

RECOMMENDATIONS TO LOCAL HEALTH DEPARTMENTS ON RE-PERMITTING OF TYPE V AND VI SYSTEMS

**On-Site Wastewater Section
Division of Environmental Health
April 14, 2003**

Effective August 1, 1998, the Rules for On-Site Wastewater Systems permitted by local health departments [15A NCAC 18A.1937(j)] provide for operation permits for Type V and Type VI systems to expire five years after effective date of these rules (August 1, 2003 for existing systems), or five years after the permit is issued (for systems with Operation Permits issued after August 1, 1998). System "Type" is determined in accordance with Rule .1961(b).

Recommendations are provided herein to assist local health departments in meeting their regulatory responsibilities with regard to these systems, to assure adequate protection of public health and the environment.

Applicability:

Rule .1937(j) is applicable to all systems classified as Type V or VI in accordance with Table V (a) of Rule 15A NCAC 18A .1961(b). This includes:

- ?? Existing systems in use or for which a valid permit was issued prior to July 1, 1992;
- ?? Systems permitted by local health departments since 1992 which upon completion received either a Certificate of Completion or Operation Permit;
- ?? Systems initially permitted by the Division of Environmental Management (DEM, now the Division of Water Quality or DWQ) which are now under the regulatory authority of the Division of Environmental Health and local health departments;
- ?? Any other operational Type V or Type VI subsurface systems for which a valid Operation Permit has not been issued or is no longer effective.

The effected systems are classified in Rule .1961(b) as follows:

Type V:

- a. Sand filter pretreatment system
- b. Any >3000 gpd system with a drainfield designed for >1500 gpd
- c. Aerobic Treatment Unit (ATU)
- d. Other mechanical, biological, or chemical pretreatment plant (<3000 gpd)

Type VI:

- a. Any > 3000 gpd system with mechanical, biological, or chemical pretreatment plant
- b. Wastewater reuse/recycle system

Per Rule .1961(i), the Division of Environmental Health shall classify systems not identified in this Rule after consultation with the appropriate commission governing operators of pollution control facilities.

In accordance with this rule, the following clarifications are applicable:

- ?? Design flow rate is based upon the “design unit” (see Definition 9, Rule .1935), with flow determined in accordance with Rule .1949(a) or .1949(b). Note that while flow reductions may be granted based upon documented historical data [Rule .1949(c)(1)], use of extreme water conserving fixtures (Rule .1949(c)(2)), or use of flow equalization, classification for management is based upon the unreduced design flow.
- ?? Any greater than 3,000 gallons per day system utilizing multiplex pumping (more than two fields or zones separately dosed from a common pump tank or multiple pump tanks serving a common facility) is classified at least equivalent to a Type Vb system (even if the individual field capacity does not exceed 1,500 gallons per day).
- ?? Any industrial process wastewater system (IPWW) that includes a grease interceptor (such as for a car or truck wash) is classified equivalent to at least a Type Vd system.

Exceptions:

- ?? Systems with a design flow greater than 3,000 gallons per day which meet the exception for state review in accordance with Rule .1938(e)(2).
- ?? Systems with an initial design flow greater than 3,000 gallons per day for which a design flow rate reduction has been concurred with by the state which results in an adjusted design flow rate for both pretreatment systems and drainfields less than 3,000 gallons per day, and individual field design flow rates do not to exceed 1,500 gallons per day.
- ?? IPWW systems which meet the exemption for engineering design and in accordance with Rule .1938 (d)(7)(A).

Health Department Inventory: (complete by May 2003):

Each local health department should immediately begin to update the list of its Type V and Type VI systems. The following information should be on file for each system:

- Facility name and location
- Owner name and address
- Facility description, capacity/uses
- System description, components, classification
- Operator name, addresses, phone numbers, and Operator's Certificate Number
- Permit files (find all applicable improvement permits, construction authorizations, operation permits, certificates of completion, "old" DEM permits, and all relevant plans, legal documents, files, etc.)
- Past reports submitted by system ORC, effluent and groundwater monitoring data

The On-Site Wastewater Section database file on each Type V and Type VI systems shall be made available for viewing on the Sections Home Page (www.deh.enr.state.nc.us/oww), under

“large systems, operations and maintenance”. Note, however, that this is not to be considered a complete list of all Type V and VI systems in all counties that require repermitting. Please forward to us any additions, corrections, and updated information, as it becomes available to your department (**and prior to July 1, 2003**) so this database can be kept as accurate and updated as possible.

Owner Notification/Request for Operation Permit Renewal Application:

The system Owner shall be notified as soon as possible (should be notified six months prior to Operation Permit expiration date) of pending Operation Permit expiration, including a directive to apply for Operation Permit Renewal. The permit renewal application shall include:

- Any updated information on facility and system owner and management entity (if different than Owner), including name, address, phone, etc, of responsible individual(s), lists of HOA board officers, Utility legal or service agent , etc.
- Verification of facility description, capacity and use, highlighting any changes from any previously issued permit.
- Copy of effective contract with certified operator, including updated operator contact information (name, address, phone numbers).
- Indication of any additional facility or system construction either ongoing (in accordance with previously issued permits or authorizations) or being proposed. The Owner shall be notified that separate application is required for new construction or for previously proposed construction covered under an expired Improvement Permit and/or Authorization to Construct.
- When system location, layout, and components are not already known to the Health Department based upon previous inspections or files on hand, the owner shall be requested to provide copies of any as-constructed plans, or to assist the Health Department as needed in obtaining this information.

The Owner shall also be advised of any fees that must be paid for repermitting in accordance with an adopted fee policy by the local Board of Health.

Health Department Renewal Application Review:

The Health Department shall review the renewal application; previous management entity performance, operation and monitoring reports; and compliance inspection reports. A thorough inspection should be made of each system by the health department prior to repermitting to evaluate system performance and compliance status. This may be done concurrently with a routine Health Department inspection as required under Rule .1961(j). Inspection forms DEH 3702 and 3703, as appropriate, should be filled out during each inspection. This inspection should be performed with the ORC, and the system Owner should also be requested to be present. During the inspection, the environmental health specialist should verify any changes in ownership, usage, or system components, and if the operator, operation and maintenance, monitoring and reporting requirements of Rule .1961(b) and the system's existing Operation Permit are being met.

Health Department Action on Operation Permit Renewal Application:

- A1. If the system is in compliance with applicable laws, rules, permit conditions, performance standards and the approved system design, plans and specifications, an Operation Permit shall be reissued. A Draft Operation Permit should be provided to the Owner at least 30 days prior to the Operation Permit expiration date. The permit shall include conditions for system performance, operation, maintenance, monitoring and reporting.
- A2. If the system is not malfunctioning [per Rule .1961(a)] or otherwise found to be in need of repair [per Rule .1961(l)], but problems are identified with system operation, maintenance, and/or performance, the Operation Permit shall be reissued, with any necessary maintenance items and improvements delineated as Special Permit Conditions.

If problems identified had previously been documented or already subject to enforcement action, a Notice of Violation should be issued or re-issued concurrently with the Operation Permit, and other legal remedies initiated or continued, as appropriate.

The reissued Operation Permit may include updated performance, operation, maintenance, monitoring and reporting requirements, in accordance with the Rules or Approval conditions applicable at the time of repermitting, and as needed to maintain consistency between permits to be issued for comparable systems. Conditions may also be imposed as necessary to facilitate proper operation, maintenance, inspection and monitoring in accordance with 15A NCAC 18A .1900 et seq., or as needed to assure safe and proper system performance when existing conditions have been specifically found to be problematic. Permit conditions shall contain a schedule including reasonable time frames over which any required improvements are to be completed.

- B. If the system is found to be malfunctioning in accordance with Rule .1961(a) or is otherwise found to be in need of repair in accordance with Rule .1961(l), a Notice of Violation shall be issued (or reissued, as warranted) and other legal remedies initiated or continued, as appropriate. The Owner shall be directed to immediately apply for an Authorization to Construct for Repairs. The Owner may either repair the system within 30 days in accordance with Rule .1961(l), or provide a written compliance schedule for completion of the repairs. If the repair schedule extends beyond August 1, 2003, the Operation Permit to be reissued shall include an approved schedule of repairs as Special Permit Conditions.

Note: no expansions of facilities served by the system may be allowed until the system has been repaired.

- C. Deny the Operation Permit under the following circumstances:

- i) The system is malfunctioning and found to be non-repairable.
- ii) The Owner has no contract with a Management Entity (e.g., Certified Operator) for system operation and maintenance. Note that system management requirements for

both newly permitted and **all existing Type V and VI systems** have been in place **since July 1, 1992**.

- iii) The system serves facilities and/or includes components constructed illegally since July 1, 1982.
- iv) Documentation exists of non-compliance with performance requirements in the existing Operation Permit (including compliance with groundwater performance standards), unless an approved remediation plan is provided and a schedule for meeting the plan made a condition of Operation Permit.

The On-Site Wastewater Section Engineering Team is available to assist with the review of draft Operation Permits. Final Permits shall be issued on or before the projected expiration date of the existing Operation Permit. These permits shall have an expiration date of no more than five years from the date of issuance. By August 30, 2003, please forward a set of all current Type V and VI permits to the On-Site Wastewater Section for our permanent project files. The OSWS must also maintain copies of these permits for groundwater compliance judgments and for Federal reporting requirements.

Ownership Issues:

The Health Department shall verify ownership requirements of the Laws and Rules are met. The system Owner must have uncontested control of all common system components including the drainfield, repair area, and common lift stations and pretreatment components [conditions of Rule .1938(g) shall be met]. For collection system components, including individual home STEP (septic tank effluent pumping) system components (individual septic tanks, pump tanks, and service laterals), pressure sewers and gravity collection sewers, the system Owner must at least have access easements and clear authority and responsibility for operation and maintenance. If the necessary information is not available to the Health Department, the Owner shall be requested to provide the necessary verification. This office is available to assist in evaluating specific cases.

Items requiring clarifying or rectifying (e.g., existence of necessary easements) should be included as Special Conditions in the Operation Permit, with reasonable time frames identified for any issues identified to be resolved.

New Construction:

For projects where all of the initially-approved facilities have not yet been completed and connected to the system when the Operation Permit expires, the Owner may need to also make application for a new Improvement Permit(s) and new or revised Authorization(s) to Construct, in addition to requesting Operation Permit re-issuance. When construction of additional system components are necessary (e.g., new collection sewer segments), these applications shall be accompanied by engineered plans and specifications which must be submitted for review and approval by the On-Site Wastewater Section prior to issuance of the permit/authorization by the Local Health Department, in accordance with requirements of Rules .1938(d) and (e).

When new wastewater system components are to be constructed to allow for new facilities to be served by the existing (central) wastewater system, consideration must also be given to any needs to upgrade this system to comply with current system design and performance criteria (e.g., horizontal and vertical separation requirements, Long-Term Acceptance Rates, nitrogen reduction requirements, etc). Typically, any necessary upgrades to the central system would need to be approved and completed prior to occupancy of new facilities that would depend upon the new wastewater system components. Furthermore, any necessary repairs to the central system would need to be approved and completed prior to occupancy of and new facilities, as discussed above.

Groundwater Issues:

During the process of Operation Permit re-issuance, the Health Department should evaluate the potential for the system to be contributing to non-compliance with Groundwater Standards (subsurface systems permitted by Local Health Departments are required to not result in the State's groundwater standard exceedences at the property line). Possible concerns should be further addressed in the following circumstances:

- a. The mounded groundwater table is projected to be less than two feet below the trench bottom, or the system has a design flow in excess of 10,000 (or any sized system handling industrial process wastewater) which also has drainfields which are located less than 25 feet from an adjoining private property line. Prior to taking action based solely upon either of these criteria, at least one other environmental or public health risk factor should also be identified (e.g., proximity to specially protected surface waters and/or water supply wells), or
- b. A public water supply well is located within 500 feet or a private water supply well is located within 200 feet of the drainfield.

Depending on the level of concern, the following actions may be warranted:

- a. Require in the new Operation Permit construction of up-gradient and down-gradient groundwater monitoring wells at locations and with screened depth designated by the Health Department, monitoring for pollutants of concern, and establish performance criteria which could trigger future enforcement actions
- b. If significant non-compliant groundwater data are available, require a groundwater assessment by a licensed professional within a set schedule in the Operation Permit. Provisions for site remediation and/or system design modifications (such as relocating drainfields away from the property line, modifying pretreatment components to enhance nitrogen reduction capability, installing an advanced pretreatment system with UV disinfection, etc.) may also be included as conditions in the Operation Permit.

The On-Site Wastewater Section is available to assist in making these determinations.

Permit Conditions/Models:

The Local Health Department has broad statutory and regulatory authority to condition Operation Permits, including the establishment of conditions for system performance, operation, maintenance, monitoring and reporting. Model Type V and VI Operation Permits are available from the On-Site Wastewater Section, and we are also available to assist in the review of individual permits drafted by the Local Health Department.

The Owner should be given appeal rights (30 days) in a letter accompanying the transmittal of the new Operation Permit.