USE OF PRE-ENGINEERED WASTE STORAGE FACILITIES OR COMPONENTS

General

Pre-engineered waste storage structures or components are only a portion of a waste storage facility construction plan. The remainder of the construction plan, including the location map, site layout, soils data, pertinent elevations, manure transfer, and other needed practices or details must be assembled. The final construction plan must be approved by a person with NRCS Job Approval Authority, DATCP Agricultural Engineer Practitioner Certification, or signed and sealed by a Professional Engineer licensed to practice in Wisconsin. Any submittal of designs by registered engineers must be in compliance with the policy contained in the NRCS National Engineering Manual, Part 505 and Wisconsin Supplements.

When a Professional Engineer signs and seals a construction plan or components used in the plans, a statement is required stating which NRCS practice standards have been met. Suggested wording for the statement that accompanies the seal and signature is as follows:

> I hereby certify that I am a licensed Professional Engineer in the State of Wisconsin; that these plans have been prepared under my direction and control in accordance with standard engineering practice and the rules of Professional Conduct in ch. A-E 8, Wis Adm. Code; and that, to the best of my professional knowledge, judgment, and belief, the design represented by these plans meets the structural and other applicable design criteria requirements of U.S. Department of Agriculture, Natural Resources Conservation Service Practice Standard 313, Waste Storage Facility.

Waste Storage Facilities (Structures)

Manufacturers of waste storage structures may choose to submit design documentation to the NRCS demonstrating compliance to the structural requirements contained in Standard 313, Waste Storage Facility. The NRCS may approve the engineering design of the structure, which allows it to be used as a component in projects without repeating a structural design review.

Precast storage components that have been approved as part of a pre-engineered waste storage facility may be incorporated into construction plans by others but require the Professional Engineer's seal, signature, and statement shown above.

Precast Concrete Components

Precast concrete components can be used, provided that the manufacturer provides a written statement, signed and sealed by a Professional Engineer licensed to practice in the State of Wisconsin, stating that the component will support the anticipated loads for the project and that they meet the structural requirements contained in Standard 313. The statement, seal, and signature may be placed on a cover sheet to the component or directly on a construction drawing of the component.

These sealed precast component drawings may be incorporated into construction plans prepared by NRCS, conservation partnership staffs, and other registered engineers or waste storage structure manufacturers.

Prefabricated Reception Structures (used for transfer of wastewater or contaminated runoff only)

Prefabricated reception structures may be used as a component of a manure transfer system provided that the supplier or their technical representative:

1. Investigates the site soil types in order to verify that the tank design will withstand the loading.
2. Performs a site investigation to determine that the separation to bedrock or subsurface saturation are in compliance with Standard 634, Waste Transfer.
3. Supplies a structure that is listed on the Wisconsin Department of Safety and Professional Services, Safety and Building Division, Plumbing Products Database, and complies with all stipulations listed on the approval.
4. Supplies structures that are prefabricated with the sidewalls integral to the base section.
5. Supplies structures that contain only horizontal joints between prefabricated sections. (This assures that the joint sealing material will always remain in compression.)
6. Provides needed appurtenances and instructions for providing a liquid-tight connection between the tank and any transfer pipes.
7. Ensures a Professional Engineer licensed in Wisconsin provides a written and sealed statement that the structure is capable of withstanding all soil and other loads present at the site and that it meets the structural requirements of NRCS Standard 313, Waste Storage Facility; or 634, Waste Transfer, whichever is appropriate.