Solid Waste Management Regulation, 9 VAC 20-81
Amendment 9 Regulatory Advisory Panel (RAP) Meeting No. 3
June 10, 2021
Meeting Notes

Location:electronic meeting via webinar

Start: 9:33 a.m.
End: 3:05 p.m.

Meeting Attendees:

RAP Members present
Raymond McGowan *arrived at 9:39 a.m.
Betty Myers
Ron Kimble
Paul Mandeville
Michael Lawless
Phillip Musegaas

DEQ Staff Present
Kathryn Perszyk
Richard Doucette
Priscilla Rohrer
Marilee Tretina
Melissa Porterfield

I. Agenda Item: Logistics & Introductions

Discussion: Melissa Porterfield had individuals appointed to the Regulatory Advisory Panel introduce themselves. She informed the RAP that the meeting was being audio recorded. Meeting notes will be posted on the Virginia Regulatory Town Hall website. Since this meeting is being held electronically, staff will be using a modified "open chair" concept to allow the public to provide information specific to the topic being addressed through the webinar chat feature.

II. Agenda Item: Landfill Operations

Discussion: Priscilla Rohrer provided a brief overview of issues with fires at facilities. This was the continuation of the presentation on landfill operations that was not completed at the May 21, 2021 RAP meeting. The department is proposing to add a requirement to the regulation for the monitoring of subsurface fires that would be applicable to all landfill types. Monitoring was proposed in order to delineate the extent of a subsurface fire, determine actions necessary for control, and demonstrate that a subsurface fire is effectively extinguished. Mrs. Rohrer requested feedback from the RAP on when subsurface monitoring related to a fire should be required at a

landfill, what would be appropriate information to demonstrate that the fire has been extinguished (e.g. temperature and carbon monoxide below a certain threshold), the frequency of monitoring required, the methods for sampling, and any associated information RAP members could provide concerning the cost of this type of monitoring.

Some members of the RAP expressed concern with including exact monitoring values, such as specific temperatures or carbon monoxide readings, into the regulation and stated they believe it would be more appropriate to address these monitoring parameters through guidance due to the variability observed at different landfills. There was discussion of some standard industry practices used to investigate subsurface conditions at landfills. When an area of the landfill is suspected to have elevated subsurface temperatures, a perimeter or radius is established around the area and the vacuum is reduced in surrounding gas extraction wells to prevent oxygen intrusion. The area is examined for cracks in the cover material as well as any cracks surrounding monitoring wells which could also introduce oxygen into the waste mass. Measurements of carbon monoxide are also taken. Some RAP members expressed concern that it would be difficult to include regulatory requirements that monitor for suspected subsurface fires since elevated temperature landfills also exist, and flexibility needs to be retained to investigate, collect, and analyze various types of data for all possible scenarios.

A question was asked concerning what requirements other states have concerning subsurface monitoring for fires. DEQ staff responded that they had not found subsurface monitoring for fires or elevated temperature monitoring requirements in other states' regulations, and staff questioned if the RAP was aware of other elements (other than temperature and carbon monoxide monitoring) that could be included in the regulation that could address monitoring of subsurface fires.

RAP members shared information about their knowledge of subsurface fires. There are two types of subsurface fires that can occur- one from landfill gas, and the other is a fire in a waste mass. Temperature and carbon monoxide monitoring are the most common indicators that are used to detect these fires. The primary method to address these fires is to cut off the oxygen source to the fire.

A RAP member expressed concern with requiring any periodic subsurface monitoring to occur in areas that have been closed or capped since that would disturb the final cap that is required to be installed. A RAP member also stated that they thought that if the regulations were to include any subsurface monitoring requirement, that the frequency should not be daily since there is typically not a large change in subsurface temperature or carbon monoxide levels on a daily basis.

One RAP member indicated that smoke may be an indicator that there is a subsurface fire, and that the source of the smoke is typically investigated through checking oxygen levels in wells surrounding the smoke. The member stated that the steps taken as part of a subsurface investigation could be included in departmental guidance.

One member suggested addressing subsurface events and related subsurface fires (or suspected fires) in the Gas Management Plan. Another thought was to address suspected subsurface fires in the operations plan (fire control plan). The group reached consensus to address subsurface

events through adding some general guidelines of items to be addressed in the gas management plan.

Subsurface events were further discussed. A subsurface event may or may not be (or lead to) a fire. Unusual occurrences are required to be reported to DEQ within 24 hours and followed up by a report within 5 days. A suggestion was made to include a checklist for subsurface event notifications to ensure that subsurface events are being investigated.

Staff discussed that they think it would be a good idea to provide more clarification to the regulation in the reporting section to clarify when a fire, explosion or other event (currently listed in DEQ guidance) needs to be reported to DEQ.

A RAP member suggested that another option would be to add a condition to section 200 (landfill gas section) of the regulations requiring facilities to take all immediate steps necessary to control and remediate subsurface events in accordance with the gas plan (similar to the language for addressing methane exceedances).

The RAP was asked if a definition of "subsurface event" (or similar terminology) should be added to the regulation, and if so are there certain parameters that should be included in the definition. It was noted that subsurface events could either develop over time or occur as discreet events, so there may be questions regarding at what point a notification to the department is required. Members were asked to think about this and provide feedback in the future on how they would define this term for reporting purposes, for inclusion in the Gas Management Plan, or for inclusion in section 200 (landfill gas section) of the regulations.

Information on the current cover standards for industrial landfills was shared with the RAP. There are no daily cover requirements unless the industrial landfill disposes of asbestos-containing material, and there are no weekly cover requirements. Ash landfills are required to provide "periodic cover" (which is not defined in the regulation) or use dust control measures. Photos with issues occurring at industrial landfills due to lack of cover and large areas of exposed waste were shown to the RAP. The lack of frequent cover is causing issues with increased stormwater infiltration, excess leachate generation, erosion (including subsurface erosion), spread of fires, odor complaints, blowing litter, and scavengers and vector control at industrial facilities. Municipal solid waste and Construction demolition debris landfills are required to provide more frequent cover. DEQ proposes to add a requirement for 6 inches of soil cover to be placed on the working area at a minimum of once a week (or by the end of the work week). If the weekly cover is not effective in addressing fire, stormwater, odor, leachate, litter and vectors, then daily cover may be required by the department. Other states have included weekly cover or 15 day cover requirements for industrial landfills.

RAP members discussed that this would be a big change for industrial landfill operators. There was concern that there is a large variety of wastes being handled at industrial landfills and that it may be appropriate to subcategorize industrial landfills and then require cover based on the waste that is managed. The use of facility SIC codes may be one way to address the different types of wastes managed and the appropriate cover requirements. Staff noted that the Department

could take that into consideration but that widespread issues have been observed at many industrial landfills of varying waste types.

Cost information concerning requiring weekly cover at industrial landfills was requested for inclusion in the proposed Town Hall document. It was noted that the cost will vary depending on whether the landfill already has soil available onsite or has to transport soil from offsite. A webinar comment was submitted by Andrea Wortzel representing VMA offering to coordinate with RAP member Mike Lawless to provide information on the impact this change would have on industrial landfills. RAP members and staff also agreed that costs are not the first priority for consideration and that the proposal for adding a more frequent cover requirement to the regulations was based on protection to human health and the environment.

Before concluding the discussion of landfill operations, the RAP was asked if there were any additional issues concerning operational requirements in the regulation that need to be addressed. One RAP member recognized that the current regulations refer to a recommended 10 ft. lift height whereas some landfills are now using a 20 ft. lift height. No changes were proposed since the regulation uses the word "recommended." The issue of alternate daily cover (ADC) materials was also mentioned. The request was for a default list of approved ADC materials to be provided to expedite demonstration periods. A list of approved ADC materials was previously on the DEQ website. With the re-launch of the DEQ website, this information is no longer available. DEQ indicated they would work to re-post this information to the website for facilities to use as a resource. The Department is still requiring landfills to conduct a demonstration period for each ADC request to ensure the material is effective and suitable for use at each landfill.

III. Agenda Item: Landfill Gas

Discussion: Richard Doucette presented information concerning changes that DEQ is proposing to the landfill gas section of the regulation. Similar to the requirements being proposed for groundwater monitoring wells, the labeling of gas monitoring wells will be required. Additionally, protection of gas monitoring wells (well integrity- seal, lock, and no entry of air) will be required. Requirements will be added for gas monitoring wells to be maintained, with a quarterly check of monitoring wells, and if issues are noted, repairs and corrections to the wells should be made prior to the next monitoring event.

A question was asked concerning how to repair/correct water in landfill gas monitoring wells. A suggestion was to make the language more generic to state that probes should be checked quarterly. Staff indicated that there needs to be a "regulatory hook" concerning the non-correction of issues discovered with gas monitoring wells. Consensus was reached on striking the phrase ~~(not damaged or inundated with water)~~ from the proposed change to 9VAC20-81-200 B 5. 9VAC20-81-200 B 5 would read: <u>At a minimum, the gas monitoring network shall be checked quarterly to ensure probes are functioning. Repairs to the gas monitoring network shall be completed prior to the next gas monitoring event unless an alternate repair timeframe is requested and approved.</u>

Notifications of landfill neighbors of exceedances of the compliance levels of 5% methane was discussed. RAP members shared their thoughts about this requirement.

- Notifications take time, and there may not be a quick solution to the problem. There could be multiple notifications that would occur before the problem is fixed.
- If notifications are required, then only require when at the first compliance level exceedance of a probe and then again when the issue has been corrected (i.e. when the exceeding probe is returned to a quarterly monitoring frequency).
- If a home is within a certain distance of the exceeding gas monitoring probe (a potential receptor) then require notification.
- Only require notification on side of facility that is experiencing the exceedance- no notification on all sides of facility.
- How to notify and document notifications, what process should be used, email, registered mail?

DEQ is going to revise the proposed language 200 C 2 in response after considering the issues and questions expressed by the RAP.

Odor complaints were discussed, and new requirements are being proposed to the regulation to include documentation of the complaint, time, odor, weather; to investigate and remediate as appropriate; and to document the resolution of the complaint.

Calibration of air monitoring equipment will be included in the regulation. Consensus was reached to include calibration requirements consistent with the calibration requirements found in the Air regulations (Air permits for larger landfill facilities). All air cross references in this regulation need to be checked to be updated with recent changes to the air regulations.

Suggestion was made to include in guidance helpful steps for homeowners receiving notifications of methane exceedances. This might include suggestions to conduct in-structure methane monitoring, and a facility may offer to monitor an adjacent structure that may be a receptor for landfill gas if the neighbor/property owner agrees. This could be an informational sheet to the homeowner concurrent with the notification of compliance level exceedance.

II. Agenda Item: Landfill Siting

Discussion: Kathryn Perszyk led the discussion concerning landfill siting requirements. She reviewed that the current definition of the facility boundary for a landfill includes the waste management boundary (WMB) and other ancillaries such as scales, maintenance facilities, monitoring wells. She utilized a plan map to show examples of facility boundary and waste management boundary.

The siting requirement for a setback for the WMB from a facility boundary is currently 50 feet. Some public comments submitted indicated that this distance should be increased since other states are using larger setback distances. Any changes to the regulation concerning the setback from the facility boundary to the WMB would only be applicable to new expansion areas. The group reached consensus to changing the siting setback distance of a new or expanded WMB to 100 feet from the facility boundary.

The group discussed changing the setback distance from the WMB to a residence, school, daycare center, hospital, nursing home, or recreational park area in existence at the time of

application. The current setback distance is 200 feet. This issue was tabled since the RAP felt that they were not ready to make a decision concerning changing this setback distance.

The group discussed Resource Protection areas (RPA). The group reached consensus on including the RPA on the near vicinity maps.

The group discussed seismic impact area information. The US Geological Survey (USGS) provides information on the seismic maps. This data is utilized in addition to site geology to conduct modeling of suitability for landfills.

A question was asked about including Environmental Justice issues in this regulation. DEQ has recently hired a Director of Environmental Justice and is assessing how to address environmental justice issues across all media programs and regulations. Environmental Justice is a multimedia issue, not just specific to waste; therefore, specific changes are not being proposed to the waste regulation at this time.

RAP members were provided with draft regulatory language concerning the annual survey requirement. Comments were provided by the RAP members and included the following:

- Member liked the use of the term "separately permitted" because it allows some flexibility. A suggestions was made to repeat the use of this term at the end of the new language.
- Member agrees that there needs to be flexibility for smaller facilities (permitted at less than 300 tpd). Questioned if the requirement should be based on the permitted limit or the actual throughput.
- Smaller CDD and Industrial Landfills may be impacted more by this annual flyover. Questioned if the CDD and Industrial Landfills should be included in this requirement or if it should be only for sanitary landfills. It was noted that overfilling has been observed at CDD landfills.
- A question was raised if a variance could be applied for from the annual flyover requirement. (Yes, this is something that a variance could be requested from)
- When calculating the remaining life are we considering what is constructed or permitted? (Draft annual survey requirement indicated constructed only) In the Solid Waste Information and Assessment (SWIA) report you use permitted remaining life. How does this coordinate with the state's 20 year remaining capacity evaluation?
- Allow for settlement in the regulatory language (Staff are not comfortable with including a settlement allowance- final elevations and slopes in the permit should not be exceeded)
- Change the term "constructed disposal unit" to "permitted disposal unit" in the draft language.
- Preference for requiring the report to be submitted within 90 days (not 60 days) of the flyover.

DEQ will consider the feedback received on the draft language when creating the proposed language.