

**UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
_____, OKLAHOMA**

**OPERATION AND MAINTENANCE PLAN
WASTE TRANSFER**

Sponsor/Land user: _____ Date: _____

Address: _____

Legal description of practice location: SEC _____ T _____ R _____

A properly operated and maintained waste transfer system is an asset to your farm. This waste transfer system was designed and installed to convey wastes or waste byproducts from the agricultural production site to storage/treatment or application. The estimated life span of this installation is at least 15 years. The life of this installation can be assured and usually increased by developing and carrying out a good operation and maintenance program.

This system of practices will require you to perform periodic maintenance and may also require operational items to maintain satisfactory performance. Here are some recommendations to help you develop a good operation and maintenance program.

GENERAL RECOMMENDATIONS

- Maintain all pumps, agitators, pipes, valves, electrical and mechanical equipment in good operating condition following the manufacturer's recommendations.
- Make certain that all electrical equipment is properly grounded and wiring is in good working condition.
- Maintain all safety shields on pumps, motors, electrical or mechanical equipment.
- Reception pits or hoppers should not be entered because they may contain noxious gases. When it becomes necessary for someone to enter one for repairs, the following precautions should be taken:
 - There should be two people; one to remain on the outside and one to enter the structure.
 - The one entering the structure must have a safety line attached so that an "outside" person can pull the one entering to safety without entering the structure.
 - The one entering must have an air mask which furnishes outside air through an airline and compressor, scuba equipment with air tanks or other means of positively furnished outside air.
 - Gas masks must not be used because they operate on the principle of chemically removing unwanted gases from air so the wearer can breathe safely. In manure structures, the air has been displaced by the noxious gases and when the gases are removed by the gas mask, the wearer will suffocate because there is no air for him to breathe. REMEMBER HYDROGEN SULFIDE PARALYZES THE DIAPHRAGM AND

THE VICTIM WILL NOT START BREATHING AGAIN WITHOUT ARTIFICIAL RESPIRATION, EVEN AFTER BEING REMOVED FROM THE NOXIOUS GAS.

- Repair spalls, cracks and weathered areas in concrete surfaces.
- Repair or replace rusted or damaged metal. Protect with paint.
- Check to make sure all valves and air vents are in and set at the operating condition so they may provide protection to the pipeline. Verify the air release valves are open and the pipeline is not pressurized when making connections or opening caps. Do not stand in front of valve, fittings, hoses or caps when they are released from the pipeline.
- Allow pipelines to fill gradually when being put into use after shut down or draining. The maximum flow during filling should not exceed a velocity of 1 foot per second.
- Periodically check and repair all valves, gates and regulators to the system requirements following the manufacturer's recommendations.
- Always slowly open and close or adjust the settings of in-line valves to avoid water hammer.
- Maintain all screens and filters in good working condition and promptly repair or replace.
- Check exterior coatings on above-ground and on-ground pipeline installations. Repair any damage immediately.
- Maintain the design depth of cover over pipelines.
- Avoid travel over pipelines by tillage equipment when the soil is saturated.
- Avoid any subsoiling operation that may disturb pipelines.
- Remove all foreign debris that hinders system operation.
- Drain the system and components after every use. Disconnect the pump from the pipeline after every use. Recommend flushing the pipeline with water after use with manure slurry.
- Drain all system components in areas that are subject to freezing. If parts of the system cannot be drained, an anti-freeze solution shall be added.
- If a pipeline is connected to a continuous flowing source, maintain flow through the pipe to avoid freezing.
- Eradicate or otherwise remove all rodents or burrowing animals. Immediately repair any damage caused by their activity.
- Immediately repair any vandalism, vehicular, or livestock damage to any outlets and appurtenances.
- All fencing, railings, grates and/or warning signs shall be maintained to prevent unauthorized human or livestock entry.

