

## CHAPTER 7a

# Record Keeping and Reporting

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## INTRODUCTION

The regulations require livestock producers to keep certain records. These records are required of livestock producers to show that they are following the waste management plan that was approved by the SC DHEC. The records pertain to the handling and disposition of waste and dead animals. Producers need to study these requirements very closely and comply with all of the requirements as closely as possible.

## RECORDS RETENTION TIME

Some of the records during the initial start-up will be required when the producer applies for permit renewal in seven years. Certain records must be retained by the permittee for eight years and can be inspected by SC DHEC at any time during that period. Calibration records should be retained by the producer for SC DHEC inspectors for two years.

## RECORDS AND REPORT SUBMISSION

The analysis of the actual waste generated must be submitted to SC DHEC during the first six months of operation of a new animal facility or prior to the first application of waste to a waste utilization area, whichever occurs first.

Monthly records include the following items (100.170.D, E):

1. Monthly animal count and the normal production live weight
2. Mortality count and method of disposal
3. Monthly water levels of the lagoon, treatment system, and manure storage pond; and
4. Groundwater monitoring results, if applicable.

Other records for each manure utilization area include the following items (100.170.C):

1. For each time swine manure and other swine by-products are applied to the site, the amount of swine manure and other swine by-products applied (in gallons per acre or pounds per acre, as appropriate), the location of the site, and the date and time of manure and other swine by-products application;
2. All sampling results for swine manure that is land applied, if applicable;.
3. All soil monitoring results, if applicable;

4. All groundwater monitoring results, if applicable; and
5. Crops grown.

All large swine operations (greater than 500,000 pounds of normal production live weight) shall submit, on a form approved by the Department, the following on an annual basis or more frequently if required by a permit or regulation: (100.180.A.):

1. All manure sampling results for the last year, if applicable, and the latest rolling average concentration for the land limiting constituent;
2. All soil monitoring results, if applicable;
3. All groundwater monitoring results, if applicable;
4. Calculated application rates for all manure utilization areas; and
5. The adjusted application rates, if applicable, based on the most recent swine manure sampling, soil samples, and crop yields. The application rate change could also be due to a change in field use, crop grown, or other factors.

The Department may require small swine facilities (500,000 pounds or less of normal production live weight) to submit annual reports on a case-by-case basis (100.180.B.).

Soil sampling shall be conducted for each field prior to manure application to determine the appropriate application rate. Each field should be sampled at least once per year. If manure application frequency shall be less than once per year, then at least one soil sample shall be taken prior to returning to that field for land application (100.100.B.9).

Soil sampling to a depth of eighteen inches shall be performed within 45 days after each application of swine manure, but no more than two times per year if the application frequency is more than twice per year. This sampling shall be performed for at least three years after the initial application on at least one representative manure utilization area for each crop grown to verify the estimated calculated swine manure application rates for the utilization areas (100.100.B.10.).

Take this opportunity to keep good records. This can also be an opportunity to document proper waste management techniques. This may aid in solving complaints from the neighbor or community.

Please review the following pages to understand fully the record keeping and reporting requirements.

*(CAMM Swine Chapter 7a, last edit - January, 2003 wbs)*

**100.50 Permit Application Procedures (Animal Facility Management Plan Submission Requirements).**

100.50.B.2.f.iii For new swine facilities, swine manure analysis information does not have to be initially submitted as the Department shall use swine manure analysis from similar sites or published data (such as: Clemson University, American Society of Agricultural Engineers, Midwest Planning Service Document, NRCS Technical Guide or equivalent) in the review of the application. Analysis of the actual swine manure generated shall be submitted to the Department six months after a new swine facility starts operation or prior to the first application of swine manure to a manure utilization area, whichever occurs first. If this analysis is significantly different from the estimated analysis used in the permitting decision, the Department may require a permit modification as necessary to address the situation. Analysis shall be conducted by a laboratory certified by the Department. This laboratory shall have and maintain certification for the constituents to be analyzed.

**100.100 Manure Utilization Area Requirements.**

- B. Constituent Limits for Land Application of Swine manure and other swine by-products.
  - 5. The land application equipment, when used once or more per year, shall be calibrated at least annually by the producer. A permit may require more frequent calibrations to ensure proper application rates. The two most recent calibration records should be retained by the producer and made available for Department review upon request. If the land application equipment has not been used in over a year, the equipment shall be calibrated prior to use.

### **100.100 Manure Utilization Area Requirements.**

- B. Constituent Limits for Land Application of Swine manure and swine by-products.
9. Soil sampling shall be conducted for each field prior to manure application to determine the appropriate application rate. Each field should be sampled at least once per year. If manure application frequency shall be less than once per year, then at least one soil sample shall be taken prior to returning to that field for land application. All new manure utilization areas shall be evaluated using the NRCS-CPS to determine the suitability for application and the limiting nutrient (nitrogen or phosphorus). However, fields that are high in phosphorus may also be required to incorporate additional runoff control or soil conservation features as directed by the Department.
  10. Soil sampling to a depth of eighteen inches shall be performed within 45 days after each application of swine manure, but no more than two times per year if the application frequency is more than twice per year. This sampling shall be performed for at least three years after the initial application on at least one representative manure utilization area for each crop grown to verify the estimated calculated swine manure application rates for the utilization areas. The date of manure application and the date of sampling shall be carefully recorded. The sampling shall be conducted at depths of zero to six inches, six to twelve inches, and twelve to eighteen inches with nitrates and phosphorus being analyzed.
  11. The results of the pre-application and post-application sampling shall be used by the producer to adjust as necessary, the amount of swine manure to be applied to a manure utilization area to meet the agronomic application rate for the crop(s) to be grown. These results shall be submitted to the Department at the time of application for permit renewal.
  12. Additional soil sampling to greater depths may be required by the Department on a case-by-case basis to ensure there is no potential for groundwater contamination. The permit shall give the appropriate depth and frequency for all soil sampling.

**100.120 Frequency of Monitoring for Swine Manure.**

- A. The producer shall be responsible for having representative samples of the swine manure collected and analyzed at least once per year and when the feed composition significantly changes. The constituents to be monitored shall be given in the permit. The analyses shall be used to determine the amount of swine manure to be land applied. In order to ensure that the permitted application rate (normally the agronomic rate) is met, the application amount shall be determined using a rolling average of the previous analyses. The Department shall establish minimum requirements for the proper method of sampling and analyzing of swine manure. Facilities with permits that do not specify which constituents to monitor shall monitor for Ammonium-Nitrogen, Total Kjeldahl Nitrogen (TKN), Organic Nitrogen (Organic Nitrogen = TKN - Ammonium Nitrogen), P<sub>2</sub>O<sub>5</sub>, and K<sub>2</sub>O.
- B. The Department may require nitrogen, potassium, phosphorus, the constituents listed in Table 1 and Table 2 of Section 100.100 (Manure Utilization Area Requirements), and any other constituent contained in a permit to be monitored prior to each application.
- C. Permittees do not have to analyze for any constituent they can demonstrate to the satisfaction of the Department is not present in their swine manure.
- D. All monitoring shall be done in accordance with collection procedures in Standard Methods for Analysis of Water and Wastewater or other Department guidelines. Analysis shall be conducted by a laboratory certified by the Department. This laboratory shall have and maintain certification for the constituents to be analyzed.

### **100.170 Record Keeping.**

- A. A copy of the approved Animal Facility Management Plan, including approved updates, and a copy of the permit(s) issued to the producer shall be retained by the permittee for as long as the swine facility is in operation.
- B. All application information submitted to the Department shall be retained by the permittee for eight years. However, if the facility was permitted prior to June 26, 1998, and the permittee has previously discarded these documents since there was no requirement to maintain records at that time, this requirement shall not apply.
- C. Records shall be developed for each manure utilization area. These records shall be kept for eight years. The records shall include the following:
  - 1. For each time swine manure and other swine by-products are applied to the site, the amount of swine manure and other swine by-products applied (in gallons per acre or pounds per acre, as appropriate), the location of the site, and the date and time of manure and other swine by-products application;
  - 2. All sampling results for swine manure that is land applied, if applicable;
  - 3. All soil monitoring results, if applicable;
  - 4. All groundwater monitoring results, if applicable; and
  - 5. Crops grown.
- D. Records for the facility to include the following:
  - 1. Monthly animal count and the normal production live weight; and
  - 2. Mortality count and method of disposal.
- E. Records for lagoon, treatment system, or manure storage pond operations to include the following:
  - 1. Monthly water levels of the lagoon, treatment system, and manure storage pond; and
  - 2. Groundwater monitoring results, if applicable.
- F. All records retained by the producer shall be kept at either the facility, an appropriate business office, or other location as approved by the Department.
- G. All records retained by the producer shall be made available to the Department during normal business hours for review and copying, upon request by the Department.

**100.180 Reporting.**

- A. All large swine operations (greater than 500,000 pounds of normal production live weight) shall submit, on a form approved by the Department, the following on an annual basis or more frequently if required by a permit or regulation:
  - 1. All manure sampling results for the last year, if applicable, and the latest rolling average concentration for the land limiting constituent;
  - 2. All soil monitoring results, if applicable;
  - 3. All groundwater monitoring results, if applicable;
  - 4. Calculated application rates for all manure utilization areas; and
  - 5. The adjusted application rates, if applicable, based on the most recent swine manure sampling, soil samples, and crop yields. The application rate change could also be due to a change in field use, crop grown, or other factors.
  
- B. The Department may require small swine facilities (500,000 pounds or less of normal production live weight) to submit annual reports on a case-by-case basis.
  
- C. The Department may establish permit conditions to require a swine facility to complete and submit a comprehensive report every five years. The Department shall review this report to confirm that the permitted nutrient application rates have not been exceeded. Based on the results of the review, additional soil and/or groundwater monitoring requirements, permit modification, and/or corrective action may be required.