

WASTE STORAGE FACILITY

Design Survey

The following information shall be obtained and recorded in the field notes:

- a. Topographic survey (elevations).
- b. Subsurface soils investigation and/or foundation investigation (if required).
- c. Drainage area (within confinement area –dirty water- and outside confinement area – clean water). Drainage area of roofs.

Design Data

The following will be considered minimum in the design of waste storage structures. The information shall be recorded in the design notes or on the construction drawings:

- a. Location selection.
- b. Volume determination for sizing the facility. This includes computations for storing animal waste, wash water, bedding and storm runoff as appropriate.
- c. Material selection.
- d. Structural design computations.
- e. Quantity computations
- f. Records indicating NRCS obligations regarding State and Federal regulations have been met including, but not limited to, the following: ground water laws, water rights, easements, 404 permits, NPDES discharge and stormwater permits, cultural resources, etc.

Note - Permits Required Prior to Construction

All waste management system that require review and concurrence by the Department of Environmental Quality (DEQ), shall have a permit to construct prior to the start of construction.

Drawings and Specifications

Construction drawings shall include, but will not be limited to, the following:

- a. Overall scaled plan view layout of the installation.
- b. Location map with legal description and north arrow.
- c. Detailed layout of structure(s) showing cross sections, profiles, dimensions, and type of construction materials.
- d. Safety features, port openings, cover, and re-vegetation requirements.
- e. Steel reinforcement details (i.e. bar sizes, spacings, splice lengths, steel schedule, etc.)
- f. Location, type, size, and quality of waterstops, construction joints, expansion-contraction joints, or any special joints.
- g. Special requirements for diverting water, dewatering, and keeping the excavated area dry.
- h. Special foundation treatment, drainage details, or special backfill as appropriate.

- i. Table of quantities.
- j. Construction notes as appropriate.
- k. Engineering job classification is shown and proper engineering approval is obtained.
- l. Cooperator's signature of review and acceptance to construct the project according to the plans and specifications.

Practice specifications along with applicable "Items of Work and Construction Details" shall be provided along with other specifications needed to fully inform the owner or contractor of the requirements for the installation.

Layout Survey Notes

The following information shall be recorded in the field notes:

- a. Location, elevation, and offset reference stakes as required.

Compliance Checks

The complexity of the structure will dictate the need for compliance checks during construction. All compliance checks shall be recorded in the field notes. Narratives of compliance checks shall be recorded in the field notes.

Compliance checks shall include, but will not be limited to, the following:

- a. Measurements (i.e. length, width, depth, and thickness of walls) and elevations.
- b. Steel placement, if required.
- c. Material and soil compaction testing, as required (recorded on applicable form).
- d. Quality and quantity of materials.
- e. Statement of compliance signed by NRCS personnel with applicable job approval authority that the work meets the plans and specifications. (A NRCS employee, with proper job approval authority, shall certify on the as-built drawings whether the as-built practice does or does not meet the requirements of the standards and specifications.)
- f. Changes in design are documented.

As-Built Plans

As-Built drawings shall be prepared for all waste storage structures. These drawings shall reflect all significant changes in linear measurements, quantities, alignment, or design changes. If there were no significant changes, the original drawings shall be marked "As-Built". Any needed information will be provided to the Wyoming DEQ for construction and runoff permits.