



United States
Department of
Agriculture

Natural
Resources
Conservation
Service

P.O. Box 2890
Washington, DC
20013

Subject: ENG - Standard Detail Drawings-
Animal Waste Storage Facilities-
A.O. Smith Harvestore Products, Inc.

Date: June 2, 1997

To: State Conservation Engineers

File Code: 210-13-21-5

The NRCS engineering staff in Illinois has reviewed and accepted the Model 96A Slurrystore Structure as conforming with the current 313 - Waste Storage Facility standard. Copies of the letter from Harry Means, state conservation engineer, to David Friederick, Slurrystore product manager, and associated structure series data sheet are attached.

The 96A structure series consists of 12 tanks of various diameters and heights ranging from 50' diameter, 10' high to 140' diameter, 19' high. A.O. Smith has agreed to supply three sets of drawings to the landowner for specific installations - one for the landowner's records, one for the contractor and one for NRCS records. If you would like to obtain copies of the series of drawings for your files, contact David Friederick at (815) 756-1551.

While it has not yet been developed, a list of standard detail drawings prepared by others and concurred with by NRCS will eventually be maintained on the Conservation Engineering Division webpage. We agreed to use this process during the SCE/CED teleconference in September 1996.

You are responsible for the use of any given standard detail drawing within your state. You should review design criteria to ensure that assumptions and limitations are consistent with proposed applications in your state. For specific information on the review conducted by Illinois, contact Harry Means, state conservation engineer, at (217) 398-5279.

RICHARD VAN KLAVEREN
Director
Conservation Engineering Division

cc:
Regional Conservation Engineers
David Friederick, A.O. Smith Harvestore, Dekalb, Illinois

Attachments

The Natural Resources Conservation Service works hand-in-hand with
the American people to conserve natural resources on private lands.

AN EQUAL OPPORTUNITY EMPLOYER



Natural Resources Conservation Service, 1902 Fox Drive, Champaign, IL 61820

February 25, 1997

David Friederick
Slurry Store Product Manager
A.O. Smith Harvestore Products, Inc.
345 Harvestore Drive
Dekalb, IL 60115-9646

Dear Mr. Friederick,

We have reviewed and approved all the design data you submitted to us concerning the 24 new slurry store structure models called the Model 96A. We concur that the Model 96A is in accordance with NRCS waste storage structure 313. Please refer to the attached sheet for more details.

Sincerely,

A handwritten signature in cursive script that reads "Harry N. Means".

HARRY N. MEANS
State Conservation Engineer

Attachment

cc:

Barry Kintzer, Environmental Engineer, NRCS, CED, NHQ, Washington, DC

hm:friederi.doc

The United States Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs and marital or familial status. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the USDA Office of Communications at (202)720-2791. To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C., 20250, or call (202)720-7327 (voice) or (202)720-1187 (TDD). USDA is an equal opportunity employer.

SLURRYSTORE STRUCTURE MODEL 96A

Designer & Fabricator: A.O. Smith Harvestore Products, Inc.
345 Harvestore Drive
Dekalb, IL 60115-9646 (815) 756-1551

Model Number and Sizes: Model numbers and nominal structure sizes are as follows:

Slurrystore Model Number	Structure I.D. ft - in	Structure Height* ft - in
96A-5010	50' - 4 13/16"	9' - 7 11/16"
96A-5014	50' - 4 13/16"	14' - 2 11/16"
96A-5019	50' - 4 13/16"	18' - 9 11/16"
96A-5910	58' - 9 11/16"	9' - 7 11/16"
96A-5914	58' - 9 11/16"	14' - 2 11/16"
96A-5919	58' - 9 11/16"	18' - 9 11/16"
96A-7010	70' - 0"	9' - 7 11/16"
96A-7014	70' - 0"	14' - 2 11/16"
96A-7019	70' - 0"	18' - 9 11/16"
96A-7810	78' - 4 7/8"	9' - 7 11/16"
96A-7814	78' - 4 7/8"	14' - 2 11/16"
96A-7819	78' - 4 7/8"	18' - 9 11/16"

Slurrystore Model Number	Structure I.D. ft - in	Structure Height* ft - in
96A-9510	95' - 2 1/2"	9' - 7 11/16"
96A-9514	95' - 2 1/2"	14' - 2 11/16"
96A-9519	95' - 2 1/2"	18' - 9 11/16"
96A-11210	112' - 0 1/8"	9' - 7 11/16"
96A-11214	112' - 0 1/8"	14' - 2 11/16"
96A-11219	112' - 0 1/8"	18' - 9 11/16"
96A-12310	123' - 2 9/16"	9' - 7 11/16"
96A-12314	123' - 2 9/16"	14' - 2 11/16"
96A-12319	123' - 2 9/16"	18' - 9 11/16"
96A-14010	140' 0 3/16"	9' - 7 11/16"
96A-14014	140' 0 3/16"	14' - 2 11/16"
96A-14019	140' 0 3/16"	18' - 9 11/16"

Each structure is furnished with a nameplate which identifies the Model No., structure size (diameter and height), and a Serial No..

Materials: The structure shell consists of glass fused to steel sheets that are bolted together, Footing walls and floor are reinforced concrete. Cathodic protection is provided by zinc anodes electrically connected to the shell sheets and the floor and footing reinforcement.

Assumptions: The shell design assumes above ground application only. Footing sizes are designed for a maximum allowable bearing capacity of 2000 psf. Footing strength design is based on a minimum 3000 psi concrete strength. Wind design considerations are based on a wind speed of 70 mph.

Application: National Conservation Practice Standard 313 "Waste Storage Facility".

Review: The design of the Model 96A has been reviewed by Rich Fields, State of Illinois licensed structural Engineer (no. 5077).

Concurrence: February 24, 1997. The State Conservation Engineer in Illinois concurs in the use of the Model 96A.

NOTE TO AREA ENGINEERS

As a result of the June 19th area engineer's meeting I would like to follow up with this additional information regarding the reassembly of AO Smith Slurry Store structures at other farmsteads:

I talked to Rick Jones of AO Smith, DeKalb, Ill. (815) 756-1551 and he mentioned that there was a system or procedure that the manufacturer recommends to dismantle and reassemble these units. There are a number of representatives around the state who will conduct training in the art of doing this work. They are:

Wellman Service, Pavilion, NY
Lenny Wellman, Representative
Phone (716) 584-8502

Logan Silo, Copenhagen, NY
Bob Logan, Representative
Phone (315) 688-4414

Midstate Glass Lined Storage Inc.
David Stanek, Representative
Phone (315) 495-6506

If you have any questions give me a call.

WAG