## **Town of Chestertown**



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September 10, 2020

Christopher H. Ralston, Program Manager Oil Control Program Maryland Department of the Environment 1800 Washington Boulevard Suite 620 Baltimore, MD 2130

Dear Mr. Ralston:

Thank you for your August 28<sup>th</sup> letter regarding the oil cleanup project at the University of Maryland Shore Medical Center at Chestertown (the Hospital). The Town of Chestertown values MDE's commitment to oversight and transparency of the oil remediation project being conducted at the hospital. Given the proximity of the Town's water supply to this ongoing remediation, the Town is pleased to hear that the approved turn off of the pump and treat (P & T) system will be done in a safe and measured manner.

Although the Town understands that MDE is exploring additional long-term sampling requirements prior to and during the shutdown of the P & T system. The Town believes that all long-term sampling requirements, future reports, and analysis must focus solely on data generated from EPA SW-846 methods that are required for use in federal solid and hazardous waste programs. After reviewing the enclosed fact sheet enclosed in your August 28<sup>th</sup> letter, the Town is concerned that the Silica Gel Cleanup Method (Method 3630) used with SW 846 Method 8015 (Method 8015) will not provide accurate data which is of the utmost importance in protecting the Town's water supply.

Recently on November 25, 2019, the United States Environmental Protection Agency (EPA) responded to Chevron Environmental Management and Real Estate Company's request to approve the Silica Gel Cleanup Method with Method 8015 (see the Enclosed EPA Response Letter to Chevron). The Agency could not agree with Chevron's request, despite support from the Interstate Technology and Regulatory Council (ITRC), to link the Silica Gel Method with Method 8015 in a "Total Petroleum Hydrocarbons" approach. In response, the Agency concluded that this Total Hydrocarbon approach may have unintended consequences, particularly where Method 8015 is being cited in a state regulation or guidance as a 'required' method. It is important to note that several during EPA's review, several chemists stated the silica gel cleanup will remove some of

the more polar hydrocarbons, it may also result in loss of some petroleum hydrocarbons as well (See Enclosure).

We appreciate MDE's goal in having more lines of evidence in determining the effectiveness of the Hospital's remediation process, especially when considering the proximity of the Town's Class 1 water supply. However, the Town is concerned with a determination made by the ITRC in the Fact Sheet enclosed in your August 28<sup>th</sup> letter. According to this Fact Sheet the silica gel extracts polar from non-polar hydrocarbons, but never delineates what hydrocarbons are included as non-polar and polar. The ITRC also made a determination that "a sample that is cleaned up with silica gel (e.g. by EPA Method 3630) and is then processed and analyzed by EPA Method 8015 will produce a TPH-DRO result that is a much more precise measure of petroleum hydrocarbons." The Town disputes this claim and is concerned that encouraging the silica gel approach may compromise MDE's goal in having more lines of evidence. Last year EPA chemists stated that the Silica Gel method may result in the loss of petroleum hydrocarbons. If so, this will ultimately interfere with the 8015 Method in determining TPH detection levels. The Town cautions MDE to reconsider this approach given the proximity of the Town's water source (from EPA's Class 1 Ground Water determination) and ask that MDE rely solely on EPA SW-846, Method 8015 for all sampling events.

The Town was recently informed that changes were made in the remediation team overseeing the cleanup in Chestertown. Given MDE's ongoing investigation and the recent changes made, this seems like an auspicious moment of time for the Town to meet with the Hospital team, and MDE to discuss coordination efforts of the ongoing remediation with the Town. Such a meeting will also provide the Town with a remediation update and an opportunity to discuss many issues presented in this letter. If MDE and the Hospital agree to conduct such a meeting, please provide the Town with proposed dates and times.

In closing the Town appreciates MDE's oversight and that it will evaluate all of the data collected, including benzene, toluene, ethylbenzene, xylenes, naphthalene, and methyl tertiary butyl ether. will be more than happy to provide dates once MDE completes their ongoing investigation. The Town of Chestertown looks forward to our continued relationship. As always, please feel free to contact me if you have any questions and or concerns.

Sincerely,

Enclosures

Chris Cerino, M

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## Enclosures

- cc: Mr. Kenneth Kozel, President and CEO, U of M Shore Regional Health
  - Mr. Michael Powell, Esq., Gordon Feinblatt, LLC
  - Mr. John Beskid, Director, Environmental Health Programs, Kent County Health Dept.
  - Ms. Julie Kuspa, Esq., Office of the Attorney General
  - Mr. John Grace, Source Protection and Appropriation Div., Water Supply Program, MDE
  - Mr. Saeid Kasraei, Program Manager, Water Supply Program, MDE
  - Ms. Lindley Campbell, Case Manager, Remediation Division, Oil Control Program, MDE
  - Ms. Susan Bull, Eastern Region Sprvsr., Remediation Division, Oil Control Program, MDE
  - Mr. Andrew B. Miller, Chief, Remediation Division, Oil Control Program, MDE
  - Mr. Tyler Abbot, Director, Legislative and Intergovernmental Relations, MDE



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

NOV 2 5 2019

OFFICE OF LAND AND EMERGENCY MANAGEMENT

Mr. Tom Rinehart
Regulatory Affairs Manager
Chevron Environmental Management and Real Estate Company
Environmental Management – Regulatory Affairs
685 South Chevron Way
North Salt Lake, UT 84054

Dear Tom,

Thank you for your July 3<sup>rd</sup>, 2019, email to EPA's Office of Resource Conservation and Recovery (ORCR) in which you described certain challenges regarding the use of analytical methods in the management and assessment of fuel release sites. You described how some states interpret EPA guidance such as EPA's *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods* (SW-846) under their respective state programs. For example, regarding the analysis of petroleum hydrocarbons in environmental samples using SW-846 Method 8015, you noted that some regulators may be reluctant to approve the use of sample cleanup methods (e.g., silica gel) together with Method 8015, because the cleanup methods are not specifically mentioned in EPA Method 8015. I hope this letter helps clarify EPA's position on this issue.

As you know, how an environmental sample is prepared and analyzed can depend upon the purpose of a particular measurement (e.g., regulatory requirements, desired target analytes, necessary quantitation limits, etc.). As you pointed out, there is a variety of approaches that states may take when requiring the measurement of petroleum hydrocarbons (as TPH, or Total Petroleum Hydrocarbons) in environmental samples. EPA found that in a voluntary survey by the Interstate Technology and Regulatory Council, state agencies who responded were evenly split between allowing and not allowing silica gel cleanups such as Method 3630. One quarter of the state respondents allow the use of data with or without a silica gel cleanup method, and a number of states indicated that silica gel cleanups are only to be used to remove naturally occuring polar compounds. Different state practices indicated in these survey results could be due to different state priorities or requirements, or other factors.

Method 8015C, titled "Nonhalogenated Organics by Gas Chromatography" specifically states that it measures nonhalogenated volatile and semivolatile organic compounds and that it may be applicable to compounds other than those listed in Sections 1.1 and 1.2 of the method. While Method 8015C does not specifically list all appropriate sample preparation and cleanup methods that may be combined with it, it clearly states "[i]f an extract cleanup procedure is performed, refer to Method 3600 for the appropriate QC procedures." This is consistent with EPA's view that it is acceptable to pair a variety of

<sup>&</sup>lt;sup>1</sup> ITRC, Total Petroleum Hydrocarbons (TPH) Risk Evaluation at Petroleum Contaminated Sites, Appendix C

cleanup methods with Method 8015C, such as Method 3630C (Silica Gel Cleanup) depending on the project needs. We do not agree that just because Method 3630C (or other cleanup method appropriate to the objectives of the analysis) is not specifically mentioned in the description of Method 8015 in SW-846, that one need conclude that this cleanup method is not allowed to be used with Method 8015.

To summarize, Method 8015C may be used in conjunction with Method 3630C depending upon project goals, as described above. For additional information, the SW-846 website provides guidance on the flexibility of SW-846 methods, <sup>2,3,4</sup> which EPA believes is sufficient for states to make their own determinations on how much flexibility to allow in method use supporting RCRA. I hope you find this information helpful, and please feel free to contact me at 703-308-0490. Thank you again for your efforts in the safe management and assessment of fuel release sites.

Sincerely,

Kim Kirkland, Chief

Waste Characterization Branch

Office of Resource Conservation and Recovery

<sup>&</sup>lt;sup>2</sup> SW-846 Methods Innovation Rule, <u>https://www.epa.gov/hw-sw846/final-rule-methods-innovation-rule-mir</u>

<sup>&</sup>lt;sup>3</sup> SW-846 Policy Statement, <a href="https://www.epa.gov/hw-sw846/policy-statement-about-test-methods-evaluating-solid-waste-physicalchemical-methods">https://www.epa.gov/hw-sw846/policy-statement-about-test-methods-evaluating-solid-waste-physicalchemical-methods</a>

<sup>&</sup>lt;sup>4</sup> SW-846 Chapter 2, <a href="https://www.epa.gov/hw-sw846/chapter-two-sw-846-compendium-choosing-correct-procedure">https://www.epa.gov/hw-sw846/chapter-two-sw-846-compendium-choosing-correct-procedure</a>

EPA's responses to Chevron's questions on TPH and F039 are as follows:

1. Since our meeting, have you been able to review methods 3630C and 8015 and determine if there is an approach to link these two methods?

While there are some SW-846 methods that are required for use in federal solid and hazardous waste regulatory programs (e.g., certain tests for identifying hazardous waste), most SW-846 methods, including EPA Method 8015 for total petroleum hydrocarbons, are considered guidance methods. As guidance, nothing precludes users of Method 8015 from modifying it or combining it with other methods, depending on the desired target analytes and data quality objectives. EPA is aware of commercial laboratories, for example, offering Method 8015 in combination with Method 3630 for purposes of screening out certain polar compounds. EPA is also aware that there are other modified TPH methods in use for purposes of meeting various programmatic or analytical goals or DQOs. Finally, EPA understands that some regulatory agencies may cite a particular method (such as EPA Method 8015) effectively making that parameter (e.g., TPH) "method-defined" for a particular program in that state, something which EPA has no control over.

Our primary concern with your request to modify SW-846 to 'link' a particular cleanup method such as 3630 with 8015 and continuing to call that "Total Petroleum Hydrocarbons" is that this may have unintended consequences, particularly where Method 8015 is being cited in a state regulation or guidance as a 'required' method. Our assumption is that where a state requires a specific method, they should already be aware of the attributes, including any limitations, of that method for the purpose for which it is required for use. If there is a valid reason to modify a method for purposes of achieving more accurate or more appropriate results, we believe the better approach is to work directly with the regulatory agency that is requiring a method that you believe is not the best tool for accurately measuring certain analytes.

Finally, we spoke to several EPA chemists who stated that although silica gel cleanup will remove some of the more polar hydrocarbons, it may also result in loss of some petroleum hydrocarbons as well. We are sharing this observation although it is not the basis for our decision not to revise our methods.

2. When can the F039 listing be removed from landfill leachate (if the leachate is treated through a waste water treatment plant)?

As discussed during our meeting in August 2018, if the issue is landfill leachate carrying the EPA Waste Code F039 inappropriately, you should contact the appropriate state (some states are authorized for delisting) or EPA Region about submitting a delisting petition for the leachate. The delisting process, if successful, is a way to exclude specific wastes from a listing.