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Colorado Department
of Public Health
and Environment

Memorandum

To: Water Quality Control Commission

From: Nathan Moore, Water Quality Control Division, Permits Section

Date: January 2, 2013

Subject: Triennial Review Informational Hearing for Regulation No.64 – Biosolids Regulations

CC: Paul Frohardt, Dick Parachini, Janet Kieler, Steve Gunderson, Nancy Horan

In accordance with the Water Quality Control Commission's (Commission) triennial regulation review process, an Informational Hearing regarding Regulation No.64 will be held on January 14, 2013. This memorandum presents information that the Water Quality Control Division (Division) proposes that the Commission consider regarding a future Rulemaking Hearing.

The Division has been in discussions with Parker Ag Services, LLC and the Rocky Mountain Water Environment Association Biosolids Committee (Biosolids Committee), and is aware of the intent to request that the Commission schedule a hearing to consider specific revisions to Regulation 64, as discussed further below. This memorandum also provides input to the Commission relative this anticipated request.

Division Recommendation

The Division has no opposition to the anticipated request for the Commission to schedule a hearing to review a proposal by Parker Ag Services, LLC, acting as representative of the Biosolids Committee, for revisions to Regulation 64.

The Division has discussed the proposed issues to be presented to the Commission by Parker Ag Services, LLC and has reviewed a draft version of a letter to be submitted to the Commission for the January 14, 2013 informational hearing. The Division believes that the scope of issues identified is appropriate for consideration for rulemaking. If a rulemaking hearing is scheduled, the Division intends to coordinate with Parker Ag Services, the Biosolids Committee, and other stakeholders in preparation for the rulemaking.

Stakeholder Process

The Division hosted a stakeholder meeting on November 29, 2012 to discuss potential revisions to Regulation 64. Notice of the meeting was provided to the Biosolids Committee, which is an industry stakeholder group representing biosolids generators, applicators, and consultants. Representatives

from various biosolids generators and applicators were present at the meeting. Stakeholders proposed the following areas for potential regulatory revisions:

1. Phosphorus limits for biosolids application.
2. Restrictions on applying biosolids based on depth of groundwater.
3. Application of biosolids above the agronomic rate for reclamation.
4. Alternative requirements and/or exclusions for generators who generate only small quantities of biosolids.

During the meeting, it was proposed that the Parker Ag Services, LLC would prepare a memo to the Commission as part of the January 14, 2013 informational hearing that provides information on and proposing rulemaking regarding these issues. It was also discussed that Parker Ag Services, LLC would act as a representative of the Biosolids Committee to be the proponent for proposed regulatory changes if the Commission scheduled a rulemaking. There was no opposition presented at the meeting to proceeding with rulemaking to address these four issues.

In addition, the Division discussed the specific issue of TENORM materials related to Biosolids requirements with stakeholder at both the above referenced meeting and at the Colorado Water Quality Forum on November 19, 2012. The Division indicated at both meetings that it did not intend to recommend to the Commission that changes to Regulation 64 associated with radionuclides and TENORM be considered at this time.

Summary of Issues associated with TENORM

Although the Division is not recommending that the Commission schedule rulemaking at this time, the Division would like to provide information to the commission regarding the potential for TENORM to be present in discharges to Publicly Owned Treatment Works from some drinking water treatment facilities. The issue relates to Regulation No. 64 because the influent of TENORM into the POTW has the potential to result in TENORM in biosolids.

There is potential for radionuclides to be present in residual wastes from water treatment. More intensive drinking water treatment processes, such as reverse osmosis, may further increase the potential for, and the concentration of, radionuclide in the waste. This material, which can be concentrated by the treatment process, is classified as TENORM. The Hazardous Materials and Waste Management Division's Radiation Control Program regulates TENORM management, and drinking water residuals containing TENORM may fall under the requirements of this program. This could include requirements associated with all disposal pathways, including disposal to the sanitary sewer system and subsequent requirements associated with the waste water treatment plant biosolids if they also potentially contain TENORM. The Water Quality Control Division and the Hazardous Materials and Waste Management Division both have processes in place that help to identify the potential for TENORM in drinking water treatment plant residuals and to address disposal pathways and coordination with the Radiation Control Program. However, the Department has identified a need to evaluate the processes and requirements in place regarding identification of TENORM associated with drinking water treatment facilities more holistically to help facilitate identification and proper management of these materials. Specifically, the Division has identified a need to obtain more data about the presence of TENORM in drinking water residuals and in sludge at POTWS that accept drinking water treatment wastes.

A limitation for total alpha activity, a measure of the total amount of radioactivity, were previously included in Regulation No. 64, but were removed by the Commission in 2003. According to the

Statement of Basis and Purpose for the March 2003 rulemaking, the limitation was removed because of existing regulation of radioactive materials through the Colorado Radiation Control Act, currently implemented by the Radiation Control Program. Monitoring for radionuclides was never included in Regulation No. 64. The Statement of Basis and Purpose from the original passing of the regulation in 1993 states that monitoring was not included in the regulation because previous monitoring indicated the likelihood of biosolids exceeding the criterion to be minimal.” However, several factors have changed since these previous decisions were made, including changes in drinking water treatment practices and increased evaluation and control based on individual speciation instead of on the total alpha. Although radioactive material continues to be regulated by the Radiation Control Program, the Division believes that reevaluation of Division regulation and procedures is appropriate at this time because of the new conditions.

The Division does not have any proposed revision to the Regulation No. 64 at this time. Further information and discussion with stakeholders is necessary. Areas for discussion may include monitoring and/or limitations for radionuclides in biosolids.