

Recreation

Tech Tips

United States Department of Agriculture
Forest Service



Technology &
Development Program

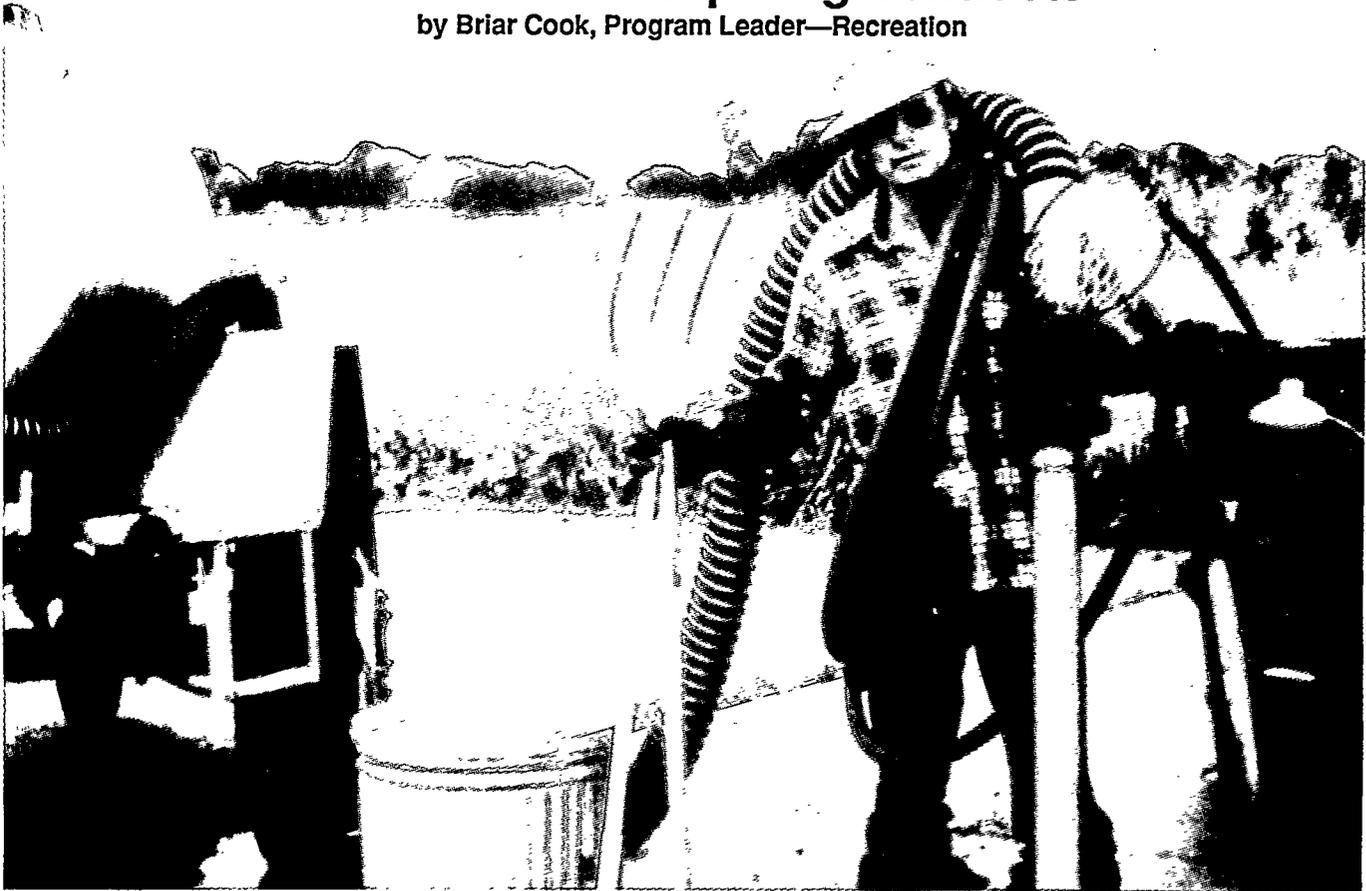
October 1992

2300

9223 1308—SDTDC

Vault Toilet Pumping Contract Specifications Guidelines for Preparing Contracts

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Vault toilets are located on virtually every forest in the country. The contractors who pump these toilets use a variety of equipment. Some vaults have to be serviced through the toilet riser because there are no outside manholes; some can be serviced through an outside manhole. Some vaults have flat bottoms; some are properly sloped. Some vaults are not sealed, and some are. There are outside manholes that are only 8 inches in diameter, and some that are properly 24 inches in diameter.

Because there are so many conditions to deal with, the attached specification is written to offer guidelines for preparing a contract for pumping vault toilets and thus

ensure a measure of uniformity throughout the Forest Service.

To make it easier for Forest or District contracting personnel to utilize this specification, these guidelines were recently (August 1992) sent to each Ranger District via the Data General. If you do not have the specification on your DG, please contact either your Regional Recreation or Environmental Staff. Also, copies can be obtained from the San Dimas Technology & Development Center.

This specification can be used in total or it can be modified to meet individual pumping needs.

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PART 1 - THE SCHEDULE

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

C-1 GENERAL SPECIFICATIONS

C.1-1 Scope of Contract

Contractor shall furnish, on a call when needed basis, toilet pumping services which includes all equipment, supervision, transportation, labor, operating supplies, and incidentals necessary to pump, wash down, recharge, cleanup, disinfect, and dispose of all waste products removed from the toilets, in accordance with the following contract specifications and in accordance with State and Federal regulations.

C.1-2 Description, Dates and Location

The number of days and exact dates on which services will be required cannot be predetermined. The location of the work sites, access to the sites, and other information pertinent to each area is contained in Section B, Schedule of Items, and Section J, List of Attachments.

C.1-3 Scheduling Work

The Government Contracting Officers Representative (COR) will notify the Contractor of the required servicing. This initial notification may be by phone, FAX, or other means. Within 24 hours of the initial notification, the requirement will be confirmed in writing on a "Work Order" form. The Contractor must complete the required servicing within 72 hours (not including Saturday or Sunday) after the initial notification. Generally, servicing shall be between the hours of 8 A.M. and 5 P.M. Occasional emergency pumping may be required, and may be outside the 8 A.M. to 5 P.M. constraint. Response time for any emergency will be by mutual agreement between both parties.

C.1-4 Definitions

1. Sewage liquid, semi-liquid, and solid waste matter.
2. Debris all other refuse found in vault toilets, to include but not limited to items such as the following:
Cans, bottles, rocks, sticks and logs, deerheads, clothing, plastic bags and containers, metal products, pinecones, wastefood products, cardboard and paper products, whole rolls of toilet paper, toilet paper dispensers, tools, diapers and sanitary napkins, miscellaneous trash, etc.

C.1-5 Prewrite Conference

Prior to the start of work, a meeting will be scheduled by the Contracting Officer to be attended by the Contractor, The Contracting Officer, the Contracting Officer's Representative (COR), and other Forest Service personnel who may be involved in the administration of this contract. The meeting will be held at a time and place mutually agreeable to the Contractor and Contracting Officer. The purpose of this meeting is to thoroughly discuss the schedule of work, work performance requirements, approved waste disposal sites, contract terms, and to familiarize both parties with the responsibilities of each under the terms of this contract.

C.1-6 Contractor's Representative

Prior to the start of work, the Contractor shall designate in writing a person to act for him/her during his/her absence from any work site and shall specify the scope of their authority.

C.1-7 Minimum Pumping Request Guarantee

As a minimum, each work order, pertaining to the pumping scheduling, will guarantee one of the following:

- A. Two vaults
- B. One vault and one pit
- C. Four portable toilets

The local Forest Service unit should fill in this item based on agreements with the local pumpers.

C.2 TECHNICAL SPECIFICATIONS

C.2-1 Equipment

The Contractor shall furnish all toilet pumping equipment, tank truck (a truck that can reverse the suction process and create a pressure force is preferred/required so that the inevitable clogged lines can be more easily cleaned), water truck, tools, approved disinfectant, and other equipment and supplies necessary to perform work in accordance with these specifications. A 4 inch (minimum size) suction hose and attachment couplings shall be utilized to accomplish all pumping requirements. The length of hose must be long enough to accomplish the required pumping.

The Contracting Officer should make the decision whether or not it is reasonable to require that the Contractor have a truck that can reverse the suction process.

The required length of hose should be filled in by the local unit based on the location of each of the toilets and their proximity to a road.

A pressure washer system is required to wash the side and end walls of the vault after pumping and may be necessary to dilute solidified waste in the bottom of a flat bottomed vault and to wash the last portion of waste down a sloped bottomed vault.

Some suggested tools are: Two 6 foot long clam rakes with 6 inch long tines (the tines shall be completely dulled or rounded on the ends to prevent the tines from injuring the pumper or his/her helpers and from puncturing any rubber or synthetic liners that may be present in the vault), a long handled grabber, plastic bags to haul away all the miscellaneous debris (see C.1-4), brushes designed for cleaning up the spilled waste, and containers to mix the cleaning and disinfecting solutions in.

Water drafting equipment (if necessary to get water from a lake, pond, or stream) shall consist of pumps, tanks, hoses, etc. and shall be completely separate from toilet waste pumping and hauling equipment.

All disinfecting solutions shall be approved by the COR.

All equipment shall be in full accordance with any local and State County Regulations.

C.2-2 Pumping Procedures When an Outside Manhole is Available

As long as the outside pumpout access is in excess of 20 inches in diameter (or 20 inches square) the Contractor shall not be allowed to remove the vault contents through the toilet riser.

If the dimension is less than 20 inches, then there may be items in the vault that were thrown into the vault through the toilet riser which is 16 in by 20 in and those items may not be removable through the outside manhole of a lesser dimension.

After removing the manhole cover, use the clam rakes or long handled grabber to remove as much of the debris as possible before trying to pump out the waste. This procedure will help stir up the contents of the vault and break up the dense concentration of waste typically located just under the toilet riser (the impact zone). By removing most or all of the debris before pumping, the Contractor will find that the 4 inch hose will not clog so often and the liquid portion of the contents will not be removed before the thicker solids are removed.

ALL DEBRIS REMOVED FROM THE VAULT SHALL BE PLACED INTO A LEAK PROOF CONTAINER SO THAT NO CONTAMINATION TO THE SURROUNDING GROUND WILL RESULT.

If the bottom of the vault is flat, then the waste shall be removed down to within 4-5 inches of the bottom. At this point the 4 inch hose will begin to suck air (vortexing) and further removal will be slow. At this time remove any further debris that was not removed during the initial raking and removal.

Using a pressure washer system, wash down the interior walls of the vault before the clinging debris has a chance to dry. If at this time there is a heavy concentration of solids on the bottom of the vault, use the pressure washer system to break up and dilute the solids and then pump this diluted waste down again until the suction hose begins to suck too much air to make further pumping practical.

The flat bottomed vault shall now be precharged with enough water to bring the depth of water up to 10 inches.

If the bottom of the vault is sloped (all vaults should be sloped a minimum of 1 in per ft), then pump the waste down (at the deep end) to where the hose begins to suck air. Remove any remaining debris and then go inside the building with the pressure washer system and wash the remaining waste down the sloped bottom. Wash down the vault walls from inside the building or from the outside manhole, whichever is easier. Now pump out the remaining waste and the water that was just added by the pressure washer until the suction hose begins to suck too much air to make further pumping practical.

Precharge the vault with clean fresh water so that there is 10 inches of water covering the bottom under the toilet riser. Add 1 quart of liquid bleach to help deodorize the remaining vault contents.

NOTE: Adding a quart of liquid bleach after pumping a flat bottomed vault is a waste of time because there is too much waste remaining for one quart to do any good for odor control.

Thoroughly clean and disinfect all contaminated areas resulting from the pumping process. Either sweep or wash all waste that is deposited on the concrete surrounding the manhole cover, back into the vault if possible. The waste that runs off the edge of the concrete, onto the dirt or into the gravel edge, will be an attractant for flies, a potential health risk and an odor problem. This problem should be avoided.

Clean thoroughly around the manhole cover gasket area and replace the cover. The manhole cover MUST fit with an airtight seal so that the venting process of the vault toilet is not interfered with. If there is not an airtight seal, the Contractor shall notify the COR.

C.2-3 Pumping Through The Toilet Riser When There Is No Outside Manhole

The Contractor shall remove the toilet riser prior to pumping or removing debris. The Contractor shall not remove debris through or pump through the toilet riser without removing the riser.

Remove the debris and pump in accordance with C.2-2. Extra care shall be taken to prevent waste spillage onto the interior floor and wall surface while removing debris and while pumping. The toilet paper dispenser and toilet riser shall be protected from damage and the toilet paper shall be covered with a waterproof material prior to removing debris or pumping, in order to prevent the paper from getting contaminated.

During the final cleanup, the interior floor surface and any wall surface that was contaminated by waste shall be thoroughly disinfected. Again, every effort shall be made to sweep or wash the spilled waste back into the vault. The Contractor shall not allow the spilled waste to be washed or swept out through the front door because the waste will collect at the edge of the concrete and the dirt (or gravel) and will become an attractant for flies, a possible health risk for barefoot persons and an odor problem.

Thoroughly wash and disinfect both the inside and outside of the toilet riser and the seat and cover before replacing the riser. The toilet riser and seat shall be dry before the Contractor leaves the work site. Remove the waterproof covering that was protecting the toilet paper and make sure the paper did not get contaminated. If the paper did get contaminated, the Contractor shall notify the COR. The door handles or knobs shall also be disinfected and dry before the Contractor leaves the job site.

Each unit shall be available for immediate use after the pumping and final cleanup. The Contractor shall not leave any toilet location until final cleanup is accomplished.

C.2-4 Drafting of Water

Contractor may draft fresh water (to be used for washing down the vault walls, emulsification of the waste and for final cleanup) from lakes, ponds and streams under the following conditions:

- a. Drafting shall be accomplished where it least interferes with the public use of the facility and at areas least viewed by the public.
- b. No waste shall be introduced into any body of water.
- c. The COR shall approve all sites used for drafting water.

C.2-5 Offsite Disposal of Sewage and Debris

The Contractor shall be properly licensed and shall be responsible for making disposal arrangements, including disposal of all effluent, debris, and trash, and payments of all fees.

Disposal shall conform to all Federal, State, and local laws and ordinances. COR shall approve all disposal sites before pumping begins.

The local unit should suggest that the Contractor contact the owners of any potential dumping site regarding their requirements and restrictions and to confirm that dumping is still allowed.

If your unit knows of approved sites, you may want to provide this site information because this may help reduce the cost of the Contract. The Contractor must still assume the responsibility of disposing of the waste at any suggested site.

The Contractor shall be responsible to prevent spillage and to haul all waste material (sewage and debris) in watertight containers. Handling of all waste material shall be in accordance with all applicable health regulations.

C.2-6 Conduct of Personnel

The Contractor and his/her employees shall make every reasonable effort to prevent interference with the normal use and occupancy of recreational areas while engaged in the performance of the contract.

Due to the nature of the duties under the contract, the Contractor and his/her employees shall keep themselves and equipment presentable at all times. The Contracting Officer may, in writing, require the Contractor to remove from the work site any employee the Contracting Officer deems incompetent, careless, discourteous to the public, or is otherwise objectionable, or for theft, possession and/or removal of materials, supplies, equipment, or any Government-owned property.

C.2-7 Resource Damage

Any damage or defacement that occurs to government property or land resources during the Contractor's operations shall be repaired at the Contractor's expense to its original condition. Onsite inspection will be made by the COR prior to the acceptance of work.