



OPERATION AND MAINTENANCE PLAN

**ROTH FEEDER PIG II
ROTH FEEDER PIG, INC
FARROWING FACILITY**

March 31, 2020

PREPARED FOR:

Roth Feeder Pig II
31961 Hummingbird Ln
Wauzeka, WI 53826

PREPARED BY:

Resource Engineering Associates, Inc.
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1. Project Contacts

Owner Contact

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DNR Regional Contact

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Fitchburg Service Center
3911 Fish Hatchery Road
Fitchburg, WI 53711
Phone: 608-422-1512
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County Animal Waste Contact

Dave Troester
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Crawford County Land Conservation
225 N Beaumont Rd Rm 230
Prairie du Chien, WI 53821
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Site Location

Crawford County, Wisconsin
Town of Marietta (T8N, R4W)
NW1/4 SW1/4 and NE1/4 SW1/4 of Section 20

2. Purpose

This Operation and Maintenance (O & M) Plan has been developed for the proposed structures being constructed at Roth Feeder Pig II in Crawford County, WI. The purpose of providing this report is to provide information on the operation and maintenance of the following structures:

Farrowing Barn and Waste Transfer
Gestation Barn Waste Storage Facility (WSF)
Gestation Development Unit (GDU) Barn Waste Storage Facility (WSF)
Compost Building

Proper operation and maintenance is required for a structure to function as intended and to extend the useful life of that structure. Standard Wisconsin O & M documents have been reviewed and incorporated into this plan. The owner is responsible for implementing the O & M plan. The O & M plans may be required to be modified to accommodate unforeseen circumstances or conditions.

3. Waste Storage Facilities

Waste from the planned barns will enter the under-barn waste storage facilities through the slatted floors. Waste from the farrowing under-barn tank is planned to gravity flow via a plug pull pipe system to the gestation barn under-barn waste storage facility. Waste in the GDU barn is stored in the under barn waste storage.

Waste will be removed by pumping through the pumpout access points. Liquid manure will be pumped from the gestation and GDU under-barn waste storage facilities with the use of pumps and tankers. Waste will be land applied in accordance with the nutrient management plan. Access to the pumpouts will be on access roads around the proposed barns.

The WSFs are designed in accordance with NRCS 313- Waste Storage Facilities (10/2017R) and NRCS 522 Pond Sealing or Lining – Concrete (10/2017R). The slab design is in accordance with 522-Table 3 column A Concrete with waterstop. The walls are design in accordance with 522-Table 2 column A.

For the Gestation Barn and the GDU Barn the maximum operating level (MOL) is 9 foot above the slab of the tank providing one foot of freeboard.

Inspections

1. A thorough inspection of concrete and concrete sumps, walls, slats, and floors often for displacement and/or cracks which would indicate potential failure should be made each time the pond is emptied. Repairs should be made immediately.
2. Pipes, pumps, manure pumps, valves, gates, etc., should be inspected periodically (minimum of twice per year) to make sure they are functional, structurally sound, and not cracked, broken, and/or a safety hazard to the operator or livestock. Repair as needed.
3. Cut and remove weeds, shrubs, and trees from earthen structures. Control rodents. Mow the embankments a minimum of twice a year. Good vegetative cover should be maintained on earth embankments. If the vegetative cover is damaged, embankments should be re-vegetated as soon as possible. Keep machinery away from steep side slopes. Keep equipment operators informed of all potential hazards.
4. Maintain necessary safety features including proper fencing, warning signs, stop blocks, guard rails, covers, and similar items to provide warning and/or prevent unauthorized human or livestock entry.
5. Handling Manure

Do not allow human entry into any enclosed structure without safety equipment including ladders and breathing apparatus. The American Society Agricultural and Biological Engineers (ASABE) standard EP-470 states:

“Do not enter an under-floor (underground) covered storage or pumping station without using the proper respirator equipment. In addition, these safety practices are needed: (a) Shut off any manure pumps, (b) ventilate storage or pumping station at the maximum rate, (c) test the storage or station air for O₂ level and toxic gas levels, (d) attach a safety harness and rope to the working person with at least one person standing by to help with a mechanical retrieval device, and (e) have on hand an extra set of proper respirator equipment for the person standing by.”

Storage

- Maintain the depth gauge that visually shows the following elevations

Maximum operating level (MOL): 9.0 feet above storage floor for the Gestation Barn and GDU Barn
Storages

180 day marker for the Gestation Barn is 2.17 feet above the floor.

180 day marker for the GDU Barn is 3.05 feet above the floor.

- Begin emptying or drawdown according to the schedule in the NMP or sooner if the contents of the storage facility reach the maximum operating level (MOL).

Emptying

Immediately remove foreign debris within the structure that may cause damage to pumps or agitators. Agitate properly according to pump manufacturer's instructions. Minimize odors by not mixing and spreading on humid days or upwind from nearby neighbors.

Waste Utilization

Manure application must comply with state laws or local ordinances, and the nutrient management plan.

6. Inspect the outlet of any artificial drainage system installed to lower a perched seasonal high water table adjacent to the waste storage facility. The inspections should occur at least twice a year: once during the high water table season to document that water is flowing indicating the system is operating [not blocked] and once during the dry season to document direct leakage is not occurring from the storage facility into the drainage system that may be indicated by turbidity, discoloration, odors or other unusual characteristics of the flow. Immediately investigate any indication of blockage or leakage and consult a qualified individual for any corrective needed.
7. Additional Recommendations:

4. Waste Transfer

1. Maintain pumps, agitators, pipes, valves, electrical and mechanical equipment in good operating condition following the manufacturer's recommendations.
2. Make certain that electrical equipment is properly grounded and wiring is in good working condition.
3. Maintain safety shields on pumps, motors, electrical or mechanical equipment.
4. Fencing, railings, grates and/or warning signs shall be maintained to prevent unauthorized human or livestock entry.
5. Reception tanks may be confined spaces and should not be entered because they may contain noxious gases. When necessary for someone to enter confined spaces for repairs, follow ASABE Standard 470.
6. Immediately repair any vandalism, vehicular or livestock damage to the system.
7. Repair spalls, cracks and weathered areas in concrete surfaces.
8. Repair or replace rusted or damaged metal. Protect with paint.
9. Operate system in a manner that minimizes odor and air drift.
10. Additional Recommendations:

5. Compost Building

1. Place normal mortalities in Compost Building
2. Cover with wood chips, sawdust or other carbon source
3. When one bay of building is full begin monitoring temperature and moisture weekly for 35-45 days. Temperature is to be maintained at 135°F and moisture content of 30-60% for 7 days.
4. Turn and moved material into another bay to aerate pile
5. Complete another 35-45 day cycle to complete composting
6. Finished compost is used as cover/carbon source
7. Supplement carbon source as needed
8. Observe concrete for spalls, cracks and repair as needed.
9. Additional Recommendations:

6. Waste Utilization

All wastes removed from structures must be utilized in accordance with the approved Nutrient Management Plan.

7. Contingency Plan

CONTINGENCY PLAN IF WASTE REACHES Maximum Operating Level

- Daily haul manure to fields and spread according to your Nutrient Management (590) plan, or
- Partially empty the facility and spread according to your Nutrient Management (590) plan
- If this contingency plan is needed often, consider adding storage volume or reducing water use.

8. Emergency Response Plan

Discuss procedures if a spill occurs.

EMERGENCY RESPONSE PLAN – Manure Spill/ Structure Overflowing

- Stop the flow
- Access the situation and make appropriate calls
- Notify the DNR spill hotline 1-800-943-0003
- Begin Clean up
- If necessary, call manure hauler to bring agitation pump and tanker, call for front end loader/backhoe
- Construct a temporary dike below manure flow from earthfill, corn silage, or other available material if manure is flowing towards a drainage outlet.
- If spill is in a field area, use tillage equipment to slow the flow
- Land apply manure on fields approved for manure application in the nutrient management plan. Apply at established rates.
- Collect contaminated soil from the impacted area and land apply materials on fields approved for manure application in the nutrient management plan.
- Document and review actions taken to contain or minimize the spill
- Contact Engineer to assess manure storage basin and repair if necessary.

FARM CONTACTS	NAME	TELEPHONE
Fire/Rescue	Wauzeka Fire Department	911 (608) 875-6931 Non-Emergency
Police	Crawford County Sheriff	911 608-326-0241 Non-Emergency
Veterinarian	Pipestone Veterinary Services	319-332-0260
Manure Hauler	Roth Feeder Pig II	608-485-1125
Excavation Contractor	DA Digger	608-391-0112
Pumping Equipment	Roth Feeder Pig II	608-485-1125
Nutrient Management Planer	Nicole Wagner-InsightFS	608-293-3800
Mortality Contractor	None -Composting	