TYPICAL WALL JOINT DETAIL

PLAN VIEW

CIRCULAR CONCRETE MANURE TANK

TANK DIMENSIONS

WALL BACKFILL DETAIL—TYPICAL

1. Provide a minimum 4 inch diameter perimeter drain tile for wall backfill drainages. Outlet the tile at a location downstream where flow from the outlet may be monitored. Provide heavy wall pipe where backfill cover is < 24". Provide an animal guard on all outlets.

2. If a high water table is present a special drain design will be required under the tank floor to prevent uplift.

3. To provide adequate drainages, the granular drain material shall be clean with maximum 5 percent fines. The maximum particle size shall be 1.5 inches.

4. Provide a 12" x 6" band of granular drain material under the footing every 50' on center around the tank perimeter.

5. Provide minimum 3' of backfill over top of footing for frost protection.

WALL BACKFILL DETAIL—VEHICLE ACCESS

** Vehicle access slab is required if heavy tank wagons or trucks are driven within a distance equal to the wall height from the edge of the tank.

1. Reinforcing steel for footing and walls shall have a tension yield point of fy = 60,000 psi. Refer to Sheet 2 for floor reinforcing steel grades.

2. For splice lengths refer to the table on Sheet 2. All bands in reinforcing steel shall have a minimum inside radius of 3 for diameters.

3. All concrete shall have a minimum 28 day compressive strength of 4,000 psi. The mix design shall be submitted to NRC prior to placement. Unless shown otherwise in the construction specifications, the following requirements shall apply:

   - Concrete shall be Type I or Type II.
   - Slump - 4 inches plus or minus 1 inch.
   - Air content from 3 to 7 percent.
   - Aggregate size - maximum of 1 inch diameter.
   - Construction joints - cleaned prior to subsequent concrete placement.
   - Concrete for a minimum of 7 days - acceptable methods are:
     - membrane forming curing compound at rate of 1 gal/150 s.f.
     - leaving the forms in place
     - seeking 90% continuous spray
   - Construction joints may be used to ease construction. The location of construction joints shall be approved by the Engineer prior to placing the concrete.

5. Refer to manufacturer recommendations for placing waterproof material.

6. Backfill shall be brought up uniformly around the tank. The maximum difference in the backfill elevations around the tank shall be 4 feet.

7. All construction methods shall meet NRC guidelines.

8. Installation of this structural shail conform to NRC Construction Specification 313.

Safety Considerations:

1. The tank shall be surrounded by a chain link or woven wire fence.

2. Posts shall not be cast into the concrete wall, unless an 8" rebar is welded to the base of the post and the posts are capped at time of installation.

3. Safety stops shall be installed at pump station locations to prevent accidental entry of equipment.

4. Warning signs shall be erected around the tank siteing that entry may result in injury or death.

Vehicle Access:

If heavy tank wagons or trucks will be driven within a distance equal to the wall height from the edge of the tank, cast a 0' thick concrete slab along the traffic route by the tank. The concrete slab should be large enough to eliminate all wheel loads directly on the natural ground or backfill by the tank. The purpose of the slab is to distribute the loading along the tank wall and prevent mud and erosion.