

REGULATION NO. 2, PART B

**AIR QUALITY
COMPLIANCE GUIDANCE**

FOR

COLORADO SWINE PRODUCERS

Developed by:
Air Pollution Control Division
Stationary Sources Program
Regulatory Development & Compliance Assistance Unit



**Colorado Department
of Public Health
and Environment**

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SECTION 1

REG. NO. 2, PART B – INTRODUCTION

In the state of Colorado, a housed commercial swine feeding operation capable of housing 800,000 pounds or more of swine for forty-five days or longer in any twelve-month period is subject to Odor Regulation No. 2, Part B. Regulatory requirements include obtaining a permit to operate and submitting an odor management plan that stipulate how the operator will meet the requirements of the regulation. Once an initial and/or final permit to operate is issued, it is the responsibility of the owner and/or operator to be in continuous compliance with each term and condition of the permit and with every applicable element of Regulation No. 2, Part B.

Monitoring, reporting and recordkeeping requirements help ensure compliance with the law. The numerous requirements and regulatory deadlines required by the regulation, however, can be confusing and may result in a violation of the law. In an attempt to increase understanding of the regulation, the Air Pollution Control Division (Division) developed this Air Quality Compliance Guidance to assist swine producers in interpreting and complying with the regulatory requirements of the law. The guidance document should be used as a reference tool, along side Regulation No. 2, Part B. In addition, Division staff is available to provide assistance or additional clarification on compliance issues or regulatory development needs.

SECTION 2

REG. NO. 2, PART B – OVERVIEW

This section provides a brief overview of the applicability of Regulation No. 2, Part B, a definitional overview of key terms and regulatory requirements. For more detailed information and exact language, please refer to the regulation. A copy of the regulation is included in Section 3 of this document.

2.1 APPLICABILITY

Colorado's Odor Regulation No. 2, Part B applies to all new, expanded and existing housed commercial swine feeding operations in the state that are capable of housing 800,000 pounds or more of swine at any one time. In terms of live animal weight, 800,000 pounds equates to:

- 11,500 weaning swine (70 pounds or less);
- 3,020 swine (70 pounds up to finish weight); or,
- 2,000 breeding sows and/or boars.

In situations where more than one of the above-listed weight classes vary in size at a facility, the capacity factor is determined by dividing the capacity for the number of each type of swine by the respective limit from those listed above. If the sum of the resulting number is one (1) or greater, the facility is classified as a housed commercial operation.

Existing and new swine feeding operations not subject to the requirements of Regulation No. 2, Part B include operations housing less than 800,000 pounds of swine at any one time. Two or more operations, however, are considered to comprise a single operation if they are under common or affiliated ownership or management and are adjacent to or utilize a common area or system for manure disposal, are integrated in any way, are located or discharge within the same watershed, or are located on or discharge onto land overlying the same groundwater aquifer.

2.2 DEFINITIONS

The following terms and definitions represent only a portion of those included in Regulation No. 2, Part B. For terms not defined in this document or in the regulation, refer to the Colorado Air Pollution Prevention and Control Act (CRS, Sections 25-7-101) and the Colorado Common Provisions Regulation (5 CCR 1001-2).

2.2.1 Housed Commercial Swine Feeding Operation

In Colorado, a facility is considered a *housed commercial swine feeding operation* and subject to Regulation No. 2, Part B when:

- 800,000 pounds or more of swine (live animal weight) are raised in buildings or other enclosed structures at any one time and fed for forty-five (45) days or longer in any twelve (12) month period, and crop or forage growth or production is not sustained in the area of confinement.

2.2.2 Existing and New Operations

Both existing and new operations that meet the above definition are required to comply with the regulation. An *existing operation* must have been in operation or commenced construction on or prior to March 30, 1999. A *new operation* is any operation meeting the definition of a housed commercial swine feeding operation that plans to commence operation in Colorado after March 30, 1999.

2.2.3 Common or Affiliated Ownership or Management

Operations that are considered to be under common or affiliated ownership or management, or are integrated in any way are also subject to the regulation. An operation is considered under *common or affiliated ownership or management* when swine feeding operations are:

- Adjacent to one another or use the same or a common waste management system;
- Integrated by common management decisions or in any other way;
- Located within the same watershed or into watersheds that are hydrologically connected; or,
- Located on or discharged onto land overlying the same ground water aquifer.

2.2.4 Integrated in Any Way

Two or more operations are considered *integrated in any way* when:

- There is a reasonable potential for the operations to result in a significant and measurable cumulative impact on water quality *or* air quality at any one location.

2.2.5 Permit to Operate

A *permit to operate* is required by Section 25-7-114.2 of the Colorado Revised Statute. With respect to Colorado's odor regulation, the definition of a "construction permit" or an "emission permit" can be used interchangeably with the term "permit to operate".

2.2.6 Manure

Regulation No. 2, Part B defines manure as any feces, urine, litter, bedding or feed waste from a housed commercial swine feeding operation.

2.2.6.1 Solid Waste

Solid waste (or waste solids) is defined as any feces, urine, litter, bedding or feed waste from a building or other enclosed structure where swine are housed.

2.2.6.2 Compost

Compost is defined by Colorado solid waste regulation 6 CCR 1007-2, as the material or product that is developed under controlled conditions and that results from biological degradation processes by which organic wastes (manure or carcasses) decompose.

2.2.6.3 Composting

The act of composting is defined by the aforementioned regulation as the biological process of degrading organic materials that is facilitated and controlled through intentional and active manipulation of piles and/or windrows.

2.2.7 Odor Management Plan

An *odor management plan* is a detailed plan that describes the technologies or processes a housed commercial swine feeding operation will use to manage odor in confinement structures, manure management systems, composting sites and land application equipment and sites.

2.2.8 Odor Standard

All housed swine feeding operations subject to Regulation No. 2, Part B must manage odor emissions from all aspects of the operation by testing below a 7:1 *odor standard* concentration at the property line and below a 2:1 concentration at the nearest receptor.

2.2.9 Receptor

A *receptor* is defined as any occupied primary dwelling, school, place of business or the boundary of any incorporated municipality, unless an easement is granted to the operation.

2.2.10 Best Available Control Technology (BACT) Analysis

Best Available Control Technology or BACT Analysis is a Division review process that ranks in descending order of control effectiveness all available technologies and work practices to determine the most stringent or top control technology or work practice. In conducting the review, both the economical and technological feasibility of the technology or work practice are taken into account.

SECTION 3
COLORADO REGULATION NO. 2 – ODOR EMISSION

A complete copy of the regulation is provided for your reference.

SECTION 4 PERMIT REQUIREMENTS

Regulation No. 2, Part B sets forth a number of mandatory requirements for swine producers. Included in the regulation are permit requirements for new, expanded and existing sources, such as the submittal of an odor management plan; technological requirements for manure management systems; setback requirements for land application and new manure management systems; mandatory odor control technologies and work practices; and, land application, carcass disposal, testing, monitoring, recordkeeping, and reporting requirements. Each of these requirements and the compliance timelines are detailed in the following section.

4.1 PERMIT REQUIREMENTS

The following sections summarize the permit requirements for applicable existing, new and expanded sources as required by Colorado's Odor Regulation No. 2, Part B. For more detail or exact wording of the regulation, please refer directly to the regulation.

4.1.1 Existing Sources

An existing housed commercial swine feeding operation capable of housing 800,000 pounds of swine at any one time that was in operation, or that commenced construction, on or before March 30, 1999 must obtain a permit to operate from the state. Specifically, the regulation requires existing operators to submit an application for a permit to operate to the Division by April 15, 1999. A complete and accurate odor management plan must accompany the permit application. A processing fee of fifty dollars (\$50.00) per hour is assessed for reviewing and processing the permit to operate.

4.1.2 New Sources

After March 30, 1999, all new sources that meet the definition of a housed commercial swine feeding operation must obtain a permit to operate from the state prior to commencing construction on any aspect of the operation. A complete and accurate odor management plan must accompany the application for a permit to operate. A processing fee of fifty dollars (\$50.00) per hour is assessed for reviewing and processing the permit to operate.

4.1.3 Expanded Sources

An existing operation cannot commence construction, expansion, reconstruction or modification of a housed commercial swine feeding operation without first submitting an application for a permit modification and obtaining an approved (modified) permit from the Division. A revised odor management plan must accompany the application for a permit modification and must demonstrate how the operation will manage odor in relation to the action being proposed. A processing fee of fifty dollars (\$50.00) per hour is charged to the producer for the costs of reviewing and processing a permit modification. Prior to submitting a permit modification, a producer may request a pre-application meeting with the

Division to discuss the proposed plan(s), the applicable requirements and the permit review process and timeline.

4.1.4 Application for a Permit to Operate

The permit to operate application form is included in Section 9 of this document or can be downloaded from the Colorado Department of Public Health & Environment's web page at: http://www.cdphe.state.co.us/ap/hog_hom.html. Applications are also available from the Division by contacting (303) 692-3221.

A permit application must have an original signature of the person or persons legally authorized to act on behalf of the applicant. An application must be complete and accurate. The terms "complete" and "accurate" mean that sufficient information and data must be provided to the Division to support the proposed action and to allow for a thorough evaluation of all technologies and management systems proposed in the application or permit modification. For example, if a producer wants to expand the number of swine at a particular location and use an existing lagoon, the lagoon must be of sufficient size and have the proper loading rate to accommodate and maintain the system given the proposed operational change. If necessary, the Division has the authority to request additional information from the applicant in writing with a set deadline for response. If the requested information is not provided by the deadline, the permit application is denied and all existing permits to operate are still in effect.

4.1.4.1 Content of an Application for a Permit to Operate

The application for a permit to operate must contain, at a minimum, the following elements:

- A complete and accurate odor management plan;
- A description of the facility, including legal location, operation capacity, site layout and other required information;
- Original signatures of the owner(s) and operator;
- A description of the cover and related technologies that will be used to capture, recover, incinerate or otherwise manage odorous gases from anaerobic process wastewater vessels or impoundments;
- A description of the technologies and other work practices necessary to maintain aerobic conditions and minimize odor from aerobic impoundments;
- A description of all applicable emission limitations and standards, including setback requirements and other operational requirements and limitations to assure compliance at the time of the Division's issuance of the initial permit to operate;
- All applicable monitoring requirements;
- All applicable record keeping requirements;
- All applicable reporting requirements; and,
- Any other provisions the Division may require.

4.1.5 Manure Management (Treatment vs. Storage)

Manure from swine feeding operations must be managed to control off-site odor emissions to the greatest extent practicable. All new, existing or expanded operations must employ a cover on all anaerobic process wastewater vessels and waste treatment or storage impoundments. The approved cover must capture, recover, incinerate or otherwise minimize the emission of odorous gases into the atmosphere to the greatest extent practicable. Anaerobic process wastewater vessels and impoundments managed as storage systems and not as treatment systems, must employ a Division-approved synthetic cover; rigid cover; treatment digester (with a synthetic cover); or, BioCap® cover so as to capture, recover, incinerate or otherwise manage odorous emissions from storage vessels or impoundments systems. A Division-approved alternative aerobic cover is not permitted for use on storage-only anaerobic vessels or impoundments, unless sufficient biological activity can be shown to exist in the anaerobic vessel or impoundment to sustain a continuous, physical barrier between the anaerobic storage process and the ambient air.

4.1.5.1 Solid Waste and Process Wastewater Systems

The storage of solid waste and process wastewater must be done in a way that complies with the requirements of Regulation No. 2, Part B and, is stored in one of the following ways:

- In a covered anaerobic vessel or impoundment approved by the Division;
- In an aerobic impoundment approved by the Division;
- Promptly land-apply or store separated solids in a vessel, impoundment or compost pile that minimizes off-site odorous emissions to the greatest extent practicable.
- In any other manner that can be demonstrated to the Division that the technology and work practices will comply with all requirements of Regulation No. 2, Part B.

Proper management of the solid waste and/or process wastewater system(s) must be demonstrated and followed during operation of the system(s). The type of information and data required by the Division to demonstrate proper management of solid waste and/or process wastewater systems include the following practices:

- Proper loading rate;
- Frequent and regulated loading to avoid upset conditions or “shock”;
- Loading the vessel or impoundment(s) through a feeder pipe that is located below the surface of the liquid; and,
- For aerobic impoundments, maintenance of sufficient oxygen throughout the vessel or impoundment to ensure maintenance of aerobic conditions.

4.1.6 Cover Requirements

Regulation No. 2, Part B, requires all anaerobic waste treatment and storage vessels and impoundments used at a housed commercial swine feeding operation to employ an approved cover. The cover must capture, recover, incinerate or otherwise manage the emissions of odorous gases into the atmosphere to the

greatest extent practicable and must be approved by the Division. To date, covers approved by the Division include:

- Rigid Covers – a building roof or hard cap over the anaerobic impoundment or vessel;
- Synthetic Covers made of reinforced polypropylene, high-density polyethylene or other synthetic material, including geosynthetic membranes and geomembrane covers of a minimum thickness of forty (40) mils;
- Anaerobic Treatment Digesters that are covered with a synthetic cover;
- BioCap® - a synthetic, buoyant permeable cover; and,
- Alternative Aerobic Cover that constitutes a continuous barrier between the top surface of a lagoon and the atmosphere and meets the Division's Performance Standard for comparable effectiveness.

4.1.7 Setback Requirements

Colorado's odor regulation includes air quality setbacks for new land waste application sites and new waste impoundments. For new land waste application sites and new waste impoundments, the setback is one (1) mile from an occupied dwelling; a public or private school; and, the boundary of any incorporated municipality.

A waiver to the setback requirements can be granted through the following action:

- For a dwelling, written consent must be obtained from the owner of the dwelling and recorded with the county clerk in the county where the property is located. The waiver must include a full legal description of both the proposed swine feeding operation site and the property for which the waiver is granted and must be signed by the property owner. If the proposed swine feeding operation is located in a different county than the affected property, the waiver must also be filed in the county where the operation is being proposed. A certified copy of the official waiver(s) must be submitted to the Division as part of the application for a permit to operate.
- For a school, written consent must be obtained from the school's board of trustees or the board of directors. A certified copy of the approved waiver must be included with the permit application.
- For a municipality, written consent must be obtained from the governing body of the municipality by resolution and a certified copy submitted to the state.

4.1.8 Land Application

Regulation No. 2, Part B restricts the practice of land applying process wastewater, solid waste or sludge in several ways. Land application bans include periods when land is saturated, ponding or covered with a snowfall of greater than one (1) inch; when the ground is frozen – unless pre-approved by the Water Quality Control Division; and, when wind conditions allow for the transport of process wastewater off the land application site and onto other property (process wastewater only). No land application of process wastewater, solid waste or sludge can occur on weekends and holidays unless the Division approves a waiver or an emergency situation or a dire circumstance exists.

The state legal holidays included in the ban are:

- New Year's Day (January)
- Martin Luther King, Jr., Day (January)
- President's Day (February)
- Memorial Day (May)
- Independence Day (July)
- Labor Day (September)
- Columbus Day (October)
- Veteran's Day (November)
- Thanksgiving Day (November)
- Christmas Day (December)

4.1.8.1 Process Wastewater

According to Regulation No. 2, Part B, process wastewater can only be land applied during the period of March 1 through October 31. No exceptions are allowed during the period of Nov. 1 through Feb. 28. All process wastewater that is land applied must be pretreated to remove at least 65% of the total solids and at least 90% of the volatile fatty acids, or achieve at least a 60% reduction of total volatile solids. Any process wastewater that is land applied through subsurface injection does not need to be pretreated or achieve total volatile solids reduction goals. Careful management of the lagoon should occur during the land application period in order to maintain a proper level of liquid (minimum design value) in each lagoon at the end of the draw down events. For lagoon systems using a Division approved alternative aerobic cover, maintaining the minimum design value during periods of low liquid levels is critically important to sustaining the aerobic cover at all times.

4.1.8.2 Pressure Spray Systems

For operators or farmers that utilize a pressure spray system, a low-pressure system equivalent to twenty (20) psi or less should be used for the application of process wastewater. If the pressure spray system is in excess of 20 psi, the wastewater must be pretreated to remove at least 60% of the solids and at least 95% of the volatile fatty acids or achieve at least 60% removal of total volatile solids. Other high-pressure spray system requirements include the use of a low trajectory spray system and locating the pump intake in the last stage or cell of the waste impoundment near the surface of the liquid.

4.1.8.3 Separated Solids and Sludges

Solids that are separated from process wastewater by screening, settling or through other means can be land applied provided the following conditions are met:

- All solids and sludges must be injected or knifed into the soil immediately upon application. A six (6) hour variance can be granted by the Division if an operator can demonstrate that off-site odor emissions will be minimized to the greatest extent practicable between the time of application and the time that the solids or sludges are incorporated into the soil.

- If solids or sludges are incorporated into the soil using a subsurface injection technique, no significant amount of the solids or sludges can be present on the surface within one (1) hour of injecting the waste.

4.1.8.4 Land Applying Compost

According to Regulation No. 2, Part B, the finished compost product can be land applied year-round and does not require incorporation into the soil like land applied solid waste, separated solids or sludge. An operator should check with the Water Quality Control Division to verify land application regulatory requirements included in Water Quality Regulation No. 61, Section 61.13 prior to land application of compost.

4.1.9 Composting

The composting of solid waste and/or of carcasses is allowed under Colorado law. Regulation No. 2, Part B includes requirements for both activities. In addition, to the odor regulation, the state has a solid waste composting regulation (6 CCR 1007-2) that sets forth requirements for composting, including the composting of agricultural wastes. The requirements for both regulations are similar.

In Regulation No. 2, Part B, all solid manure composting operations must meet the following minimum best odor control management practices:

- Compost piles must maintain a proper aerobic condition at all times or must be contained in a vessel or a covered building to minimize odor; and,
- Compost piles must be turned or aerated using mechanical, natural or other Division-approved method. Use of a natural system for composting requires that the pile(s) be turned on a frequent basis in order to maintain proper aerobic conditions at all times. For mechanical systems, operating procedures should be implemented and followed to minimize off-site odor emissions to the greatest extent practicable.

4.1.10 Carcass Disposal

Carcasses must be disposed in a way that minimizes off-site odor emissions to the greatest extent practicable and is a Division-approved method of disposal. In general, carcasses must be disposed of within twenty-four (24) hours. If carcasses cannot be properly disposed of within 24 hours, they must be refrigerated or kept cool in a covered enclosure until disposal is complete.

Division approved carcass disposal methods include:

- Incineration – Incinerators must be operated in compliance with Colorado’s Regulation No. 6, Part B, Section VII. This section requires incinerators to be permitted and to meet testing requirements for particulate matter and opacity. Prior to incinerating carcasses, the carcasses must be stored in an enclosed area until processed. When operating the incinerator, the incinerator must achieve complete combustion. If complete combustion cannot be obtained, an afterburner may need to be installed on the incineration unit.

- Burial – Carcasses must be buried one (1) day after storage. All carcasses must be completely covered with soil to minimize odor emissions.
- Transport Off Site – Carcasses must be stored in such a way as to minimize off-site odor emissions until they are picked-up for off-site disposal.
- Composting – Carcasses should be placed in a compost pile within one (1) day of the death of the animal. Off-site odors must be minimized to the greatest extent practicable during the entire composting process.
- Other – A carcass disposal method other than as described above must be pre-approved by the Division.

4.2 OTHER MANDATORY ODOR CONTROL REQUIREMENTS

Swine feeding operations must employ technologies to minimize off-site emissions of odorous gases from all aspects of the operation to the greatest extent practicable. To assist operators in meeting this goal, the regulation sets forth a number of mandatory odor control technologies and work practice requirements that must be followed unless it can be demonstrated that alternative technologies or work practices are more effective in minimizing off-site odor emissions for the operation.

In addition to the specific mandatory recommendations included in Regulation No. 2, Part B a number of specific *recommended* technology and work practice requirements are also included in the regulation. Additional *recommended* requirements should be considered if an operator has difficulty complying with the mandatory requirements of the regulation, or if the Division determines that additional technologies or practices are needed to minimize odors to the greatest extent practicable at a facility in order to comply with the regulation. For a list of specific recommended odor control requirements, please refer to Section IX.B, of the regulation.

4.2.1 Swine Confinement Structures

Swine confinement structures must have adequate ventilation, dust management and manure management systems in place. Under-floor waste storage areas must be designed, operated and maintained to minimize odorous emissions to the greatest extent practicable. Specific requirements pertaining to confinement structures include the following technologies or work practices:

4.2.1.1 Ventilation Requirements

Existing sources must ensure adequate ventilation and efficient air movement to reduce odorous gases, remove moisture, control temperature and keep the animals clean. New or expanded sources that plan to store and/or treat wastewater, solids or sludge under the floor of the confinement structure must use mechanical under-floor ventilation and add-on control equipment for exhaust vents to the outside.

4.2.1.2 Dust Management Requirements

Dust inside the confinement structure must be managed to minimize off-site odor to the greatest extent practicable. Some of the ways to reduce dust inside buildings include:

- Keeping the animals clean;

- Replacing bedding as necessary;
- Properly sizing feed delivery systems;
- Keeping mechanical equipment and feed storage tanks properly maintained and in good working condition to minimize spills;
- Cleaning exhaust fans and shutters of dust as frequently as necessary (this will also improve the efficiency of the fan); and,
- Cleaning sidewall screens of dust, cobwebs and other debris as frequently as necessary.

4.2.1.3 Manure Management

Mandatory manure management practices include:

- Keeping all surfaces where manure collects and on which animals are maintained, including walls, removed and as clean and dry as possible;
- Completely cleaning and washing down all surfaces between groups of animals;
- Flushing systems must be flushed as frequently as necessary to minimize odor;
- Draining and refilling pit recharge systems as frequently as necessary to minimize odor;
- Using slatted floors in all new confinement structures (alternatives to the slatted floor technology are allowed if approved by the Division);
- Covering and adding an anti-siphon vent to flush tanks; and,
- Covering sump tanks.

4.2.2 Best Achievable Control Technology (BACT) Requirement

During the February 1999 hearing on Regulation No. 2, Part B, the Air Quality Control Commission adopted a “best achievable control technology” (BACT)-like review for determining the appropriate cover technology for permit applicants. BACT is required for all new or expanded anaerobic process wastewater vessels and impoundments systems, including waste treatment or storage lagoons, constructed in Colorado. The permit review process accounts for site-specific variables on a case-by-case basis taking into account energy, environmental and economic impacts and other costs. This process ensures that as new and better technology is developed, it will be incorporated into Colorado’s program for minimizing to the greatest degree practicable odorous emissions from such facilities.

4.3 ODOR MANAGEMENT PLAN

Every new and existing source is required to submit an odor management plan to the Division for review and approval. The plan must include a complete and accurate description of the odor management plan for the entire operation and must be submitted at the same time as the application for a permit to operate.

4.3.1 Content of Odor Management Plan

The following elements should be included in the odor management plan:

- A map showing the location of each of the operations and processes at the swine feeding operation;
- A description of the swine confinement structures and any open animal feeding operations (if applicable);
- A description of the manure collection, storage and treatment systems;
- A description of the composting area, storage sites and technology to be employed;
- A description of the land application equipment and sites.
- Construction and design plans for odor controls and management practices to minimize off-site odor emissions from all aspects of the operation;
- Operational plans for odor control and work management practices to minimize off-site odor emissions from all aspects of the operations at the operation; and,
- An animal waste plan for odor control and management practices that minimize off-site odor emissions to the greatest extent practicable in the confinement structures, animal waste and composting storage areas, and from land application equipment and sites.

In addition, the following requirements must be taken into account in the day-to-day operation of the swine feeding facility:

- Required equipment, technologies (e.g., anaerobic impoundment covers and aerators on aerobic impoundments) must conform to common and accepted professional practices and must be operated and maintained according to the manufacturer's specifications and recommendations; and,
- Conduct all required testing, sampling and analysis for the swine feeding operation as necessary.

4.3.2 Modifications to the Odor Management Plan

An owner/operator must request a modification to their odor management plan if operational problems are identified and corrected to address odor management practices or technologies. For example, if a pit additive is used on a daily basis to help control odor and was not included in the original odor management plan submitted to the Division, it should be added.

Any deviation from the plan must be documented with the reason(s) for the change and data to verify that there was an improvement in odor control or that there was no change in odor results from the previous plan. Any field data or testing that was conducted on the site should be summarized and included in the Semi-Annual and/or Annual reports. Revisions to the odor management plan can be submitted with the annual report (due Feb. 1), but must be clearly noted in the report.

SECTION 5 PERMIT INFORMATION

5.1 INITIAL AND FINAL APPROVAL

Air pollution permits in the state of Colorado are generally issued twice, first as an Initial Approval permit and then as a Final Approval permit. The Initial Approval permit is issued to an applicant after the Division reviews a complete and accurate application and odor management plan and determines that the operation, as proposed, can comply with all the regulatory requirements of Regulation No. 2, Part B.

Within 180 days of issuance of the Initial Approval permit, the company must read the permit and certify that the company is in compliance with each permit term and condition. This process is called the self-certification process. When submitting a self-certification package to the Division, a company should include the signed self-certification form (a copy of the self-certification form is available in Section 9) and documentation supporting the company's compliance status. The documentation can be submitted as a text document, including summary tables and attachments, and should address each permit term and condition. After a company submits a self-certification package, the Division reviews and approves the self-certification documentation and issues a Final Approval permit.

5.2 MODIFICATIONS

Modifications to a permit can occur in one of the following ways: (1) prior to the issuance of the Final Approval permit; (2) at the same time as issuance of the Final Approval permit; or, (3) after the Final Approval permit has been issued. Regardless of the timing of the modification request, all modifications must be submitted on the proper Division form(s). Please refer to Section 9 of this document for a copy of all administrative and reporting forms.

5.2.1 Prior to Issuance of the Final Approval Permit

If the modification occurs prior to issuance of the Final Approval permit, the Initial Approval permit is reissued as an Initial Approval Modification. After the Division issues the Initial Approval Modification, the company must repeat the self-certification process and certify compliance with all aspects of the permit, including the Initial Approval Modification.

5.2.2. Same Time as Issuance of the Final Approval Permit

At times, the Division will incorporate modifications at the same time of issuance of the Final Approval permit. This combined process saves the Division and the company time, money and resources.

5.2.2 After Issuance of the Final Approval Permit

A modification after issuance of the Final Approval permit is referred to as a Final Approval Modification. Self-certification is not required for this type of modification.

5.3 DENIALS

If the Division determines that the information provided in the application for a permit to operate or in the odor management plan will not comply with Regulation No. 2, Part B the Division may deny a permit application. Once the initial application is denied, the company may not construct or operate the facility. Should an application for a modification be denied, the company may not proceed with the proposed modification and must continue to operate under the terms of the Initial Approval permit. Permit applications are denied by Division engineering staff, but may lead to an enforcement action in the event that a facility conducts any activity that is not authorized by a valid permit.

5.4 REVOCATIONS

The Division has the authority to revoke a permit to operate for reasons such as the submittal of inaccurate statements in the permit to operate; fabricated or false data; or, the failure to submit self-certification information. Permits are revoked by Division enforcement staff and usually lead to an enforcement action.

5.5 CANCELLATIONS

The owner or legal representative of an operation may cancel its air pollution permit at any time, such as when an operation is permanently closing down. A cancellation notice must be provided to the Division in writing (see Section 9).

5.6 APPEALS

The owner or legal representative of an operation may appeal permit decisions made by the Division. The appeal is to the Air Quality Control Commission, and any interested person or party can apply for party status. If the appeal concerns any term or condition of a permit, the entire permit is denied and there is no authority to operate under the permit pending the appeal.

SECTION 6 REPORTING TIMELINES

Regulation No. 2, Part B includes a number of different timelines and reporting requirements. In an attempt to simplify and streamline the reporting process, the Division has coordinated reporting requirements and reporting deadlines in the following way:

Table 6.1 – Reporting Timeline and Applicability

Activity	Source	Reg. 2 Applicability	Reporting Deadline
Application for permit to operate	New	Prior to any construction.	None. But, must be approved prior to commencing construction.
	Existing	Prior to expanding.	None. But, must be approved prior to beginning any construction or expansion activities.
Odor Management Plan	New	Required.	Must be submitted to the Division with application for permit to operate or when modifying the permit.
	Existing	Required.	
Pre-Application Meeting	New & Existing	Optional.	Prior to submitting application for permit to operate or modification.
Division Review Process	New & Existing	Required.	Varies based on completeness determination and Division resources.
Public Review Process	New	Required	15 days after Division's preliminary analysis, a 30-day public comment period is provided.
	Existing	Not Required for Modifications	
Initial Approval	New	Division Action.	Issued by the Division after all applicable information is submitted with application for permit.
	Existing	Division Action.	
Self Certification	New	Required – signed original must be submitted to the Division.	Demonstrate compliance within 180 days of Division's issuance of initial approval permit. Annually after issuance of the final permit to operate. Submit to the Division by Feb. 1 of each year.*
	Existing	Required – same as above.	Submitted to the Division by July 1, 2000. Required annually thereafter by Feb. 1.
Final Approval	New	Division Action.	Issued after Division reviews test data and self-certification.
	Existing	Division Action.	Issued after Division reviews test data and self-certification.
Permit Modification	New	Required after initial or final permit is issued.	No deadline, but required prior to commencing construction or expansion.
	Existing	Required after initial or final permit is issued.	No deadline, but required prior to commencing construction or expansion.
Transfer of Ownership	New & Existing	Required of prospective owner or operator.	Submit to the Division an administrative permit to operate amendment form for reissuance of existing permit to operate no later than 30 days after transfer of ownership.

Activity	Source	Reg. 2 Applicability	Reporting Deadline
Semi-Annual Reports	New	Required – 1 st year may vary based on date of initial approval	Aug 1 of each year – for the reporting period of Jan. 1 – Jun. 30
	Existing	Required.	Feb. 1 of each year – for the reporting period of July 1 – Dec. 31
Annual Report	New & Existing	Required for producers using an approved alternative aerobic cover on anaerobic vessels or impoundments.	Feb. 1 of each year – Annual report can be submitted in lieu of the Jul. – Dec. semi-annual report.
Olfactometry Testing	New & Existing <i>If applicable</i>	Required for anaerobic lagoons using approved alternative aerobic cover	Feb. 1 – Report with Annual/Semi-Annual Report.
TVS Testing	New & Existing <i>If applicable</i>	Test and results required from each lagoon prior to land applying process wastewater.	Report with Semi-Annual/Annual Reports (Feb. 1 and Aug. 1).
BOD/DO Testing	New & Existing <i>If applicable</i>	Aerobic impoundments and vessels.	As approved by the Division. Monthly, quarterly, tri-annually, bi-annually. Report with Annual/Semi-Annual Reports
Scintometry Testing	New & Existing	Property line measurement required semi-annually.	180 days from issuance of permit. Bi-annual, 30-days from the beginning of each reporting period (Jan./Feb & Jun/Jul).
Incinerator Testing	New & Existing <i>If applicable</i>	Stack (Particulate Matter) Test, Opacity Test required.	180 days from issuance of permit. Protocol must be approved by the Division 30 days prior to conducting the stack test. Report results to Field Services Unit and document in the Annual Report.
Upsets and Deviations	New & Existing	Reporting required.	Promptly report deviations and upsets, but no later than 2 hours after the start of the next day. Follow-up with written notice.

*Annual self-certification can be consolidated on one form if more than one permit to operate has been issued to an operator. Please refer to item number 6.7 below for more detail.

Table 6.2 – Schematic of Reporting Timelines

	Semi-Annual Report	Annual Report	Annual Compliance Certification	Olfactometry Tests	TVS Tests	BOD Tests	Scintometry Tests
Jan						↓	↓ Results due
Feb						↓	↓ Aug. 1 st
Mar						↓	
Apr						↓	
May						↓	
Jun	↓ Due Aug. 1 st			↓ Results due	↓ Results due Aug. 1	↓	
Jul				↓ Feb. 1 st		↓	↓ Results due
Aug				↓ (2 tests separated by 30-days)		↓	↓ Feb. 1 st
Sept						↓	
Oct						↓	
Nov	↓ Due Feb. 1 st	↓ Due Feb. 1 st	↓ Due Feb. 1 st			↓	
Dec						↓	

6.1 APPLICATION FOR PERMIT TO OPERATE

The permit to operate application form is available in Section 9 the Division Forms section of this workbook or from the Division. The Multi-media Permit Application form can also be downloaded from the Division's Housed Commercial Swine Feeding Operations homepage at: www.cdphe.state.co.us/ap/hog_hom.html.

A complete and accurate application for a permit to operate must be submitted to the Division, complete with the original signature of a person legally authorized to act on behalf of the applicant. A complete and accurate odor management plan must also be submitted with the application for a permit to operate.

An application is not considered complete until all information and data required to evaluate the application is submitted to the Division. Within sixty (60) calendar days of receiving the application, the Division will give notice to the applicant of a completeness determination. If the application is deemed incomplete the Division will give notice to the applicant that additional information must be submitted to the Division. If the Division fails to notify the applicant within 60 calendar days, the application is deemed complete as originally received. The need for supplemental information restarts the 60-day clock from the receipt of the supplemental information by the Division. During the processing of the application for a permit to operate the Division is permitted to request additional information. This request must be honored by the applicant and submitted to the Division prior to further consideration of the application.

6.1.1 Existing Sources

An existing housed commercial swine feeding operation that was in operation or that commenced construction on or before March 30, 1999, must obtain a permit to operate from the state. A permit to operate must be submitted to the Division by April 15, 1999. A complete and accurate odor management plan must accompany the permit application. Compliance with each requirement of the initial permit must be demonstrated by June 1, 2000. A final permit to operate will be issued after the Division reviews and approves all test data and permit requirements.

All existing sources using anaerobic process wastewater vessels or impoundments, including aeration tanks and storage impoundments must demonstrate that a cover is capturing, recovering, incinerating or otherwise managing odorous gases to minimize odor to the greatest extent practicable by September 15, 2000.

6.1.2 New or Expanded Sources

All new sources must obtain an approved permit to operate from the Division prior to beginning any construction, expansion, reconstruction or modification of a housed commercial swine feeding operation. An application for a permit to operate, along with an odor management plan must be submitted to the Division as required by Regulation No. 2, Part B.

6.2 ODOR MANAGEMENT PLAN

An odor management plan is required by every new or existing source and must be submitted along with the application for a permit to operate. The odor management plan must include a complete description and map of the swine feeding operation detailing the location of each of the operations and processes at the facility. Included in the plan should be the following information:

- The type and number of swine confinement structures, including all odor control information (as discussed in Section 4.2.1 of this notebook);
- Manure collection, storage and treatment systems including a description of the type of management system to be used for an impoundment or vessel;
- Composting site(s) and associated storage facilities; and,
- Land application equipment and sites.

6.3 PRE-APPLICATION MEETING

Prior to submitting an application for a permit to operate, or for a modification to an existing permit to operate, an applicant can request a pre-application meeting with the Division. At the pre-application meeting the Division will advise the applicant of the applicable regulatory requirements, including the type of plans, data, specifications and other information that should be submitted with the application. If so requested, the pre-application meeting can be coordinated with both the Air and Water Quality Control Divisions.

6.4 DIVISION REVIEW PROCESS

Once the application for a permit to operate, accompanied by the odor management plan, is submitted to the Division the following review process and permit turnaround time can be anticipated:

6.4.1 Completeness Determination

The Division must make a completeness determination within 60 calendar days after receipt of the application and odor management plan. If the Division does not notify an applicant within the 60 day time period that the application is incomplete, the application is considered complete as of the day it was originally submitted to the Division. If, however, the Division determines that additional information is required to sufficiently evaluate the proposed operation, technologies, work practices, etc., described in the application and in the odor management plan, the Division can request at any time, and as frequently as necessary additional information from the applicant. The Division's request will be provided in writing and will set a reasonable response deadline.

Once all of the supplemental information has been submitted, the Division has 60 calendar days to evaluate the information and determine completeness. Any omitted or incorrect information included in the original application submittal to the Division should be corrected immediately by notifying the Division. In addition, any operational changes prior to issuance of the initial permit to operate should be corrected as soon as possible, but prior to issuing the initial permit to operate.

6.4.2 Preliminary Analysis

After the application for a permit to operate and the odor management plan are deemed complete, the Division has 60 calendar days from the date it is determined complete, to prepare its preliminary analysis. The preliminary analysis is the Division's ruling that the applicant will be able to comply with all the regulatory requirements upon issuance of the initial permit to operate.

6.5 PUBLIC REVIEW PROCESS

The Air Quality Control Division and the Water Quality Control Division have different public notice and review processes for new, existing and expanded operations. For planning purposes, it is important to be aware of what the differences are and plan accordingly.

6.5.1 Public Notice Requirements

The public notice, review and hearing requirements in Regulation No. 2, Part B are as follows for new and existing operations:

6.5.1.1 New Sources

Within fifteen (15) days after the preliminary analysis is complete, the Division will place a public notice of the application in the newspaper of the general area of the proposed operation and file a copy of the application and the Division's preliminary analysis with the county clerk(s) for the county or counties in which the operation will be located. The public notice provides for a thirty (30) day comment period with a comment closing date set 30 days from publication of the notice. The written notice will include the following information:

- The location and nature of the proposed activity;
- The location where the application and preliminary analysis are available for public review and inspection;
- A statement to the effect that the Division will receive and consider public comments for thirty (30) calendar days;
- The Division's preliminary determination of approval, conditional approval or disapproval of the application and/or compliance plan;
- A statement soliciting comment on an innovative technological system for pollution control if proposed by the applicant; and,
- A statement soliciting comments on alternative technologies and work practices to the applicant.

6.5.1.2 Existing Sources

Existing operations submitting an application to modify a permit to operate or an odor management plan are not subject to a public notice comment period.

6.5.2 Public Hearing Request

Existing and new operations have a right to a formal hearing before the Air Quality Control Commission with respect to the application for a permit to operate. All appeals of any final decision of the Division must follow the Air Quality Control Commission's Procedural Rules (5 CCR 1001-1, Section 1.6.0).

6.5.2.1 New Sources

New housed commercial swine feeding operations must provide to the Division a hearing request within 30 days of the publication of the notice for public comment. Within five (5) days of receipt of the hearing request, the Division will transmit the request to the Air Quality Control Commission, along with the complete application for a permit to operate, the Division's preliminary analysis and any written comments received by the Division.

6.5.4.2 Existing Sources

Within 30 days of issuance of the permit to operate an existing operation can request a formal hearing on the Division's preliminary analysis and permit determination.

6.6 INITIAL APPROVAL

An initial approval of the permit to operate is issued to an applicant after the application and odor management plan are reviewed and deemed sufficient to comply with all applicable air quality regulations. Initial approval is issued within 30 calendar days after completion of the Division's preliminary analysis. For new sources, the Initial Approval Permit to Operate will be issued 30 calendar days following the period for public comment or if applicable, within 30 calendar days following a public hearing.

6.6.1 Denial or Revocation

An application or a permit to operate can be denied if the Division determines that a swine feeding operation cannot comply, or does not operate, in compliance with all applicable regulatory requirements. The Division will issue a written denial, stating the reasons for such denial of the application. Any written denial is final upon mailing of the denial notice to the applicant by certified mail.

An applicant may request a hearing before the Air Quality Control Commission to contest the Division's denial of the application for a permit to operate. A hearing would proceed as per the Air Quality Control Commission's Procedural Rules and the State Administrative Procedures Act.

6.6.2 Refusal to Accept

Within 30 days after receipt of the initial approval permit to operate, any applicant can advise the Division, in writing, of refusal to accept any permit condition imposed by the Division. A refusal is considered denial of the application for a permit to operate.

6.7 SELF-CERTIFICATION

All new, existing and expanded sources must self-certify compliance with each term and condition of the permit(s) to operate within 180-calendar days after beginning operation of a new or expanded source. Self-certification means that each condition of the permit has been reviewed and that the source is in compliance with all conditions of the permit. A copy of the Final Approval Certification Form is included in Section 9, the Division Forms section of this notebook. After new and expanded sources complete the initial 180-

calendar day self-certification process, all sources will follow the annual reporting schedule and submit certifications by Feb. 1 of each year. Certifications will cover an entire one-year time period (Jan. 1 - Dec. 31). For operators with more than one permit the certification process can be consolidated on one form if each permit number is listed on the form.

The self-certification form must be signed by a responsible official of the operation and submitted to the Division. An original signature is required on the form. Please note: a self-certification form should not be signed unless all the terms and conditions of the permit to operate are in compliance with the requirements of Regulation No. 2, Part B. For example, if an odor standard at the property line is measured at 7:1, the facility is not in compliance with the law, or if land application of process wastewater occurred on a weekend or holiday without a waiver issued from the Division, the operation would be in violation of the law. The false certification of compliance is considered a misdemeanor and is punishable by law. Existing and new sources are required to certify compliance with every aspect of their permit within 180 days from the date of the initial approval of the permit to operate. Certification of compliance should be completed only after the test data and other supporting documentation confirms compliance with the permit requirement(s). Certifying compliance without adequate data and information to substantiate compliance is a violation of the law.

6.8 FINAL APPROVAL

After a source has demonstrated compliance with the terms and conditions of the permit to operate and has submitted the proper self-certification paperwork, the Division will review and analyze the compliance data to determine whether or not the operating terms and conditions have been satisfied.

Prior to granting final approval of the permit to operate, the Division may require additional information or require the applicant to conduct performance tests as specified by the Division. If additional testing is required, a test protocol must be submitted to the Division for review and approval prior to testing. A final permit to operate will be issued in writing when the Division determines that all the terms and conditions of the permit to operate have been satisfied.

6.9 PERMIT MODIFICATION

If an owner or operator plans to modify the operation in any of the ways listed below, the permit to operate and the odor management plan must be modified to reflect the proposed expansion or modification. For example, the following are some of the operational changes that must be modified in the permit to operate and approved by the Division prior to initiating changes:

- Increasing the number of swine from the number included in the original application for a permit to operate;
- Changing the swine waste treatment, storage or carcass disposal practices from those included in the permit to operate;
- Changing the nature and/or volume of swine waste generated at the operation;

- Disposing of animal waste at any other location than those identified in the permit to operate;
- Adding land application sites;
- Changing a work practice(s) in the odor management plan;
- Changing the method of carcass disposal; or,
- Adding or expanding impoundments.

If an operation is required to modify the permit to operate and the odor management plan, the Division will charge \$50.00 per hour to review, approve and revise the permit to operate and analyze the odor management plan. A copy of the modification form (the State of Colorado's Multi-Media Permit Application for Housed Commercial Swine Feeding Operation application form) is included in Section 9 of this notebook. A pre-application/modification meeting can be requested with the Water and Air Quality Divisions prior to submitting a revised application.

6.10 TRANSFER OF OWNERSHIP

If an operation is planning to transfer or assign ownership of the operation to a different party, the prospective owner or operator must apply to the Division for re-issuance of the existing permit to operate no later than 30-days after change of ownership. The required form that must be submitted to the Division is titled the Administrative Permit Amendment Form. A copy of this form can be found in Section 9 of this notebook. If a company is changing its name only, an Administrative Permit Amendment Form must be submitted to the Division for re-issuance of the permit.

A permit to operate will be re-issued upon completion of the transfer or assignment of ownership if the prospective owner or operator certifies that: (1) no change is being proposed for any term or condition of the permit, e.g., the expansion or modification to the operation is planned; and, (2) a written agreement containing the specific date of the transfer of permit, responsibility, coverage and liability between the current and prospective owners is submitted to the Division. This information can be provided on a Transfer of Emission Permit Agreement Form (included in Section 9 of this notebook).

6.11 SEMI-ANNUAL REPORTS

Every year, two reports are required for each permit. Beginning in the year 2001, the first report must be submitted to the Division by Aug. 1, covering the period of January through June. The second report is due by Feb. 1 for the period of July through December. In 2002 and each year thereafter, one semi-annual report is due by Feb. 1 and the second semi-annual report is due by Aug. 1 of each year for the reporting periods described above. The annual self-certification form(s) must be submitted with the semi-annual or annual report due on Feb. 1.

6.12 ANNUAL REPORT

For all operators that employ the Division-approved alternative aerobic cover for anaerobic impoundments an annual report must be submitted to the Division by Feb. 1 of each year. The annual report can be rolled into the semi-annual report or vice versa.

The annual report shall consist of:

- Any revisions to the odor management plan;
- The annual odor threshold evaluation of the lagoons;
- A summary of any changes in management procedures throughout the year; and,
- All other testing and monitoring requirements (e.g., BOD/DO test results, TVS test results, scentometry results, etc.).

Assuring compliance with the reporting requirements can be accomplished by using a checklist designed specifically for each operation based upon the original odor management plan. An example of the type of information that should be reported in the annual report include any change in feed rations and management, waste removal from the swine facilities, lagoon pumping schedule or any other management changes that may effect the odorous gases emission from the farm. In addition, weather data and other supporting data should be included to give an analysis of odor control and to help assess the management plan. This is to be done concurrently with any other reporting requirements presently in place. The dates, time and location of spray application shall be recorded.

Any deviation from the plan must be documented with the reason(s) for the change and the data to verify that there was either an improvement in odor control or no change in odor results from the previous plan. Any field data or testing that was conducted on the site should be summarized in the report.

6.13 OLFACTOMETRY TESTING

In order to demonstrate that an approved alternative aerobic cover is in compliance with the cover requirement, a minimum of two odor samples at each anaerobic lagoon must be taken twice during the June 1 to Aug. 31 testing period. A minimum of 30-days must separate the two samples during the second and any subsequent testing periods.

If each lagoon meets the performance standard after two consecutive years of testing and there are no complaints or exceedances of the performance standard for lagoons, the facility is considered to be in compliance with the lagoon cover requirement and odor sampling is required for each lagoon on a three-year rotation. If a lagoon(s) fails to meet the 6,000 olfactometry performance standard during either the first or second round of testing, testing shall continue until two rounds of tests comply with the standard. Until a facility demonstrates compliance with two rounds of testing at or below 6,000 odor threshold, it shall be considered in violation of Regulation No. 2. Two consecutive years of compliance data must be provided to the Division before advancing to a three-year rotational test schedule.

6.14 TVS TESTING

Testing for total volatile solids (TVS) should occur prior to land application periods for each lagoon. Results must be received from the laboratory and the proper calculations completed to determine each lagoons TVS reduction prior to application. Prior to land applying any effluent, the impoundment must show a 60% or better reduction in TVS or the effluent from that impoundment cannot be land applied and must be retested to show

a 60% or better reduction of TVS. To assist operators in complying with the TVS test requirements, the Division has divided the TVS testing and land application timeframe into three periods:

- March – April;
- May – June – July;
- August – September – October.

Any land application scheduled to occur during the periods listed above, must have a corresponding TVS test conducted, and results in-hand, prior to land applying effluent from the impoundment. For each land application period, TVS testing should not occur any earlier than the 15th day of the month prior (e.g., Feb. 15, April 15 or July 15).

6.15 BOD/DO TESTING

For aerobic impoundments, either dissolved oxygen (DO) or biological oxygen demand (BOD) must be tested on a schedule approved by the Division. New and, if applicable, expanded/modified sources must test a minimum of one time per month for twelve (12) consecutive months. After twelve months of data demonstrate compliance with the BOD/DO standard, the source can submit a written request to the Division to reduce the frequency of BOD/DO testing to a quarterly test schedule. Corresponding BOD/DO results must be reported in the semi-annual or annual reports.

6.16 SCENTOMETRY TESTING

Odor concentration measurements must be taken at least two times each year and must follow Division protocol. At a minimum, one-round of tests must take place within 60-days of the start of each semi-annual reporting period, i.e., one test in Jan./Feb. and one test in July/Aug. Scentometer results should be reported in the semi-annual reports due Feb. 1 and Aug. 1, or in the semi-annual report due Aug. 1 and in the annual report due Feb. 1.

A Colorado-certified person using a properly calibrated Scentometer must take odor concentration measurements. The Division offers an Odor School Certification Course on a periodic basis during the year. A certified odor evaluator must re-certify on an annual basis. For an Odor School Certification Course schedule, please contact the Division. The name of the certified odor evaluator and a copy of the certification card issued by the Division upon successful completion of Odor School must accompany the scentometry test results.

6.17 INCINERATOR TESTING

The burning of carcasses is only permitted in a properly operated and compliant incinerator. Incinerators must be listed in the permit to operate and must undergo stack and opacity testing prior to use. A test protocol must be submitted and approved by the Division 30-days in advance of conducting the stack and opacity tests. Test results should be reported to the Division's Field Services Unit and a summary of the results provided in the annual report.

6.18 UPSETS AND DEVIATIONS

An upset is an unpredictable failure of air pollution (odor) control or process equipment caused by conditions other than poor maintenance, improper or careless operations, or a condition that is otherwise preventable through the exercise of reasonable care. Any upset or deviation from normal operating practices should be reported to the Division as soon as possible. Upset conditions as defined, will not be considered a violation if the Division is notified as soon as possible, but no later than two (2) hours after the start of the next working day, followed by written notice to the Division explaining the cause of the occurrence and the action(s) taken to correct the conditions causing the violation and to prevent such emission or violation in the future.

Upsets should be reported on a Division Upset Condition Reporting Form for Housed Commercial Swine Feeding Operations. A copy of the upset reporting form is located in Section 9 of this notebook, or is available on the Division's Housed Commercial Swine Feeding Operations homepage.

When reporting the upset event, there are two ways to notify the Division:

- Fax the Upset Condition Reporting Form to the Division and follow-up by mailing the original to the Division; or,
- Phone the Division and provide a written follow-up of the upset event (on an Upset Condition Reporting Form).

SECTION 7 ENFORCEMENT & LEGAL INFORMATION

The Division enforces air quality laws fairly and consistently. Enforcement actions are commensurate with the seriousness of the noncompliance. A fundamental precept to nearly all laws in our society is that significant violations of the law will result in some form of sanction. The Division applies firm sanctions to those who have significant violations. Consistent enforcement of environmental laws should ensure a level playing field for all regulated entities.

The Division's Inspection, Compliance Monitoring, and Enforcement Unit employ a full range of enforcement options to achieve regulatory goals. Traditional tools of administrative, civil, or criminal enforcement actions and penalties are combined with approaches that emphasize problem-solving and creative settlements resulting in positive environmental outcomes. For example, when a noncompliant source has achieved a distinct economic advantage from noncompliance, the Division calculates penalties that are sufficient to offset the economic benefit gained by the source.

Enforcement activities are designed to achieve flexible, yet prompt compliance that serve as a deterrent to noncompliance or regulatory avoidance. Vigorous enforcement, including collection of substantial civil and criminal penalties as provided by law, is used against those responsible for willful, deliberate noncompliance that endangers public health or the environment. When a violation involves more than one regulatory program, coordinated actions are used wherever possible to ensure a thorough, consistent, and effective result is achieved.

7.1 INSPECTIONS

Inspections are generally conducted at the facility and conducted under the authority of the Colorado Air Pollution Prevention and Control Act, as amended. The general purpose of inspections is to assess the source's compliance with applicable laws, regulations, and permit conditions, and to provide prompt notice to the source of any deficiencies noted or noncompliance observed. The validity and accuracy of a source's self-monitoring reports and compliance certifications is also checked. Inspectors can be either Division personnel or local county environmental staff contracted by the Division.

7.1.1 Pre-Inspection Procedures

Prior to an inspection, the following activities occur:

- The inspector reviews the source's permit, most recent inspection report, and/or any requirements applicable to the source, along with reports submitted to the Division since the last inspection to determine appropriate emission limitations, control equipment, operating and maintenance practices, special conditions, emission violations, reporting deficiencies, and so forth. The inspector will also obtain copies of recent enforcement actions or documentation of noncompliance issues.

- The inspector generally does not contact a facility representative prior to the inspection visit unless the facility is not staffed full time, or other circumstances exist that make prior contact advisable.

7.1.2 On-Site Inspection Procedures

Upon arriving at the facility, the following procedures are generally followed:

- The inspector will first observe the facility from outside of the property. If problems are visible, he/she may conduct odor measurements at the property boundary.
- The inspector will then enter the facility and present his/her credentials to the appropriate facility representative and inform him/her of the purpose of the inspection. The inspector will ask to speak with a foreman, supervisor, or other responsible official before proceeding with the inspection.
- An inspector cannot sign a waiver releasing the facility from any liability for negligence, injury, and the like, or with respect to enforcement of violations discovered during the inspection. If the facility refuses entry, on this or any other basis, the Division will obtain a search warrant to enter and inspect the premises. The inspector will comply with any Biosecurity Protocols to the greatest extent possible, but may be required to act outside of the protocol if he/she observes something that poses an immediate and significant risk to the public health or environment.

7.1.3 Complaint-Driven Inspections

Inspections may also result from the Division receiving a complaint. Every formal complaint received by the Division is logged in a computer database system. The Division will respond to complaints based on the seriousness of the issue, potential threat to the public health and environment, the repetitive nature of the complaint, or other factors deemed appropriate. The Division may decide not to respond to each complaint, but will follow-up on each complaint received and notify the company or facility of the date, time and nature of the complaint. If the Division responds to a complaint with a site visit, it will likely not inform the company or facility of the inspector's visit in advance. At the time of this visit, the inspector may request access to the facility, if necessary, to assess the problem. A copy of the Odor Evaluation Form is located in Appendix B.

7.2 ENFORCEMENT EVALUATION

The Supervisor of the Field Services Unit and Legal Administrator for the Division review all documentation concerning violations to determine whether there is sufficient basis to reasonably conclude that a violation has occurred. If the Division determines that there is not a sufficient basis to reasonably conclude that a violation has occurred, no further action is taken and the source will be notified. As outlined above, the Division or local agency personnel typically conduct this review, although legal consultation with the Attorney General's Office may be necessary in some cases.

If the Division determines there is sufficient basis to reasonably conclude that a violation has occurred, the Division will take one of the following actions:

- (1) Issue a warning letter to the source with documentation of the warning placed in the case file and no further enforcement action taken;
- (2) Process the violation through an early settlement agreement;
- (3) Refer the case for formal enforcement process; or,
- (4) Refer the case to the Attorney General's Office for action before the Air Quality Control Commission or district court, as appropriate.

In determining the appropriate response, consideration is given to:

- The nature of the violation(s), for example, late or deficient reporting, numeric emission standard violations, missed or neglected compliance schedules;
- The duration of the violation(s);
- The frequency of the violation(s), for example, an isolated or recurring event;
- The potential impact on public health or the environment as a result of the violation(s);
- The attitude of the violator, for example, cooperative, responsive, takes immediate remedial steps, etc.; and,
- The violator's past compliance history.

A source that is found to be in noncompliance is one that is not meeting all applicable Colorado Air Quality Control Commission regulations or permit terms and conditions. There are several methods that are used to determine the compliance status of a source. The methods most commonly used include:

- Complaint response;
- On-site inspections;
- Calculations of source emission rates, i.e., data collected during inspection or source test data;
- Permit to operate monitoring data, compliance reports or other data submitted by the source;
- Upset and malfunction reports; and,
- Identifying sources operating without permits:

7.3 RANGE OF ENFORCEMENT RESPONSE

In order to achieve a maximum degree of compliance with the air pollution laws, the Division uses a variety of enforcement mechanisms. In general, enforcement mechanisms can be placed into two categories: (1) informal enforcement activities; and, (2) formal enforcement activities. Compliance Advisories are typically used as a prerequisite to conducting activities in either of the two categories, but at times the Division will directly issue a Notice of Violation (NOV). In addition to these activities, an enforcement response may include Information Request Letters, to assist in gathering additional evidence of compliance or noncompliance, and warning letters.

The Division has developed an enforcement response guide to serve as a reference in determining the course and appropriate level of action to be taken for specific violations, along with time frames for completion. Upon evaluation of the facts of a specific case,

and in the case of criminal violations, deviations from this guidance may legitimately occur and will be explained and justified by the Division in the permanent record.

7.3.1 Informal Enforcement Response

Informal resolution of an enforcement action can include the following activities:

- Verification that problems have been corrected and sending written acknowledgment to the facility;
- Establishing a compliance schedule with the source, including subsequent verification of compliance by the Division and written acknowledgment;
- Providing a settlement offer letter to the facility with established time frames for settlement;
- Providing written acknowledgment where the facility demonstrates that no violation occurred; and,
- Issuing a “No Further Action” letter to the facility where compliance has been demonstrated and the Division determines that there is no need to pursue any other action.

7.3.2 Formal Enforcement Response

Formal enforcement actions can include the following:

- Issuing Compliance on Consent or other settlement documents including a compliance schedule and/or penalty settlement;
- Issuing Notice of Violations and holding subsequent Notice of Violation conferences;
- Issuing Consent Orders with or without penalty assessment when a mutually agreed resolution is not reached;
- Issuing administrative cease and desist orders when injunctive remedies are necessary to speed compliance and/or to protect public health or welfare;
- Requesting that the Attorney General’s Office file civil suits for injunctive relief or penalties; and,
- Requesting that the Attorney General’s Office prosecute the source for criminal acts.

7.4 ENFORCEMENT PROCEDURES AND TOOLS

The Division follows a standard procedure in implementing enforcement actions. After the action is implemented, the enforcement path can go several directions. The following is a brief overview of the enforcement process and associated documents.

7.4.1 Compliance Advisory

To instigate an enforcement action, the Division will typically issue a Compliance Advisory. A Compliance Advisory serves several purposes, including notifying the company that the Division has discovered noncompliance issues at a facility. The document provides the company with the inspector’s observations and a description of any action taken by the inspector (i.e., request for additional information) and details any areas of the compliance evaluation the inspector did not complete. In addition, the permit, regulatory, and/or statutory provisions the Division alleges to be in violation are provided, and any required submittals or

actions by the facility are specified. Other purposes of the Compliance Advisory are to speed the resolution of the violations if an agreed upon resolution of the matter(s) can be reached and to notify the company of the consequences of a formal enforcement action. The Compliance Advisory includes a contact name and telephone number, and requests the recipient call the Division within ten days to schedule a meeting.

At the meeting, the Division further explains the inspector's observations and alleged violations and allows the company an opportunity to provide the Division with an explanation. The company also has the opportunity to submit additional information to the Division at the meeting or by an agreed upon date. After the meeting and review of any information submitted by the company, the Division will determine whether violations occurred. If it determines no violations occurred, it will issue a No Further Action letter. If it determines violations occurred, there are several paths that can be taken. The Division can determine a warning letter is appropriate or that penalties and a violation on the company's record are appropriate. If the latter is deemed appropriate, the Division typically will offer the company a choice of either early settlement through an agreement or the formal process by issuing a Notice of Violation (NOV). Each approach is described below in further detail. (Appendix B, Compliance Advisory.)

7.4.2 Warning Letter

The term "warning" means a written notification to the company that the Division documented a violation and that further reoccurrence could result in enforcement action being taken, but that no further enforcement action will result directly from the original violation. The written notification is in the form of a warning letter.

A company can receive a warning letter as a consequence of a Notice of Violation, or in lieu of a Notice of Violation or settlement agreement, when it is determined by the Division that the acts constituting the violation were inadvertent, and immaterial or insignificant, and were not intended to violate state or federal environmental laws and regulations. The Division does not issue warning letters if it is a repeat violation for the facility. (Appendix B, Warning Letter.)

7.4.3 Notice of Violation

The Division is required by statute to "act expeditiously and within the time prescribed by law" when issuing a Notice of Violation or NOV to a source after the discovery of a violation (section 25-7-115(2), CRS). The statute of limitation ("the time prescribed by law") within which an enforcement action must be commenced from the date of discovery of a violation is eighteen months, but in no event later than five years from the date of occurrence of the violation (Section 25-7-123.1, CRS). The eighteen-month time frame does not apply to "knowing" criminal violations, or to violations of any order, prohibition, or requirement of an operating permit, and the five-year statute of limitation does not apply to violations that are knowingly or willfully concealed by the violator.

An NOV must specify the provision alleged to have been violated or not complied with and the facts alleged to constitute the violation or noncompliance (Section 25-7-115(2), CRS). The factual basis and legal conclusions required by the statute are referred to in the NOV as “alleged findings of fact” and “alleged conclusions of law.”

The Division reviews the adequacy of the facts as a prerequisite to commencing a formal enforcement action. The “facts” are the underpinnings to a determination that a violation of some statutory or regulatory provision actually occurred. A fact is a thing done, an action performed, an event or circumstance. The facts that need to be included in a NOV are the ones that answer the question, what circumstances lead to the conclusion that a specific law has been violated by a specific source on a specific date(s)?

The NOV can be regarded as a “notice” pleading. A notice pleading puts the violator on notice of the facts that lead to the conclusion that a law has been violated in the enforcement action. To avoid issues of adequacy, NOVs should contain all relevant facts that support the conclusion that a violation has occurred. At a minimum, the NOV should include:

- Name of company and facility;
- Date, time, and place of the inspection (including a description of rooms or areas inspected);
- Name and title of the inspector(s);
- In detail, what was observed;
- The law(s) alleged to have been violated; and,
- The procedural rights of the company.

Where the factual basis for a violation involves opacity or odor, the NOV should include a statement that a copy of the visible emissions report or the odor reading was provided to the source at the time of the inspection.

The NOV must also specify the law that is alleged to have been violated. The laws pertaining to the NOVs are the air quality regulations and statute. Legal conclusions found in the NOV are those determinations that specific laws have been violated based upon the factual findings set forth in the NOV. For example, an observation that odor emissions at the property boundary and downwind of a hog operation was 15:1 odor threshold, performed in accordance with the Division’s scentometer protocol, forms the factual basis for the legal conclusion that the hog operation was in violation of Regulation No. 2, Part B standard of 7:1 odor threshold for such facilities. The Legal Administrator reviews the NOV for legal adequacy prior to its issuance.

Within thirty days of sending out the notice via certified mail, the Division must hold an NOV conference. The NOV conference is informal, the alleged violator may or may not bring legal counsel and the conference is audiotaped. The conference provides an opportunity for the source to submit data, information,

and arguments on its behalf, and allows the Division to determine whether a violation in fact occurred, or whether the source has been able to satisfactorily explain the facts to the Division's satisfaction that a violation did not occur. (Appendix B, Notice of Violation.)

7.4.4 Compliance Order

If, after the NOV conference, the Division determines that a violation or noncompliance did occur, a Compliance Order (CO) is issued via certified mail. The CO must contain the same information as contained in the NOV. The order shall set forth with specificity the final determinations of the Division regarding the nature and extent of the violation or noncompliance ("findings of fact") and shall also include, by reference, a summary of the proceedings at the conference held after the NOV, as well as an evaluation of the evidence considered by the Division in reaching its final determination ("conclusion") of law (section 25-7-115(3)(c), CRS). For example, a source might argue at the NOV conference that an odor violation did not occur because the inspector's odor reading was taken during an upset condition, which if established by the source would excuse a violation of the odor standard. The CO would state that the source asserted that an upset condition was present and, if appropriate, would also state that a written upset report was never filed with the Division, an oral upset report was never phoned in, and the plant was continuing to operate despite the asserted upset condition. All of these facts would obviate an upset condition as an excuse to a violation.

The Legal Administrator reviews the CO for legal and factual adequacy prior to its issuance; the Stationary Source Program Manager and the Director of the Division both must review and sign the CO. (Appendix B, Compliance Order.)

7.4.5 Settlement Conference

A settlement conference is an informal meeting between the Division and the source. The purpose of the meeting is to openly share with the source documentation and other supporting material for the violation in an effort to mutually resolve the violation. The source may, but is not required to, present evidence in defense or mitigation. The Division will take into consideration all evidence presented by the source during the course of the settlement conference in evaluating the terms of its proposed settlement as required in determining the monetary component of the settlement agreement. Information produced at the settlement conference may cause the Division to amend its proposed settlement and send the amended document to the company. Such amended settlement proposal shall specify fifteen days during which the source may consider, and either accept or reject, the proposed settlement, and if no response is received from the source within such time, the proposed settlement shall be deemed rejected. If the source rejects or the Division deems that the source has rejected the settlement proposal, the Division will refer the case for formal enforcement action.

7.4.6 Compliance Order on Consent

A Compliance Order on Consent (COC) means the settlement agreement or express terms, mutually agreed upon in writing, between the recipients of a Compliance Advisory, NOV, or CO and the Division that resolves the consequences of the discovered noncompliance. A COC may also resolve contested matters in a final CO issued by the Division. The Division requires the Division's findings of facts and determination of law to be included in all Compliance Orders on Consent. The company may request a statement be included that it disagrees with the Division's determinations, but is agreeing to settle the matter. But, any violation as determined by the Division is part of the company's enforcement record for all Department purposes. The COC also includes a compliance schedule (if necessary); the penalty(ies) assessed; any back-fees owed; and, a description of the agreed upon Supplemental Environmental Project, if applicable. A COC is in force and effect from the date of the last signature as long as the facility operates. (Appendix B, Compliance Order on Consent.)

7.4.7 No Further Action

The Division shall close a case if it determines that no further action (NFA) is necessary. The Division shall base a determination of no further action upon a review of the field report or other supporting documentation and upon a finding by the Division that: (1) no basis exists to reasonably conclude that a violation has occurred; or (2) that the violation was inadvertent and insignificant or immaterial (in which case a warning letter shall be issued). This determination can be made at any time until a CO is issued.

In general, a matter is considered insignificant if it has no specifically identifiable impact on air quality (e.g., no violation of an emission standard). In general a matter is considered immaterial if it has, at most, a very limited adverse effect on the Division's ability to administer Colorado's air quality programs (e.g., is not a violation of the requirement to obtain a New Source Review or Operating Permit).

7.5 PENALTIES

There are two types of penalties that the Division can assess: civil penalty and noncompliance penalty (economic benefit derived from noncompliance).

7.5.1 Civil Penalty

The Division will impose a civil penalty against a source when the Division determines that: (1) a violation has occurred; (2) the source is liable for such violation; (3) it appears that such action is in the best interests of the public to punish and deter future violations; and (4) to ensure consistent treatment of all violations. The penalty may be mitigated or reduced through a settlement agreement (COC) with the Division.

A civil penalty is calculated using a penalty calculation policy that is based upon components set forth in statute. The Division must consider the following aggravating factors (to increase penalty):

- The violator's compliance history, such as if the source has a previous noncompliance history, the penalty will be increased by noted amounts;
- Any good faith efforts on behalf of a violator to comply after notice of the violation is received;
- A payment by violator of penalties previously assessed for the same violation;
- The economic benefit of noncompliance to violator;
- The impact on, or threat to, public health, welfare or environment as a result of violation;
- The malfeasance; and,
- Whether legal and factual theories were advanced for purposes of delay.

The Division must consider the following mitigating factors to reduce any civil penalty:

- Voluntary and complete disclosure by the violator of such violation in a timely fashion after discovery of the noncompliance;
- Full and prompt cooperation by the violator following disclosure of the violation including, when appropriate, entering into legally enforceable commitment to undertake compliance and remedial efforts;
- Existence and scope of regularized and comprehensive environmental compliance program or environmental audit program;
- Substantial economic impact of penalty on the violator;
- Nonfeasance;
- Other mitigating factors as appropriate; and,
- For early settlement, the Division will allow a reduction in the civil penalty. The maximum amount of reduction in a civil penalty is 40% of the base penalty.

For regulated sources under Regulation No. 2, Part B, however, a civil penalty cannot be assessed or collected against companies that violate emission regulations for the control of odor until a CO is issued which orders the company to comply with the odor regulations and the company violates the CO. For example, if a company land applied during the winter land ban period, say on February 28th, the Division would issue a Notice of Violation (NOV), hold a NOV conference and issue a CO (or a COC) to the company ordering the company to comply with Regulation No. 2, Part B, but would not assess a monetary penalty. If, on May 15th, the company exceeds the odor threshold standard of 7:1 at the property line, the Division would be allowed to instigate an enforcement action and assess a civil penalty for the violation of the previous CO or COC.

7.5.2 Noncompliance Penalty Calculation

The Division is required to calculate the economic benefit a company derives from not complying with a regulation or statute, listed in 42 USC § 7420, using

EPA's BEN model. This program calculates the penalty based on various inputs into it. The source is responsible for calculating any noncompliance penalty and submitting that to the Division for verification and approval. The Division will provide appropriate guidance as necessary.

7.6 CIVIL COURT ENFORCEMENT ACTIONS

Civil enforcement actions are judicial actions taken against a source when violations are determined to be serious enough to warrant seeking injunctive relief and/or court-ordered civil penalties or remedies when a previously issued CO has been violated. The Division has responsibility for identifying situations that warrant such action and assisting the Attorney General's Office in preparing a case. The district court can assess penalties and/or order a source to take specific action (e.g., comply with a CO or to cease a prohibited activity).

The inspector, supervisor of the unit, and the Legal Administrator will consider several factors to determine which cases should be referred to the Attorney General's Office for judicial action. These factors include:

- Evidence of a significant violation of a cease and desist order, a CO, or an air quality regulation, and where appropriate, failure to respond to a § 25-7-111(2)(i), CRS, letter;
- The ability to prove the violations convincingly in court;
- The source's compliance history;
- The environmental harm or threat of harm resulting from the violations;
- The harm or threat of harm to public health from a source's emissions;
- The "welfare" effects, e.g., those effects that constitute a public nuisance of a source's emissions; and,
- The strategic value of the case, including its likelihood of deterring others from violating similar requirements.

After the Division selects a case for civil referral, an informal consultation with the Attorney General's Office takes place to insure that the case has legal merit. The decision to proceed then escalates to the Stationary Sources Program Manager, where technical, policy, and legal resource implications are considered. If appropriate, the case is then referred in writing to the Attorney General's Office. The Attorney General's Office then determines the legal basis for a district court filing, and if it determines the case is appropriate for such filing, the Attorney General's Office prepares the necessary documents to be filed in district court. Once a case is filed in court, the Attorney General's Office is responsible for progress and resolution of the case, although the Division participates in and decides proper settlement options.

7.7 CRIMINAL ENFORCEMENT ACTIONS

A criminal enforcement action is distinguished from a civil enforcement action on the basis of "criminal intent" or "knowing violation" associated with the violation. The Division considers several factors to be appropriate in determining when violations should be addressed through criminal actions. These factors include:

- Willfulness of the violation;

- Point of knowledge of the violation;
- Nature and seriousness of the violation;
- Need for deterrence;
- Compliance history of the violator;
- Adequacy of the evidence; and,
- Adequacy of penalties and sanctions available through the administrative or civil enforcement process.

In order to successfully prosecute a criminal case, the State must provide proof beyond a reasonable doubt that the violation occurred through intentional, willful, knowing, or negligent action of the violator. If convicted, the court would assess a sentence that includes penalties based on, among other considerations, the court's perceptions of the harm, damage or potential threat attributable to the violation. The following are specific examples of criminal violations:

- Falsely certifying on a permit to operate self-certification certification form that a source is in compliance with all requirements;
- Tampering with a monitoring device or falsifying data to conceal emissions;
- Destroying production records that are required to be kept in order to conceal that a source is operating above permitted levels;
- Failure to pay permit fees after notice;
- Knowing violations of the requirement to obtain a permit to operate or of requirements contained in a permit to operate; and,
- Knowing releases of hazardous air pollutants where such releases also knowingly put another person in imminent danger of death or serious bodily injury.

When a suspected criminal violation is discovered, it is immediately discussed with the supervisor of the Field Services Unit, the legal administrator, and the program manager of the Stationary Sources Program. After their concurrence, the department's senior management is consulted and, if approved, a referral made to the Attorney General's Office. Any referral to the Attorney General's Office will be in writing.

Because of the limited resources for criminal case development and prosecution, and the serious nature of a criminal conviction, the state exercises careful judgment in the selection of cases for application of criminal sanctions. The following factors are considered in selecting cases:

- The nature and seriousness of the offense, including: potential threat to public health, duration of the conduct, quality of the air, toxicity of the pollutants and knowledge or negligence of the violator;
- The impact on the Division's regulatory function. For example, does submittal of false data affect the Division's decision-making ability;
- The need for deterrence; and,
- The compliance history of the source.

Criminal violations subject an entity to a fine anywhere from \$12,500 per violation to \$2 million per violation depending on the severity of the violation (as set forth in the statute) as well as the “knowing” nature of the violation.

SECTION 8 POLICIES & PROTOCOLS

8.1 BIOSECURITY POLICY

The Division's Biosecurity Policy for Housed Commercial Swine Feeding Operations is dated August 16, 1999. This policy sets forth guidelines for state and local health inspectors when conducting on-site inspections. A copy of the policy is included in Section 8.1a of this notebook.

8.2 PERFORMANCE STANDARD POLICY & PROTOCOL

The Division worked with a panel of odor experts to establish an objective, numerical performance standard that all anaerobic lagoons must meet when establishing the alternative aerobic cover is of comparable effectiveness to an approved cover.

The performance standard is based on field test results conducted at twenty-four representative, well-controlled and well-managed lagoons at Colorado swine facilities in the summer of 2000. The Division's Performance Standard is detailed in the policy, Implementation of Colorado Air Quality Control Commission's Regulation No. 2, Part B, Section IV.A for Anaerobic Process Wastewater Vessels and Impoundments and is dated August 15, 2000 as revised January 11, 2001 and January 26, 2001. This policy sets forth the test procedures for conducting olfactometry testing for the detection of odorous gas emissions from anaerobic impoundments and vessels that employ the Division-approved alternative aerobic cover. A copy of the policy is included in following Section 8.2a.

8.3 TVS TESTING POLICY & PROTOCOL

Prior to each land application event from each process wastewater impoundment or vessel, a reduction of at least 60% total volatile solids must be realized. This reduction is verified through liquid grab samples taken from the impoundment and sampled for total volatile solids in the influent and effluent of the impoundment. In an attempt to simplify the TVS testing requirement, the Division developed land application periods to help producers comply with test requirements. Land application periods include: March-April; May-July; and, Aug.-Oct. The Division's Total Volatile Solids (TVS) Test Policy for Housed Commercial Swine Operations dated January 25, 2001, details the procedures and requirements of TVS testing. A copy of the policy is included in Section 8.3a.

8.4 BOD/DO TESTING POLICY & PROTOCOL

If a company chooses to manage a process wastewater impoundment or vessel as an aerobic treatment system, it must ensure that aerobic conditions are maintained throughout the aerobic impoundment or vessel at all times. The test used by Colorado for determining compliance with aerobic conditions in an impoundment or vessel is either a biological oxygen demand (BOD) or dissolved oxygen (DO) sample and test. The Division's Aerobic Conditions (BOD/DO) Test Policy for Housed Commercial Swine Feeding Operations, dated January 25, 2001, details the procedures and requirements of BOD/DO Testing. A copy of the policy is included in Section 8.4a.

8.5 SCENTOMETRY TESTING POLICY & PROTOCOL

Odor concentration testing is required bi-annually (two times per year) downwind at the property line and at two locations within the property boundary. The Division's Odor Concentration Measurement (Scentometry) Test Policy, dated January 25, 2001, must be followed when testing odor concentrations within the property boundary and at the property line. A copy of the protocol can be found in this section of the notebook.

8.6 UPSET CONDITION POLICY

All air quality sources in Colorado can utilize the upset condition provisions in the Air Quality Control Commission's Common Provisions regulation when upsets occur. A copy of the Division's Upset Condition Policy can be found at 8.6a in this section.

8.7 INCINERATOR TESTING

The burning of carcasses is only permitted in a properly operated and compliant incinerator. Incinerators must be listed in the permit to operate and must undergo stack and opacity testing prior to use. A test protocol must be submitted and approved prior to conducting the stack and opacity tests. A copy of a sample test protocol and a portion of a test report can be found in Section A7 of Appendix A.

**SECTION 9
DIVISION FORMS**

- 9.1 PERMIT TO OPERATE**
 - 9.1.1 Multi-Media Permit Application Form**
- 9.2 NOTICE OF START-UP FORM**
- 9.3 UPSET CONDITION REPORTING FORM**
- 9.4 SELF-CERTIFICATION FORM**
- 9.5 MODIFICATION REQUEST**
 - 9.5.1 Modification Only**
 - 9.5.2 Name Change Only**
 - 9.5.3 Transfer of Ownership Only**
 - 9.5.4 Modification with Name Change or Transfer of Ownership**
- 9.6 SEMI-ANNUAL REPORT**
- 9.7 ANNUAL REPORT**
- 9.8 OLFACTOMETRY**
- 9.9 TVS TESTING**
- 9.10 BOD/DO TESTING**
- 9.11 SCENTOMETRY TESTING**
- 9.12 INCINERATORS**
- 9.13 LEGAL FORMS**
 - 9.13.1 COMPLIANCE ADVISORY**
 - 9.13.2 WARNING LETTER**
 - 9.13.3 COMPLIANCE ORDER ON CONSENT**
 - 9.13.4 NOTICE OF VIOLATION**
 - 9.13.5 COMPLIANCE ORDER**
- 9.14 CANCELLATION REQUEST FORM**

SECTION 10 ENVIRONMENTAL STEWARDSHIP PROGRAMS

10.1 ENVIRONMENTAL LEADERSHIP PROGRAM

The Colorado Department of Health & Environment administers an Environmental Leadership Program for sources that are leaders in environmental excellence and that go beyond compliance as a matter of principle. The Environmental Leadership Program was established under House Bill 98-1058 in 1998. The legislative intent of the program is to reward businesses that are superior environmental performers. One of the ways the Environmental Leadership Program recognizes the efforts of environmental leaders is to offer incentives to companies that meet certain mandatory and elective requirements as described below. Incentives to leadership companies can include, but are not limited to, public recognition, financial reward and regulatory relief.

Acceptance into the Environmental Leadership Program requires companies to meet four mandatory requirements:

- A business must have an environmental management system (EMS) in place;
- A business must have a pollution prevention plan developed and implemented;
- There must be set policies and procedures for staying in compliance with regulatory requirements; and,
- There must be adequate performance measures in place that show continual improvement.

In addition to the mandatory requirements, there are a number of elective program elements a company must agree to, such as providing technical assistance or mentoring to encourage information and technology sharing. A final element of the program is that a company must have a good compliance history for the last three years.

Comments or questions about the Environmental Leadership Program should be directed to Mark Keegan with the Department of Public Health & Environment at: 303-692-3477 or via e-mail at: mark.keegan@state.co.us. You may also visit the program's web site at <http://www.cdphe.state.co.us/el/elphom.asp>.

10.2 ENVIRONMENTAL MANAGEMENT SYSTEMS

10.2.1 Colorado Department of Public Health & Environment

An Environmental Management System (EMS) is a multi-media environmental management system that evaluates a business' operating conditions in relation to its environmental goals. The business is able to identify its "environmental footprint" and decide how to focus resources accordingly. Environmental Management Systems have foundations in preventing pollution rather than controlling pollution. A business may choose to use its Environmental Management System to achieve superior performance or to comply with multi-media environmental regulations.

Prevention is one of the cornerstones of a sound Environmental Management System. The Colorado Department of Public Health & Environment promotes the development of Environmental Management Systems because pollution prevention is Colorado's environmental management tool of first choice, per legislative mandate. The department supports programs that are preventive and that make good business sense. Further, an Environmental Management System is a requirement under the department's Environmental Leadership Program outlined above. The Division is exploring other incentives for the development and implementation of Environmental Management Systems, such as allowing (minor) sources to commence construction without the issuance of a construction permit.

The department is developing guidance on approvable systems. For more information, contact Mark Keegan at telephone number 303-692-3477 or at mark.keegan@state.co.us. There are other resources available to provide more information on Environmental Management Systems. The U.S. Environmental Protection Agency has several helpful web sites; including <http://www.epa.gov> and search on environmental management systems. Another web site is: <http://www.epa.gov/epaems01/index.htm>. Environmental consultants have expert staff to develop systems for confined feeding operations.

10.2.2 Natural Resources Conservation Service/EPA

The NRCS, EPA and Land Grant Universities have teamed up to develop an Environmental Management Assessment System for livestock producers. The goal of this partnership is to develop an EMS strategy that helps producers identify environmental risks and adopt the best available technologies to prevent pollution. This program is in the early development stage.

10.3 NATIONAL PORK PRODUCER PROGRAMS

The National Pork Producers Council sponsors an Environmental Assurance Program for all interested pork producers. This program is specifically designed to assess the management techniques and systems at swine facilities and develop ways to address manure management systems, recordkeeping needs and pollution prevention practices. For more information on the National Pork Producer's Environmental Assurance Program and other on-farm programs, contact the association.

10.4 USDA/NRCS PROGRAMS

10.5.1 Farm-A-Syst

Farm-A-Syst is a Cooperative State Research, NRCS and EPA whole-farm environmental assessment program that is designed to assist producers in preventing pollution of their own and public drinking water supplies. Participants in the program develop site-specific evaluation of management practices and structural design factors that influence environmental risks. At the conclusion of the program, producers will have a specific action plan to reduce environmental risks and increase sustainability.

For more information on Farm-A-Syst and AFOs, contact the National Farm-A-Syst Program at 608-262-0024 or e-mail: farmasys@uwex.edu.

10.5.2 Certification Programs

The NRCS is working with producers to develop a producer certification and education program designed to encourage environmentally sustainable animal feeding systems. This educational program will develop a core curriculum that addresses high profile livestock and poultry environmental issues.

The individual modules being developed under this program include: Module A – Principles of Environmental Stewardship and Whole Farm Nutrient Planning; Module B – Animal Dietary Strategies; Module C – Manure Storage and Treatment; Module D – Land Application and Nutrient Management; Module E – Outdoor Air Quality, including emissions from animal production systems, emission strategies for buildings, controlling dust and odor from facilities, emission control strategies for manure storage facilities and emission control strategies for land application; and, Module F – Related Issues, such as emergency action plans, mortality management and environmental risk and regulatory assessment.

The curriculum program should be available by the fall of 2001. Successful completion of the program merits a producer certification of the educational program. For more information, contact Rick Koelsch at 402-472-4051.

10.5 SPECIAL PROJECTS

The Division is supportive of new and innovative technologies. New technologies, however, are not without a considerable amount of unknowns and attached costs. As a result, the Division welcomes the opportunity to discuss new ideas and is frequently a willing partner in entertaining pilot or special projects to test new technologies. Please feel free to contact the Division to discuss new ideas and the possibility of special projects.

APPENDIX A
EXAMPLES OF TECHNICAL REPORTING FORMS

- A.1 SEMI-ANNUAL REPORT**
- A.2 ANNUAL REPORT**
- A.3 OLFACTOMETRY**
- A.4 TVS TESTING**
- A.5 BOD/DO TESTING**
- A.6 SCENTOMETRY TESTING**
- A.7 INCINERATORS**
 - A.7.1 Protocol**
 - A.7.2 Stack Test Report**
- A.8 UPSET FORM**