

Document No. 4444

DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
CHAPTER 61

Statutory Authority: 1976 Code Sections 48-1-10 et seq.
61-9. Water Pollution Control Permits

Synopsis:

The Department amends R.61-9 to strengthen and improve the existing regulation and make appropriate revisions to address land application of sludge with PCB contamination. To address PCB contamination in sludge, which occurred in 2013, the Department issued an emergency regulation (September 25, 2013) and this regulation follows. Amendments are from sections 503 (domestic sludge) and 504 (industrial sludge) of R.61-9.

A Notice of Drafting was published in the *State Register* on October 25, 2013. Discussion of Revisions Regulation sections 61-9.503 and 61-9.504 are similar, so changes are made to both sections.

61-9.503 - The Table of Contents at the beginning of 61-9.503 is revised to add new Appendix C - PCB. Polychlorinated biphenyls.

61-9.503.1(b)(5) - New section 61-9.503(b)(5) is added to describe how the changes in this regulatory package will sunset five years after becoming effective.

61-9.503.2(e) - This section is added to reference compliance with 61-9.503 Appendix C - PCB. Polychlorinated biphenyls.

61-9.503.3(a) and 3(a)(4) - These subsections are revised to address that new Appendix C- PCB. Polychlorinated biphenyls will be self-implementing (directly enforceable) without needing to be implemented via a permit.

61-9.503.3(b) This amendment deletes "[Reserved]" and adds new language for direct enforceability condition for 503 Appendix C - PCB. Polychlorinated biphenyls.

61-9.503.6(f) – This section is revised to clarify that high PCB concentration sludge cannot be land applied.

61-9.503. New Appendix C - PCB. Polychlorinated biphenyls is added to address PCB monitoring.

61-9.504. The Table of Contents at the beginning of 61-9.504 is revised to add Appendix C - PCB. Polychlorinated biphenyls.

61-9.504.1(b)(5) - New section describes how the changes in this regulatory package will sunset five years after becoming effective.

61-9.504.2(e) - This section is added to reference compliance with 61-9.504 Appendix C - PCB. Polychlorinated biphenyls.

61-9.504.3(a) - This section is revised to add reference to 61-9.504 Appendix C - PCB. Polychlorinated biphenyls and self-implementing provisions of 504.3(b).

61-9.504.3(b). This amendment deletes "[Reserved]" and adds new language to direct enforceability condition for 504 Appendix C - PCB. Polychlorinated biphenyls.

61-9.504.6(f) – This section is revised to clarify that high PCB concentration sludge cannot be land applied.

61-9.504 - New Appendix C - PCB. Polychlorinated biphenyls is added to address PCB monitoring.

Instructions: Amend R.61-9 pursuant to each individual instruction provided below with the text.

Text:

Amend the Table of Contents at the beginning of 61-9.503 to add Appendix C to read:

Appendix C. PCB. Polychlorinated biphenyls

Add new 61-9.503.1(b)(5) to read:

(5) The requirements incorporated into this regulation pursuant to State Register Document 4444, including Appendix C, expire and are no longer effective five years from the State Register Document 4444 amendments' effective date.

Add new 61-9.503.2(e) to read:

(e) Compliance with 503 Appendix C-PCB, shall be required upon publication of the revised regulation in the South Carolina State Register.

Revise 61-9.503.3(a) to read:

(a) The requirements in this part shall be implemented through a permit, with the exception of 503 Appendix C-PCB in accordance with 503.3(b):

Revise 61-9.503.3(a)(4) to read:

(4) A person who derives a bulk or bag material from sewage sludge shall not be required to obtain a permit if: (1) the sewage sludge meets the ceiling concentrations in Table 1 of section 503.13; the pollutant concentration limits in Table 3 of section 503.13; the Class A pathogen requirements of section 503.32(a); one of the vector attraction reduction requirements in section 503.33(b)(1) through section 503.33(b)(8); and the requirements in 503 Appendix C-PCB, and (2) there is a permit in effect for either the preparer, generator and/or applier of the sewage sludge.

At R.61-9.503.3(b) delete [Reserved] and add new language to read:

(b) Direct Enforceability. In addition to any other requirement of this regulation or a permit, sewage sludge use via land application shall be in accordance with Appendix C-PCB. This includes but is not limited to: bulk sewage sludge applied to agricultural land, forests or public contact sites; sewage sludge sold or given away in a bag or other container for application to the land; domestic septage; reclamation sites; or other materials mixed with sludge before application.

Revise 61-9.503.6(f) to read:

(f) Sewage sludge with high PCB concentration. This part does not establish requirements and no land application of these materials may occur for the use or disposal of sewage sludge with a concentration of polychlorinated biphenyls (PCBs) equal to or greater than 50 milligrams per kilogram of total solids (dry weight basis). Requirements for land application of sludges (including sewage sludge, sludges and septage that may be mixed with grease trap waste) with PCB concentrations of less than 50 milligrams per kilogram (mg/kg dry weight basis) or less than 50 parts per million (ppm) are included in 503 Appendix C-PCB.

At 61-9.503 add new Appendix C to read:

APPENDIX C. PCB. Polychlorinated biphenyls.

(1) Beginning with the effective date of this appendix, sludges for land application (including sewage sludge, sludges and septage that may be mixed with grease trap waste) must be sampled at least quarterly (based on calendar year quarters) for PCBs using EPA SW-846 Method 8082A with an appropriate sample preparation method approved for use by the Department based on the matrix of the sample. This includes but is not limited to: bulk sewage sludge applied to agricultural land, forests or public contact sites; sewage sludge sold or given away in a bag or other container for application to the land; domestic septage; reclamation sites; or other materials mixed with sludge before application. Reporting the above information, in addition to requirements specified later in this appendix, should be included in annual reports required by permits.

(2) If levels of PCBs are greater than or equal to one (1) milligram per kilogram (mg/kg dry weight basis), but less than ten (10) milligrams per kilogram (mg/kg dry weight basis), confirmation sludge sampling must be done as soon as practicable and the results provided to the Department within five (5) calendar days of receipt by the permittee.

(3) If levels of PCBs are greater than or equal to ten (10) milligrams per kilogram (mg/kg dry weight basis), confirmation sludge sampling must be done as soon as practicable and the results provided to the Department within five (5) calendar days of receipt of the results by the permittee. In addition, representative soil sampling of land application sites that may have received sludge during the monitoring period must be conducted within 30 days of knowledge of the confirmation sampling that confirms sludge PCB levels equal to or greater than ten (10) milligrams per kilogram (mg/kg dry weight basis). The results of the soil sampling must be provided to the Department within five (5) calendar days of receipt by the permittee. The Department may require any further action as deemed necessary and consistent with applicable laws.

Amend the Table of Contents at 61-9.504 to add Appendix C to read:

Appendix C. PCB. Polychlorinated biphenyls

Add new 61-9.504.1(b)(5) to read:

(5) The requirements incorporated into this regulation pursuant to State Register Document 4444, including Appendix C, expire and are no longer effective five years from the State Register Document 4444 amendments' effective date.

Add new 61-9.504.2(e) to read:

(e) Compliance with 504 Appendix C-PCB, shall be required upon publication of the revised regulation in the South Carolina State Register.

Revise 61-9.504.3(a) to read:

(a) The requirements in this part shall be implemented through a permit, with the exception of 504 Appendix C-PCB in accordance with 504.3(b):

At 61-9.504.3(b) delete [Reserved] and add new language to read:

(b) Direct Enforceability. In addition to any other requirement of this regulation or a permit, industrial sludge use via land application shall be in accordance with Appendix C-PCB. This includes but is not limited to: bulk sludge applied to agricultural land, forests or public contact sites; sludge sold or given away in a bag or other container for application to the land; domestic septage; reclamation sites; or other materials mixed with sludge before application.

Revise 61-9.504.6(f) to read:

(f) Industrial sludge with high PCB concentration. This part does not establish requirements and no land application of these materials may occur for the use or disposal of industrial sludge with a concentration of polychlorinated biphenyls (PCBs) equal to or greater than 50 milligrams per kilogram of total solids (dry weight basis). Requirements for land application of sludges (including industrial sludge, sludges and septage that may be mixed with grease trap waste) with PCB concentrations of less than 50 milligrams per kilogram (mg/kg dry weight basis) or less than 50 parts per million (ppm) are included in 504 Appendix C-PCB.

At 61.9.504 add new Appendix C to read:

APPENDIX C. PCB. Polychlorinated biphenyls.

(1) Beginning with the effective date of this appendix, sludges for land application (including sewage sludge, sludges and septage that may be mixed with grease trap waste) must be sampled at least quarterly (based on calendar year quarters) for PCBs using EPA SW-846 Method 8082A with an appropriate sample preparation method approved for use by the Department based on the matrix of the sample. This includes but is not limited to: bulk sewage sludge applied to agricultural land, forests or public contact sites; sewage sludge sold or given away in a bag or other container for application to the land; domestic septage; reclamation sites; or other materials mixed with sludge before application. Reporting the above information, in addition to requirements specified later in this appendix, should be included in annual reports required by permits.

(2) If levels of PCBs are greater than or equal to one (1) milligram per kilogram (mg/kg dry weight basis), but less than ten (10) milligrams per kilogram (mg/kg dry weight basis), confirmation sludge sampling must be done as soon as practicable and the results provided to the Department within five (5) calendar days of receipt by the permittee.

(3) If levels of PCBs are greater than or equal to ten (10) milligrams per kilogram (mg/kg dry weight basis), confirmation sludge sampling must be done as soon as practicable and the results provided to the Department within five (5) calendar days of receipt of the results by the permittee. In addition, representative soil sampling of land application sites that may have received sludge during the monitoring period must be conducted within 30 days of knowledge of the confirmation sampling that confirms sludge PCB levels equal to or greater than ten (10) milligrams per kilogram (mg/kg dry weight basis). The results of the soil sampling must be provided to the Department within five (5) calendar days of receipt by the permittee. The Department may require any further action as deemed necessary and consistent with applicable laws.

Fiscal Impact Statement:

No costs to the State or significant cost to its political subdivisions as a whole should be incurred by these amendments. See Statement of Need and Reasonableness below.

Statement of Need and Reasonableness:

The statement of need and reasonableness was determined by staff analysis pursuant to S.C. Code Ann. Section 1-23-115(C)(1)-(3) and (9)-(11) (2005).

DESCRIPTION OF REGULATIONS: Amendment of Regulation 61-9, Water Pollution Control Permits. Purpose: Amendments of R.61-9 will clarify, strengthen, and improve the overall quality of the existing regulation to regulate land application of sludge relative to PCBs.

Legal Authority: S.C. 1976 Code Sections 48-1-10 et seq.

Plan for Implementation: The amendments would be incorporated within R.61-9 upon approval of the General Assembly and publication in the State Register. The amendments will be implemented in the same manner in which the present regulation is implemented.

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

The amendments to R.61-9 is important to properly regulate PCBs in sludge. Requirements for additional monitoring of sludge and reporting to the Department are added. Requirements to monitor soil for PCBs in certain circumstances are also added. The Sections 61-9.503 and 504 address domestic sludge and industrial sludge respectively. Both sections are amended in similar fashion.

DETERMINATION OF COSTS AND BENEFITS:

Existing staff and resources will be utilized to implement these amendments to the regulation. No additional cost will be incurred by the State if the revisions are implemented and therefore, no additional State funding is being requested.

In reviewing the potential for significant economic impact of the amendments to R.61-9, the Department identified that a significant portion of sludge generated in South Carolina is landfilled. For permittees that land-apply sludge, additional PCB monitoring is required. The Department found that the overall impact to the State's political subdivisions or the regulated community as a whole was not likely to be significant in that PCBs are not typically found in sludge. The circumstances that led to the emergency regulation issued on September 25, 2013 were likely due to illegal dumping of PCB wastes into municipal sewer systems. Because these illegal activities don't occur often, the impact is not expected to be significant. However, in the event that they occur in the future, the regulation needs to be amended to protect public health and the environment by gathering information about levels of PCBs applied to the land (e.g., private farm land). This evaluation does not address any potential indirect effect of local sewer providers charging additional costs for disposal of grease trap waste at their wastewater treatment facilities.

UNCERTAINTIES OF ESTIMATES:

Minimal.

EFFECT ON ENVIRONMENT AND PUBLIC HEALTH:

Implementation of these amendments will not compromise the protection of the environment or the health and safety of the citizenry of the State. The amendments to R.61-9 will promote and protect the environment and human health by the regulation of pollutants onto land in South Carolina.

DETRIMENTAL EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH IF THE REGULATIONS ARE NOT IMPLEMENTED:

Failure by the Department to better track PCB contaminated sludge may result in increased risk of PCB contaminated soils on farm land (or other areas) where sludge is applied.

Statement of Rationale:

The statement of rationale was determined by staff analysis pursuant to S.C. Code Ann. Section 1-23-110(A)(3)(h) (2005).

The federal Toxic Substances Control Act (TSCA) regulates PCB levels in sludge at levels equal to or greater than 50 parts per million (ppm). Because PCBs were significantly restricted in the United States over thirty years ago, PCBs are not typically expected to be found in wastewater systems. However, PCBs were found in sludge in South Carolina in 2013, leading to the issuance of an emergency regulation. Current state regulations do not adequately address land application of sludge containing PCBs. Therefore, the Department believes it is warranted to have a regulation to better identify PCB contamination.