

**Docket Number:** 58-0102-1101  
**Effective Date:** 2012 Sine die  
**Rules Title:** Water Quality Standards  
**Agency Contact and Phone:** Don Essig, 373-0119

**Public Notice**  
**Hearings:** [ ] Yes [X] No  
**Locations and Dates:** N/A  
**Written Comment Deadline:** 9/2/11

**Negotiated Rule Making:** [X] Yes [ ] No

**Groups Involved:** Sign-in sheet attached.

**Costs To the Agency:** None anticipated.

**Costs To the Regulated Community:** Potential future thermal treatment costs for NPDES permitted discharges are expected to be greatly reduced if this rule change is adopted.

**Relevant Statutes:** Sections 39-105, 39-107, and 39-3601 et seq., Idaho Code

**Idaho Code § 39-107D Statement:** The standards included in this proposed rule are not broader in scope, nor more stringent, than federal regulations and do not regulate an activity not regulated by the federal government.

**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.

**Descriptive Summary of Rule as Initially Proposed:** As NPDES permits are coming up for renewal, the U.S. Environmental Protection Agency (EPA) has begun including thermal effluent limits in reissued permits. The City of Boise NPDES permit renewal is expected to be released as a draft in the summer of 2011 and will be based on current water quality standards unless they are revised promptly. Without this rule change, thermal effluent limits in NPDES permits and costs to meet those limits will be greater than needed to protect aquatic life resources.

Two parts of Idaho's water quality standards are likely to drive inordinate thermal treatment costs:

- 1) excessive limits on water temperature rise in Subsections 401.01.c. and d. (aka thermal treatment requirements); and
- 2) outdated numeric criteria to protect salmonid spawning.

DEQ proposes to revise the Water Quality Standards, IDAPA 58.01.02, in two sections addressing temperature: 1) the thermal treatment requirements in Subsections 401.01.c. and d. which limit the rise in water temperature due to wastewater treatment plants, and 2) site-specific criteria for water temperature in Section 278 to protect salmonid spawning.

The origin of Idaho's thermal treatment requirements is unknown but is thought to be based on avoiding 'thermal shock' to fish and providing a level of protection that is largely redundant of and far in excess of that provided by ambient criteria. While 'thermal shock' can be an issue for fish, it is thought to occur when fish encounter abrupt temperature changes of 5-6°C or more, not 1-2°C. DEQ proposes to remove Subsections 401.01.c. and d. and rely on the retained language in Subsections 401.01.a. and b. to provide a more flexible means to address possible thermal shock on a case-by-case basis and to provide full protection from adverse effects of heated effluent in addition to protection provided to aquatic life by ambient temperature criteria in Section 250.

Idaho's current salmonid spawning criteria are based on recommendations from EPA made in the mid 1970s. EPA updated its recommendation regionally in 2003. While DEQ would like to adopt this recommendation statewide, questions about time periods in which the criterion would apply in various waterbodies across the state has lead DEQ at this time to scale back to a site-specific proposal. DEQ proposes to adopt EPA's recommended criterion of 13°C as a maximum seven-day average of daily maximums as a site-specific criterion to protect salmonid spawning and incubation in the three waterbodies within the Lower Boise watershed (HUC 17050114) currently designated for salmonid spawning. The proposal specifies the time period for which the criterion applies to each waterbody and the species which are protected.

This rule was adopted as a temporary rule by the Board in June 2011 and is currently effective.

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 *sine die* of the Second Regular Session of the Sixty-first Idaho Legislature. The rule is subject to review by the Legislature before becoming final and effective.

Temporary Rule	<input type="checkbox"/> Necessary to protect public health, safety or welfare <input type="checkbox"/> Compliance with deadlines in amendments to governing law or federal programs <input type="checkbox"/> Conferring a benefit
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Docket Number: <u>58-0102-1101</u>		
Section	Section Title	Summary of Rule Changes Based on Public Comment
278	<b>Lower Boise River Subbasin, HUC 17050114.</b>	This section has not been changed. No comments received.
401	<b>Point Source Wastewater Treatment Requirements.</b>	This section has not been changed. See attached Response to Comments.

**Water Quality Standards  
Docket No. 58-0102-1101  
Response to Public Comments**

Comment	DEQ Response
<p><b><u>Lisa Macchio, Office of Water and Watersheds, U.S. EPA Region 10, 1200 Sixth Ave., Ste. 900, Seattle, WA 98101-3140</u></b></p> <p>Thank you for the opportunity to provide the Environmental Protection Agency's (EPA) comments on Idaho's Docket No. 58-0102-1101. In this proposed rule the Idaho Department of Environmental Quality (DEQ) proposes to remove Subsection 401.01.c. and d. which provides additional temperature requirements for point source wastewater discharges into surface waters.</p> <p>The Agency recommends that Idaho retain an incremental temperature warming limit for point source discharges into waters with Endangered Species Act (ESA) listed salmonids. The EPA Region 10 Temperature Guidance (April, 2003) recommends that State's include temperature standards that limit the warming of waterbodies that are cooler than the numeric criteria. As explained in the Guidance (page 32-33), protecting waters cooler than the criteria are important to protect the temperature diversity in watersheds that support ESA listed salmonids.</p> <p>In Idaho's Notice of Rulemaking for this proposal, it is noted that the thermal treatment requirements in subsection 401.01.d may be to protect thermal shock, but the 1°C limit is overly stringent to protect against thermal shock. The EPA does not believe the purpose of 401.01.d is to protect against thermal shock. Rather, as discussed in the EPA Region 10 Temperature Guidance (pages 32-33) and in Idaho's April, 2003 Concepts and Recommendations for Using Natural Conditions Provisions of the Idaho Water Quality Standards document (pages 5-6) it is important to protect waters where and when they are colder than the numeric criteria.</p> <p>We, however, believe there may be alternatives to the current 1°C limit in subsection 401.01.d that may serve the purpose of protecting cold waters and avoid being overly stringent where and when the water is significantly colder than the criteria. The EPA recently approved a temperature standard in Washington that is based on a formula that sets the temperature limit based on the receiving water (28/(Temperature of the receiving water +7)). The EPA supports Idaho adopting a formula-based standard similar to Washington's.</p>	<p>Idaho has just recently been pointed to and evaluated the State of Washington's formula based, sliding scale limit on temperature change. Although this approach appears to have merit and may be useful in Idaho with adaptation, in our opinion we would need to reopen rule negotiations. That is not possible at this time so would have to wait to a subsequent rulemaking. Therefore we are moving forward with the removal as proposed.</p> <p>Idaho appreciates the importance of maintaining temperature diversity. With the range of latitude and elevation in Idaho comes great diversity in stream temperatures. This is unlikely to change. There are very few point sources of heat in the headwaters and tributaries of waters used by ESA listed salmonids, and little chance of new ones. Furthermore, the need to meet downstream standards will - to the extent heat loads translate downstream - demand that diversity, i.e. that cooler upstream temperatures, are maintained.</p> <p>More specifically, although Idaho is removing its fixed numeric limits on temperature increase – which can impose very onerous chilling requirements on point sources if applied through the winter – we retain in our thermal treatment requirements narrative requirements that serve to</p>

Comment	DEQ Response
<p>Please accept the above comments into the public record as the EPA's formal written comments. If you have any questions please contact me at (206) 553-1834.</p>	<p>maintain thermal diversity:</p> <p><b>401.01. Temperature.</b> The wastewater must not affect the receiving water outside the mixing zone so that:</p> <ul style="list-style-type: none"> <li><b>a.</b> The temperature of the receiving water or of downstream waters will interfere with designated beneficial uses.</li> <li><b>b.</b> Daily and seasonal temperature cycles characteristic of the water body are not maintained.</li> </ul> <p>Paragraph a. directs us to look at downstream thermal effects as mentioned above. We interpret paragraph b to mean effluent limits and TMDL load allocations should be based on critical conditions for meeting criteria. For example, by expressing thermal effluent limits as an average daily limit (not adjusted hourly) to meet average daily criteria (critical conditions) daily cycles are maintained. Similarly, setting a monthly limit based on the warmest time period (critical condition) within a season (i.e. spawning period, or summer for CWAL) and not adjusting thermal effluent limits monthly, will maintain seasonal cycles. Together this maintains the cooler temperatures that occur most of the time.</p>

## MEETING SIGN-IN SHEET

Meeting Title: NEGOTIATED RULEMAKING

Water Quality Standards, Docket No. 58-0102-1101

Meeting Date and Location: 5/25/11 – Boise, Idaho

Phone participation: 373-0101/bridge 1

Name	Affiliation	E-Mail Address
Phone participation:		
Lisa Macchio	EPA - Seattle	
<del>Kathleen Collins</del>	<del>EPA</del>	
John Palmer	EPA - Seattle	
<del>Jenny Wu</del>	<del>EPA</del>	
Allegra Belknap	Monsanto	
Paula Wilson	AG / DEQ	
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