

STANDARD OPERATING
PROCEDURES
AND
DESIGN GUIDELINES

PUMP AND HAUL ACTIVITIES
FOR
NON-REPAIRABLE SUBSURFACE
WASTEWATER SYSTEMS



August 2003

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SECTION 1

PURPOSE OF THIS DOCUMENT

Purpose:

This document serves as a reference for Local Health Departments when utilizing Pump and Haul Systems as a permanent repair option for otherwise non-repairable onsite wastewater systems. It contains two Division of Environmental Health memos from September and December of 2000 along with newly developed Design Guidelines for these permanent Pump and Haul systems.

SECTION 2

SEPTEMBER 6, 2000

DEH/DWQ MEMO

ESTABLISHING S.O.P.

FOR

PUMP AND HAUL

ACTIVITIES

1961

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES

September 6, 2000

MEMORANDUM:

To: Bill Jeter, Chief
On-Site Wastewater Section
Division of Environmental Health

Coleen Sullins, Chief
Water Quality Section
Division of Water Quality

From: Linda Sewall, Director *LS*
Division of Environmental Health

Tommy Stevens, Director *TS*
Division of Water Quality

Subject: Standard Operating Procedures
Pump and Haul Activities for
Wastewater Systems

Over the past years there have been numerous occasions when questions have been raised regarding procedures to be followed when a facility needs an immediate solution for a failing wastewater treatment system, and for pump and haul to serve new facilities. These same questions relate to facilities permitted under the authority of both the Commission for Health Services and the Environmental Management Commission. While pump and haul activities are not considered by either of our Divisions to be preferred long term methods for handling wastewater, they are often the most appropriate short term solution for a failing system.

The same pump and haul questions are frequently raised by the regulated public and staff of local health departments, DWQ and DEH. In order to answer these questions and resolve this uncertainty, please find below procedures to be followed by both our Divisions. This guidance will also be distributed to all local health departments and other affected parties.

1. The responsibility for issuing a pump and haul document (requirement for local health department authorization or permit for DWQ) lies solely with the agency that has permit authority for the failing or inadequate wastewater treatment system.



2. The wastewater from a failing facility under the authority of either of our Divisions can be pumped and hauled to a facility under the authority of the other Division as long as prior approval is obtained from the facility receiving the wastewater and the additional wastewater does not result in an exceedance of the treatment capacity of the receiving systems.
3. Any questions regarding a facility's ability to adequately treat the wastewater that will be pump and hauled to that facility and associated compliance issues must be directed to the receiving facility's permitting authority.
4. In addition to failing treatment systems, both of our Divisions occasionally receive requests for pump and haul authorizations for new or proposed facilities.

While not considered an acceptable long term treatment alternative, DWQ can issue pump and haul permits for new facilities but only under unique circumstances and when the facility's permanent wastewater treatment system when completed will be under the permitting authority of DWQ.

The DEH Rules do not allow DEH to issue pump and haul permits for new construction.

Considering these limitations and in order to minimize confusion in the regulated community, DWQ staff, DEH staff and the staff of the local health departments must not refer new or proposed facilities whose treatment systems when completed will be under their own authority to the other regulatory agencies for pump and haul authorizations. These other agencies do not have the authority to issue pump and haul authorizations to these facilities.

5. Pump and Haul Authorizations for temporary food establishments (serving County Fairs, Church functions, etc.) will be issued when appropriate by the Local Health Departments.

We greatly appreciate your assistance in this matter. If there is a need for any additional information or clarification, please do not hesitate to contact us.

Cc: Local Health Departments

SECTION 3

SUMMARY OF THE SOP FOR PUMP AND HAUL ACTIVITIES

SUMMARY
Of the
SOP for PUMP and HAUL ACTIVITIES for
WASTEWATER SYSTEMS

1. For failing wastewater treatment and disposal systems that discharge to the subsurface (septic tank systems and the like) the responsibility for issuing pump and haul (P&H) authorizations lies with the local health department (LHD).
2. Wastewater from a failing system permitted by a LHD can be pumped and hauled to a facility under the authority of the Division of Water Quality (DWQ) as long as prior approval is obtained from the facility receiving the wastewater **and** the additional wastewater does not result in an exceedance of the treatment capacity of the receiving system(s).
3. If there are any questions about a facility's ability to adequately treat the wastewater received or about compliance issues associated with a facility permitted by DWQ , the facility must be directed by DWQ.
4. For **NEW CONSTRUCTION** (including expansion of existing systems) or proposed systems:
 - A. DWQ can issue P&H permits but only under unique circumstances **and** the facility's permanent system will be permitted by DWQ;
 - B. The .1900 Rules do not allow LHDs (or OSWS) to issue P&H authorizations for new construction (including expansion of existing systems) of systems; and
 - C. LHDs (or OSWS) must not refer new or proposed systems that will be permitted under the .1900 rules to the DWQ for a P&H permit because we are not allowed to issue P&H authorizations for new construction and DWQ can't issue P&H permits for new systems that are or are to be permitted under the .1900 Rules..
5. When appropriate (and within the guidelines), a LHD can issue an authorization to P&H to a facility permitted by DWQ for wastewater originating from a temporary food stand (serving street fairs, church functions, etc.).

SECTION 4

SAMPLE AUTHORIZATION LETTER

FOR

LOCALLY PERMITTED

PUMP AND HAUL

ACTIVITIES

December 1, 2000

MEMORANDUM:

To: Local Health Department
On-Site Wastewater Program

From: Bill Jeter, Chief
On-Site Wastewater Section
Division of Environmental Health

Subject: Sample Authorization Letter
for Locally Permitted Pump and Haul Activities
for Wastewater Systems

You recently received a memorandum concerning SOP's for Pump and Haul Activities for wastewater systems. As stated in that memo, for failing wastewater treatment and disposal systems that discharge to the subsurface (septic tank systems and the like) the responsibility for issuing pump and haul authorizations lies with the local health department. Attached is a sample Pump & Haul Authorization that you may want to use in your On-Site program. This Authorization is intended for use **only** for residential and commercial systems less than 3000 gpd and that are not classified as industrial process wastewater (IPWW).

If you need any additional information or clarification, please contact us.

PUMP AND HAUL AUTHORIZATION

AUTHORIZATION IS HEREBY GRANTED TO

(Name of Applicant)

FOR THE

operation of a _____ gallon (shall not exceed liquid capacity of tank) pump and haul activity for pumping wastewater from _____ located at _____ facility and _____ address and hauling it to _____ treatment facility with no discharge of wastes to surface water.

This Authorization shall be effective from the date of issuance until _____ and shall be subject to the following specified conditions and limitations:
date

1. This Authorization shall become revoked unless the subject pump and haul activities are carried out in a manner that has been approved by the _____ County Health Department.
2. The permitted facility shall be properly maintained and operated at all times to comply with all the provisions of Rule .1961.
3. This Authorization is not transferable.
4. No type of wastewater other than that from _____ facility noted above shall be included in the pump and haul activities.
5. This Authorization shall be revoked unless the _____ treatment facility remains fully capable of treating the wastes generated by the permitted facility.
6. _____ applicant is liable for any damage caused by a spill or failure of the pump and haul operation.
7. Any employee or representative of the _____ County Health Department or the Division of Environmental Health, DENR, may, upon presentation of credentials, enter and inspect any property, premises, or place on or related to the pump and haul collection facilities at any reasonable time for the purpose of determining compliance with this Authorization, may inspect or copy any record that must be kept under the terms and conditions of this Authorization; and may obtain samples.
8. An accurate record of the pump and haul activities must be maintained by _____ applicant _____, indicating:

- a) Date wastewater is removed from the facility.
- b) Name of facility from which wastewater is removed.
- c) Name of facility receiving wastewater.
- d) Volume of wastewater removed.

Invoices marked paid containing the required information will be considered as acceptable records.

9. Failure to abide by the conditions and limitations contained in this Authorization may subject _____ to an enforcement action by the _____ applicant _____ County Health Department or the Division of Environmental Health, DENR, in accordance with North Carolina General Statutes 130A-18, 130A-22c, 130A-23 or 130A-25.

10. The issuance of this Authorization does not preclude _____ applicant _____ from complying with any and all statutes, rules, regulations, or ordinances which may be imposed by other government agencies (local, state, federal) which may have jurisdiction.

11. **Noncompliance Notification:** _____ applicant _____ shall report by telephone to the _____

County Health Department, phone number _____, as soon as possible, but in no case more than 24 hours or on the next working day following the occurrence of first knowledge of any failure to meet the requirements of Rule .1961 by the permitted facility OR the failure of the receiving facility to receive and properly treat the delivered effluent.

Persons reporting such occurrences by telephone shall file a written report in letter form within 15 days following first knowledge of the occurrence. This report must outline the actions taken or proposed to ensure that the problem does not recur.

Authorization issued this the _____ day of _____

 EHS, RS
 _____ County Health Department

SECTION 5

PUMP AND HAUL

DESIGN GUIDELINES

PUMP AND HAUL DESIGN GUIDELINES

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

DESIGN GUIDELINES FOR PUMP AND HAUL SYSTEMS USED AS A PERMANENT REPAIR OPTION FOR NONREPAIRABLE ONSITE WASTEWATER SYSTEMS WITH A DESIGN DAILY FLOW OF LESS THAN 3000 GALLONS PER DAY SERVING OWNER OR RENTER OCCUPIED PRIMARY RESIDENCES OR OTHER NON-INDUSTRIAL PROCESS WASTEWATER GENERATING FACILITIES. THIS INCLUDES MULTI-FAMILY RESIDENCES.

Purpose:

To set minimum design guidelines for permitting systems using a pump and haul tank system permanently to repair existing malfunctioning systems only. Pump and haul systems are not to be used for new construction. These guidelines cover systems of 3000 g.p.d. or less design flow and include residential rental property used by the renter as a primary residence, residential rental property not used as a primary residence (e.g. vacation/resort rental property), and other non-residential, non-industrial wastewater facilities.

Design Guidelines

1. Application

- a. An application shall be completed and submitted to the local health department by the owner of the residence or facility. The application shall include the information required on the applications for Improvement Permit and Construction Authorization. It shall also include the number of people living in the residence. For non-residential facilities, information about water usage amounts and patterns shall be required.

2. Tankage

- a. The system shall maintain a minimum of 5 days of storage capacity plus 2 days of emergency storage capacity. Each system shall use a single tank or multiple tanks in tandem (second and subsequent tanks may have no baffle walls; there shall be no bottom connection between tanks) to achieve 5 day minimum storage capacity equal to 5 day design flow (design daily flow shall be 60 gallons per person per day) plus two days of emergency storage volume. (Ex: 3 people in the home: 3 people X 60 gpd/person = 180 gpd X 7 days = 1260 gallon capacity tank required).
- b. Applicants can request larger tankage on the application, for instance if they wish to have the time frame between pumping the tank increased. The tankage multiplier shall be increased from the 5-day minimum to the number of days requested by the applicant.
- c. Applicants of non-residential facilities may request a reduction in the 5-day storage requirement (not the 2-day emergency storage requirement) if they have

ownership/control of approved sewage hauling equipment, or can otherwise provide documentation of the availability of hauler services to remove the design daily flow at any given time within 24 hours of notice. Under no circumstances shall the total storage capacity be less than the minimum required septic tank plus pump capacity for the facility per Rules .1952(b) and (c).

- d. High water alarms shall be set to provide 2 days of emergency storage and shall include an auto dial telemetry device with battery backup to notify the contracted pumper that service is needed. If rental property, the primary owner(s) of the residence/property shall also be notified by the auto dial telemetry device.
- e. All tank compartments shall contain approved risers constructed at or above finished grade.
- f. There shall be no overflows, bypasses, or connections to unapproved systems from the pump and haul tank(s). Discharge piping to any abandoned subsurface system shall be physically disconnected.

3. Operation and Maintenance

- a. The system is classified as a type V system under rule .1961 and shall require a Certified Operator to make monthly inspections (every 30-days) and submit reports to the LHD within 10 days of last inspection. The LHD shall conduct an inspection at least annually.
- b. A record shall be maintained by the facility owner of all wastewater removed from the facility. The record shall include the name of the hauler, receipt or other documentation from the treatment facility agreeing to accept the wastewater, date the wastewater was pumped and hauled, and volume of the wastewater removed. This record shall be made available to the local health department upon request, and summarized in the inspection reports submitted by the Operator.

4. Permitting

- a. A Construction Authorization shall be issued by an Authorized Agent upon a finding that:
 - 1. There are NO on-site options to affect a repair,
 - 2. Connection to a publicly owned treatment works is not possible,
 - 3. Sewage collection, retention, and alarm system is designed in accordance with the requirements in Section 2,
 - 4. Approval is received in writing from the facility receiving the wastewater and the additional wastewater does not result in exceeding the treatment capacity of the receiving system(s). Pump and haul sewage is not to be disposed to septage fields,
 - 5. A proposed or draft contract with a licensed hauler for sewage disposal at an approved wastewater system is acceptable, and
 - 6. Other requirements deemed necessary are met.

- b. A non-transferable Operation Permit valid for a period not to exceed five years shall be issued to the system owner upon a finding that:
 - 1. Installed system meets the CA requirements,
 - 2. An appropriate contract between the system owner and sewage hauler is executed with a copy on file with the local health department,
 - 3. An appropriate contract has been executed between the system owner and the Operator in Responsible Charge with a copy on file with the local health department, and
 - 4. Other necessary requirements are met.
- c. Permit conditions shall include the requirements that there be no additions, expansions, or alterations to the facilities served by the pump and haul system until a permanent approved wastewater system repair/replacement is available and permitted.
- d. Failure to maintain the contracts/agreements with the sewage hauler, treatment facility and Operator shall render the permit/authorization null and void.