO's planned crop rotations for each field for the period of permit coverage;
- (B) The projected amount of manure, litter, or process wastewater to be applied;
- (C) Projected credits for all nitrogen in the field that will be plant available;
- (D) Consideration of multi-year phosphorus application;
- (E) Accounting for all other additions of plant available nitrogen and phosphorus to the field;
- (F) The predicted form, source, and method of application of manure, litter, and process wastewater for each crop.

(xiv) CAFOs must calculate maximum amounts of manure, litter, and process wastewater to be land applied at least once each year using the methodology required in paragraph 61.17(8)(b)(xii)(B)(IV)(6) of this section before land applying manure, litter, and process wastewater and must rely on the following data:

- (A) A field-specific determination of soil levels of nitrogen and phosphorus, including, for nitrogen, a concurrent determination of nitrogen that will be plant available consistent with the methodology required by paragraph 61.17(8)(b)(xii)(B)(IV)(6) of this section, and for phosphorus, the results of the most recent soil test conducted in accordance with soil testing requirements approved by the Division; and
- (B) The results of most recent representative manure, litter, and process wastewater tests for nitrogen and phosphorus taken within 12 months of the date of land application, in order to determine the amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied.

(xv) Changes to a Nutrient Management Plan

- (A) Any permit issued to a CAFO must require the following procedures when a CAFO owner or operator makes changes to the CAFO's nutrient management plan previously submitted to the Division.
 - (I) The CAFO owner or operator must provide the Division with the most current version of the CAFO's nutrient management plan and identify changes from the previous version, except that the results of calculations made in accordance with the requirements of paragraph 61.17(8)(b)(xiv) of this section are not subject to the requirements of paragraph 61.17(8)(b)(xv) of this section.

(II) The Division must review the revised nutrient management plan to ensure that it meets the requirements of this section and applicable effluent limitations and standards, including those specified in 61.17(6) above, and must determine whether the changes to the nutrient management plan necessitate revision to the terms of the nutrient management plan incorporated into the permit issued to the CAFO. If revision to the terms of the nutrient management plan is not necessary, the Division must notify the CAFO owner or operator and upon such notification the CAFO may implement the revised nutrient management plan. If revision to the terms of the nutrient management plan is necessary, the Division must determine whether such changes are substantial changes as described in paragraph 61.17(8)(b)(xv)(A)(III) of this section.

(1) If the Division determines that the changes to the terms of the nutrient management plan are not substantial, the Division must make the revised nutrient management plan publicly available and include it in the permit record, revise the terms of the nutrient management plan incorporated into the permit, and notify the owner or operator and inform the public of any changes to the terms of the nutrient management plan that are incorporated into the permit.

(2) If the Division determines that the changes to the terms of the nutrient management plan are substantial, the Division must notify the public and make the proposed changes and the information submitted by the CAFO owner or operator available for public review and comment. The process for public comments, hearing requests, and the hearing process if a hearing is held must follow the procedures applicable to draft permits set forth in 61.5. Once the Division incorporates the changes to the terms of the nutrient management plan into the permit, the Division must notify the owner or operator and inform the public of the final decision concerning changes to the terms and conditions of the permit.

(III) Substantial changes to the terms of a nutrient management plan incorporated as terms and conditions of a permit include:

(1) Addition of new land application areas not previously included in the CAFO's nutrient management plan. Except that if the land application area that is being added to the nutrient management plan is covered by terms of a nutrient management plan incorporated into an existing permit in accordance with the requirements of paragraph 61.17(8)(b)(xii) of this section, and the CAFO owner or operator applies manure, litter, or process wastewater on the newly added land application area in accordance with the existing field-specific permit terms applicable to the newly added land application area, such addition of new land would be a change to the new CAFO owner or operator's nutrient management plan but not a substantial change for purposes of this section;

(2) Any changes to the maximum amounts of nitrogen and phosphorus derived from all sources for each crop, as set forth in paragraph 61.17(8)(b)(xii)(B)(IV) of this section;

(3) Addition of any crop or other uses not included in the terms of the CAFO's nutrient management plan and corresponding field-specific rates of application expressed in accordance with paragraph 61.17(8)(b)(xii) of this section; and

(4) Changes to site-specific components of the CAFO's nutrient management plan, where such changes are likely to increase the risk of nitrogen and phosphorus transport to surface water based on the USDA, NRCS Colorado Phosphorus Index Risk Assessment tool or other Division-approved method.

(c) Recordkeeping Requirements—

The permittee shall maintain on site a copy of its most current nutrient management plan and make it available to the Division or its designee, upon request. In addition, the permittee must create, maintain on-site for five years from the date they are created, and make available to the Division or its designee, upon request, the following records:

- (i) All applicable records identified in the nutrient management plan, pursuant to subsection 61.17(8)(b)(ixj) above.
- (ii) The completed permit application required pursuant to subsection 61.17(5)(c), above.
- (iii) The following complete records:
 - (A) Records documenting the visual inspections of the production area required under subsection 61.17(8)(f)(vii)(A) and (B);
 - (B) Weekly records of the depth of the manure and process wastewater in the liquid impoundment and terminal storage tank as indicated by the depth marker required under subsection 61.17(8)(f)(vii)(D);
 - (C) Records documenting any actions taken to correct deficiencies required under subsection 61.17(8)(f)(vii)(E). Deficiencies not corrected within 30 days shall be accompanied by an explanation of the factors preventing immediate correction;
 - (D) Records of mortalities management and practices used by the large CAFO to meet the requirements of subsection 61.17(8)(f)(vii)(F);
 - (E) Records documenting the current design of any manure storage structures, including volume of solids accumulation, design treatment volume, total design volume, and approximate number of days of storage capacity;
 - (F) Records of date, time, and estimated volume of any overflow.
- (iv) For permitted Large Dairy, Beef, Cattle, Swine, Poultry, and Veal Calf CAFOs, the following complete records for land application sites:
 - (A) Expected crop yields;
 - (B) The date(s) manure or process wastewater is applied to each land application site;
 - (C) Weather conditions at the time of land application and for 24 hours prior to and following application;

- (D) Test methods used to sample and analyze manure, process wastewater, and soil;
- (E) Results from manure, process wastewater, and soil sampling and analysis;
- (F) Explanations of the basis for determining manure and process wastewater application rates, in accordance with the nutrient management plan;
- (G) Calculations showing the total nitrogen and phosphorus that will be applied to each land application site, including sources other than manure or process wastewater;
- (H) The total amount of nitrogen and phosphorus actually applied to each land application site, including documentation of calculations for the total amount applied;
- (I) The method used to apply the manure and process wastewater;
- (J) Date(s) of manure application equipment inspection.

(d) Transfer of Manure or Process Wastewater to Third Parties—

Prior to transferring manure or process wastewater to other persons, Large CAFOs must provide the recipient of the manure or process wastewater with the most current nutrient analysis. The analysis provided must be consistent with the requirements of the nutrient management plan (subsection 61.17(8)(b)(xi)). Large CAFOs must retain for five years records of the date, recipient name and address, and approximate amount of manure or process wastewater transferred to another person.

(e) Annual Reporting Requirements—

The permittee must submit an annual report to the Division that shall include the following:

- (i) The number and type of animals, whether in open confinement or housed under roof;
- (ii) The estimated amount of total manure and process wastewater generated by the CAFO in the previous 12 months (tons/gallons);
- (iii) Estimated amount of total manure and process wastewater transferred to other persons by the CAFO in the previous 12 months (tons/gallons);
- (iv) The total number of acres for land application covered by the nutrient management plan developed pursuant to subsection 61.17(8)(b);
- (v) The total number of acres of land application sites that were used for application of manure and process wastewater in the previous 12 months;
- (vi) A summary of all manure and process wastewater discharges from the production area that have occurred in the previous 12 months, including date, time, and approximate volume; ~~and~~
- (vii) A statement indicating whether the current version of the CAFO's nutrient management plan was developed or approved by a certified nutrient management planner.

~~(viii) The actual crop(s) planted and actual yield(s) for each field, the actual nitrogen and phosphorus content of the manure, litter, and process wastewater, the results of calculations conducted in accordance with paragraph 61.17(8)(b)(xii) of this section, and the amount of manure, litter, and process wastewater applied to each field during the previous 12 months; and~~

~~(ix) The results of any soil testing for nitrogen and phosphorus taken during the preceding 12 months, the data used in calculations conducted in accordance with paragraph 61.17(8)(b)(xii) of this section, and the amount of any supplemental fertilizer applied during the previous 12 months.~~

(f) Operation and Maintenance Requirements.

~~(i) A CAFO shall not discharge pollutants to surface water without a permit.~~

~~(ii) Where a CAFO has a permit, it shall operate and maintain impoundments and tanks to have the manure and process wastewater storage capacity required pursuant to section 61.17(8)(a)(i), as applicable.~~

~~(iii)(i)~~ Accumulations of manure shall be removed from impoundments and tanks as necessary to maintain the capacity of the structures to retain the storage volume from the designed storm event.

~~(iv) Operations shall be conducted in a manner that does not result in a discharge to surface water not specifically authorized by the permit.~~

~~(v) The land application of manure and process wastewater shall be in accordance with the current nutrient management plan.~~

~~(vi) Production areas shall be operated and maintained in accordance with the current nutrient management plan, with the best management practices provided in subsection 61.17(8)(f)(vii) below, and with other applicable provisions of subsection 61.17.~~

~~(vii)(ii)~~ Production Area Best Management Practices - The following best management practices shall be established and properly maintained by permitted Large Dairy, Beef Cattle, Swine, Poultry, and Veal Calf CAFOs:

- (A) Perform weekly inspections of all stormwater run-on diversion devices, runoff diversion structures, animal waste storage structures, and devices channeling process wastewater to impoundments or tanks.
- (B) Perform daily inspections of water lines, including drinking water or cooling water lines.
- (C) Perform weekly inspections of impoundments and tanks and record the process wastewater level in open surface impoundments and terminal storage tanks as indicated by the depth marker required under section 61.17(8)(f)(vii)(D), below.
- (D) Install depth markers in all open surface impoundments and terminal storage tanks to indicate the design volume and to clearly indicate the minimum capacity necessary to contain a "25-year, 24-hour", or "100-year, 24-hour" storm event, as applicable, and to clearly indicate the two-foot freeboard elevation, or other approved freeboard elevation. At minimum, depth markers should be clearly marked in one (1) foot increments.

- (E) Correct any deficiencies found as a result of daily and weekly inspections as soon as possible, but no later than 30 days of such a deficiency having been identified, unless factors preventing correction within 30 days have been documented.
- ~~(F) Mortalities shall not be disposed of in any liquid manure or process wastewater system, and mortalities must be handled in such a way as to prevent discharge of pollutants to surface waters, unless alternative technologies implemented under alternative performance standards are designed to handle mortalities.~~
- ~~(iii) Inspect Land Application Equipment – The permittee must periodically inspect for leaks from equipment used for land application of manure or process wastewater. At minimum, such inspection shall be made annually and within the six month period prior to the first application of manure or process wastewater, and at least once daily when process wastewater is being applied.~~
- ~~(iv) Setback Requirements – Unless the permittee exercises one of the alternatives provided for in 61.17(8)(f)(iv)(A) and (B) below, manure and process wastewater shall not be applied closer than 100 feet to any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads, or other conduits to surface waters.~~
 - ~~(A) As a setback alternative, the permittee may substitute the 100-foot setback with a 35-foot wide vegetated buffer where applications of manure or process wastewater are prohibited.~~
 - ~~(B) The Division may approveAs a setback alternative, an alternative setback or buffer based on a demonstration bythe permittee may demonstrate that a required setback or buffer is not necessary because implementation of alternative conservation practices or land application sitefield-specific conditions will provide pollutant reductions equivalent or better than the reductions that would be achieved by the 100-foot setback.~~
- (g) Closure Requirements - A permittee shall demonstrate to the satisfaction of the Division that there is no remaining potential for a discharge of manure or process wastewater that was generated while the operation was a CAFO.

61.18 - 61.20Reserved

ENVIRONMENTAL AGRICULTURE PROGRAM PROPOSED

61.65 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY, AND PURPOSE – AUGUST 2011 RULEMAKING HEARING

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

A. BACKGROUND

In February of 2003, the United States Environmental Protection Agency (EPA) promulgated regulations for CAFOs which expanded the number of operations covered by the CAFO regulations and included requirements to address the land application of manure from these operations. The 2003 CAFO rule (CAFO Rule) more fully developed a framework for state implementation of National Pollutant Discharge Elimination System (NPDES) CAFO programs. The 2003 CAFO Rule included a duty for most CAFOs to apply for a discharge permit and to develop and implement a nutrient management plan (NMP). In an April 2004 rulemaking, the Commission adopted regulatory provisions that closely followed the language of the revised 2003 federal regulations.

On February 28, 2005, the United States Court of Appeals for the Second Circuit in Waterkeeper Alliance et al., v. EPA, 399 F. 3d 486 (2nd Cir. 2005) (Waterkeeper), vacated the requirement for CAFOs to apply for a NPDES permit or otherwise demonstrate no potential to discharge, and remanded portions of the CAFO Rule back to EPA for further revision and clarification.

On February 10, 2006, EPA finalized a rule change revising certain compliance dates to allow the EPA more time to revise the CAFO Rule to comply with the Second Circuit Court's ruling in Waterkeeper. The February 10, 2006 rule established a July 31, 2007 deadline for compliance.

Section 25-8-504(2), C.R.S., of the Colorado Water Quality Control Act (WQCA) and Colorado Water Quality Control Commission Regulation No. 61, section 61.3(1)(c), prohibit the Commission and Division from imposing permit terms for animal or agricultural waste on farms and ranches which are more restrictive than those mandated by the federal Clean Water Act (CWA). As such, effective November 30, 2006 the Commission removed in section 61.17, corresponding portions of the CAFO Rule vacated by the Second Circuit Court in Waterkeeper and revised certain compliance deadlines according to EPA's February 10, 2006 rule.

Because EPA did not complete a rulemaking in response to the Waterkeeper decision prior to the July 31, 2007 deadline, EPA finalized a second rule change revising all of the above compliance dates from July 31, 2007 to February 27, 2009. To this end, the Commission revised certain compliance deadlines according to EPA's July 24, 2007 rule.

In response to the Waterkeeper decision, on December 4, 2008 the EPA promulgated revisions to the federal CAFO Rule under the National Pollutant Discharge Elimination System (NPDES). The revisions became effective on December 22, 2008. Revisions were made to the permitting requirements (40 CFR 122) and to the effluent limitation guidelines (40 CFR 412). Pursuant to page 70457 of the preamble to the revised federal CAFO Rule, delegated states, such as Colorado, were required to revise applicable

state CAFO permit regulations within one year of the date of promulgation of the revised rule, where no amended or enacted statute is necessary.

In 2009, the federal CAFO Rule was challenged by numerous livestock producer and environmental organizations. Multiple legal petitions were consolidated in the United States Court of Appeals for the Fifth Circuit to capture challenges from industry. The industry challenge was subsequently delayed, with oral arguments extending into 2010. Based on the history of rule promulgation, judicial annulments, rule revision, and compliance date extensions experienced during appeal of the 2003 CAFO Rule, the Commission postponed this rulemaking beyond the one year anniversary of the federal rule promulgation date in order minimize further changes.

In this rule revision, the Commission has adopted regulatory provisions that closely track the language of the revised federal regulations. Revisions are incorporated in section 61.13 and section 61.17. Additional detail and clarifications have been added where appropriate to allow for effective implementation of the new requirements.

The final rule modifies the requirement to apply for a permit by specifying that a CAFO that discharges or proposes to discharge must apply for a NPDES permit. The final rule includes an option for an unpermitted CAFO to certify to the Division that the CAFO does not discharge or propose to discharge. The rule also requires CAFOs seeking permit coverage to submit nutrient management plans (NMPs) with an application for either an individual permit or with the notice of intent to be authorized under a general permit. The Division is required to review the NMPs and provide the public with an opportunity for meaningful public review and comment. The terms of the NMPs must be incorporated as NPDES permit conditions.

Additionally, the provision that allowed CAFOs to use a 100-year, 24-hour containment structure to fulfill the no discharge requirement for new source swine, poultry, and veal calf operations has been removed. Instead, upon request by such CAFOs that are new sources, permit writers can establish best management practice (BMP) no discharge effluent limitations when the facility demonstrates that it has designed an open containment system that will comply with the no discharge requirement.

B. DISCUSSION OF AMENDED SECTION 61.13 (HCSFO REGULATIONS)

Scope and Purpose [61.13(1)]: Dates have been updated to reflect recent changes per the federal rule.

Specific Applicability [61.13(2)]: Citations updated to reflect changes in this revision.

Applications and Required Plans [61.13(3)]: The Commission removed past compliance dates from 61.13(3)(f) associated with previous rule revisions. For the purpose of having the housed commercial swine feeding operation (HCSFO) regulations (section 61.13) be at least as stringent as the federal regulations, the Commission has added specificity to the requirements associated with Swine Waste Management Plans (SWMPs). Specificity has been added to capture all of the requirements of CAFO nutrient management plans.

New language was added to this section [61.13(3)(f)(vi)] that requires each crop planted and the crop rotation for each field to be identified within the SWMP. Subsequent subsections in 61.13(3)(f) were renumbered as a result of this addition.

This rule revision specifies the procedures that HCSFOs must follow to make changes to their swine waste management plans. The terms of the SWMP must be incorporated as permit conditions. Therefore, changes to the SWMP require review by the Division and an opportunity for meaningful public review and comment. The Commission has added new language in this section [61.13(3)(f)(xix)] that details the process for submitting SWMP changes to the Division for review, the types of changes that would necessitate a permit change, and the public notification requirements associated with the review and approval process.

Requirements for Housed Commercial Swine Feeding Operations [61.13(4)]: The previous citation in 61.13(4)(b)(i) to subsection 61.14(4)(a) was incorrect. The citation was corrected to read 61.13(4)(a).

The Commission has removed the provision that allowed HCSFOs to use a 100-year, 24-hour containment structure to fulfill the no discharge requirement. HCSFOs that are new sources may now meet the no discharge effluent limitations by using best management practices (BMPs) based on a rigorous site-specific technical evaluation as detailed below. Language referring to 100-year, 24-hour storm containment has been removed throughout section 61.13(4)(c) and replaced with the requirement to meet the technical evaluation requirements now specified in 61.13(4)(d)(xvi)(B).

The acronym HCSFO has been added to 61.13(4)(d)(xvi) for clarification and consistency. In section 61.13(4)(d)(xvi)(A)(ii), the Commission removed past compliance dates associated with a previous rule revision.

New language that prescribes the methods for performing technical evaluations in support of best management practice effluent limitations for no discharge has been added in 61.13(4)(d)(xvi)(B). HCSFOs that are new sources can satisfy the no discharge requirement by using BMPs based on a defensible technical evaluation. The HCSFO must demonstrate that it has designed its open containment system to comply with the no discharge requirement through the use of the most recent version of United States Department of Agriculture, Natural Resource Conservation Service (NRCS) Animal Waste Management (AWM) software, or equivalent, and the most recent version of the NRCS Soil Plant Air Water (SPAW) Hydrology Tool, or an equivalent model. The Commission added language in 61.13(4)(d)(xvi)(B)(i)(1)(c) to allow facilities to use climate data from the most proximate weather stations, such as those utilized by the Colorado Climate Center or the National Oceanic and Atmospheric Administration, in the absence of site specific data for use in site-specific modeling.

The Commission added the provisions for upset/bypass conditions, as provided in 61.8(3)(i) and (j), to apply to a new source subject to 61.13(4)(d)(xvi)(B).

The Commission removed the language in 61.13(4)(d)(xvii)(B), regarding Voluntary Alternative Performance Standards for new source HCSFOs, as these standards are no longer allowable under the federal rule. Subsequent subsections in 61.13(4)(d)(xvii) were renumbered as a result of this deletion.

The Commission updated citations in 61.13(4)(j) to reflect changes created by this revision.

The previous citation in 61.13(4)(k)(viii) to subsection 61.13(4)(j)(i), (ii), and (v) was incorrect. The Commission corrected the citation to read 61.13(4)(k)(i), (ii), and (v).

C. DISCUSSION OF AMENDED SECTION 61.17 (CAFO REGULATIONS)

Scope and Purpose [61.17(1)]: Dates have been revised to reflect recent changes per the federal rule.

Specific Applicability [61.17(2)]: On page 70427 of the preamble to the revised federal regulations, the EPA strongly recommends that CAFOs that have any doubt about their ability to operate under all circumstances without discharging seek NPDES permit coverage. The Commission has adopted the federal language that requires the owner or operator of a CAFO to seek coverage under a permit if the CAFO discharges or proposes to discharge. A definition for “proposes to discharge” has been added in section 61.17(3) to clarify the meaning of the federal language.

As detailed on page 70423 of the preamble of the revised federal regulations, the 2008 federal CAFO rule calls for a case-by-case evaluation by the CAFO as to whether the CAFO discharges or proposes to discharge from its production area or land application area based on actual design, construction, operation and maintenance of the facility. The preamble further clarifies that discharge is not limited to continuous discharges, but also includes intermittent, sporadic, or occasional discharges which may in

fact be the norm for many CAFOs. Such non-continuous discharges are still prohibited unless authorized under the terms of a permit.

Definitions [61.17(3)]: The Commission deleted a definition that is no longer applicable, added a definition to clarify new regulatory language, and moved definitions to correct previously incorrect alpha-numeric ordering. For example, the definition of “25-Year, 24-Hour Storm” was moved to 61.17(3)(a). As a result, previous paragraphs (a) through (c) were moved to (b) through (d), respectively. The Commission moved the definition of “Freeboard” to paragraph (d), which was not previously used.

Regarding the definition of “Land Application Site” in section 61.17(3)(e), the Commission in the Statement of Basis, Specific Statutory Authority, and Purpose from the February and April 2004 Rulemaking Hearing (section 61.54), clarified that a land application site is under the control of a CAFO where it is owned or leased by the CAFO, where cropping and/or nutrient budget decisions for the site are made by the CAFO, or where the CAFO land applies process wastewater or manure to such land. The Commission amended the definition of “Land Application Site” to incorporate this clarification.

The Commission deleted the definition of “100-Year, 24-Hour Storm” from paragraph (i), as this design standard was removed from federal requirements and therefore, the definition no longer has relevance in Colorado’s regulation. Previous paragraphs (j) through (l) were moved to (i) through (k), respectively. The definition of “100-Year, 24-Hour Storm” was not removed from section 61.2, as discussed above.

The Commission added the definition of “Proposes to Discharge” to paragraph (l) in this section. The Commission finds it appropriate to add this definition to assist CAFOs in evaluating their need to seek permit coverage. A CAFO proposes to discharge when it is designed, constructed, operated, or maintained such that a discharge to surface water may occur. Regarding ‘may occur’ in this definition, the Commission uses ‘may occur’ rather than ‘will occur’ as used in preamble to the revised federal rule to better reflect a lack of presumption on the part of the CAFO as to the certainty of a discharge should a CAFO “propose to discharge”. In other words, the intent of the Commission is to reason that a CAFO may or may not discharge if it “proposes to discharge” versus establishing with certainty that it “will discharge” as it relates to a CAFOs duty to apply.

The definition of “Vegetated Buffer” was moved from paragraph (q) to paragraph (p). Paragraph (p) was previously used for the definition of “25-Year, 24-Hour Storm”, which is now (a).

Permit Applications [61.17(5)]: The Commission removed the language in 61.17(5)(a)(ii), regarding past compliance dates. Subsequent subsections in this section were renumbered as a result of these deletions.

The paragraph header “Permit Renewal” was added to 61.17(5)(b).

In order to more accurately follow the federal language, the Commission revised the language in 61.17(5)(c)(ix)(F) requiring that clean water be diverted from CAFO production areas, manure stockpiles, and composting areas, as appropriate.

The Commission revised the language in 61.17(5)(c)(xiv) requiring that a complete nutrient management plan be submitted to the Division for review as part of the permit application.

40 CFR 122.23(h) of the federal CAFO rule specifies the procedures for CAFOs seeking coverage under a general permit. The Commission included these procedures in 61.17(5)(d) under the header “Permit Review and Processing”. Since the federal rule does not prescribe the procedures states must follow with regards nutrient management plans, the Commission finds it appropriate to establish alternative processes and time periods for public comment and hearing requests that may differ from those specified in section 61.5. Flexibility with NMP public notice procedures and timelines will allow the state to more efficiently and effectively inform the public using real-time technologies (i.e., Internet, social media, etc.)

without impeding a CAFO's cropping decisions that may require expeditious processing of a NMP amendment.

At the request of stakeholders, the Commission included a no discharge certification option in section 61.17(5)(e) under the header "No Discharge Certification Option". The federal CAFO rule leaves the inclusion of this option in state regulation to the discretion of the state. Section 61.17(5)(e) describes the eligibility criteria, certification process, certification duration, withdrawal criteria, recertification requirements, and the effects of certification for CAFOs that wish to certify that they do not discharge or propose to discharge.

The stakeholder comment record shows that stakeholder discussion was devoted to understanding the potential users of, and associated benefits from a no discharge certification. As detailed on page 70424 of the preamble of the revised federal rule, per the 2008 CAFO Rule a CAFO that is not designed, constructed, operated, or maintained in a manner such that the CAFO discharges or will discharge is not required to seek permit coverage. Such CAFOs may choose to take advantage of the voluntary no discharge certification.

The final 2008 CAFO Rule contains stringent eligibility criteria because the eligibility criteria for certification must establish that the CAFO does not discharge or propose to discharge. These criteria include verification of no discharge from the production area based on a technical evaluation in accordance with requirements for new swine, poultry and veal calf CAFOs. Certifying CAFOs must meet the same operation and maintenance requirements as a permitted CAFO, must implement an up-to-date nutrient management plan, and must maintain all supporting documentation. A CAFO's no discharge certification is not subject to review by the Division in order for it to become effective and the Division is not required to make the certification available to the public for comment.

A CAFO that seeks to certify no discharge must meet the eligibility requirements established by the Commission in 61.17(5)(e)(ii). The Commission specifies the certification requirements in paragraph (iii) of this section, and details in paragraph (iv) that the term of such certification will be no longer than five years. The conditions for certification withdrawal and recertification are included in 61.17(5)(e)(v) and (vi), respectively.

Effluent Limitation Requirements For Concentrated Animal Feeding Operations [61.17(6)]: The Commission revised the paragraph header for 61.17(6)(a), from "Existing Operations" to "All Existing CAFOs", for clarification and ease of reference. The requirements specified in 61.17(6)(a)(iii)(A)(I) have been categorized into subparagraphs 1) and 2) for ease of reference. The Commission removed language in 61.17(6)(a)(iii)(B) referring to past compliance dates.

The Commission revised the paragraph header for 61.17(6)(b), from "New Source Operations" to "New Source CAFOs". The Commission added "publicly owned treatment works" to 61.17(6)(b)(ii)(B) to clarify the acronym POTW. Past compliance dates were removed from 61.17(6)(b)(iii)(B).

The Commission revised the effluent limitations for new source large swine, poultry and veal calf CAFOs in 61.17(6)(b)(iv) to reflect the federal revisions. This language is very similar to the requirements for new source HCSFOS. In this section the Commission removes the provision that allowed new source large swine, poultry and veal calf CAFOs to use a 100-year, 24-hour containment structure in conjunction with best management practices (BMPs) to fulfill the no discharge requirement. New source large swine, poultry and veal calf CAFOs must now meet the no discharge effluent limitations by using BMPs based on a rigorous site-specific technical evaluation like those described for new HCSFOS. Language referring to 100-year, 24-hour storm containment has been removed throughout section 61.17 and replaced with the requirement to meet the technical evaluation requirements now specified in 61.17(6)(b)(iv) where appropriate.

New language that prescribes the methods for performing technical evaluations in support of best management practice effluent limitations for no discharge was added in 61.17(6)(b)(iv). Large swine, poultry, and veal calf CAFOS that are new sources can satisfy the no discharge requirement by using

BMPs based on a defensible technical evaluation. Such a CAFO must demonstrate that it has designed its open containment system to comply with the no discharge requirement through the use of the most recent version of the NRCS Animal Waste Management (AWM) software, or equivalent, and the most recent version of the NRCS Soil Plant Air Water (SPAW) Hydrology Tool, or an equivalent model. The Commission added language in this section to allow facilities to use climate data from the most proximate weather stations, such as those utilized by the Colorado Climate Center or the National Oceanic and Atmospheric Administration, in the absence of site specific data for use in site-specific modeling.

The Commission added the provisions for upset/bypass conditions, as provided in 61.8(3)(i) & (j), to apply to a new source subject to 61.17(6)(b)(iv)(A)(III). The Commission removed redundant language 61.17(6)(b)(iv)(B) and past compliance dates were removed from 61.17(6)(b)(v).

Voluntary Alternative Performance Standards 61.17(7): The Commission removed all of the prior language in 61.17(7)(b) regarding Voluntary Alternative Performance Standards for new source large swine, poultry and veal calf CAFOs, as these standards are no longer allowable under the federal rule. Subsequent subsections 61.17(7)(c) and (d) were renumbered as a result of this deletion.

Additional Requirements For Concentrated Animal Feeding Operations 61.17(8):

The Commission removed the provision in 61.17(8)(a)(i)(B)(1) that allowed new source swine, poultry or veal calf CAFOs to use a 100-year, 24-hour containment structure to fulfill the no discharge requirement. Such CAFOs that are new sources may now meet the no discharge effluent limitations by using best management practices (BMPs) based on a rigorous site-specific technical evaluation as detailed below. Language referring to 100-year, 24-hour storm containment has been removed throughout section 61.17(8)(a) and replaced with the requirement to meet the technical evaluation requirements now specified in 61.17(6)(b)(iv).

In order to more closely follow the federal language, the Commission revised the language in 61.17(8)(a)(iv) requiring that clean water be diverted from CAFO production areas, manure stockpiles, and composting areas, as appropriate.

The Commission included language in subsection 61.17(8)(b) regarding nutrient management plans, which are required in the revised federal rule. For clarity and ease of reference section 61.17(8)(b) has been restructured to capture the new requirements. The nutrient management plan (NMP) must now be reviewed and approved by the Division prior to issuing a permit. The terms of the NMP become terms of the permit. As such, the terms of the NMP must be made available to the public for review and comment along with the rest of the permit before the permit is finalized.

The Commission is aware that the federal rule allows two possible approaches for establishing the terms of a CAFOs nutrient management plan, the “linear approach” and the “narrative rate approach”. The Commission added the specific requirements associated with only the narrative rate approach to section 61.17(8)(b), as this approach is the most common and allows CAFOs the most flexibility in managing their operations while maintaining permit compliance without the need for frequent revisions. In 61.17(8)(b)(xii)(C) the Commission makes an allowance for those CAFOs that prefer to use the linear approach for establishing the terms of the NMP.

The stakeholder comment record shows that stakeholder discussion was devoted to understanding both approaches acceptable under the federal rule. The linear approach articulates the field-specific maximum rates of application in terms of the amount of nitrogen and phosphorus from manure and process wastewater allowed to be applied. Under the linear approach the terms of the NMP include maximum application rates for each year of permit coverage, for each crop, for each field. This approach is considered “linear” because it is based on only those crops included in the planned crop rotations in the NMP, the amounts of nitrogen and phosphorus from manure and process wastewater to be land applied according to the planned schedule for land application, and the projected values for plant available nitrogen and phosphorus from other sources. Under the linear approach, a single set of field-specific rates of application would be established, based on the predicted sequence of activities the CAFO plans

to follow in implementing its NMP, and a CAFO would be required to follow the sequence identified in the NMP for each field-specific crop rotation and each planned step for land application of manure or process wastewater.

The narrative rate approach for establishing NMP terms prescribes how to calculate the amount of manure and process wastewater allowed to be applied on a field-specific basis. The NMP terms include the maximum amounts of nitrogen and phosphorus from all sources of nutrients, for each crop, in pounds per acre, for each field. The narrative rate approach accommodates changes in field conditions or practices at a CAFO, including those that alter the projected levels of plant available nitrogen and phosphorus in the soil or in the manure over the period of permit coverage, by allowing a CAFO to compensate for changes by adjusting the application rates accordingly without the need for a permit modification. In the second and subsequent years of the permit term, this approach provides an accurate and verifiable means of achieving production goals while minimizing transport of phosphorus and nitrogen from the fields.

The Commission believes, based on stakeholder consensus, it is reasonable to include the specific requirements for only the narrative rate approach within the revised language. For those CAFOs that choose to pursue the linear approach, the Division will review such permit applications and NMPs pursuant to the requirements specified in 40 CFR 122.42(e)(5)(i).

The Commission removed the prior language in 61.17(8)(b) and added the permit requirement to implement an NMP as of the date of permit coverage in 61.17(8)(b)(i) and (ii). Previous paragraphs (i) through (x) were moved to (iii) through (xii), respectively. Paragraph 61.17(8)(b)(xii) details the required terms of the NMP. The Commission added the specific terms that must be detailed using the narrative rate approach in 61.17(8)(b)(xiii)(B)(1) through (7). Within this section the Commission included some existing language that references the use of USDA - Natural Resource Conservation Service and Colorado State University Cooperative Extension reference materials for establishing nitrogen and phosphorus application recommendations.

The Commission added the projections that must be included in the NMP, but are not terms of the NMP, to 61.17(8)(b)(xiii). The Commission added the calculations that must be performed, at least annually, as part of the NMP to 61.17(8)(b)(xiv).

The Commission found it appropriate to include language that describes changes to nutrient management plans and how such changes must be reviewed and processed as part of the permit. This language is included in 61.17(8)(b)(xv).

The CAFO owner or operator must provide the Ag Program with the most current version of the CAFO's nutrient management plan and identify changes from the previous version. If the terms of the NMP do not require revision, the CAFO may implement the revised nutrient management plan upon notification from the Division.

If the changes to the NMP necessitate revision to the terms of the NMP incorporated into the permit, the Division must determine whether such changes are substantial changes to the permit issued to the CAFO. If the Division determines that the changes are not substantial, the Division must make the revised NMP publicly available and include it in the permit record, the terms of the NMP must be revised, and the Ag Program must notify the CAFO and inform the public of any changes to the terms of the NMP that are incorporated into the permit.

If the changes to the NMP are substantial changes, the Division must notify the public and make the proposed changes and the information submitted by the CAFO available for public review and comment. Substantial changes to the NMP must be incorporated into the terms of the permit. Changes that would be considered substantial changes are detailed in 61.17(8)(b)(xv)(A)(III).

The Commission found it appropriate to move the language detailing the requirement to inspect land application equipment from 61.17(8)(b) to 61.17(8)(f) with other operation and maintenance requirements. The Commission also finds it appropriate to move the language detailing the setback requirement for land application of wastewater from 61.17(8)(b) to 61.17(8)(f).

The Commission restructured the headings in sections 61.17(8)(c) and (d) for clarity and ease of reference. Citations in each section were updated to reflect changes in this revision. The Commission added annual reporting requirements associated with planted crops, actual yields, NMP calculations and soil testing to 61.17(8)(e) to reflect new requirements in the federal rule.

The Commission found it appropriate to delete paragraphs (i), (ii), and (iv) through (vii) in 61.17(8)(f), as these are redundant to requirements stated elsewhere in the regulation. Paragraph (iii) was renumbered to (i) and paragraph (vii) was renumbered to (ii). The language detailing the requirement to inspect land application equipment from 61.17(8)(b) has been added as 61.17(8)(f)(iii) and the language detailing the setback requirement from 61.17(8)(b) has been added as 61.17(8)(f)(iv).

The Commission revised the language in 61.17(8)(f)(iv)(B) regarding an alternative setback requirement to more closely follow the federal requirement.

PARTIES TO THE RULEMAKING HEARING