

Broad Review of NRCS Standard 313 Waste Storage Facility
July 7, 2011

The deadline for submitting comments on proposed revisions to the NRCS Technical Standard 313 Waste Storage Facility has been extended to **September 9, 2011**. Send comments to Mike Murray (Michael.murray@wi.gov).

The Standards Oversight Council (SOC) 313 Work Team developed this draft standard based on evaluations of research, new technologies, field experience and the need to have a protective yet practical and workable standard. Please read the summary of major proposed changes to the current standard found in the bulleted list below. An outline of the standard is also included.

An initial group of reviewers previously provided substantial feedback and vetted many of the proposed changes. Comments received during this review will be utilized by the team to finalize changes to Standard 313. The revision Team will evaluate and respond to all comments. Approximately 160 broad review comments have been submitted as of today.

When submitting comments be as specific as possible e.g. Section V.B.1.a should specify... Comments on the merits of the standard must be received by **September 9, 2011** to be considered.

Summary of Proposed Substantial Changes to the Current 313 Standard

- Clarified the intent of the standard with respect to the addition of off-farm organic waste materials to waste storage facilities that are designed using criteria in this standard. The intent is to require approval of the appropriate regulatory agency before these materials are stored in a 313 structure. The language in the old standard with respect to “this standard does not apply to facilities in which greater than 10% of the design storage volume.....” Has been revised and moved to Section IV to more clearly reflect this intent.
- The test pit section of the site assessment section of the standard has been revised/clarified to include a requirement to identify gley soil if present and record the upper elevation of all saturated layers encountered in test pits, amongst other changes.
- Definition of bedrock has been changed to something more easily and consistently identifiable in the field.
- Changed section V. A. 9. To clarify and simplify interpretation of test pit data and identification of bedrock and saturation elevations to be used in conjunction with this standard.
- Expanded requirements for engineering design documentation, construction plans and specifications, and construction quality assurance.
- Added section V.B.1 to consolidate and update requirements for concrete
- Added Table A with simplified and enhanced reinforcing steel requirements for concrete with waterstop (ie Table 5, Column 1 liners)
- Expanded the options for concrete soil composite liners.

- Revised In-Place Earth (Table 1) design criteria to reflect 2009 changes to the NRCS Ag Waste Management Field Handbook, Chapter 10, Appendix 10D procedures. Added “Specific Discharge” evaluation and design criteria for continued use of in-place earth liners. Added Wisconsin specific discharge limit (NR 213) of 500 gallons per acre per day to the standard as a basis for design.
- Increased soil requirements for Geomembrane liners to 40% fines minimum to enhance performance and environmental protection with these liners.
- Updated Table 7 to reflect changes to the last draft of the National NRCS 313 standard.
- Added new Table 9 containing design criteria for permanent stacking facilities at the animal production area for stackable solid manure, compost, and other manure derivatives. Former Table 9 is now Table 10.

OUTLINE OF 313 WASTE STORAGE FACILITY, DRAFT #11

- | | |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| I. Definition | 15. Operation and Maintenance |
| II. Purpose | 16. Seeding and Mulching |
| III. Conditions Where Practice Applies | B. Specific Criteria for Waste Storage Impoundments and Structures |
| IV. Federal, Tribal, State and Local Laws | 1. Concrete liners |
| V. Criteria | 2. Impoundment Design Criteria |
| A. General Criteria | Table 1 In-Place Earth |
| 1. Management Assessment | Table 2 Constructed Clay |
| 2. Site Assessment | Table 3 Geomembrane |
| 3. Floodplain | Table 4 Geosynthetic Clay |
| 4. Location | Table 5 Concrete |
| 5. Design Storage Volume | 3. Structure Design Criteria |
| 6. Maximum Operating Level | C. Specific Criteria for Permanent Facilities to Stack Confined Solid Manure and Derivatives |
| 7. Extra Depth for Safety | D. Specific Criteria For Temporary, Unconfined Stacks of Manure and Derivatives Outside the Animal Production Area |
| 8. Remaining Waste and Sumps | VI. Considerations |
| 9. Separation from Saturation or Bedrock | VII. References |
| 10. Safety Design | VIII. Definitions |
| 11. Failure Analysis | Figure 1 Design Storage Volume |
| 12. Engineering Design Documentation | |
| 13. Construction Plans and Specifications | |
| 14. Construction Quality Assurance Plan | |