TENORM STAKEHOLDER KICKOFF MEETING: October 8, 2013

General Information

The policy is developed to limit the potential annual exposures resulting from the radiation associated with TENORM and unimportant quantities of source material to a maximum of 25 mrem for any individual member of the public. The 2007 Policy and Guidance requires revision to address a broader array of media and applications and to reflect experience gained in using the current policy.

Solid Waste is undergoing a parallel guidance development effort involving beneficial reuse of oil and gas produced water. They are considering going on hiatus after the Oct. 22 meeting to see how the broader TENORM policy process unfolds. See http://www.colorado.gov/cs/Satellite/CDPHE-HM/CBON/1251643519986

The Governor's Energy Office also has a process involving beneficial reuse that is broader than the Solid Waste effort. For information, contact tom.hunt@state.co.us

The Radiation Control Act precludes regulations for NORM and TENORM disposal. Regulations are not proposed in this policy/guidance development process. The current and revised policies are designed to provide relief to the regulated community. We want to allow other agencies to have regulatory oversight, but provide the necessary radiation protection.

In addition to Radiation Program staff, the process includes staff from the Water Quality Control Division, Air Pollution Control Division, Attorney General's Office, Division of Reclamation Mining and Safety, and the Colorado Oil and Gas Conservation Commission.

Specific Stakeholder Comments and Questions:

Comment: These stakeholder processes are designed to identify a problem [that can be fixed through regulation or policy]. I haven't heard a problem yet. Why are we here? I'd like to hear if there are other industries concerned here. Don't broaden the policy unnecessarily.
Response: We are routinely asked for guidance for a wide variety of TENORM applications such as how to disposition filter socks (oil and gas industry), waste evaporation pond closure, produced water reuse, and disposal of water treatment residuals, biosolids, and scrap piping and equipment. We want to make it easy to apply the policy to these issues and questions.

Comment: Municipalities have limited resources. Keep it simple and provide outreach. Most drinking water facilities are small and serve small communities. A lot of their questions reflect their lack of resources and sophistication. That situation won't change despite a new policy.
Response: The revised policy should provide clarification in how to address some of the complex issues. If needed, the water treatment residuals guidance will be updated through this process to provide more clarification for these facilities.

Comment: There's nothing to react to yet.

Response: A draft of the revised policy is included on the website. The kickoff meeting helped to define the areas of interest. Comments on this draft are encouraged to help define future issues and topics for discussion.

Comment: It would help to create a group for wastewater/biosolids issues, a segment of industry that has invested in proving the negative. It would be an opportunity to present data showing that segment should be exempted.

Comment: We need to ensure consistency — especially when it comes to unrestricted use, as applied equally to licensees compared to TENORM. Why use 25 mrem instead of 100 mrem, as included in the regulations and CRCPD Suggested State Regulations SubPart N? : Where does the 25mrem standard come from? Is it a public health standard? What about daughter products of radium (such as Pb^{210})? Who will do dose assessments?
Response: These questions will be discussed in the stakeholder process. The department encourages stakeholders to perform dose assessments for their media or industry as part of this process.

Question: Will you eventually go through a rulemaking process?
Response: The Radiation Program does not intend to initiate rulemaking, as the Radiation Control Act prohibits development of regulations for the disposal of NORM and TENORM. However, other programs (Water Quality, Solid Waste) may choose to implement regulatory changes to facilitate application of their regulations.

Question: What if a dose assessment shows 9 pCi/g can be land-applied —could that be exempted, even though it's within the window [shown on the matrix]?
Response: As in the current policy, facilities are encouraged to develop site- or situation-specific dose assessments for consideration.

Question: What happened to gross alpha in the state's measurement chart?
Response: As noted in the 2007 Policy, "This effort is driven by the recognition that the long-standing limit of 40 pCi/g of gross alpha radioactivity is not compatible with current, risk-informed regulatory philosophy. Although the utility of gross alpha measurements for such materials has been questioned because of the high uncertainty and lack of specificity inherent in the method, the test will be required until the Solid Waste Regulations and Biosolids Regulations are amended."
Both regulations utilize 40 pCi/g gross alpha as an indicator, and the solid waste regulations do not preclude additional testing of materials. The biosolids regulations note that data showed no radionuclides associated with biosolids. Since we now have evidence of radionuclides in biosolids, the policy should be able to assist in understanding how to address these materials.

Question: Is 25 mrem policy or regulation?
Response: Both.

Question: Is there/should there be radiation monitoring at all landfills?

Response: That's a good question for the process to consider. In part, monitoring allows a landfill to manage their liability.

Issues Identified:

- Use of 40 pCi/g alpha as a trigger indicator
- Use of 25 mrem versus 100 mrem
- How to include radon and radon progeny in dose assessment
- How to determine background radiation levels

Media/applications to be considered:

- Water treatment residuals (unless adequately covered in current policy/guidance)
- Biosolids from wastewater treatment
- Oil and gas tank bottoms
- Oil and gas drill cuttings
- Mine waste/mine water

Path Forward:

- Next meeting: 3 p.m. December 11, 2013, CDPHE, Building A, Sabin/Cleere Room
- Are interim meetings featuring breakout groups needed?
    - By industry: Oil and gas, municipal water treatment, etc.
    - By like disposal methods

  Comment: Some industry–specific meetings make sense, but there are generic, cross-cutting issues, too. High-level issues (such as the 25mrem standard) should come first in future discussions.

  The program will consider whether interim meetings would be productive at this time and notify the stakeholders of that decision.
- The Radiation Program needs data from stakeholders to determine where specific issues should be addressed, and where no or little focus is required. For example, knowing which oil and gas basins produce water with radionuclides would help focus guidance considerations. Stakeholders are encouraged to share data with the program and other stakeholders prior to the next meeting.
- Can you post the sign-up sheets so we can collaborate? *Note: We will provide electronic copies of the sign-up sheets upon request, but will not post them on the website to protect stakeholders from "phishing" scams and other malicious activities.*
- Comments received on the draft policy (on the web site) and the comments from this meeting will be used to develop an agenda for the next meeting. 1