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Document No. 4485

**DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL**

CHAPTER 61

Statutory Authority: 1976 Code Sections 44-1-50 and 48-1-110

61-67. Standards for Wastewater Facility Construction

**Synopsis:**

Regulation 61-67, *Standards for Wastewater Facility Construction*, establishes standards, for general and technical design requirements, for use by the Department in reviewing Engineering Reports, establishing Reliability Classifications and issuing State construction permits or other approval action as outlined in the regulation. This regulation applies to engineering design and construction of all wastewater treatment facilities and all wastewater collection and transmission facilities that require a construction permit or approval from the Department.

These amendments will reduce unit loading flows in Appendix A by 25 percent based on the knowledge of water savings fixtures and improved designs of sewer collection systems. For ease of implementation, the loading was rounded to the nearest whole number. The revisions also include having a service connection definition similar to the definition for a drinking water service connection, reducing the number of plans and other documents that need to be submitted. Furthermore, revisions include streamlining industrial pump and haul operations and allowing issuance of a treatment plant permit coincident with a discharge permit.

Minor changes were made at R.61-67.100 to remove unnecessary language for clarity and a stylistic change was made in the Table at Appendix A and Section 67.100.E.4.b. (5) and (6). Language related to permit appeals was removed so as to streamline with current law.

A Notice of Drafting for these amendments was published in the *State Register* on April 25, 2014.

Section-by-Section Discussion:

**R.61-67.100.B**

This paragraph was revised to remove unnecessary language “after the effective date of this regulation” for clarity.

**R.61-67.100.D**

The definition of a service connection was amended to be consistent with the definition of a service connection for drinking water systems.

**R.61-67.100.E.4.a and b**

The number of copies of plans, specifications, etc., that are required to be submitted was reduced.

**R.61-67.100.E.6**

The text of this section on contested permit decisions was deleted and the section is being Reserved.

**R.61-67.300.A.7**

This section was amended to allow the issuance of a treatment plant permit coincident with a discharge permit.

**R.61-67.300.A.8.a**

This section was amended to clarify when construction may commence on the construction of a treatment plant permitted coincident with the discharge permit.

**R.61-67.300.G.2**

This section was amended to streamline industrial pump and haul operations.

**R.61-67.300.H.1 and 2**

This section was amended to remove the language related to the reduction of unit loadings since this is being changed in Appendix A.

**R.61-67.Appendix A**

This table was amended to reduce the unit loading flows by 25 percent. For ease of implementation, the loading was rounded to the nearest whole number. A stylistic change is included.

**Instructions:** Amend R.61-67 pursuant to each individual instruction provided with the text of the amendments below.

**Text:**

61-67. Standards for Wastewater Facility Construction.

**Revise R.61-67.100.B to read:**

B. Applicability. This regulation applies to engineering design and construction of all wastewater treatment facilities and all wastewater collection and transmission facilities which require a construction permit or approval from the Department. The Department may approve temporary research and development and other wastewater treatment projects without requiring an engineering report or construction permit when such activity is considered by the Department to be minor in nature.

**Revise R.61-67.100.D definition of Service Connection to read:**

“Service Connection” means an individual gravity sewer line, or an individual pump station and force main, with domestic or industrial wastewater connecting to a gravity sewer system. Oil/Water Separators, pH Adjustment Systems, and other similar simple industrial wastewater treatment systems (as determined by the Department) will be considered a component of the service connection when a local pretreatment permit is not required. Piping associated with a service connection shall not require a construction permit if the following conditions are met:

a. Individual connections, at the time of connection, have design flow contribution no greater than five (5) percent of the existing wastewater treatment facility’s design capacity or have no generated flows greater than fifty thousand (50,000) gallons per day;

b. Individual connections are to a gravity sewer main;

c. Individual connections only serving a single house, single mobile home, single building, or multiple-building complex under single ownership with no rental units (e.g., schools or industry);

d. Individual connections are not serving a shopping mall, multiple-building complex where there will be several owners or renters (e.g., apartment complex, condominium complex, mobile home park, campground, industrial park, or business park), or marina; and

e. Individual connections that do not have the reasonable ability to serve any additional projects and/or buildings in the future that are not part of a multiple-building complex under single ownership with no rental units (e.g., schools or industry).

**Revise R.61-67.100.E.4 including a. and b. to read:**

4. Construction Permit Submittal. The construction permit application shall include the following documentation, where applicable, in order to be considered a complete submittal. Incomplete submittal packages may be returned without processing. The application package may be returned if the determination is made that it conflicts with the applicable 208 Water Quality Management Plan.

a. Standard Submittal. Includes all projects that fall outside the scope of the Delegated Review Program. A separate application shall be made for each wastewater treatment plant addressed.

(1) A transmittal letter outlining the submittal package;

(2) A completed application form for a permit to construct, completed in entirety, including one (1) original and one (1) copy;

(3) Appropriate application fee based on Regulation 61-30, Environmental Protection Fees;

(4) Three (3) copies of detailed plans signed and sealed by a professional engineer as stated in subsection 67.100.E.2. General layout on plan sheets no larger than thirty (30) inches by forty-two (42) inches. Profiles of sewer lines required for all gravity sewers, all vacuum sewers and force mains of four (4) inches or greater;

(5) One (1) set of material and construction specifications signed and sealed by a professional engineer as stated in subsection 67.100.E.2. Specifications may be omitted when Department approved standard specifications are to be utilized;

(6) One (1) set of the appropriate design data and calculations, including flow and pump station calculations and pump curve, when appropriate;

(7) Three (3) copies of a detailed 8.5 inch by 11 inch location map, separate from the plans;

(8) Two (2) copies of construction easements unless the project owner has the right of eminent domain;

(9) If the owner of the project is different from the entity that will be accepting the wastewater for treatment, a letter of acceptance (dated within twelve (12) months of application) from that entity stating their willingness and ability to provide the wastewater treatment that, when applicable, includes the specific number of lots and flow being accepted; and

(10) If the owner of the project is different from the entity that will be responsible for operating and maintaining the project, a letter (dated within twelve (12) months of application) from that entity acknowledging such responsibility.

b. Delegated Review Program (DRP) Submittal. Includes only those applicableprojects submitted to the Department for permitting by a Department approved DRP entity.

(1) A transmittal letter outlining the submittal package. This transmittal shall clearly identify the project as a delegated program submittal;

(2) A completed application form for a permit to construct, completed in entirety, including one (1) original and one (1) copy;

(3) Appropriate application fee based on Regulation 61-30, Environmental Protection Fees;

(4) Two (2) copies of detailed plans signed and sealed by a professional engineer as stated in subsection 67.100.E.2. General layout on plan sheets no larger than thirty (30) inches by forty-two (42) inches. Profiles of sewer lines required for all gravity sewers, all vacuum sewers and force mains of four (4) inches or greater;

(5) One (1) copy of the appropriate design data and calculations, including flow and pump station calculations and pump curve, when appropriate;

(6) One (1) copy of a detailed 8.5 inch by 11 inch location map, separate from the plans;

(7) Two (2) copies of construction easements unless the project owner has the right of eminent domain;

(8) If the owner of the project is different from the entity that will be accepting the wastewater for treatment, a letter of acceptance (dated within twelve (12) months of application) from that entity stating their willingness and ability to provide the wastewater treatment that, when applicable, includes the specific number of lots and flow being accepted;

(9) If the owner of the project is different from the entity that will be responsible for operating and maintaining the project, a letter (dated within twelve (12) months of application) from that entity acknowledging such responsibility;

(10) The 208 Plan certification from the appropriate Council of Governments (COG) for designated 208 areas, or from the Department on the non-designated 208 areas;

(11) Coastal Zone Management Consistency (for projects in Horry, Georgetown, Berkeley, Charleston, Dorchester, Colleton, Beaufort, and Jasper county);

(12) The Department’s permit for placement in navigable waters, where applicable; and

(13) The delegated entity shall indicate that a copy of the final approved plans are being returned to the appropriate design engineer.

**Delete the text of R.61-67.100.E.6 and Reserve section to read:**

6. [Reserved]

**Revise R.61-67.300.A.7 to read:**

7. No construction permit shall be issued for a wastewater treatment facility, including effluent disposal lines, unless the applicable effluent disposal permit has been issued. Construction may commence only if: a) the applicable effluent disposal permit has not been appealed, or b) the applicable effluent disposal permit becomes effective in a manner which would not require a change to the construction permit.

**Revise R.61-67.300.A.8.a to read:**

8. Proposed sewer systems shall connect to existing systems with available capacity or to another proposed sewer system, with available capacity (including considerations of infiltration and inflow), which has already received a construction permit from the Department. Where a construction permit has been issued on the downstream components though not yet operational, a construction permit on the proposed sewer system may be issued, but the approval to place in operation shall not be issued until all downstream components have received an approval to place in operation.

a. Downstream Sewer Systems. Construction permits shall not be issued in cases where adequate capacity in the downstream components of the wastewater facilities is not available to handle the design flow of the proposed project. Adequate capacity for sewer lines and pump stations means that the existing sewer facilities, including the wastewater treatment facility receiving the wastewater, have the capacity as currently permitted. If a downstream treatment system were issued a permit to construct, but construction could not commence consistent with subsection 67.300.A.7, then the wastewater treatment facility permit would not be considered “currently permitted.” An evaluation of available capacity may be made based on factors such as flow projections from previously permitted projects (including considerations of infiltration and inflow).

**Revise R.61-67.300.G.2 introductory paragraph only; subitems 300.G.2.a. through e. remain the same:**

2. Industrial Wastewater Pump and Haul Operations. This applies to the storage of non-hazardous industrial and/or domestic wastewater generated by an industrial facility which is then hauled to a receiving facility at a rate of greater than one hundred (100) gallons per day or seven hundred (700) gallons per week or three thousand (3,000) gallons per month. One-time/intermittent operations or those on-site operations are exempt from these requirements. On a case-by-case basis, the Department may also consider other exemptions on the requirement to obtain pump and haul approval for certain process wastewaters. Intermittent is defined for this part as less than one shipment of wastewater per month. Not withstanding the need for Department approval, the facility shall retain hauling operations records for a period of two (2) years.

**Revise R.61-67.300.H.1 and 2 to read:**

H. Unit Contributory Loadings to All Domestic Wastewater Treatment Facilities. Refer to 61-67 Appendix A for the minimum design loadings that shall be utilized for all domestic wastewater treatment facilities and those industrial wastewater treatment facilities treating strictly domestic wastewater. These loadings shall be used in determining the average daily flow (ADF) for proposed sewer systems.

1. The loadings in 61-67 Appendix A may either be increased or decreased as determined by this Department.

2. A reduction in the loadings in 61-67 Appendix A may be granted in the following circumstances:

a. Consideration to other unit contributory loadings may be granted when properly substantiated by the consulting engineer in its engineering report and/or permit application.

b. For existing systems, a reduction may be granted to the wastewater treatment facility when supported with proper documentation. The proper documentation shall be continuously monitored flow at the wastewater treatment facility for several years, including dry and wet years as determined by rainfall data, unless flows are not representative, as determined by the Department. If approved, the reduction in the unit contributory loading shall be approved for all future projects discharging to the wastewater treatment facility (and would be used to revise the current level of remaining capacity). The decision to reduce the loadings shall be made by this Department on an individual treatment facility basis.

**Revise R.61-67 Appendix A to read:**

**61-67, Appendix A. Unit Contributory Loadings to All Domestic Wastewater Treatment Facilities**

|  |  |
| --- | --- |
| **Unit Contributory Loadings to All Domestic Wastewater Treatment Facilities** | |
| **Type of Establishment** | **Hydraulic Loading (GPD)** |
| A. Airport:  1. Per Employee  2. Per Passenger | 8  4 |
| B. Apartments, Condominiums, Patio Homes:  1. Three (3) Bedrooms (Per Unit)  2. Two (2) Bedrooms (Per Unit)  3. One (1) Bedroom (Per Unit) | 300  225  150 |
| C. Assembly Halls: (Per Seat) | 4 |
| D. Barber Shop:  1. Per Employee  2. Per Chair | 8  75 |
| E. Bars, Taverns:  1. Per Employee  2. Per Seat, Excluding Restaurant | 8  30 |
| F. Beauty Shop:  1. Per Employee  2. Per Chair | 8  94 |
| G. Boarding House, Dormitory: (Per Resident) | 38 |
| H. Bowling Alley:  1. Per Employee  2. Per Lane, No Restaurant, Bar or Lounge | 8  94 |
| I. Camps:  1. Resort, Luxury (Per Person)  2. Summer (Per Person)  3. Day, with Central Bathhouse (Per Person)  4. Travel Trailer (Per Site) | 75  38  26  131 |
| J. Car Wash: (Per Car Washed) | 56 |
| K. Churches: (Per Seat) | 2 |
| L. Clinics, Doctor’s Office:  1. Per Employee  2. Per Patient | 11  4 |
| M Country Club, Fitness Center, Spa: (Per Member) | 38 |
| N. Dentist Office:  1. Per Employee  2. Per Chair  3. Per Suction Unit; Standard Unit  4. Per Suction Unit; Recycling Unit  5. Per Suction Unit; Air Generated Unit | 11  6  278  71  0 |
| O. Factories, Industries:  1. Per Employee  2. Per Employee, with Showers  3. Per Employee, with Kitchen  4. Per Employee, with Showers and Kitchen | 19  26  30  34 |
| P. Fairgrounds: (Average Attendance, Per Person) | 4 |
| Q. Grocery Stores: (Per Person, No Restaurant or Food  Preparation) | 19 |
| R. Hospitals:  1. Per Resident Staff  2. Per Bed | 75  150 |
| S. Hotels: (Per Bedroom, No Restaurant) | 75 |
| T. Institutions: (Per Resident) | 75 |
| U. Laundries: (Self Service, Per Machine) | 300 |
| V. Marinas: (Per Slip) | 23 |
| W Mobile Homes: (Per Unit) | 225 |
| X. Motels: (Per Unit, No Restaurant) | 75 |
| Y. Nursing Homes:  1. Per Bed  2. Per Bed, with Laundry | 75  113 |
| Z. Offices, Small Stores, Business, Administration  Buildings: (Per Person, No Restaurant) | 19 |
| AA. Picnic Parks: (Average Attendance, Per Person) | 8 |
| BB. Prison/Jail:  1. Per Employee  2. Per Inmate | 11  94 |
| CC. Residences: (Per House, Unit) | 300 |
| DD. Rest Areas, Welcome Centers:  1. Per Person  2. Per Person, with Showers | 4  8 |
| EE. Rest Homes:  1. Per Bed  2. Per Bed, with Laundry | 75  113 |
| FF. Restaurants:  1. Fast Food Type, Not Twenty Four (24) Hours (Per Seat)  2. Twenty Four (24) Hour Restaurant (Per Seat)  3. Drive‑In (Per Car Service Space)  4. Vending Machine, Walk‑up Deli or Food Preparation  (Per Person) | 30  53  30  30 |
| GG. Schools, Day Care:  1. Per Person  2. Per Person, with Cafeteria  3. Per Person, with Cafeteria, Gym and Showers | 8  11  15 |
| HH. Service Stations:  1. Per Employee  2. Per Car Served  3. Car Wash (Per Car Washed) | 8  8  56 |
| II. Shopping Centers, Large Department Stores, Malls:  (Per Person, No Restaurant) | 19 |
| JJ. Stadiums, Coliseums: (Per Seat, No Restaurant) | 4 |
| KK. Swimming Pools: (Per Person, with Sewer Facilities and  Showers) | 8 |
| LL. Theaters: Indoor (Per Seat), Drive In (Per Stall) | 4 |

**Fiscal Impact Statement:**

It is anticipated that these amendments will not create any additional cost to the State. Any cost should be offset by the existing fees received with construction applications received for new wastewater facilities permitted by the Department. Regulation 61-30, *Environmental Protection Fees*, promulgated pursuant to S.C. Code Section 48-2-10 et seq., authorizes the Department to collect fees for certain wastewater construction permits. Therefore, no additional state funding is being requested; existing staff and resources will be utilized to enforce these amendments to the regulations.

**Statement of Need and Reasonableness:**

The following is based on an analysis of the factors listed in 1976 Code Section 1-23-115(C)(1)-(3) and (9) through (11):

DESCRIPTION OF REGULATION: Amendment of R.61-67, *Standards for Wastewater Facility Construction*.

Purpose: The purpose of this amendment is to reduce unit loading flows in Appendix A by 25 percent based on the knowledge of water savings fixtures and improved designs of sewer collection systems. For ease of implementation, the loading was rounded to the nearest whole number. The revisions also include having a service connection definition similar to the definition for a drinking water service connection, reducing the number of plans and other documents that need to be submitted, revisions to streamline industrial pump and haul operations and allowing issuance of a treatment plant permit coincident with a discharge permit. This revision includes a minor language change for clarification and a stylistic change to the table in Appendix A and Section 67.100.E.4.b. (5) and (6). Language related to permit appeals was removed so as to streamline with current law.​

Legal Authority: This regulation is authorized by 1976 Code Sections 48-1-50 and 48-1-110.

Plan for Implementation: The amendments will make changes to and be incorporated into R.61-67 upon approval of the General Assembly and publication in the *State Register*. The amendments will be implemented in the same manner in which the existing regulations are implemented. An electronic copy of R.61-67, to include these amendments, will be published on the Department’s Laws and Regulations website under the Water category at <http://www.scdhec.gov/Agency/RegulationsAndUpdates/LawsAndRegulations/Water> and subsequently on the S.C. Legislature Online website in the S.C. Code of Regulations. Printed copies of the regulation can be purchased at cost through the Department’s Freedom of Information Office.

DETERMINATION OF NEED AND REASONABLENESS OF THE REGULATION BASED ON ALL FACTORS HEREIN AND EXPECTED BENEFITS:

1. DHEC has identified areas that need to be revised to bring clarity to the regulation. Revising the applicability portion of the regulation will remove un-necessary language “after the effective date of this regulation.”

2. Reducing unit loading flows in Appendix A by 25 percent is based on knowledge of water savings fixtures and improved designs of sewer collection systems. For ease of implementation, the loading was rounded to the nearest whole number. Regarding unit loadings specified in Appendix A, after reviewing data from sewerage systems, current loadings are typically overly conservative resulting in the potential for facilities to be wasting reserve capacity. This can create an economic burden on a local community. Reducing loadings by 25 percent (e.g., lowering the design loading from residential homes from a default number of 400 gallons/day to 300 gallons/day) better approximates the loadings in a sewer system.

3. The current definition of a service connection requires a construction permit for a sewer line when a similar drinking water line does not require a permit. Based on the fact that there have not been concerns historically with the drinking water definition resulting in the conclusion that having the sewer line definition better match the water line definition would help bring consistency to the permitting program. Having a service connection definition similar to the definition for a drinking water service connection will reduce the burden to obtain a sewer construction permit in some cases.

4. With the greater availability of electronic communication, DHEC staff will need fewer copies of certain components of the application package. The proposal reduces the number of plans and other documents DHEC needs to review a construction permit application.

5. Increasing the threshold for an industrial pump and haul approval will reduce the burden on industries when needing to haul small quantities of wastewater to another system. In lieu of an approval, keeping records of waste hauled is a reasonable management method in case DHEC needs this information at a later date.

6. Regarding the issuance of a treatment plant permit that depends on the issuance of a discharge permit (e.g., NPDES permit), the current regulation requires resolution of an appealed discharge permit before issuance of a construction permit for the corresponding treatment plant. This creates a burden because a third party appeal of the construction permit could be addressed along with the discharge permit if the permits could be issued together. Otherwise, a utility or industry would have long delays in resolving all matters about the construction of a new treatment facility. Therefore, this regulation is being revised to allow issuance of both the discharge and construction permit together that will reduce unnecessary burdens on permittees.

The amendments are reasonable because they will clarify the existing regulation, update it based on current technologies and issues, and incorporate into regulation sound engineering practices utilized by the Department for the design of new wastewater collection, transmission, and treatment facilities. This amendment defines a set of common design standards to be utilized for new wastewater facilities approved or permitted by the Department.

The benefit is that these amendments will continue to define a set of common design standards to be utilized for new wastewater facilities approved or permitted by the Department while allowing flexibility for designs in unique circumstances. Properly designed and maintained wastewater facilities will protect public health and safety and the environment of the State. There are no anticipated additional cost to the regulated community because design standards required under these amendments will be consistent with current engineering practices utilized by the Department for new wastewater collection, transmission, and treatment facilities.

DETERMINATION OF COSTS AND BENEFITS:

There are no anticipated additional costs to the State. Regulation 61-30, *Environmental Protection Fees*, promulgated pursuant to S.C. Code Section 48-2-10 et seq., authorizes the Department to collect fees for certain wastewater construction permits. Therefore, no additional state funding is being requested; existing staff and resources will be utilized to enforce these amendments to the regulations. It is anticipated that these amendments will not create any additional cost to the regulated community because the design standards required under these amendments will be consistent with current guidelines utilized by the Department for new wastewater collection, transmission, and treatment facilities.

UNCERTAINTIES OF ESTIMATES:

None.

EFFECT ON ENVIRONMENT AND PUBLIC HEALTH:

There is no anticipated detrimental effect to protection of the environment or health and safety of the public due to implementation of this amendment. The effect should be beneficial because the amendment will ensure properly designed and maintained wastewater facilities which will protect public health and safety and the environment of the State.

DETRIMENTAL EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH IF THE REGULATION IS NOT IMPLEMENTED:

There is no anticipated detrimental effect to the environment and public health if the amendments to the regulation are not implemented. However, the amendments seek to bring clarity to the regulation; reduce economic burdens on local communities by better approximating the loadings in a sewer system; reduce the burden to obtain a sewer construction permit in certain cases; reduce the amount of paperwork DHEC needs to have in order to review a construction permit application; reduce the burden on industries when needing to haul small quantities of wastewater to another system; and allow simultaneous issuance of a treatment plant permit and a discharge permit, reducing un-necessary burdens on permittees.

**Statement of Rationale:**

Pursuant to the Governor's Executive Order 2013-02, DHEC evaluated Regulation 61-67 for requirements that may be a burden on the regulated community without a corresponding environmental or public health benefit. There is no anticipated burden devoid of benefit. The amendments seek to bring clarity to the regulation; reduce economic burdens on local communities by better approximating the loadings in a sewer system; reduce the burden to obtain a sewer construction permit in certain cases; reduce the amount of paperwork DHEC needs to have in order to review a construction permit application; reduce the burden on industries when needing to haul small quantities of wastewater to another system; and allow simultaneous issuance of a treatment plant permit and a discharge permit, reducing un-necessary burdens on permittees.