RULE MAKING DOCUMENT

Responses to Oral Comments

Received July 8, 2015

Environmental Quality Council
Docket 15-3101

Wyoming Water Quality Rules and Regulations
Chapter 25
Small Wastewater Systems

November 10, 2015

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Chapter 25 Response to Comments

EQC Hearing

15-3101

July 8, 2015

List of Commenters

Hearing Examiner Nick Agopian, Environmental Quality Council
Dr. David Bagley, Environmental Quality Council
Mr. Aaron Clark, Environmental Quality Council
Mr. Richard Fairservis, Environmental Quality Council
Ms. Meghan Lally, Environmental Quality Council
Ms. Megan Degenfelder, Environmental Quality Council

Ms. Lorie Cahn
Mr. Louis Harmon
Mr. Roy Kroeger, Cheyenne Laramie County Health Department
Mr. Eric Berquist, Infiltrator Water Technologies

Comments and Responses

General Comments

Entity: Hearing Examiner Nick Agopian, Environmental Quality Council

Comment: Mr. Agopian asked if WDEQ/WQD had identified the anticipated savings to applicants who use the design packages versus hiring a professional engineer.

Response: As Mr. Tillman pointed out at the hearing, WDEQ/WQD has not prepared a cost analysis for using the proposed design packages. However, as he stated, simple septic system designs cost an estimated $1,000 to $2,000 when the design is prepared, stamped, and signed by a professional engineer. By preparing design packages for simple systems, WDEQ/WQD is saving homeowners the estimated fee of a professional engineer and the time and effort that go into coordinating with a professional engineer to acquire a stamped design.

Entity: Ms. Lorie Cahn

Comment: Ms. Cahn was concerned that the proposed regulations do not meet Governor Mead's Streamlining Initiative.

Response: WDEQ/WQD reviewed this comment and believes we are fulfilling Governor Mead's Streamlining Initiative. The Governor directed agencies to reduce the number of rules and the length of rules by 1/3. Each agency, including WDEQ, committed to specific reductions in writing.

The process for general rulemaking includes consultation with the Governor at several points. The first point comes for a requirement out of the Secretary of State's Rules on Rules, which requires that each agency submit all proposed rulemakings for Governor Mead's 10- day review. This review happens on all state rulemakings prior to filing the Notice of Intent for Rulemaking to the Secretary of State. For rules that are connected to the Streamlining Initiative, Governor Mead's special counsel requires an additional document which summarizes the reductions associated with the rule review package. WDEQ/WQD submitted our rule and our streamlining summary to Governor Mead's Office before we were allowed to file a Notice of Intent for Rulemaking and before we requested a hearing before the Environmental Quality Council.

As was stated in our memo requesting the Governor's permission to proceed, the Notice of Intent for Rulemaking, and the public notices related to the rulemaking, WDEQ/WQD grouped Chapter 15, Biosolids, with Chapter 25, Small Wastewater Systems. The majority of Chapter 15 is proposed for repeal, reducing the page count by 50 and reducing the chapter count by 1. Because of the updates WDEQ/WQD proposes for Chapter 25, we did not propose significant reductions to that chapter in our Streamlining Initiative summary to the Governor's Office. The Governor's Office thoroughly reviewed our proposed rule changes and our streamlining summary and granted our approval to move forward with the Notice of Intent for Rulemaking.

Section 4

Entity: Dr. David Bagley, Environmental Quality Council

Comment: Dr. Bagley noted that the flows in Section 4 have been decreased. Dr. Bagley asked what the influence was on the Metcalf & Eddy recommendations, and why those recommendations are appropriate for Wyoming.

Response: As Mr. Tillman explained at the hearing, water conserving fixtures and appliances have reduced the need to stay with the flow rates which were adopted in 1984. The flows from Metcalf & Eddy are stated in ranges, and WDEQ/WQD recommends the middle those ranges. Our goal is to select flow rates which accommodate more conservative fixtures without unnecessarily oversizing the system design.

Section 5

Entity: Dr. David Bagley, Environmental Quality Council

Comment: Dr. Bagley asked WDEQ/WQD to clarify if an applicant could use the process outlined in Section 5 to propose a system that has been on the market for years but doesn't meet the specifications required in the proposed chapter. His interpretation is that Section 5 would be used for new technologies.

Response: As Mr. Tillman stated at the hearing, Dr. Bagley's interpretation is correct in regards to the intent of Section 5. WDEQ/WQD would encourage applicants to comply with the proposed regulations and would suggest changes that the applicant would need to make to receive approval for their application, as opposed to allowing an applicant to apply under Section 5 with a design that does not meet the requirements of the regulation.

Section 7
7(b)(iii)

Entity: Eric Berquist, Infiltrator Water Technologies

Comment: Mr. Berquist requested that the subsection be rewritten to allow a 30 percent reduction and be rewritten to state that it applies to standard bed systems.

Response: WDEQ/WQD considered the request and revised Section 7 as requested.

Section 9

Entity: Hearing Examiner Nick Agopian, Environmental Quality Council

Comment: Mr. Agopian requested that WDEQ/WQD explain the process that a homeowner would follow to receive a design exemption for the proposed changes to the inlet and outlet tee dimensions and asked if the modifications would require the stamp of a professional engineer.

Response: As Mr. Tillman explained, if an application design that does not comply with the proposed regulations, WDEQ/WQD would discuss options that the applicant could incorporate to be in compliance with the regulations. Options for the proposed changes to the inlet and outlet tee dimensions would be items such as couplings and fittings to adjust the dimensions of the inlet or outlet.

Upon further consideration and research, WDEQ/WQD adjusted the proposed changes to the tank design to accommodate most of the pre-approved designs. WDEQ/WQD mailed a survey to each of the pre-approved manufacturers and included a copy of the revised proposed changes to Section 9, Septic Tanks and Other Treatment Tanks. The responses from the tank survey largely indicated that the proposed changes would not require modifications on the part of manufacturers.

Entity: Dr. David Bagley, Environmental Quality Council

Comment: Dr. Bagley wondered if currently installed septic systems would be required to comply with the proposed regulations.

Response: As Mr. Tillman explained, existing, functional systems would not be required to comply with the rule. However, if the system fails or requires modification of the septic tank, then that modification would be required to comply with the rule.

Entity: Mr. Aaron Clark and Mr. Richard Fairservis, Environmental Quality Council; Mr. Louis Harmon; Ms. Lorie Cahn

Comment: Mr. Clark, Mr. Fairservis, Mr. Harmon, and Ms. Cahn noted that several written comments stated that the proposed regulation would result in 90 percent of previously approved tank designs to be out of compliance and would require manufacturers to change their forms and add significant cost to consumers. Ms. Cahn requested that WDEQ/WQD ask manufacturers what would be the cost of modifications.

Response: WDEQ/WQD carefully considered the concerns of the EQC and the commenters regarding whether the previously approved tank designs would meet the requirements of the proposed regulations. After the hearing, WDEQ/WQD reviewed several specific areas of concern within Section 9(a)(iv). We compared the paragraph to our pre-approved manufacturer's specifications and made several adjustments to the proposed rule which would accommodate the majority of the manufacturers without compromising potential septic tank treatment. These accommodations include changing the extension of the tees/baffles above the liquid level in 9(a)(iv)(E)(I) from six inches to five inches; separating the inlet and outlet tee extension lengths; changing the extension of the tees/baffles below the liquid level in 9(a)(iv)(E)(II) from "a distance equal to thirty to forty percent" to the inlet tee of "at least eight (8) inches but not more than 40%" and the outlet tee or baffle to extend below the liquid level "at least 10 inches but no more than 45%"; and changing the clear space over the top of the baffles for venting from 3 inches to 1 inch.

After we made the above adjustments, we sent a survey and a copy of the revised proposed Section 9 regulation to all of the manufacturers on the pre-approved list. We specifically asked the manufacturers to note which types of tanks they manufacture; what sizes they manufacture; whether adoption of the proposed regulations would require the manufacturer to modify their process; a description of any potential modifications that would be required to comply with the proposed revisions; and an estimate of the cost of the modification. We also allotted space for any additional comments or concerns not covered by the survey. We gave the manufacturers four weeks to review the proposed changes to Section 9 and return the survey. Of the 36 manufacturers contacted, nine responded to the survey.

Most of the responses indicate that the manufacturers would be able to meet the proposed regulation without modification. Two manufacturers, Billings Precast and Vaughn Concrete, requested clarification or specific changes. We reviewed the requests for changes and were able to accommodate most of the requests. Of the surveys which stated that their tank would require modification, none indicated the cost of modification. Our specific responses to the comments is titled "*Responses to Tank Survey Comments Received October 30, 2015"* and is located separately from this document.

Entity: Ms. Lorie Cahn

Comment: Ms. Cahn suggested that WDEQ/WQD require an effluent filter on all tanks.

Response: Our proposed regulation requires them only in situations where pressure distribution will be used, in order to protect the pump. We are concerned that the regular maintenance that effluent filters require would outweigh their benefit in situations other than systems using pressure distribution. We anticipate that the average homeowner is not going to regularly maintain an effluent filter. Lack of regular maintenance increases the chances of blockage and system failure. Additionally, if we require an effluent filter on all systems, we would also need to develop requirements for access to maintain the filters. We have been encouraged to strive toward a balanced, streamlined regulation and we do not believe that the benefit of requiring an effluent filter on all tanks outweighs the burden of regular maintenance or the burden of additional prescriptive regulation.

Entity: Ms. Meghan Lally, Environmental Quality Council

Comment: Ms. Lally asked WDEQ/WQD to explain the difference between ASTM standards and the proposed rule.

Response: As Mr. Tillman explained at the hearing, Section 7 and ASTM standard 7.2.2 have many similarities. However, the differences are primarily related to the baffles and outlet devices. The ASTM standard requires an inlet baffle to extend at least 8 inches below the liquid level, while the proposed regulation required 30 to 40 percent. And the extension of the baffle above the liquid level is required to be 5 inches by the ASTM standard, while the proposed regulation required 6 inches.

WDEQ/WQD carefully considered the comments received during the hearing and has made adjustments to these differences between the ASTM standard and our proposed regulation so that the proposed regulation now more closely matches the ASTM standard.

9(a)(i)

Entity: Mr. Eric Berquist, Infiltrator Water Technologies

Comment: Mr. Berquist asked WDEQ/WQD to reconsider inclusion of "thermoplastic" in the first sentence of the passage.

Response: WDEQ/WQD reviewed the request and revised the chapter to include "thermoplastic".

9(a)(iii)

Entity: Dr. David Bagley, Environmental Quality Council

Comment: Dr. Bagley asked WDEQ/WQD if the reduced flows in Section 4 were considered when the tank size was reduced in Section 9(a)(iii), from 250 gallons for every bedroom over four to 150 gallons.

Response: As Mr. Tillman explained at the hearing, WDEQ/WQD did consider the flow changes when we reduced the tank size. As Dr. Bagley correctly interpreted, when the flow changes are taken into consideration with the tank size requirements, the retention time for the system is increased. When the retention time is increased, the solids removal process is more effective.

9(a)(iv)

Entity: Ms. Megan Degenfelder, Environmental Quality Council

Comment: Ms. Degenfelder asked WDEQ/WQD to state the benefit of requiring three inches above the inlet pipe versus one inch.

Response: WDEQ/WQD reviewed this comment. Several commenters were concerned about the three inch requirement and how it would affect existing tank designs. WDEQ/WQD reviewed the pre-approved design specifications and revised the section to accommodate more of the preapproved designs

without sacrificing the overall ventilation space in the tank. The passage has been revised to require a minimum of one-inch of clear space.

Section 15

Entity: Mr. Aaron Clark, Environmental Quality Council; Mr. Louis Harmon

Comment: Mr. Harmon recommended changing the permitting requirement for privies from general permit to permit by rule. Mr. Clark asked WDEQ/WQD to explain why privies shouldn't be permitted by rule.

Response: WDEQ/WQD carefully considered the request to change the permitting process for privies and outhouses. After consideration and research of other permit-by-rule regulations within the Water Quality Rules and Regulations, we have decided to allow privies and outhouses to be permitted by rule. Individuals wishing to install a privy or outhouse may do so after submitting their name, address, phone number, location of the system, and the date of construction or installation. Owners are subject to compliance with the setbacks, groundwater separation distance, capacity, and other requirements outlined in the section.

Section 16

Entity: Hearing Examiner Nick Agopian, Environmental Quality Council

Comment: Mr. Agopian asked what guidance or scientific standard WDEQ/WQD used to develop Section 16.

Response: Lacking a federal reference on which to base our rule, we used a paper published by the University of California, Los Angeles, "Critical Review: Regulatory Incentives and Impediments for Onsite Graywater Reuse in the United States." The authors of this review studied greywater system regulations across the country and identified impediments and incentives for greywater use.

Entity: Mr. Roy Kroeger, Cheyenne-Laramie County Health Department

Comment: Mr. Kroeger explained that his department is concerned about the greywater regulations. He believes that the proposed regulations are unacceptable to allow his department to write regulations or allow greywater systems.

Response: WDEQ/WQD appreciates any specific feedback or suggestions from Cheyenne-Laramie County Health Department. Upon receiving feedback and concerns from a number of individuals and members of the Environmental Quality Council, we reviewed the proposed regulation and have made several significant changes to Section 16, Greywater Systems. WDEQ/WQD has proposed to change the permitting process for greywater systems from general permit to permit-by-rule and we have removed the bulk of the requirements outlining configuration, disinfection, and application.

Entity: Mr. Louis Harmon

Comment: Mr. Harmon recommended changing the permitting requirement for greywater systems from general permit to permit by rule.

Response: WDEQ/WQD carefully considered the request to change the permitting process for greywater systems. After consideration and research of other permit-by-rule regulations within the Water Quality Rules and Regulations, we are proposing to allow greywater systems to be permitted by rule. Individuals wishing to install a greywater system with a capacity of an average of 2000 gallons per day or less may do so after submitting their name, address, phone number, location of the greywater system, and the date of construction or installation.

Entity: Ms. Megan Degenfelder, Environmental Quality Council

Comment: Ms. Degenfelder wondered how many citizens would be affected by adoption of the proposed greywater regulations.

Response: WDEQ/WQD cannot specifically quantify the number of citizens that would be affected by adoption of the proposed greywater system regulations. However, we can identify who would not be affected. Homeowners whose homes are serviced by a public wastewater collection system are unlikely to install a greywater system as their wastewater is centrally located. Greywater systems are really most likely to be installed in rural areas, on properties with small wastewater systems instead of public wastewater collection access. The majority of Wyoming citizens have access to public wastewater collection.

16(b)(i)(A)

Entity: Mr. Aaron Clark and Ms. Meghan Lally, Environmental Quality Council

Comment: Mr. Clark and Ms. Lally were concerned about the prohibition of spray irrigation of greywater.

Response: WDEQ/WQD considered the concerns of Mr. Clark and Ms. Lally. We have revised the proposed rule to allow for spray irrigation of greywater. However, we would like to clarify that spray irrigation of greywater under the proposed rule is limited to greywater systems with a volume of an average of 2000 gallons per day, or less. The greywater regulations for these small wastewater systems are not applicable for circumstances where the average volume is greater than 2000 gallons, per day, or less. Those systems fall under the requirements in Water Quality Rules and Regulations, Chapter 11, Part H, Standards for the Reuse of Treated Wastewater.

Depending on the location, owners of greywater systems may be subject to rules of the DEQ delegated authorities. Casper-Natrona County and Cheyenne-Laramie County currently have rules in effect which prohibit installing greywater systems. Owners of illegally installed systems in these counties would still be subject to those rules, even if the proposed rule is adopted, as DEQ delegated authorities may adopt regulations that are more stringent than DEQ's.

16(c)(i)(A)

Entity: Ms. Megan Degenfelder, Environmental Quality Council

Comment: Ms. Degenfelder asked why Section 16 uses number of occupants instead of number of bedrooms, as is used elsewhere in the chapter.

Response: As Mr. Tillman explained at the hearing, WDEQ/WQD consulted several references in drafting the proposed greywater regulation. These references, including the International Plumbing Code (2012), calculate the capacity of the system based on the occupancy and not on the number of bedrooms. Regulations nationwide use the occupancy calculation and the U.S. Green Building Council, developers of LEED certifications, also indicate the capacity calculation using occupancy instead of by bedroom.

16(d)(iv)(I)(2)

Entity: Dr. David Bagley, Environmental Quality Council

Comment: Dr. Bagley pointed out an error in the subparagraph and asked WDEQ/WQD to clarify the units as colony forming units, or cfu.

Response: WDEQ/WQD reviewed the passage and changed it to "200 cfu/100 mL" to clarify that the level is 200 colony forming units per 100 milliliters of water.

Appendix A

Entity: Ms. Lorie Cahn

Comment: Ms. Cahn was concerned that the proposed percolation test method was not field tested to gauge whether or not it produces results similar to the existing percolation test method.

Response: In September 2014, the Water and Wastewater (WWW) Program of the Water Quality Division conducted percolation tests using the revised method proposed in the rule revision for Chapter 25 on three sites in Fremont County. The three chosen sites had all previously submitted applications to install small wastewater systems and had conducted percolation tests to determine the soil percolation rate, as required by Chapter 25 and the small wastewater application.

For each of the three sites, WQD staff had prepared three test holes and performed percolation tests in the manner directed in the proposed rule.

The results of those tests indicated that the proposed method is much easier to follow compared to the existing method, and that the results are very similar to the results from the existing percolation test method.

In addition to testing the percolation rate test method, we also conducted soil texturing at the three sites. We were accompanied by Acting State Soil Scientist James Bauchert of the Natural Resources Conservation Service of the US Department of Agriculture. Mr. Bauchert instructed some of the staff at each site to conduct a soil texture analysis while the remaining staff conducted the percolation test using the proposed method. The results for the soil texturing varied broadly from person to person, depending on any previous soil texturing experience. Those individuals on our staff who had previous soil texturing experience stated results that were closer to Mr. Bauchert's interpretation. Those staff who had no experience were much more likely to state results which were categorically incorrect. None of the soil texturing results were as precise as the percolation tests.