OPERATION AND MAINTENANCE
Anaerobic Digester (366)
Tennessee

Landowner/Operator: _____

Practice Location: _____

County: _____ Farm/Tract Number: _____

Prepared By: _____ Date: _____

Inspections and maintenance are required to achieve the intended function, benefits, and life of the practice. The landowner/operator is responsible to establish and implement an inspection and maintenance program. Items to inspect and maintain during the 25-year design life of the practice include, but are not limited to, the following:

1. Inspect after significant storm events and at least annually to identify repair and maintenance needs.

2. Follow the operational plan developed by the designer. The operational plan should include, but not be limited to, the following:

   - Proper loading rate of the digester and total solids content of the influent.
   - Proper operating procedures for the digester.
   - Estimates of biogas production, methane content, and potential energy recovery.
   - Description of the planned startup procedures, normal operation, safety issues, and normal maintenance items.
   - Alternative operation procedures in the event of equipment failure.
   - Instructions for safe use *and* flaring of biogas.
   - Digester and other component maintenance.
   - Troubleshooting guide.
   - Monitoring plan with frequency of measuring and recording digester inflow, operating temperatures, biogas yield, and/or other information as appropriate.
   - Maintain appropriate internal temperatures based on the digester type and design criteria.

3. Follow your comprehensive nutrient management plan.

4. Inspect safety signs, equipment, and systems to ensure they are functioning in accordance with the operational plan. Repairs should be made immediately.

5. Load into the digester only those waste products identified in the operational plan. Do not dispose of animal mortality, syringes, or other large or non-biodegradable wastes in the digester.

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6. Inspect concrete sumps, pits, walls, ramps, slats, and floors often for separations and/or cracks, which would indicate potential failure. Repairs should be made immediately.

7. Check backfill areas around concrete structures often for unusual settlement. Determine if settlement is caused by backfill consolidation or failure of concrete walls. Repair walls or fill, as appropriate.

8. A good vegetative cover of recommended grasses should be maintained on backfill around structures. If the vegetative cover is damaged, it should be reestablished as soon as possible. The vegetative cover should be mowed twice a year to stimulate a vigorous plant growth.

9. Outlets of foundation and subdrains should be checked frequently and kept open. The outflow from these drains should be checked when digester is being used to determine if there is leakage from the digester. If leakage is detected, repairs should be planned and made when the facility is empty.

10. Inspect haul roads and approaches to and from the digester frequently to determine the need for replacement stone or other stabilizing materials.

11. All exposed appurtenances - pipes, pumps, manure pumps, valves, gates, etc., should be inspected periodically (minimum of twice a year) to make sure they are functional, structurally sound, and are not cracked, broken, and/or a safety hazard to the operator or livestock. Repair as needed.

12. Check frequently for burrowing animals. When found, remove the burrowing animals, replace embankment materials, and reseed.

13. Do not operate loaded feed wagon, trucks, manure spreaders, or other heavy equipment within 5 feet of the digester walls.

Additional:

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SIGNATURES

Landowner/Operator: _____ Date: _____

Reviewer: _____ Date: _____