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**Via eComment and electronic mail**

Sept. 11, 2024

Jessica Shirley, Acting Secretary  
 Pennsylvania Department of Environmental Protection  
 Chair, Pennsylvania Environmental Quality Board  
 Rachel Carson State Office Building, 16th Floor  
 400 Market Street, Harrisburg, Pennsylvania 17101-2301

**RE: Proposed Amendments to 25 Pa. Code Chapter 250 Administration of Land Recycling Program**

Dear Acting Secretary Shirley,

On July 13, 2024, the Pennsylvania Environmental Quality Board ("EQB") published a notice in the Pennsylvania Bulletin soliciting public comments regarding proposed substantive revisions to the current version of 25 Pa. Code Chapter 250: Administration of the Land Recycling Program ("Chapter 250"). 54 Pa.B. 3937 (July 13, 2024). Chapter 250 implements requirements under the Pennsylvania Land Recycling and Environmental Remediation Standards Act ("Act 2"). The notice in the Pennsylvania Bulletin invited submission of comments regarding the proposed changes to Chapter 250 and established a public comment period through September 11, 2024. The purpose of this submission is to provide comments on behalf of the Pennsylvania Chamber of Business and Industry ("PA Chamber") regarding the proposed changes to Chapter 250.

The PA Chamber is the largest, broad-based business advocacy group in the Commonwealth. Our nearly 10,000 member companies are involved in all industrial categories and are of all sizes. In drafting these comments, the PA Chamber has drawn from a variety of views, interests and resources from its diverse membership, which consists of a broad spectrum of Pennsylvania industrial entities, businesses, and commercial enterprises, many of which will be affected by the proposed revisions to Chapter 250. The PA Chamber has also utilized the resources and experience of Manko, Gold, Katcher & Fox, LLP in helping to prepare the comments.

The PA Chamber has worked closely with the Pennsylvania Department of Environmental Protection ("PADEP") over many years in an effort to craft policies that allow for economic development and environmental protection to occur together. In that regard, the PA Chamber has been a staunch supporter of Pennsylvania's Land Recycling Program. The Land Recycling Program has brought tremendous benefits to Pennsylvania by helping facilitate remediation and reuse of thousands of contaminated sites across the Commonwealth while protecting public health and the environment. It is critically important that the Land Recycling Program continue to be implemented in a manner that fosters the key objectives that led to the adoption of Act 2 in 1995. It is in this context that we offer the comments set forth below.

The PA Chamber appreciates the time and efforts of PADEP staff in reviewing these comments and considering our suggestions and recommendations.

## BACKGROUND

The proposed changes to Chapter 250 are the product of extensive efforts by PADEP to prepare revisions to Chapter 250 that clarify how certain elements of the Pennsylvania Land Recycling Program are being implemented. In addition, proposed changes to numeric cleanup standards set forth in Chapter 250 incorporate updated toxicological information and exposure assumptions that serve as the basis for the medium-specific concentrations (“MSCs”) that PADEP has developed to implement the statewide health standard under Act 2. Indeed, under 25 Pa. Code § 250.11, PADEP is required to “review new scientific information that relates to the basis of the MSCs as it becomes available.” PADEP is also required to propose appropriate changes to the MSCs for consideration by the EQB as necessary, “but in no case more than 36 months after the effective date of the most recently promulgated MSCs.” *Id.* We note that the most recently promulgated version of the MSCs took effect on November 20, 2021. 51 Pa.B. 7173 (November 20, 2021). The PA Chamber likewise previously submitted substantive comments on the Department’s prior Chapter 250 rulemaking effort in April 2020, some of which have been incorporated into the current proposed rulemaking.

In the course of its efforts to prepare revisions to Chapter 250, PADEP worked with the Cleanup Standards Scientific Advisory Board (“CSSAB”). This coordination resulted in significant improvements to the proposed regulations and eliminated a number of issues that might otherwise have been appropriate focal points for continued public comment. For example, the proposed version of the Chapter 250 revisions includes a change in the method of determining certain toxicity values for six carcinogenic polycyclic aromatic hydrocarbon (“PAH”) medium-specific cleanup standards which have been part of the framework under Act 2 since the inception of the Land Recycling Program, and is a welcome development for the regulated community and PA Chamber members taking advantage of the protections afforded under the Land Recycling Program.

However, there are certain issues that have not been addressed in this process or have been newly generated based on proposed changes that would add groundwater and soil MSCs for five compounds in the per- and polyfluoroalkyl substances (“PFAS”) family. These issues involve the methodology that PADEP is utilizing in developing MSCs to implement the statewide health standard under Act 2 as a general proposition, and the specific MSCs that PADEP has developed for certain regulated substances as set forth in the proposed version of the Chapter 250 revisions. It is critical to the vitality of Pennsylvania’s Land Recycling Program and other programs that rely on Chapter 250 that these issues be resolved. One such program that relies heavily on the MSCs pursuant to Act 2 is the fill management program. On January 16, 2021, the current *Management of Fill Policy* (Document No. 258-2182-773) was issued by PADEP. Under the *Management of Fill Policy*, the numeric values on which cleanup standards for soils are based in Chapter 250 are incorporated by reference for purposes of determining the clean fill concentration limits and the regulated fill concentration limits.

These concentration limits in turn affect virtually every project in Pennsylvania where fill materials are being imported or exported.

We are taking this opportunity to provide comments for consideration by the EQB and PADEP with the belief that further changes can and should be made to the proposed version of the Chapter 250 revisions before the regulations are finalized. These comments are set forth below.

## SPECIFIC PFAS ISSUES

### **1. Derivation of PFAS MSCs and Interplay with Federal National Primary Drinking Water Regulation**

On April 26, 2024 USEPA established a National Primary Drinking Water Regulation (“NPDWR”) final rulemaking<sup>1</sup>, establishing maximum contaminant levels (“MCLs”) and health-based Maximum Contaminant Level Goals (“MCLGs”) for six PFAS in drinking water. This federal rulemaking postdated the development of the PADEP’s proposed amendments to Chapter 250, as the proposed Chapter 250 amendments were adopted by the EQB at its March 12, 2024 meeting. The federal NPDWR final rulemaking is also relevant as the MCLs automatically became the MSCs for certain PFAS in groundwater 60 days after the final rule’s publication, or on June 25, 2024<sup>2</sup>. While currently effective pursuant to PADEP communications, this information is not currently reflected in the proposed Chapter 250 rulemaking and creates unnecessary confusion to the regulated community, as well as potentially for PADEP staff in the Land Recycling and Management of Fill programs.

Therefore, we believe the Department’s review of and proposed changes related to PFAS MSCs are incomplete and out-of-sync with the rapidly evolving landscape of PFAS regulation at the federal level. A solution for this inconsistency is for the Department to amend the currently proposed MSC tables for certain PFAS to incorporate the new federal NPDWR MCLs as groundwater MSCs and to re-publish these changes in the *Pennsylvania Bulletin* for further public comment. If finalized in their current form, the regulated community will be left with an outdated and incomplete set of MSC tables for PFAS that do not otherwise incorporate the latest relevant and applicable standards for groundwater.

While updating the groundwater MSCs in the proposed rulemaking to reflect the new federal PFAS MCLs, PADEP should at the same time provide compliance and enforcement clarifications. The publication of the federal NPDWR final rulemaking for PFAS was also unique in that the federal agency has exercised its authority under Safe Drinking Water Act (“SDWA”) section 1412(b)(10) to implement a nationwide extension to comply with the MCLs. This decision provided regulated public water systems (“PWS”) the flexibility of five years to comply with the MCLs, or by April 26, 2029. Additional flexibility was also provided to PWS such as for initial monitoring, by April 26, 2027.

The extended compliance timeframes applicable to PWS are based on USEPA’s conclusions that significant capital improvements (i.e., installation of treatment technologies) by PWS to comply with the rule will be necessary across the nation, and are technically and economically feasible to be accomplished within the five-year timeframe from the date promulgated, or by 2029.

For incorporation of the federal MCLs for PFAS into the MSC tables, the PA Chamber recommends that the PADEP consider a similar extended compliance schedule, and requests the use of Pennsylvania’s currently effective MCLs for PFOA and PFOS as the effective groundwater MSCs. Also, the groundwater MSCs based on the Pennsylvania MCLs should be utilized for the 100x MSC soil-to-groundwater MSC. By way of example, incorporation of the federal MCLs as the effective MSCs on June 25, 2024 has resulted in the lowering of residential and non-residential used aquifer ground water MSCs for PFOA from 14 ng/l down to 4 ng/l and likewise for PFOS

<sup>1</sup> <https://www.govinfo.gov/content/pkg/FR-2024-04-26/pdf/2024-07773.pdf>

<sup>2</sup> <https://www.dep.pa.gov/Business/Land/LandRecycling/Standards-Guidance-Procedures/Pages/Statewide-Health-Standards.aspx>

from 18 ng/l down to 4 ng/l. The PADEP states in the preamble to the proposed rulemaking that it “does not expect that this proposed rulemaking would create any additional costs” and that “proposed updates to Statewide health standard MSCs would not affect the cleanup options available to remediators.” The PA Chamber respectfully disagrees with this economic and technical analysis by PADEP and the resultant impacts to the regulated community desiring to remediate properties in the Commonwealth to these new lower MSCs. For example, remediation technologies currently available for PFAS are in an ever-evolving state-of-flux as regulators and the regulated community strive to incorporate the latest developments in PFAS science and technology. For instance, groundwater remediation technologies in commercial use run the gambit from simple granular activated carbon, to anion exchange resin, and then to more complex reverse osmosis systems. Also, some of these commercially available technologies may not effectively treat groundwater matrices to the more stringent MSCs. The commercial sector is also rapidly developing and demonstrating effectiveness for even more emergent PFAS remediation technologies, such as super critical water oxidation and foam fractionation, among others. These technologies have been demonstrated to be effective for PFAS remediation applications in certain instances and through research projects, however, there are many unknowns on their practical application on a larger scale.

The PA Chamber believes that due to the rapidly evolving emergence of remediation technologies designed to remediate PFAS down to these significantly lower MSCs, the regulated community will realize not only an increase to the costs for remediation, and an increase in the number of sites where these technologies may be necessary, but are also likely to be impacted by the availability of remediation technologies. Therefore, the PA Chamber believes the PADEP would be justified in following USEPA’s approach in extending the compliance schedules for certain PFAS. This extended approach should be in effect until the federal MCLs become enforceable in 2029. This approach aligns with the federal timeline and provides the necessary latitude required for regulated industries to adopt plans and comply with potentially more extensive investigation and remediation efforts.

To advance an effective collaborative approach, our members recommend that PADEP utilize the CSSAB to create a PFAS workgroup to establish clarity and uniformity related to the MSCs and proposed changes to PFAS MSCs. This PFAS workgroup should also focus work with the PADEP to determine the required inputs necessary to develop generic soil-to-groundwater MSCs for relevant PFAS.

Also, to date, the PADEP has not established generic soil-to-groundwater MSCs due to incomplete technical information. This is an important component of the MSC tables for soil-to-groundwater values and has significant ramifications for other PADEP programs, such as the *Management of Clean Fill* under the Solid Waste Management Act.

## **2. Unique Use of Hazard Index Approach for Combined PFAS**

PADEP should clarify in the proposed rulemaking how it will implement USEPA’s novel and unprecedented Hazard Index (“HI”) approach for PFAS groundwater MSCs and in the future, for PFAS soil MSCs.<sup>3</sup> Because the HI is the primary method for assessing the overall risk posed by

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<sup>3</sup> It should be noted that USEPA’s novel Hazard Index MSC for combinations of PFAS compounds is subject to pending challenges in the U.S. Court of Appeal for D.C. Circuit. See *American Water Works Association and Association of Metropolitan Water Agencies, et al., v. USEPA*, Docket No. 24-1188 (consolidated with Nos.

multiple PFAS contaminants that are co-located at the same site, more details regarding implementation of the HI approach will help regulated industries better understand PADEP's application.

As referenced above, the PADEP has recently laid out the approach for incorporation of the federal NPDWR and MCLs into the MSC groundwater tables. The Department also incorporated the utilization of the federal HI approach for PFAS substances subject to the federal MCL and has published this approach on its Land Recycling MSC webpage<sup>4</sup>. For groundwater, the PADEP states that in addition to meeting the individual MSC for relevant PFAS, if more than one of the marked compounds (Gen-X, PFBS, PFHxS, PFNA) is detected at any concentration in a sample, an HI must be calculated using a complex equation that has never before been required of the regulated community in the context of Act 2 MSCs comprising the Statewide Health Standard. For example, the following formula is required to be used for assessing the HI for multiple PFAS that may be co-located at the same site:

*"In addition to meeting the individual MSC, if more than one of the marked compounds (Gen-X, PFBS, PFHxS, PFNA) are detected at any concentration in a sample, a Hazard Index (HI) must be calculated using the equation below. The HI MSC is met in this case by maintaining a rolling average HI of less than one for the most recent four quarters of samples utilizing the equation:*

$$HI = (C_{Gen-X}/0.01) + (C_{PFBS}/2) + (C_{PFNA}/0.01) + (C_{PFHxS}/0.01)$$

*Where: All concentrations are in µg/L*

*C<sub>Gen-X</sub> = concentration of Gen-X*

*C<sub>PFBS</sub> = concentration of PFBS*

*C<sub>PFNA</sub> = concentration of PFNA*

*C<sub>PFHxS</sub> = concentration of PFHxS"*

Similar to the federal MCLs applicable to PWS, the HI approach is a brand-new concept under the SDWA and directly applicable to PFAS co-located in the drinking water matrix. This same novel HI approach also applies to the proposed PFAS MSCs. These PFAS MCLs, including the HI approach, became the Statewide Health Standard MSC values for groundwater effective June 25, 2024. Due to the complexity of the HI approach for multiple PFAS and due to the lack of information regarding the use of the HI approach for PFAS in soils, the PA Chamber again reiterates and recommends the need for the PADEP to utilize the CSSAB to create a PFAS workgroup to establish clarity and uniformity related to these proposed changes related to MSCs and PFAS. Then once these efforts reach scientific consensus, the methodologies should be incorporated into a re-proposed Chapter 250 rulemaking and re-published in the *Pennsylvania Bulletin* for public comment at a later date.

### **3. Interplay with Management of Fill Policy**

As it relates to the Department's *Management of Fill Policy* (258-2182-773), established under the Solid Waste Management Act, the movement and placement of clean or regulated fill in the Commonwealth is directly impacted by the proposed changes to the MSC tables. The PADEP's regulatory analysis of the *Benefits, Costs and Compliance* associated with the proposed rulemaking

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24-1191, 24-1192). Of particular note is the question of whether the Safe Drinking Water Act allows USEPA to utilize the "hazard index" approach (in contrast to a concentration limit) to setting an MCL with respect to mixtures of substances that have different characteristics and risks.

<sup>4</sup> <https://www.dep.pa.gov/Business/Land/LandRecycling/Standards-Guidance-Procedures/Pages/Statewide-Health-Standards.aspx>

did not account for significant impacts on the regulated community and the confusion created through the incorporation of the PFAS MCLs as MSCs, as well as the use of the HI approach for a combination of PFAS. For example, the proposed Chapter 250 rulemaking states as follows, “*The Department does not expect that this proposed rulemaking would create any additional costs.*”

For example, when making clean or regulated fill determinations, the applicable numeric limit is determined by comparison of the *Generic Soil-to-Groundwater* value with the *Direct Contact* value and selection of the lower of the two values. For purposes of PFAS MSCs (current and proposed), the lack of generic soil-to-groundwater values established in the MSC tables otherwise presumably defaults the person determining clean or regulated fill status over to the *Direct Contact* value published in the MSC tables. However, practical application of this analysis through the *Management of Fill Policy* has proven difficult, as PADEP regional staff have interpreted the lack of generic soil-to-groundwater values for PFAS in various ways, including requiring analysis of soils using the synthetic precipitation leachate procedure (SPLP) to comply with the groundwater MSCs, an approach which is not directly supported by the *Management of Fill Policy*. It is unclear how the PADEP will incorporate the HI approach into future clean or regulated fill determinations.

These issues and the lack of analysis of their impact on the regulated community require further discussion with and analysis by the PADEP. The EQB and PADEP should be aware of the potential impacts for the availability of clean or regulated fill across the Commonwealth that will likely be created due to the lack of generic soil-to-groundwater values.

Finally, with respect to the *Management of Fill Policy*, the PADEP should strengthen its due diligence component of the clean fill determination process to clarify that contaminants, including PFAS, do not need to be included in the suite of analytical parameters where they are not known or suspected to be present and to limit clean fill sampling analytes to parameters of potential concern identified during the due diligence process. Additionally, establishing a statewide background value would provide a more consistent baseline for assessing PFAS contamination in clean or regulated fill materials, making it easier to determine whether they meet the necessary standards without conducting extensive and expensive background determinations at both the donor and receiving sites.

The widespread presence of PFAS in soils as an anthropogenic background condition warrants further evaluation. Unlike many of the regulated substances covered by Act 2, studies are indicating that PFAS compounds have a widespread, even global, background presence in soils and other environmental media. Sources of background concentrations of PFAS include the land application of biosolids and atmospheric deposition. These background levels are an important consideration in any cleanup or fill management strategy.

Based on the wide-spread evidence of atmospheric deposition of PFAS, it may be useful for PADEP to evaluate and publish anticipated background levels of PFAS due to atmospheric deposition that can be utilized during site investigations and remediations. Act 2 expressly provides for the use of a background standard in accordance with 25 Pa. Code § 250.201, including reliance on regional background conditions. The *Management of Fill Policy* likewise allows the use of background demonstration, and PADEP has previously published such background reference values. Without the leadership of PADEP in establishing generalized background levels of PFAS based on atmospheric deposition, addressing PFAS in soils may become extremely challenging and result in a patchwork of individualized determinations that will sap the resources of both PADEP and regulated community and that may be difficult to explain to the public.

Given the technical complexity of and rapidly evolving science relating to PFAS, the PA Chamber encourages PADEP to increase its utilization of the resources available to it through the CSSAB (or other qualified partners) in developing guidance and standards in connection with the rapidly evolving landscape regarding investigation and remediation of PFAS in soils and groundwater.

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We very much appreciate the opportunity to provide comments regarding the proposed changes to Chapter 250 and we would welcome the opportunity to further discuss these comments with PADEP.

Sincerely,

A handwritten signature in black ink, appearing to read "Amy Brinton", with a long horizontal flourish extending to the right.

Amy Brinton  
Director, Government Affairs

cc: Environmental Quality Board (RegComments@pa.gov)  
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