

NATURAL RESOURCES CONSERVATION SERVICE
SOUTH CAROLINA
OPERATION AND MAINTENANCE REQUIREMENTS
MANURE TRANSFER

CODE 634

Land Owner/Operator _____

County _____ SWCD _____ Farm/Tract No. _____

Prepared By _____ Date _____

OPERATION AND MAINTENANCE ITEMS

A properly operated and maintained manure transfer system is an asset to your farm. This system was installed to transfer animal manure, bedding material, spilled feed, process and wash water, and other residues associated with animal production through a hopper or reception pit, a pump (if applicable), and/or conduit to a manure storage/treatment facility, a loading area, and/or to agricultural land for final utilization. This includes application of manure to the utilization area. Estimated life span of this installation is at least 10 years. The life of this installation can be assured and usually increased by developing and carrying out a systematic operation and maintenance program.

This practice will require periodic maintenance and may also require operational items to maintain satisfactory performance. Your operation and maintenance program includes:

- All associated components shall be inspected regularly and maintained in proper working order. Any needed repairs shall be made immediately.
- Do not allow the operation of any equipment that exceeds the design limit on or within ten feet of the structure.
- Maintain the design depth of cover over conduits. All settlement or cracks in the soil should be investigated to determine their cause and immediately repaired. Excessive settlement or voids in the line present a hazard to livestock and should be backfilled and compacted immediately.
- Avoid travel by heavy equipment over conduits when the soil is saturated except at designed crossings. Limit traffic to sections that were designed for traffic loads. Avoid any sub-soiling operation that may disturb or destroy the conduits. Maintain erosion protection at outlets.
- Any curbs, wooden parts, hardware, or other replaceable parts which are damaged or show excessive wear or decay shall be replaced. Roof structures should be examined for structural integrity.
- Maintain all pumps, agitators, piping, valves and all other electrical and mechanical equipment in good operating condition by following the manufacturer's recommendations. Maintain grounding rods and wiring for all electrical equipment in good condition.

- All fences, railings, and/or warning signs shall be maintained to provide warning and/or prevent unauthorized human or livestock entry. Maintain all lids, grates, and shields on openings to underground structures. **Do not allow human entry into any enclosed structure without safety equipment that includes ladders and breathing apparatus.**
- Immediately remove all foreign debris within the structure that may cause damage to pumps, agitators or earthen structures.
- If damage to the structure may cause failure, immediately seek a qualified engineer to assess the situation.
- Maintain vigorous growth of vegetative coverings on earthen facilities. This includes reseeding, fertilization, and application of herbicides when necessary. Fertilize the established stand as needed to maintain a uniform vigorous stand. Embankments and other vegetated areas shall be mowed a minimum two times each year to maintain a protective vegetative cover. Trees shall not be allowed to grow on any embankments.
- Maintain all outlets, rodent guards, inlets and man-hole accesses in good operating condition. Eradicate or otherwise remove all rodents and/or burrowing animals that have damaged or can potentially damage any part of the system. Immediately repair any damage caused by their activity. Immediately repair any vandalism, vehicular or livestock damage to any outlets and appurtenances.
- Waste shall be removed from storage and utilized at locations, times, rates, and volumes in accordance with South Carolina Conservation Practice Standards *Nutrient Management (Code 590)* or *Waste Utilization (Code 633)* as given in the Comprehensive Nutrient Management Plan. South Carolina R. 61-43 must be followed when emptying and applying animal wastes. Reception pits and/or hoppers not emptied via gravity flow are to be routinely agitated and pumped to prevent the accumulation of excessive sludges.
- Design depth of cover over the pipeline shall be maintained. Traffic over the pipeline shall be operated over designated sections designed for traffic loads. In areas that are subject to freezing, drain all system components. If parts of the system cannot be drained, an anti-freeze solution shall be added. Any vandalism, vehicular, or livestock damage to any outlets and appurtenances shall be repaired immediately. Check pipeline for leaks and repair any leak immediately.
- A ----- will be used to apply waste to fields not covered under the irrigation system and portions of the fields not accessible to the irrigation system. The ----- will be a ----- . The honey wagon has a hauling capacity of ----- gallons. The waste is applied by means of a ----- located at the rear of the tank. The annual waste and washwater production at this facility is calculated to be ----- gallons. Assuming an average workday of ---- hours and an average round trip application time of ---- hours, it will take approximately ----- days to completely empty the storage pond using only the honey wagon. Note that this situation represents a worse case scenario, since the storage pond will be completely emptied only under unique circumstances.
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Additional Operation and Maintenance Requirements Specific to this Plan: _____
