

<p>Docket Number: <u>58-0108-0801</u> Effective Date: <u>2009 Sine die</u> Rules Title: <u>Idaho Rules for Public Drinking Water Systems</u> Agency Contact and Phone: <u>Michael Stambulis, 373-0123</u></p>	<p style="text-align: right;">Public Notice</p> <p>Hearings: [] Yes [X] No Locations and Dates: N/A Written Comment Deadline: September 3, 2008</p>
<p>Descriptive Summary of Rule as Initially Proposed: Under the provisions of IDAPA 58.01.08, Idaho Rules for Public Drinking Water Systems, a water main extension, whether approved for construction by the Department of Environmental Quality (DEQ) or by a qualified licensed professional engineer (QLPE), is a material modification to the public water system. The current rules also specify that all portions of the existing system that are affected by the water main extension must be in compliance with the rules in effect at the time the project is reviewed and approved. This requirement could in some cases require upgrades to existing parts of the water system to meet criteria for pumping redundancy, standby power, fire flow, and other applicable rule requirements such as completion of a facility plan.</p> <p>The objective of this rulemaking is to modify the recently updated Idaho Rules for Public Drinking Water Systems so that the engineering community can approve simple water main extensions as intended by 2005 Senate Bill 1220 and as codified at Idaho Code § 39-118. The proposed rules define a simple water main extension as a new or replacement water main(s) that is connected to existing water main facilities and does not require the addition of system components designed to control quantity or pressure, including, but not limited to, booster stations, new sources, pressure reducing stations, or reservoirs; and continues to provide the required pressure and quantity for the system.</p> <p>The following list sets out the major issues included in the proposed rules:</p> <ol style="list-style-type: none"> (1) Add and/or revise definitions (Section 003) and revise rule sections as necessary; (2) Clarify Section 500, Demonstration of Technical, Financial, and Managerial Capacity; (3) Revise Section 501, General Design Requirements for Public Drinking Water Systems; (4) Modify the content of facility plans and preliminary engineering reports contained in Sections 502 and 503, respectively; (5) Revise Section 504, Review of Plans and Specifications; (6) Clarify separation requirements for sources of contamination from public drinking water wells (Sections 510-512, and 900); (7) Modify sections regarding spring sources and ground water sources (Sections 513 and 514); (8) Clarify Section 531, Design Standards for Chemical Application; (9) Add and clarify design requirements for drinking water distribution systems (Section 542); (10) Further define storage structures and facilities (Section 544); and (11) Clarify several operating criteria for public drinking water systems (Section 552). <p>Public comments were received. The proposed rule has been revised. DEQ recommends that the Board adopt the rule, as presented in the final proposal, as a pending rule with the final effective date coinciding with the adjournment <i>sine die</i> of the First Regular Session of the Sixtieth Idaho Legislature. The rule is subject to review by the Legislature before becoming final and effective.</p>	<p>Negotiated Rule Making: [X] Yes [] No Groups Involved: Sign-in sheets attached.</p> <p>On April 2, 2008, the Notice of Negotiated Rulemaking was published in the Idaho Administrative Bulletin, Vol. 08-4, pages 35-36, and a preliminary draft rule was made available for public review. Meetings were held on April 22, May 6, and May 20, 2008. Several members of the public participated in this negotiated rulemaking process by attending the meetings and by submitting written comments.</p> <p>Costs To the Agency: None anticipated.</p> <p>Costs To the Regulated Community: The regulated community will realize a positive fiscal impact. The community will be able to proceed with simple water main extensions without procuring an engineering company to first update facility plans.</p> <p>Relevant Statutes: Chapter 1, Title 39, Idaho Code, and Chapter 21, Title 37, Idaho Code</p> <p>Idaho Code § 39-107D Statement: See attached.</p> <p>Idaho Code § 67-5221(1)(c) Fiscal Impact Statement: The following is a specific description, if applicable, of any negative fiscal impact on the state general fund greater than ten thousand dollars (\$10,000) during the fiscal year: Not applicable.</p>

Temporary Rule Necessary to protect public health, safety or welfare
 Compliance with deadlines in amendments to governing law or federal programs
 Conferring a benefit

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Section	Section Title	Summary of Rule Changes Based on Public Comment
003	Definitions	This section has not been changed. See attached Response to Comments.
007	Disapproval Designation	No comments received. No change.
010	Fee Schedule for Public Drinking Water Systems	No comments received. No change.
013	Use of Guidance	No comments received. No change.
100	Monitoring and Analytical Requirements	No comments received. No change.
300	Filtration and Disinfection	No comments received. No change.
450	Use of Non-Centralized Treatment Devices	No comments received. No change.
500	Facility and Design Standards: Demonstration of Technical, Financial, and Managerial Capacity of Public Drinking Water Systems	No comments received. No change.
501	Facility and Design Standards: General Design Requirements for Public Drinking Water Systems	No comments received. No change.
502	Facility and Design Standards: Facility Plans	No comments received. No change.
503	Facility and Design Standards: Preliminary Engineering Reports	This section has not been changed. See attached Response to Comments.
504	Facility and Design Standards: Review of Plans and Specifications	No comments received. No change.
510	Facility and Design Standards: Siting and Construction Wells	No comments received. No change.
511	Facility and Design Standards: Well Pumps, Discharge Piping, and Appurtenances	This section has been changed. See attached Response to Comments.

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Section	Section Title	Summary of Rule Changes Based on Public Comment
512	Facility and Design Standards: Well Lot	No comments received. No change.
513	Facility and Design Standards: Number of Ground Water Sources Required – Existing Systems	No comments received. No change.
514	Facility and Design Standards: Spring Sources	This section has been changed. See attached Response to Comments.
518	Facility and Design Standards: Additional Design Criteria for Surface Water Treatment	No comments received. No change.
520	Facility and Design Standards: Surface Water Treatment – Clarification Processes	No comments received. No change.
522	Facility and Design Standards: Surface Water Treatment – Filtration Using Diatomaceous Earth	No comments received. No change.
523	Facility and Design Standards: Surface Water Treatment – Slow Sand Filtration	No comments received. No change.
530	Facility and Design Standards: Disinfection of Drinking Water	No comments received. No change.
531	Facility and Design Standards: Design Standards for Chemical	This section has been changed. See attached Response to Comments.
533	Facility and Design Standards: Design Standards for Taste and Odor Control	No comments received. No change.
534	Facility and Design Standards: Aeration Processes	No comments received. No change.
535	Facility and Design Standards: Design Standards for Iron and Manganese Control Systems	No comments received. No change.
537	Facility and Design Standards: Design Standards for Stabilization	No comments received. No change.
540	Facility and Design Standards: Design Standards for Treatment and Disposal of Waste Residuals	No comments received. No change.
541	Facility and Design Standards: Pumping Facilities	No comments received. No change.
542	Facility and Design Standards: Distribution System	This section has been changed. See attached Response to Comments.
543	Facility and Design Standards: Cross Connection Control	No comments received. No change.
544	Facility and Design Standards: General Design of Finished	This section has been changed. See attached Response to Comments. In addition to the changes made to this section in response to

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	Water Storage	comments, Subsection 544.02.e. has been revised to make the use of terms consistent with the rest of the rule docket.
546	Facility and Design Standards: Distribution System Storage Facilities	No comments received. No change.
552	Facility and Design Standards: Operating Criteria for Public Water Systems	This section has not been changed in response to comments received. Subsection 552.01.a. has been revised for clarification purposes.
554	License Requirements	No comments received. No change.
900	Tables	No comments received. No change.

IDAHO CODE SECTION 39-107D STATEMENT: Section 39-107D, Idaho Code, provides that DEQ must meet certain requirements when it formulates and recommends rules which are broader in scope or more stringent than federal law or regulations, or which propose to regulate an activity not regulated by the federal government. There is no federal law or regulation that is comparable to plan and specification review and facility standard provisions set forth in these rules. Therefore, the changes to the rules are not broader in scope or more stringent than federal law or regulations.

Section 39-107D, Idaho Code, also applies to a rule which "proposes to regulate an activity not regulated by the federal government." The engineering standards for design, construction, and operation of public drinking water systems regulate activities that are not regulated by the federal government. These rules address the review and approval of plans and specifications for public drinking water systems and the standard by which the agency does the review and approval. This is not an activity regulated by the federal government. Therefore, Section 39-107D, Idaho Code, applies.

Section 39-107D(3), Idaho Code, provides that any rule subject to 39-107D that proposes a standard necessary to protect human health and the environment must also include in the rulemaking record and in the notice of rulemaking additional information. This additional information includes any estimates of risk accomplished, identification of populations or receptors addressed by any estimates, and other information related to an estimation of risk. These rules include facility and design standards which are intended to protect human health and the environment. The standards, however, are for the design and construction of public drinking water facilities. The rules are not based upon any express estimate or analysis of risk to public health or the environment. Instead, the facility and design standards are based upon guidelines set forth in documents, such as the "Recommended Standards for Water Works" and the "American Water Works Association Standards," that are generally accepted and used throughout the United States by engineers and state regulators.

**Idaho Rules for Public Drinking Water Systems
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Response to Public Comments**

Comment	DEQ Response
<p><u>Shawn A. Kohtz, PE, SPF Water Engineering, LLC, Boise, ID</u></p> <p>1. Definition of finished water storage, Item 49 – The definition for “ground level structures” and “ground level reservoirs” is different in the Ten State Standards and it seems that the two are being combined in the proposed rules. Please refer to Section 7.0.2.b vs. 7.0.8.2 of the Ten State Standards. Please distinguish between the two definitions in the proposed rules. This is specifically noted for the requirements associated with roof access hatches on reservoirs. After reviewing the IDAPA code for ground level tanks in further detail, the reference to IDAPA 58.01.08.544.07.b indicates “Each manhole shall be elevated at least twenty-four (24) inches above the top of the tank or covering sod, whichever is higher.” This requirement is directly out of the Ten State standards. There are large municipalities that bury tanks and install sod or small parks on top of those tanks. The elevated 24-inch requirement for the access hatch is intended to provide an adequate air gap and source water protection against flooding from stormwater or irrigation of sod on top of those tanks. Referring now to the definition outlined in the new IDAPA regulations, as the top of ground level tanks are generally at least 20-feet above the ground surface there is not a danger of flooding or irrigation water contaminating the tank. Precipitation will flow off the sloped reservoir roof to the ground below. It seems that IDAPA 58.01.08.544.07.a is the appropriate requirement for ground level tanks with the top of the hatch framed at least 4-inches above the top of the tank.</p> <p>2. Section 503; Preliminary Engineering Reports – I was told by a DEQ reviewer on a large municipal water system project that the submittal of preliminary engineering reports (PER) prior to plan and specification submittal review was intended to speed up the DEQ review process. Having now gone through the three stage submittal process of facility plan, PER, and then plans and specifications, the overall timeline for the review process has substantially increased relative to several years ago. In the case of this recent municipal project, the review process was extended by 4 months relative to the time the same review would have taken just two years ago. The extended review period impacted the municipality’s ability to meet deadlines outlined in a compliance agreement with the DEQ. At a minimum, the plan and specification and PER review should be combined to more efficiently complete the review process. This also simplifies the review process for the DEQ reviewer, where it is difficult to know where to draw the line on implementation of the rules between what should be included in the PER and what should be included in the plans and specifications. In the case of the municipality project review, items were requested as part of the PER review that seemed more appropriately left to the plans and specifications review. Further, given the staffing limitations at DEQ, a more streamlined review process seems essential.</p>	<p>1. DEQ reviewed Sections 7.0.2.b and 7.0.8.2 of the 2007 edition of the Recommended Standards for Water Works (i.e., Ten State Standards). DEQ did not come to a definitive conclusion regarding the comment that “ground level structures” or “ground level reservoirs” are different terms or are meant to convey the same information with slightly different wording. DEQ recommends no changes to the definition of <i>ground-level storage structures or facilities</i> as the definition is appropriate given the structure of the proposed rules.</p> <p>DEQ agrees with the comment regarding access requirements for ground-level structures. DEQ revised the section to require each manhole be framed a minimum of 4” above the surface of the roof for elevated and ground-level structures and a minimum of 24” above the surface of the roof or the ground level for partially buried or completely buried structures.</p> <p>2. DEQ recognizes the three step submittal process may not shorten the overall timeline for every project. However, the first step to the three step process (i.e., the facility plan) is only required if a public drinking water system owner does not have an approved facility plan and is proposing a material modification or expansion. The typical project requires a preliminary engineering report (PER) and a plan and specification review.</p> <p>Before the PER requirement went into effect, the Boise Regional Office (BRO) of DEQ took approximately 38 days to complete a plan and specification review on average. This time includes the both the initial review and subsequent reviews of resubmitted plans and specifications. On average, the design engineer took approximately 130 days to respond to</p>

<p>3. Section 511.04 – Wording was added that a check valve “not located in the pump column” should be provided in well pump system designs. This could be misinterpreted to mean that check valves shall not be located in the pump column. Check valves are needed in well pump columns. This wording should be clarified.</p> <p>4. Section 531.02.k.iii – Some chemical storage tanks should not require containment, such as dilute sodium hypochlorite solutions that are prepared by on-site sodium hypochlorite generators. The rule requiring containment for chemical storage tanks should be adjusted to include more flexibility in the rule. For example, the rule might read, “... unless demonstrated to the Department by a licensed professional engineer that a chemical will not be toxic to operator health or the environment if spilled, chemical storage tank containment shall not be required for these cases.”</p> <p>5. Section 542.15.a – This new section lists requirements for air relief valves in pipelines. This section requires that air relief valves shall have a discharge that is above the ground surface or that drains to daylight. It should not be a requirement that these valves drain to daylight as this is often not feasible and could expose the valve to freezing conditions and limit the valve from working at all. The valve discharge should be allowed to also discharge in a below-ground vault where drain rock allows any water from the discharge line to drain into the soils below the vault. In this case, a vault that houses an air release valve would have an open bottom. The rule as written is not flexible enough to account for all site-specific conditions.</p>	<p>DEQ’s comments. The total project review time from initial submittal to approval was approximately 168 days.</p> <p>In the 2.5 years after the PER requirements went into effect, the BRO of DEQ is taking approximately 27 days to complete a plan and specification review. Design engineers are taking approximately 86 days to respond to DEQ’s comments. The total project review time from initial submittal to approval is approximately 113 days.</p> <p>DEQ believes the review and approval of a PER prior to the submission of plans and specifications is a major component in the reduction in review time of the plans and specifications and has reduced the need for multiple revisions for a plan and specification review.</p> <p>In addition, DEQ has proposed clarification to the PER content requirements provided in Section 504. DEQ believes this provides the reviewer clarification on what should be covered in the PER and what should be covered in the plans and specifications.</p> <p>DEQ has not made changes to the proposed rules in response to this comment.</p> <p>3. DEQ agrees and has added clarifying language to Subsection 511.04.</p> <p>4. DEQ agrees and has added additional language to include more flexibility to Subsection 531.02.k.iii.</p> <p>5. DEQ agrees with this comment. DEQ modified Subsection 542.15.a to require the vault to either a drain to daylight or contain adequate drainage to prevent flooding. In addition, DEQ added the provision if an air vent is located below grade, the air relief valve must be a manually-operated valve. A manually operated valve reduces the cross-connection risk.</p>
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6. Section 544.07.b – Refer to the discussion in item 1 above.

7. Section 552.01.b.ii.(1) – It is not feasible for many existing public water systems to bring their entire distribution system into compliance with the 40 psi pressure requirement during peak-hour demand conditions. In most cases, a municipality simply does not have the funding to upgrade all the small pipes in its distribution system. Flexibility should be added to the rules to acknowledge funding capacity for upgrades of existing public drinking water systems and allow upgrades to occur as funding can be generated.

6. Please see the response for Comment No. 1.

7. DEQ believes there is sufficient flexibility for existing systems to meet the requirement to maintain a minimum pressure of forty (40) psi throughout the distribution system, during peak hourly demand conditions, excluding fire flow, measured at the service connection or along the property line adjacent to the consumer's premises. As stated in Subsection 552.01.b.ii.1, ii.2, and ii.3, existing system purveyors are required to upgrade their system to meet this requirement only if they substantially modify after July 1, 1985 or if they construct new service areas. The system purveyor is only required to evaluate if it is feasible to upgrade the system to meet the requirement during a material modification.

Based on these rules, the system purveyor does not need to take any action unless they desire to expand the system. As stated in the rules, if the system is undertaking material modification, DEQ will evaluate with the system whether it is feasible to meet this requirement as part of the material modification. Financial feasibility is one of the considerations DEQ will take into account during this evaluation.

Should the system purveyor wish to substantially modify or add a new service area, it is their responsibility to secure adequate funding to upgrade the system to meet the requirements of this rule prior to constructing the substantial modification or new service area.

DEQ has not made changes to the proposed rules in response to this comment.

