



COLORADO WATER UTILITY COUNCIL
Rocky Mountain Section of the American Water Works Association

Section 9 Waste Impoundments

Feedback from the Colorado Water Utility Council on the February 1st Stakeholder Meeting.

1. CWUC requests that CDPHE develop a list of attributes of a successful regulatory program for waste impoundments.
[Included with the email transmitting these comment responses.](#)
2. CWUC requests that CDPHE further develop the following fundamental statement for inclusion in the Statement of Basis and Purpose: The purpose of the rulemaking is to comprehensively update the Solid Waste Regulations to.....
 - a. achieve...
 - b. develop language to implement the WQCD's delegation of authority with regard to "wastewater impoundments at water treatment plants".
 - c. discontinue the issuance of groundwater discharge permits for waste impoundments.

[We will generate statements that address these items. In fact, we will work on a comprehensive set of statements addressing all known issues at this time over the next couple of weeks. At the end of the day, some of these statements may be appropriate to include in the Statement of Basis and Purpose, and some may not. We can decide that later.](#)

3. CWUC requests comments on the DRAFT legislation developed by the CWUC. Comments on a paragraph by paragraph basis would be helpful.
[The Department will not support legislation that adds certain sectors of waste impoundments to the list of solid waste exemptions found in 30-20-101\(6\)\(b\).](#)
4. Review Section 9.1.2 Exemptions, specifically items E, F, N, and P:
 - a. Suggest revising item E to read: "Tanks not ancillary to a **waste** impoundment subject to this Section 9"[We agree and will make this change.](#)

- b. Regarding Item F, what criteria will CDPHE apply to determine whether an impoundment's primary function is water treatment and not waste treatment or disposal?

Item F was a distinction that the CWUC wanted included on the list of exempted items. What criteria would you suggest?

- c. Regarding, suggest revising item N to read: "~~Solid waste storage~~ impoundments which are used for temporary or emergency storage of solid waste (up to ~~45 to 60~~ days); this temporary storage time frame must be documented to ensure the 30-day timeframe is not exceeded"

We will make the first suggested change (deleting "Solid waste storage"); we need justification for the second suggested change (# of days) – under what circumstances would facilities need to store solid waste longer than 30 days in a temporary unit?

- d. Suggest deleting item P because of the unintelligible phrase "self-supporting structural integrity" perhaps incorporating some of words/themes into the definition of ancillary equipment, language such as "tanks and other structures that are used to distribute, meter, or control the flow of solid waste to a waste impoundment or between waste impoundments"

We agree and will delete item P.

- 5. CWUC requests global revisions throughout the document, flow chart, and matrix regarding:
 - a. References to CBGS and Colorado Basic Standards replaced by WQCC Regulation 41: Basic Standards For Groundwater
 - b. Consistent use of the terms
 - i. Impoundment
 - ii. Waste impoundment
 - iii. Solid waste impoundment
 - iv. Solid waste storage impoundment
 - c. Remove references to EP in Section 9.3.1.C(3)
 - d. Correction of all paragraphs citations on Page 10

We agree with all of these items and will make corrections in the next version of the draft regulations.

- 6. CWUC requests clarification on Type A Waste Impoundments, specifically:
 - a. Are adverse impacts limited to exceedances of numeric groundwater standards in Reg. 41 at the point of compliance?

Yes. We will add clarification in the draft regs to clearly explain that for waste impoundment classification purposes, Type A impoundments only need to show that Reg 41 levels will be met at the point(s) of compliance. We will add a section to the Stmt of Basis and Purpose explaining the coordination of Reg 41 and Appendix B for both Type A and Type B impoundments.

- b. Which waste characteristics would allow CDPHE to classify waste impoundments as Type A?

The "waste characteristics" that need to be evaluated are the concentrations in the waste of constituents listed in Reg 41. As described in the draft regulations, if influent concentrations of waste constituents are less than the Reg 41 levels, then the impoundment is Type A – no further demonstration is required. We will add a section to the Stmt of Basis and Purpose explaining the coordination of Reg 41 and Appendix B for both Type A and Type B impoundments.

Which site setting and hydrogeologic characteristics would allow the Division to classify a waste impoundment as Type A?

If the requirements of 9.1.5(A)(1) are met, then no setting/hydrogeologic evaluation is necessary – the impoundment is Type A.

We will add a section to the Stmt of Basis and Purpose explaining the coordination of Reg 41 and Appendix B for both Type A and Type B impoundments.

7. The CWUC does not believe it is appropriate to address "naturally-occurring radionuclides" in this regulation and recommends that Section 9.1.5(C) be deleted. First, the primary purpose of this impoundment regulation is the protection of groundwater, not to protect workers or the public from risks of inhalation or ingestion. We disagree – the primary purposes of this regulation are both protection of human health and protection of the environment. Type C impoundments are those few that may cause unacceptable risks to people in the vicinity of the impoundment and those risks must be controlled via implementation of these regulations. Other federal and state regulatory programs address those types of concerns. We would be curious to know which programs you are referring to. Second, the proposed standard of "unacceptable exposure risk" is too general and could require site-specific risk assessments for each impoundment in the State, which would impose an undue burden on many utilities and impoundment operators.

To address those few impoundments in the State that may present a risk of worker or public exposure to NORM, the CWUC recommends that CDPHE establish a separate stakeholder process to develop specific standards applicable to such impoundments under appropriate statutory authorities.

Potentially applicable statutory authorities would include the Air Quality Control Act, the Radiation Control Act and the Solid Waste Act. We disagree. TENORM constituents are solid waste as they are accumulated in these impoundments along with other constituents and materials that have been removed from drinking water. As such, TENORM constituents can be regulated and managed under solid waste authorities. The TENORM Guidance (Interim Policy and Guidance Pending Rulemaking for Control and Disposition of Technologically-Enhanced Naturally Occurring Radioactive Materials in Colorado, Rev. 2.1, Final Draft for Comment, February 2007) was developed through an extensive stakeholder process similar to what CWUC is requesting here and thoroughly presents water treatment residuals management

options. We want to be consistent with that guidance. In section 2 of the guidance (beginning on page 12 of the second section of the overall document), there are multiple references to worker safety and exposure risks as factors that must be considered in water treatment design and residuals storage. Section 2.4.3 includes a specific discussion regarding residuals management and the development of best management practices to control worker risks and environmental hazards. Your comment points out the fact that the draft waste impoundment regulations do not include a section describing specific requirements for Type C impoundments, as it does for Types A and B. We will develop such a section that is consistent with the TENORM guidance and lists BMPs that can be selectively chosen by the facility to ensure worker safety.

In the alternative, any Type C impoundments could ensure mitigation of risks through a license issued by the Radiation Program at CDPHE. Getting a license will cost more and cause more extensive evaluations for the facility. We are currently coordinating with the Radiation Program. They are willing to delegate implementation of their requirements to the Solid Waste Program for impoundments containing NORM and TENORM so long as the final Section 9 regulations ensure risk mitigation and control from NORM and TENORM constituents in waste impoundments.

We will add a discussion of this issue to the Stmt of Basis and Purpose.

8. CWUC requests the development of a "Parking Lot" of items in other sections/regulations that require review or potential change for purposes of consistency. For example:
 - a. Paragraph 2.1.4 in Section 2 which states: "No facility may accept for disposal, liquid wastes or wastes containing free liquids without approval from the governing body having jurisdiction and the Department." Does this mean that local jurisdiction approval is only needed for impoundments containing free liquids that are the final disposal site of the waste, or does it also apply to impoundments where temporary storage and treatment of such waste occurs? Does Section 2.1.14 apply only to facilities needing a Certificate of Designation or also to impoundments storing/treating one's own waste on one's own property? If the water treatment plants get a legislative exemption from the CD requirement for their impoundments, would they still need to get local approval per Section 2.1.14?
 - b. Section 9 says that facilities must meet Regulation 41 - the Basic Standards For Groundwater. Section 2.2 says that facilities must comply with Appendix B.
 - c. Section 2.1.6 requires that facilities have storm water control. As Section 9 currently reads, storm water ponds containing water that

has been in contact with waste are waste impoundments and are subject to Section 9 unless covered by an existing CD or EDOR. Under Section 2.1.6., a storm water pond falling under Section 9 would need to have storm water controls. This does not make sense.

- d. Many of the Section 2 requirements, such as 2.1.7 "*waste material and debris shall not accumulate along the fence line*"; Section 2.1.11 "*sites and facilities shall have a minimum of windblown debris*" don't apply to water treatment plant sludge drying beds. Water treatment plants would need to apply for waivers from non-applicable Section 2 requirements such as these.

We agree with this overall issue. Some parts of Sections 1 and 2 will not apply to Section 9 impoundments. In addition, some parts of Sections 1 and 2 may be inconsistent with Section 9. We will add statements in the draft regulations similar to what appears in sections 12.1.1(B) and (C) to clarify how Section 9 impoundments can comply with all three sections of the regulations.

- 9. Suggested topics for the next large-group stakeholder meeting on February 23rd.
 - a. CDPHE Attributes/SBP Discussion
 - b. Type A issues/comments
 - c. Approach regarding TENORM/Radiation Exposure

Again, we will work to develop large sections of the SBP before the next meeting. We will circulate a draft as soon as we can.