

State of Oregon

Department of Environmental Quality

Memorandum

Date: October 3, 2011

To: Environmental Quality Commission

From: Dick Pedersen, Director

Subject: Agenda Item X, Rule Adoption: Revision of Division 045 Initiation Level Rule
340-045-0100
October 20-21, 2011 EQC Meeting

Why this is Important Under the Initiation Level rule and based upon sampling conducted in 2010, municipal wastewater treatment plants routinely exceed initiation levels for cholesterol and coprostanol, pollutants with no feasible municipal pollution prevention activities or cost-effective treatment options. The Environmental Quality Commission adopted a temporary rule to remove the requirement for municipalities to develop Persistent Pollutant Reduction Plans (reduction plan(s)) for cholesterol and coprostanol. A permanent rule is needed to ensure that municipalities subject to this rule in the future will not be required to develop reduction plans for cholesterol and coprostanol. Additional provisions are also included in this rule to clarify when a permittee is no longer subject to the monitoring and reduction plan requirement.

DEQ Recommendation and EQC Motion The Department of Environmental Quality recommends that the Environmental Quality Commission permanently revise rule 340-045-0100, Initiation Level Rule, to suspend municipalities' requirement to develop Persistent Pollutant Reduction Plans for cholesterol and coprostanol, and to clarify when a municipality is no longer subject to the monitoring and reduction plan requirement, as presented in Attachment A.

Background and Need for Rulemaking The EQC adopted the Plan Initiation Level Rule in June 2010 requiring Oregon's 52 largest municipal wastewater treatment plants to develop Persistent Pollutant Reduction Plans for pollutants present above Plan Initiation Levels (PILs). SB 737 requires that these plans be incorporated into National Pollutant Discharge Elimination System (NPDES) and Water Pollution Control Facilities (WPCF) permits on renewal. The EQC adopted a temporary rule suspending the reduction plan requirement for cholesterol and coprostanol in February 2011, and it expired on Sept. 11, 2011.

The two municipal sampling events in 2010 revealed Plan Initiation Level (PIL) exceedances at nearly every location for cholesterol and coprostanol, and only a handful of other PIL exceedances for other persistent pollutants. Cholesterol and coprostanol are naturally occurring by-products of human digestion. Based on these results, 47 of the 52 permittees would have been required to prepare a reduction plan for both pollutants for which there is limited information about toxicity, no feasible municipal pollution prevention activities, and a lack of cost-effective treatment options. Further, additional municipalities may become subject to the statute and rule's requirements in the future, and, based on 2010 monitoring results, those facilities are likely to similarly exceed initiation levels for cholesterol and coprostanol. While toxicity models concluded that cholesterol and coprostanol are toxic and persist in aquatic ecosystems, meeting the criteria for inclusion on the Priority Persistent Pollutant List (P3 List), there is limited published scientific data on toxicological effects to corroborate the model estimates. Further, there are no feasible municipal pollution prevention activities or cost-effective treatment options to reduce cholesterol or coprostanol.

DEQ views development of Persistent Pollutant Reduction Plans for cholesterol and coprostanol a disproportionate response for these types of pollutants.

Stakeholder input and public comments indicated that additional clarification was needed to inform municipalities when they would no longer be subject to the monitoring and reduction plan requirement. Based on specific comments received and DEQ staff review, the proposed rule now clearly states that permittees will no longer be subject to the monitoring and reduction plan requirement under the following circumstances: if DEQ determines that there are no analytical laboratories available to perform the necessary analysis; if the permittee is subject to duplicative or more stringent requirements addressing the same pollutant; or, for permittees that become subject to the rule in the future, if DEQ determines a pollutant is unlikely to be present in effluent based on a review of available effluent data at the facility or similar facilities in the state.

Effect of Rule

This permanent revision to the Initiation Level rule will suspend municipalities' requirement to develop Persistent Pollutant Reduction Plans for cholesterol and coprostanol. In addition, the proposed revision includes provisions to clarify when a permittee is no longer subject to the monitoring and reduction plan requirement. These circumstances include: if sampling demonstrates that the pollutant concentration is lower than the initiation level; if DEQ determines that there are no analytical laboratories available to perform the necessary analysis; if the permittee is subject to duplicative or more stringent requirements addressing the same pollutant; or, for permittees that become subject to the rule in the future, if DEQ determines a pollutant is unlikely to be present in effluent based on a review of available effluent data at the facility or similar facilities in the state. The proposed rule revision is presented in Attachment A.

Commission Authority	The Commission has authority under ORS 468.020 and 468B.141 to take this action in the implementation of ORS 468B.140.
Stakeholder Involvement	<p>During development of both the temporary and permanent rules, DEQ met with a volunteer Stakeholder Sounding Board in October 2010, January 2011, and May 2011 for discussion and input regarding options to address widespread exceedance of the cholesterol and coprostanol initiation levels.</p> <p>At the October 2010 meeting, DEQ informed Sounding Board members that it was considering two options for addressing pollutants with no feasible municipal pollution prevention activities or treatment options: (a) minimal reduction plans focused on maintaining or optimizing existing treatment; or (b) a rule revision to suspend permittees' requirement to develop Persistent Pollutant Reduction Plans for these pollutants. DEQ offered Sounding Board members an informal opportunity to provide input on these two options, and evaluated input received.</p> <p>In advance of the January 2011 Stakeholder Sounding Board meeting, DEQ indicated its intent to pursue a revised rule and shared draft rulemaking materials for the temporary rulemaking. DEQ responded to clarifying questions at the Stakeholder Sounding Board meeting and accepted information from Sounding Board members that improved the documents' accuracy.</p> <p>DEQ built upon this input received during the preparation of the temporary rule and held an additional meeting with interested Sounding Board members in May 2011 to review the proposed rulemaking materials. As a result of that discussion, further clarifications were included in the proposed rule addressing situations when a permittee that is required to develop and implement a Persistent Pollutant Reduction Plan will be considered to be "done."</p> <p>A list of Sounding Board members who participated in these meetings is located in Attachment D.</p>
Public Comment	<p>DEQ held a public comment period for the revised Initiation Level Rule from June 1 to June 30, 2011. DEQ held one hearing in Portland, Oregon on June 15, 2011. One person attended the hearing and provided oral testimony, and DEQ received three letters with comments on the proposed changes to the rule language.</p> <p>A summary of the public comments received and responses from DEQ is contained in Attachment B.</p>
Key Issues	<p>DEQ considered several key issues during the development of the temporary rulemaking and subsequent proposed final rule:</p> <ol style="list-style-type: none"> 1. The extent to which specific information exists regarding the potential environmental and human health threats of discharging cholesterol and

coprostanol into Oregon's waters:

- A model estimate of toxicity warranted listing these pollutants on the Priority Persistent Pollutant List. DEQ relied heavily on public comment both during list development and plan initiation level selection processes. DEQ did not receive any comments during either public comment period refuting model estimates for cholesterol and coprostanol. After detection of these two pollutants above Plan Initiation Levels at nearly all facilities, DEQ performed a focused evaluation of available information on these pollutants, as summarized in the technical memo "Aquatic Toxicity of Sterols and Stanols" (10/25/10, available on request). Based on the investigation, DEQ concluded that there are few studies regarding the potential environmental and human health threats of discharging cholesterol and coprostanol into Oregon's waters, and those that do exist do not present conclusive information about their potential harmful effects on the well-being of humans, fish, or wildlife.
2. Availability of pollution prevention activities to reduce sterols and stanols:
 - Cholesterol and coprostanol are two naturally occurring byproducts of human digestion. DEQ performed an independent analysis and was not able to identify feasible potential pollution prevention activities for these pollutants.
 3. Availability and cost-effectiveness of treatment technologies for reducing cholesterol and coprostanol:
 - DEQ received input from stakeholders with diverse perspectives regarding the availability and cost-effectiveness of treatment technologies. DEQ reviewed relevant literature and affirmed that cost-effective treatment is not available, as outlined in the technical memo: "Treatment of Sterols and Stanols" (12/20/10, available on request).
 - These are the only two pollutants on the Priority Persistent Pollutant List for which model estimates cannot be corroborated with scientific literature; they also lack municipal pollution prevention activities or cost-effective treatment options.
 4. Complying with SB 737's statutory requirements without a rule revision:
 - DEQ considered whether minimal reduction plans could meet municipalities' requirements under SB 737. DEQ determined that incorporating brief reduction plans into NPDES and WPCF permits for pollutants with no feasible reduction activities would yield a resource-intensive administrative process with little or no environmental benefit.
 5. Effect of expiration of temporary rule:
 - At the time of the proposed rulemaking, municipalities raised concern regarding the need for permittees to prepare a reduction plan

addressing cholesterol or coprostanol if DEQ failed to follow through with a timely permanent rule or a revision of the P3 list after expiration of the temporary rule.

- The temporary rule expired on September 11, 2011. All five communities required to develop a Persistent Pollutant Reduction Plan submitted their plans by the July 1, 2010 deadline. DEQ sent letters to the five communities approving their plans in prior to the expiration of the temporary rule. The temporary rule was in effect during this period of time, and based on advice from the Department of Justice ((1/27/2011), available on request), these communities have complied with the applicable requirements.
- The permanent revisions are needed to address any permittee that becomes subject to the statute and rule's requirements in the future.

6. Clarification of when a permittee is no longer subject to the monitoring and reduction plan requirement:

- Based on stakeholder input and staff review, DEQ proposed additional provisions to clarify when a permittee is no longer subject to the monitoring and reduction plan requirement. These circumstances include: if sampling demonstrates that the pollutant concentration is lower than the initiation level; if the permittee is subject to duplicative or more stringent requirements addressing the same pollutant; or, for permittees that become subject to the rule in the future, if DEQ determines a pollutant is unlikely to be present in effluent based on a review of available effluent data at the facility or similar facilities in the state.
- During the public comment period, the Association of Clean Water Agencies requested that the rule be amended to limit "required sampling to those pollutants for which there are Oregon commercially-available analytical laboratories." After considering this comment, DEQ elected to include an additional exemption to the monitoring and reduction plan requirement if the DEQ Laboratory determines that there are no available laboratories capable of performing the analysis for the specific pollutant that would otherwise trigger the reduction plan requirement.

Next Steps

Once adopted, the rule revision will be filed with the Secretary of State. DEQ will notify all affected permittees and Stakeholder Sounding Board members via email, and other interested stakeholders via an email message posted to the SB 737 GovDelivery listserv. This rulemaking will also use education and outreach via the project website, www.deq.state.or.us/wq/SB737 to communicate DEQ's revised requirements.

Attachments

- A. Proposed Rule Revisions {redlined version}

- B. Response to Comments
- C. Statement of Need and Fiscal and Economic Impact
- D. SB 737 Stakeholder Sounding Board List

**Available Upon
Request**

- 1. Compiled Information about Persistent Pollutants Detected above Plan Initiation Level (PIL) (1/18/11)
- 2. Technical Memo: Aquatic Toxicity of Sterols and Stanols (10/25/10)
- 3. Technical Memo: Treatment of Sterols and Stanols (12/20/10)
- 4. Legal Memo on Effect of Expiration of Temporary Rule (1/27/2011)
- 5. Relationship to Federal Requirements
- 6. Land Use Evaluation Statement
- 7. Rule Implementation Plan

Approved:

Section: _____

Division: _____

Report Prepared By: Robin Leferink

Phone: 503-229-5518