



COLORADO

Department of Public
Health & Environment

Dedicated to protecting and improving the health and environment of the people of Colorado

August 2, 2017

Mr. Michael Schultz
Planning and Community Development
City of Colorado Springs
30 S. Nevada Ave., #105
Colorado Springs, CO 80901

Re: Clarification: Recommendation for Approval for Four Waiver Requests in the Closure Plan and Post-Closure Care and Maintenance Plan, Lots 1 and 2, Drennan Industrial Center, Colorado Springs, Colorado, dated January 27, 2017

File: sw/elp/oip/1.1

Dear Mr. Schultz:

As you know, the Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division (the "Division") wrote a letter to the City of Colorado Springs Planning Commission, dated April 26, 2017, recommending that the Planning Commission approve an application, with several conditions, for a Certificate of Designation (CD) for the subject property. The CD would allow the land to be used as a permanent repository for waste asphalt shingles that were previously stockpiled on-site.

The basis for recommending approval of the requested CD is contained in the Applicant submitted document titled *Closure Plan and Post-Closure Care and Maintenance Plan, Lots 1 and 2, Drennan Industrial Center, Colorado Springs, Colorado*, dated January 27, 2017 (the "Closure and Post-Closure Plan"). Appendix C of the Closure and Post-Closure Plan requests that four regulations contained in the Colorado Solid Waste Regulations, 6 CCR 1007-2, Part 1 (the "Solid Waste Regulations") be waived as requirements for the requested CD. According to Section 1.5 of the Solid Waste Regulations (Waivers Processes and Procedures), an Applicant may request a waiver from any requirement in Sections 2 through 18. Section 1.5 goes on to state that the waiver request will be approved by the Department (i.e., the Division), *after consultation with the governing body having jurisdiction*. The following are the requested waivers by the Applicant:

1. Section 2.2, Ground Water Monitoring
2. Section 2.3, Explosive Gas Monitoring
3. Section 3.2.5 (D), Leachate Collection and Leachate Removal System
4. Section 5.5.3 (C) 5, Direct Experience Required for QPM

The City of Colorado Springs should also be aware of one other provision of the Solid Waste Regulations concerning waivers. Section 1.5.4 states: "*Anytime that the facility which has been operating under a waiver granted by the Department can no longer meet the waiver criteria, the waiver is void and ceases to exist.*" This regulation should provide assurance to the City of Colorado Springs that, provided there is a justifiable reason, the Solid Waste Regulations provide an "out" for a previously approved waiver.

FIGURE 7 - Olesky Shingle



Ground Water Monitoring Waiver Request

A waiver from ground water monitoring was recommended for approval for this site for several reasons. The primary reason is that the only potential ground water contaminant from asphalt shingles would be from polycyclic aromatic hydrocarbons (PAH). Studies have shown that PAH is leachable from asphalt shingles only when it is ground up, which is typically done when recycling the material. In some states, asphalt shingles are ground up and used with other materials as part of a pavement mix for roadways. For this project, however, the asphalt shingles will not be ground up, but rather will be moved, with full-time observation by a CABI/QPM, into the excavated repository. The potential leachability of the asphalt shingles during closure and post-closure is essentially nil. Other considerations for recommending approval of the ground water monitoring waiver requirement include the following:

- The disposal area will take up the majority of the owner's property, which in total, is about 1-acre in size. It would be very difficult to design and utilize both upgradient wells capable of detecting background water quality, as well as point of compliance wells, which are designed to detect potential releases from the disposal unit downgradient, within the limited site boundary.
- The bottom of the repository has been planned with a minimum of 3-foot of separation from high ground water level, as directly measured at the site.
- The asphalt shingles will be covered with a 3-foot thick cap that will be vegetated, providing somewhat of a "barrier" to direct percolation, as well some evapotranspiration (ET) benefit from the required vegetation.
- It is estimated that about 80% of buildings in the U.S. have asphalt shingle roofs. Nationally, runoff from asphalt shingle roofs is handled as stormwater.

Finally, Appendix B1 of the Solid Waste Regulations requires that for sites that have ground water monitoring requirements that are waived, a demonstration that "*no potential exists for migration of hazardous substances, pollutants and contaminants from the facility*" must be made every five years. The demonstration will be submitted to, and approved by, both the Division and City of Colorado Springs.

Explosive Gas Monitoring Waiver Request

According to the EPA (2005)¹, landfill gas is the natural by-product of the anaerobic decomposition of biodegradable waste in landfills. Asphalt shingles are not biodegradable, so the generation of landfill gas is not possible. Therefore, gas monitoring is not applicable to this project.

Leachate Collection and Leachate Removal System Waiver Request

According to section 3.2.5(D)(1) of the Solid Waste Regulations, a leachate collection system is designed to maintain less than 12-inches of leachate over the barrier layer, and to promote and transport leachate from the most distant point of the leachate collection system to the leachate removal system in less than 12 months. Unlike putrescible waste disposed at a municipal solid waste landfill that typically generates leachate, and as discussed above, the asphalt shingles for this project will not be ground up, so leachate will not be generated. Therefore, a leachate collection and leachate removal system is not applicable for this project.

¹ EPA, 2005, "Guidance for Evaluating Landfill Gas Emissions from Closed or Abandoned Facilities", EPA-600/R-05/123a

FIGURE 7 - Olesky Shingle



Direct Experience Required for a QPM Waiver Request

This waiver request has been addressed through the recent issuance of Condition 7 as an amended *Recommendation for Approval with Conditions* letter the Division sent to the Planning Commission, dated August 2, 2017. If the CD is approved by the Planning Commission, Condition 7 requires the Applicant to submit additional detailed information for review and approval by both the Division and the City of Colorado Springs. Condition 7 also affirms that the remainder of Section 5.5 of the Solid Waste Regulations are applicable to this closure.

Please let me know if you have any questions concerning this letter or require further information.

Sincerely,



Lawrence J. Bruskin, P.E.
Solid Waste Permitting Unit
Solid Waste and Materials Management Program
Hazardous Materials and Waste Management Division

cc: Mark Gebhart, El Paso County Development Services

ec: Neil Olesky, Olesky Investments
Michael Pretti, P.E., Souder, Miller & Associates
Brock Foster, P.E., Colorado Springs Utilities
Lukas Staks, Colorado AGO
Jerry Henderson, HMWMD
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Brian Long, HMWMD

FIGURE 7 - Olesky Shingle

