

STATEMENT OF WORK
Waste Storage Facility (313)
Ohio

These deliverables apply to this individual practice. For other planned practice deliverables refer to those specific Statements of Work.

DESIGN

Deliverables:

1. Design documentation that will demonstrate that the criteria in NRCS practice standard 313 has been met and is compatible with other planned and applied practices.
 - a. Practice purpose(s) as identified in the conservation plan.
 - b. List of required permits to be obtained by the client.
 - c. Compliance with NRCS national and state utility safety policy (NEM Part 503-Safety, Subpart A - Engineering Activities Affecting Utilities 503.00 through 503.06).
 - d. List of facilitating practices
 - e. Practice standard criteria, related computations, and analyses to develop plans and specifications including but not limited to:
 - i. Geology and Soil Mechanics (NEM Subpart 531a).
 - ii. Storage Volume and Maximum Operating Level.
 - iii. Structural, Mechanical and Appurtenances.
 - iv. Maximize Clean Water Diversion.
 - v. Environmental Considerations (e.g. liner failure, location, breaching, air quality).
 - vi. Safety Considerations (NEM Part 503- Safety, Subpart A, 503.06 through 503.12).
 - vii. When applicable - design approval from the Ohio Department of Agriculture (ODA) Livestock Permit section, and/or Ohio Environmental Protection Agency (OEPA)
2. Written plans and specifications including sketches and drawings shall be provided to the client that adequately describes the details and requirements for a competent construction contractor to install the practice, and for the client to obtain necessary permits. Specific requirements for preparation of construction drawings as applicable to the type of waste storage facility are listed below. Drawings and specification are to be prepared and stamped by a Professional Engineer or Architect licensed in State of Ohio. Any additional information necessary to completely describe the waste storage facility shall be included on the drawings:

(a) All Drawings

- Title block, name, practice, and county.
- Location map, township, section, roads, watercourses, etc.
- The location within construction area of all roads, fences, buildings, utilities, bridges, culverts, property lines, and landowners important to the project.
- Benchmarks and legends.
- Watershed boundary – where applicable.
- Underground utilities notification information and ‘Notice to Excavator’.
- Statement referring to attached construction standards.
- Soil types.
- Job class.
- Construction approval block.
- Delineated wetlands in area – where applicable.
- Certification on cover sheet of construction drawings stating: *“To the best of my professional knowledge, judgment and belief, these plans meet applicable NRCS standards”*
- Certification on cover sheet of “As-Built” drawings (see check out deliverables on page 3) stating: *“To the best of my professional knowledge, judgment and belief, this practice is installed in accordance with the plans and specifications, and meets applicable NRCS standards”*

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(b) Pond and Other Structures

- Plan view of structure layout.
- Topographic map (where applicable). Show low ground elevations at property lines near pooled water areas when they are near design high water level.
- Profiles of pipelines installed into the facility.
- Cross-section along centerline of proposed fill and core trench with soil boring 'Unified Classification' logs.
- Cross-section along centerline of foundation drain (where applicable).
- Soil boring or test pit locations and 'Unified Classification' logs.
- Borrow area location and 'Unified Classification' logs.
- Details of permanent appurtenances needed to fill or empty the facility.
- Fill cross-section showing side slopes, top width, elevations of top of fill, berms, ground line, core trench, etc.
- Erosion and sediment control measures.
- Seeding and fertilizing requirements.
- Quantities - bill of materials.
- Earth fill compaction requirements.
- Pond liner requirements where applicable
- Site preparation requirements (as necessary), i.e., topsoil scalping depth and stockpiling; waste material disposal; work limits.

(c) Animal Waste

- Plan view of system layout.
 - Separation distance from the facility to the nearest well and neighboring residence
 - Holding pond and lagoon requirements are same as for pond (see item 2 b). Soil logs must extend a minimum of 5' below the bottom of the planned facility
 - Structural details for all components.
 - Fabricated Structures:
 - State applicable design loads (manure, earth, vehicular, surcharge, wind & snow)
 - Listing of quality standards (such as lumber grade), or applicable strength requirements (such as allowable shear & bending stress) for structural members
 - When concrete is used, statement that concrete is required to meet NRCS-Ohio Construction Specification- Concrete
 - References to components supplied by others and applicable certifications (such as stamped truss designs conforming to roof dimensions and drawing details).
 - Special safety requirements.
 - Special surface water diversion considerations.
 - Seeding, fertilizing, and mulching requirements.
 - Roofing details.
 - Gutter/downspout / and outlet details.
 - Quantities
3. Design Report and Inspection (Quality Assurance) Plan as appropriate (NEM Part 511, Subpart B Documentation, 511.11 and Part 512, Subpart D Quality Assurance Activities, 512.30 through 512.32). The design report is to include design manure/ wastewater volumes and storage interval conforming to the comprehensive nutrient management plan (CNMP), or other planning document acknowledged by NRCS to initially size the facility for USDA program participation
 4. Operation and Maintenance Plan
 5. Certifications that the design meets practice standard criteria and comply with applicable laws and regulations (NEM Subpart A, 505.03(b)(2)).
 6. Design modifications during installation as required.
 7. The client is to be provided with a minimum of two copies of the design report and quality assurance plan (one for the clients records, and one for the NRCS Field Office)

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INSTALLATION

Deliverables

1. Pre Installation conference with client and contractor.
2. Verification that client has obtained required permits.
3. Staking and layout according to plans and specifications including applicable layout notes.
4. Verification that delivered materials meet the design requirements and applicable certifications are on site prior to material installation
5. Installation inspection (according to inspection plan as appropriate, or ODA/ OEPA permit requirements).
 - a. Actual materials used.
 - b. Inspection records
 - c. Testing records
6. Facilitate and implement required design modifications with client and original designer.
7. Advise client/NRCS on compliance issues with all federal, state, tribal, and local laws, regulations and NRCS policies during installation.
8. Certification that the installation process and materials meet design and permit requirements.

CHECK OUT

Deliverables

1. As-Built documentation.
 - a. Extent of practice units applied
 - b. Two copies of drawings clearly showing both the original design and "As-Built" changes
 - c. Final quantities
2. Written certification that the installation meets Ohio NRCS Conservation Practice Standard 313, conforms to the as-built drawings; and when applicable, obtain written construction approval from ODA and/or OEPA (NEM Subpart A, 505.03(c)(1)).
3. "Warranty of Technical Services Provided" found at the end of the following Ohio TSP publication:
ftp://ftp-fc.sc.egov.usda.gov/OH/pub/Programs/tsp/tsp_booklet_3_21_05.pdf

REFERENCES

- NRCS Field Office Technical Guide (eFOTG), Section IV, Conservation Practice Standard - Waste Storage Facility, 313. Ohio FOTG: http://efotg.nrcs.usda.gov/efotg_locator.aspx?map=OH
- NRCS Agricultural Waste Management Field Handbook (AWMFH) and design software: http://www.oh.nrcs.usda.gov/technical/engineering/engineering_software.html
- NRCS National Engineering Manual (NEM): <http://www.info.usda.gov/CED/ftp/CED/NEM.html>
- Ohio NRCS supplements to the NEM: <http://www.oh.nrcs.usda.gov/intranet/NEM/supplements.html>
- NRCS National Environmental Compliance Handbook: http://policy.nrcs.usda.gov/scripts/lpsiis.dll/H/H_190_610_Content.htm
- NRCS Cultural Resources Handbook: http://policy.nrcs.usda.gov/scripts/lpsiis.dll/H/H_190_601_Content.htm
- NRCS-Ohio Construction Specification - Concrete <http://www.oh.nrcs.usda.gov/technical/engineering/neh20.html>
- Ohio Department of Agriculture - Livestock Environmental Permitting Program Rules <http://www.ohioagriculture.gov/pubs/divs/lepp/curr/rules/lepp-rl-front-021304.htm>