



Rule: OAC Chapter 3745-300, Voluntary Action Program

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Ohio EPA held a comment period on June 10, 2024, regarding the Voluntary Action Program rules. This document summarizes the comments and questions received at during the associated comment period which ended on July 10, 2024.

Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. The name of the commenter follows the comment in parentheses.

3745-300-01 Definitions

Comment 1: In the new definition of "Fraction contaminated" in (F)(1), I suggest that "property" be replaced with "exposure unit. " While most VAP projects are evaluated presuming a property-wide exposure unit, in which case they are essentially equal, the definition of exposure unit in (E)(12) seems more applicable to fraction contaminated than the definition of property in (P)(16). In situations where a VAP property will or may be subdivided or redeveloped for mixed uses, a fraction contaminated value based on the size of the property would be too low. **(Nate Wanner, Atlas)**

Response 1: After further consideration, Ohio EPA has decided to retain the fraction contaminated of 0.5 in the calculation of the generic numerical direct-contact soil standards and, accordingly, will not include the "fraction contaminated" definition at this time.

Comment 2: You seemed to have changed the definition of PBTs from those with a high Kow (>4.5) to those with a Kow equal to or less than 3? The higher the Kow, the more a chemical partitions to fatty tissue, lower Kow value chemicals remain in water and do not bioaccumulate.

Regulatory cutoffs for log Kow range from greater than or equal to either 3 or 5. Regardless please review "Are current regulatory log Kow cut-off values fit-for-purpose as a screening tool for bioaccumulation potential in aquatic organisms?", by Gimeno, Allan, Paul, Remuzat, and Collard in Regulatory Toxicology and Pharmacology, Vol 147. Feb 2024. This paper concludes that "the log Kow could be increased to 4.5... without leading to a reduced protection of humans and the environment."

Supposing you meant to reduce the log Kow cutoff from 4.5 to 3.0, this will increase the number of PBTs regulated by Ohio EPA. Please provide a rationale for this-conservative

approach and a summary of the increased PBT chemical list. Your change would increase the costs for investigation and remedy implementation all for no apparent increase in the protection of human health and the environment.

Please do not expand the list of PBTs, please change your language to include log Kow values. Please provide a cost benefit analysis for this change, it could be fairly significant. Add PBT BAF values and Log Kow to your CIDARS spreadsheet. **(Anonymous)**

Response 2:

There is an error in the proposed rule change that will be corrected. Ohio Administrative Code (OAC) 3745-300-01(P)(5) will state "... octanol water coefficient or log Kow equal to or greater than 3" rather than "... or Kow equal to or less than 3.0."

The VAP added a definition for persistent, bioaccumulative, and toxic (PBT) chemicals in 2019. The PBT definition was meant to unify definitions used by the Ohio EPA DERR Ecological Risk Assessment Guidance and the Ohio Water Quality Standards. The log Kow of equal to or greater than 3 has been used to define PBTs in the Ohio EPA Ecological Risk Assessment Guidance since its first update in 2003. The Ohio EPA Ecological Risk Assessment Guidance has been incorporated by reference into the VAP rules since at least 2009 [see OAC 3745-300-15(C)(2)(g)]. During the drafting of earlier rule revisions, the VAP PBT definition that was added was inadvertently inconsistent with our July 2018 Ecological Risk Assessment Guidance. The 2024 VAP rules propose to change the PBT definition to be consistent with the July 2018 Ecological Risk Assessment Guidance regarding the log Kow value.

The cited paper in the comment ("Are current regulatory log Kow cut-off values fit-for-purpose as a screening tool for bioaccumulation potential in aquatic organisms?", by Gimeno, Allan, Paul, Remuzat, and Collard in *Regulatory Toxicology and Pharmacology*, Vol 147. Feb 2024) provides some interesting information, but it does not fundamentally change the basis for the original log Kow value used in the PBT definition. The paper is targeted toward chemical registry regulations and cut off values that trigger classification of compounds as bioaccumulative and/or requiring actual toxicity/bioaccumulation assays with vertebrates.

As noted above, PBTs in the VAP have remained fairly constant over the years, and the updated definition will have minimal changes to the assessments required for PBT compounds, primarily for potential ecological risk. There are 7 chemicals considered to be PBTs in the definition of "Bioaccumulative chemical of concern" in OAC 3745-1-02(B)(16) with a log Kow less than 4.5 and Ohio EPA's Ecological Risk Assessment Guidance. The result of this rule change is that 31 chemicals will need to be evaluated as PBTs.

A chemical's octanol-water partition coefficient is an important characteristic for estimating its bioaccumulation potential. However, octanol-water coefficients should not be used as the only estimate when classifying a PBT compound, and at times can be unreliable for such predictions. As noted in the updated rule, the definition also includes descriptions of persistence as measured by a chemical's half-life, and toxicity. Few metals have octanol-water coefficients available. However, some metals and related compounds will be listed as PBTs, such as lead and mercury. Ohio EPA reviewed

chemicals with VAP generic numerical standards that have log Kow values of 3 or greater. This generated a list of approximately 112 hazardous substances. Although this sounds like a large list of chemicals that may have to be carried through a food web model based solely on log Kow coefficients, in reality, few of these chemicals are identified as PBTs in Ohio EPA's Ecological Risk Assessment Guidance and OAC 3745-1-02(B)(16). Out of the 112 VAP hazardous substances with log Kow values of 3 or greater, only 31 are identified as PBTs in Ohio EPA's Ecological Risk Assessment Guidance or OAC 3745-1-02(B)(16). Ohio EPA's Ecological Risk Assessment Guidance is incorporated by reference in OAC 3745-300-1-15(C)(2)(f), and hazardous substances identified as PBTs in this document should be evaluated as PBTs in the VAP. This would indicate that although the use of the log Kow of > 3 may seem excessively conservative and require additional PBTs be carried through risk assessments, in practice, the assessments will remain focused on compounds identified in Ohio EPA's Ecological Risk Assessment Guidance and remain sufficiently protective for higher trophic level receptors. Using a log Kow of 4.5 in the VAP PBT definition would be inconsistent with OAC 3745-1-02(B)(16) because it would result in removing chemicals that are considered PBTs for the purpose of Ohio surface water quality criteria, such as Hexachlorocyclohexane, Gamma- (Lindane).

To assist with the identification and assessment of PBT compounds, the Technical Guidance Compendium (TGC) titled Evaluation and Assessment of Persistent, Bioaccumulative, and Toxic Chemicals of Concern (PBTs) in the Voluntary Action Program will be updated to list primary PBT compounds consistent with the VAP PBT definition, Ohio EPA's Ecological Risk Assessment Guidance, and OAC 3745-1-02(B)(16). These include Aroclor 1016; Aroclor 1221; Aroclor 1242; Aroclor 1248; Aroclor 1254; Aroclor 1260; Chlordane (technical mixture; Dichlorodiphenyldichloroethane, p,p'- (DDD); Dichlorodiphenyldichloroethylene; p,p'- (DDE), Dichlorodiphenyltrichloroethane, p,p'- (DDT); Dieldrin; Endrin; Heptachlor; Heptachlor Epoxide; Hexachlorobenzene; Hexachlorobutadiene; Hexachlorocyclohexane, Alpha-; Hexachlorocyclohexane, Beta-; Hexachlorocyclohexane, Gamma- (Lindane); Hexachlorocyclohexane, Technical; Lead and Compounds; Mercury and compounds; Methoxychlor; Pentachlorobenzene; Pentachlorophenol; Polychlorinated Biphenyls, Total; Polychlorinated Dibenzofurans; TCDD, 2,3,7,8-; Tetrachlorobenzene, 1,2,4,5-; Tetraethyl Lead; Toxaphene; and Trifluralin.

CIDARS will be updated to include log Kow values. Bioaccumulation factors (BAF) values can be obtained using the chemical parameters search tool on the Risk Assessment Information System (RAIS) website. For additional information on bioaccumulation including bioconcentration factors, BAF, and their relationships to octanol water partition coefficients, see: Great Lakes Water Quality Initiative Support Document for the Procedure to Determine Bioaccumulation Factors (1995, EPA 820-B-95-005) and Bioaccumulation Testing and Interpretation for The Purpose of Sediment Quality Assessment, Status and Needs (2000, EPA-823-R-00-001).

Ohio EPA completed a Business Impact Analysis for the draft amended VAP rules in their entirety in accordance with the Common Sense Initiative. The Business Impact Analysis was provided along with the draft rules during IPR.

3745-300-03 Voluntary action program fees

Comment 3: No, to any fee increases. The Ohio EPA has provided no justification for raising fees other than they haven't raised fees in a while.

For reviews of CNS documents you have proposed a 25% increase in fees. Assuming \$150 hour for staff review time, that is roughly 66 hrs for every \$10,000. A 24,000 dollar fee is roughly 160 hours of review time, this is on top of the fees paid through technical assistance. The agency processes roughly 20 CNS per year, at the current rate that is 364K a year, the new rate for NFA with CNS would be 460K per year. Justify that your proposed fees covers the total cost of your review. if it doesn't. discuss the cuts to do a proper review and the impact to Ohioans. Please clarify if fees only augment the program and describe the primary VAP revenue source.

Technical assistance costs are a substantial portion of total project expenditures. CPs can search for cost efficiencies in almost all aspects of a project except this. Ohio EPA has raised technical assistance costs substantially. To the rule 3745-300-03(A)(3). add the hourly rates for technical assistance review. Figure out a fixed hourly rate schedule to put in the rules.

The Ohio EPA needs to re-think technical assistance, payment has almost become a requirement. Of the CNSs that you processed last year, how many had technical assistance and how many did not? If understood correctly, staff code time to projects, management sorts the coded hours, keeping some and striking others. Please develop a technical assistance guidebook, with estimated costs for items such as groundwater review, risk assessment review, regulatory interpretation, and more importantly the work product the Agency will prepare for those costs (e-mail. pre-approval concurrence letter etc... the regulated community is at your mercy when it comes to technical assistance costs.

There should be a third party audit procedure for technical assistance costs. The third party should be provided with total list of Ohio EPA hours coded to a project, hours billed to the technical assistance account (with an explanation of any hours not billed}, copies of work products, etc... The auditors should have a discussion with the CPs regarding Agency performance. The current system provides no true path for relief to dispute agency costs. Please work with the Auditor's Office or some other government agency to develop a procedure where costs can be evaluated/disputed without fear of retribution.

Both the document fees and technical assistance cost recovery fees are a deterrent to smaller facilities and local governments. Technical assistance should be free. You do not call up any other program and get told "You really need to open a technical assistance account so we can bill for our time", OCAPP is the exact opposite of that, DAPC same, DSW same, Solid Waste "How can we help?. Lower costs for assistance would improving accessibility to small communities and stimulate more sites to enter the VAP.

Perhaps most importantly, it is not clear that the Division has worked to "do more with less." Staff are still working from home and have told many folks they are more

productive at home. It is a bit of a bitter pill knowing government workers have somehow dodged the economic realities the rest of the work world has endured. Has the agency been on a hiring freeze? No, actually it appears the opposite, hiring and spending spree. Had to let good people go? No. Scramble hard to make payroll? No. You are hitting the "easy" button, which is the "hard" button for the rest of us. **(Anonymous)**

Response 3:

The VAP is required by ORC Section 3746.35 to submit annual reports to the legislature. These reports include a breakdown of VAP expenditures and revenues for each calendar year. The VAP has operated at a deficit since its inception. In 2023 VAP revenues equaled \$2,645,308 and expenditures equaled \$9,179,173. Annual VAP legislative reports are available online for public review. Links to the last 5 years reports are below.

[2023 VAP Legislative Report](#)

[2022 VAP Legislative Report](#)

[2021 VAP Legislative Report](#)

[2020 VAP Legislative Report](#)

[2019 VAP Legislative Report](#)

Historically the VAP fees were intended to cover both the cost of NFA reviews and the cost of audits under the program. However, the NFA fee is not currently high enough to cover both and still will not cover the cost of the audits with the increase. In CY23, the average cost of NFAs that included environmental covenants that were not on the Memorandum of Agreement (MOA) track and had a Covenant Not to Sue (CNS) issued was \$24,382. The current cost of a NFA letter submitted for a CNS that includes an EC is \$18,200. The proposed fee increase for a NFA letter submitted for a CNS that includes an EC of \$23,660, still below the average CNS cost for CY23.

The hourly rate that is charged for TA is calculated on an annual basis each January and housed on the following Ohio EPA webpage, along with a breakdown of how the hourly rate is calculated:

<https://dam.assets.ohio.gov/image/upload/epa.ohio.gov/Portals/30/vap/docs/Technical%20Assistance.pdf>

This rate is not included in rule because it changes year to year, and to include it in rule language would require a rule revision for any edits/changes that are made on an annual basis. This rate calculation remains fixed for the year and is adjusted each January to account changes that may occur to fringe and overhead costs.

Technical assistance (TA) is entered into on a strictly voluntary basis. If a volunteer elects to utilize TA services through the VAP, they are billed at an hourly rate for the specific time that staff spend on reviewing and providing comments on anything that was requested to be reviewed under TA. There is no requirement to enter into or utilize VAP TA. Ohio EPA offers a breakdown of how TA costs can be estimated, and the total cost for review of TA requested is largely dependent on what is provided to the agency for review in the TA request itself and the quality of the submittal by the CP:

<https://dam.assets.ohio.gov/image/upload/epa.ohio.gov/Portals/30/vap/docs/Technical%20Assistance.pdf>. In 2023, 20 out of 31 NFAs submitted for agency review had prior technical assistance.

If there is an issue or a concern with an invoice Ohio EPA has always been willing, and remains open to, discussing any concerns that are identified by a volunteer that has been billed. VAP management should be contacted by the volunteer if there are concerns or a dispute with the amount of time or specific task items billed on an invoice. The time that is billed by Ohio EPA is for individual time coded specifically to the project being reviewed, and prior to the invoice being issued, management reviews the invoice to verify that the amount of time and tasks that are being billed are consistent with the submittal that was requested to be reviewed by the volunteer.

Ohio EPA offers grant funded TA for those that are eligible, and private entities are welcome to partner with other eligible entities to avail themselves of the grant funded TA as well. VAP funding is different from the funding that other divisions within the agency receive, since we are largely cost recovery based. Without NFA fees, TA billing, and CP certification fees the VAP wouldn't be able to maintain the program because we are not funded in the same way that OCAPP, DSW, and DAPC are. Additional information on VAP granted-funded TA can be found on the following Ohio EPA webpage: <https://epa.ohio.gov/divisions-and-offices/environmental-response-revitalization/guides-and-manuals/grant-funded-brownfield-assistance>

The remaining comments are not relevant to the proposed VAP rules. However, we will acknowledge that we have increased the staffing level within the VAP in order to accommodate the increased workload that the program has seen and anticipates as a result of the Brownfield Remediation Funding through Ohio Department of Development.

3745-300-07 Phase II property assessments for the voluntary action program

Comment 4: I suggest that ", or" be added to the end of (F)(4)(a)(i) to further clarify the word "either" in the last sentence of (F)(4)(a). **(Nate Wanner, Atlas)**

Response 4: Ohio EPA believes this change is not necessary because the existing language under OAC 3745-300-07(F)(4)(a)(i) is sufficiently clear that "either" refers to demonstrating one of the two available options under either OAC 3745-300-7(F)(4)(a)(i) or (a)(ii). Therefore, it has been determined that it is not necessary to add the word "or" to OAC 3745-300-07(F)(4)(a)(i).

3745-300-08 Generic numerical standards

Comment 5: The Ohio VAP Certified Professionals at Verdantas LLC (Verdantas, and including CT Consultants, a Verdantas Company) have reviewed the proposed rule revisions and would like to express concerns with the ramifications of removal of the fraction contaminated (FC) term from the derivation of the direct contact soil generic numerical standards (GNS). Several of our Clients have conveyed apprehensions to us about the difficulties this may present to obtaining a Covenant Not to Sue and are indicating that the cost benefits of obtaining liability protection through U.S. EPA's Bona Fide Prospective Purchasers provision may be more desirable than proceeding through the VAP.

Ohio's VAP was originally envisioned as an economic driver designed to remove blight and place under-utilized and abandoned properties back into productive use, thus generating jobs and tax revenue. In addition, Ohio VAP standards have become de facto standards applied to non-VAP, non- brownfield due diligence projects funded by financial institutions across the State. Verdantas values the VAP and its original intentions to promote voluntary cleanup, and we have concerns that removal of the FC term may deter our Clients from choosing to proceed through the VAP.

We believe the FC term continues to have merit in the derivation of cleanup standards for the VAP, based on the following:

- The Statute for adoption and implementation of the VAP per ORC 3746.04(B)(1) indicates that appropriate generic numerical clean-up standards “shall ensure protection of public health and safety and the environment for the reasonable exposure for that category of land use”, not the reasonable maximum exposure.
- The Statute also indicates in ORC 3746.04(B)(1)(a) and (c) that the standards shall consider “realistic assumptions regarding human and environmental exposure to hazardous substances or petroleum” and shall consider “human activity patterns”.
- Removal of the FC term to make the VAP generic clean-up standards more aligned with the U.S. EPA Regional Screening Levels (RSLs), which are intended to be screening levels rather than reasonable generic clean-up standards, contradicts ORC 3746.04(B)(1).
- Several other sections of the VAP Rules, build in multiple layers of conservatism such that cleanup under the VAP, including use of the FC term, remains representative of reasonable assumptions:
 - Per OAC 3745-300-07, sampling activities are biased to identified areas (i.e., locations at a property where a release has or may have occurred) and are not necessarily always representative of the entire property.
 - In our experience, the maximum detected concentrations (collected from samples biased to source areas) are typically used as the exposure point concentration. This in itself likely overestimates exposures, and does not account for human activity patterns.
 - A 95% UCL value, when used as the EPC, also does not inherently account for clean areas of a property due to biased sampling activities focused to identified areas.
 - In our recent experiences, Ohio EPA has requested that Property-Specific Risk Assessments evaluate exposures to receptor populations by identified area (i.e., locations where a release may have occurred), rather than exposure unit (i.e., geographic areas where a receptor may move at random and where contact is equally likely). When applied, this approach adds another layer of conservatism, evaluating reasonable maximum exposures rather than reasonable exposures that account for human activity patterns, per the statute.

In short, retaining the FC term is unlikely to underestimate the fraction of soil that is contaminated given that sampling is already inherently biased to identified areas. The data collected, targeted to the identified areas, used to characterize Property-wide exposures, discounts reasonable assumptions and human activity patterns, particularly when maximum detected concentrations are used as exposure point concentrations.

The proposed standards, if adopted into rule, will undoubtedly have a detrimental effect, not only on Ohio VAP projects, but common property transactions due to the increased cost and complexity. In lieu of removing the FC term, consideration should be given to revising the methods of assessing identified areas. For instance, the number of soil bores/samples required to assess an identified area could be determined based upon size of the identified area. **(Verdantas VAP Certified Professionals)**

- Response 5:** After further consideration of the practicality of implementation and feedback received during outreach efforts, Ohio EPA has decided to retain a fraction contaminated of 0.5 in the calculation of the generic numerical direct-contact soil standards.
- Comment 6:** In (A)(1)(a), a statement has been added which implies that generic numerical standards have been provided for leaching from soil to groundwater. However, no generic numerical standards are provided in the appendix to the rule. Inclusion of this language implies that a comparison must be made to generic values, which is contrary to the statement in paragraph (I) that soil standards for leaching may be developed and the weight of evidence provisions in 3745-300-07(F)(4)(a). I suggest that", and leaching from soil to ground water [paragraph (I) of this rule]" not be added to (A)(1)(a). **(Nate Wanner, Atlas)**
- Response 6:** Since paragraphs (B), (C), (D), (E), (F), (G), and (H) were all referenced in OAC 3745-300-08(A)(1)(a), a reference to paragraph (I) was added. Upon further review, Ohio EPA agrees that it could imply that generic numerical standards have been created. This phrase will be deleted from the rule.
- Comment 7:** In (A)(2)(b), "within each identified area." has been added in the draft rules. I suggest that this be edited to "within each identified area or exposure unit." This will make it clear that a simpler and more conservative multiple chemical adjustment based on maximum concentrations in a property- wide exposure unit is acceptable, in which case multiple chemical adjustment calculations for each individual identified area would be unnecessary. **(Nate Wanner, Atlas)**
- Response 7:** Paragraph (A)(2)(b) of rule 3745-300-08 of the Administrative Code specifies that a multiple chemical adjustment applies to the use of generic numerical standards as described in this rule. Exposure units require a property-specific risk assessment in accordance with OAC 3745-300-09, so it is not appropriate to use that term in this paragraph. Also, the phrase "within each identified area" was added to OAC 3745-300-08(A)(2)(b) to be consistent with paragraph (A)(2)(a).
- Comment 8:** I suggest that a subsection be added to (A)(2)(b) stating that multiple chemical adjustment only applies to chemicals of concern that were detected at concentrations above the point of departure for the media and pathway being evaluated. At the same time, a definition be added to 3745-300- 01 which defines the point of departure as a risk level of 1×10^{-6} / 0.1, consistent with US EPA (Section 4.2.1 here: <https://www.epa.gov/sites/default/files/2020-09/documents/chap4.pdf>). I believe that this would create greater consistency between the various programs managed by US EPA and Ohio EPA (RCRA, VAP, etc.). **(Nate Wanner, Atlas)**

Response 8: While Ohio EPA appreciates the commenter's concern regarding consistency between the various programs managed by US EPA and Ohio EPA (RCRA, VAP, etc.), the VAP has not contemplated screening out chemicals of concern (COCs) from further evaluation because the statutory language requires the development of applicable standards for all releases. Paragraph (I)(3)(b) of rule 3745-300-07 of the Administrative Code specifies that to verify compliance with applicable standards, the concentration of each COC determined in accordance with OAC 3745-300-07(F)(6) must be compared with the applicable standard identified in OAC 3745-300-07(D)(2)(d) and (F)(5). While the Remedial Response and Corrective Action and Closure Programs in the Division of Environmental Response and Revitalization allow the use of screening levels to eliminate chemicals of potential concern from further risk assessment, these programs also require the full nature and extent of the release to be determined. The VAP, on the other hand, does not require the full nature and extent of the release to be determined. Therefore, chemicals of concern (COCs) cannot be screened out as they could if the full nature and extent of the release was being investigated. Multiple chemical adjustments must be performed for all COCs determined to be associated with the release.

Comment 9: The following compounds have construction worker GDCSS values less than residential GDCSS:

- Hydrogen sulfide
- Sulfuric acid
- Benzoic acid
- Bis(2-ethylhexyl)phthalate
- Chloroacetophenone, 2-
- Fluorene
- Methylenediphenyl Diisocyanate
- Dichloroethylene, 1,1-
- Methyl Ethyl Ketone (2-Butanone)

This was previously the case only for carbonyl sulfide. Residential standards are often treated as "unrestricted" standards - if the residential standards are met then it is presumed that no use restrictions are required relative to direct contact. However, the revised CIDARS values call this into question. I have not dug into the basis for these changes, but some of the revised values (such as fluorene and 1,1-DCE) were surprising. suggest that they be reviewed and, if it is correct that the construction GDCSS values are lower than residential GDCSS, certified professionals be made aware that risk mitigation plans may be necessary even if soil concentrations meet residential standards. **(Nate Wanner, Atlas)**

Response 9: In the derivation of the generic numerical standards effective October 17, 2019, the direct-contact soil standards for residential land use were set equal to the direct-contact soil standards for construction activities when the direct-contact soil standards for construction activities were lower. This was done to be consistent with the premise that the generic numerical standards for residential land use may be used to demonstrate compliance with applicable standards for unrestricted residential land use, which is considered protective for, and may be applied to, any land use, without further restriction. Upon further review of the draft standards shared for interested party review, Ohio EPA noted errors with the draft generic direct-contact soil standards for residential

land use. If standards for construction workers are lower than residential standards, the construction worker standards will be used as residential standards. Table I in Appendix A to rule 3745-300-08 of the Administrative Code has been revised to reflect this. This will also be corrected in the Chemical Information Database and Applicable Regulatory Standards (CIDARS). Some direct-contact soil standards (such as 1,1-Dichloroethylene and Fluorene) have changed for construction activities due to changes in sub-chronic toxicity values.

Comment 10: U.S. EPA soil lead guidance <https://semspub.epa.gov/work/HQ/100003435.pdf> is to use an RSL of 200 ppm unless an additional source of lead is identified, in which case a value of 100 ppm applies to soil. In the draft VAP rules, only the value of 100 ppm is presented. There is an asterisk on "Lead and Compounds*" in the Rule 8 appendix table with a footnote stating "See paragraph (C)(3)(e) of rule 3745- 300-08 of the Administrative Code", but the paragraph does not exist in the rule. There is no reference in the draft rules to a value of 200 ppm if other sources of lead are not identified.

Section 2.1 of Ohio EPA's support document for additional standards makes brief mention of the 200 ppm standard, stating that "A soil lead direct-contact standard of 200 mg/kg may be demonstrated to be protective of child lead exposure on a property-specific basis when there is sufficient information to document that receptors will not be exposed to additional sources of lead." However, this text is mixed in with, and not clearly differentiated from, the property-specific risk assessment text related to bioavailability absorption fraction calculations that are unrelated to the 100 ppm / 200 ppm determination.

I suggest that the language quoted in the previous bullet be included in the rule itself, so that 3745-300- 08(C)(3)(c) would be created to read "A soil lead direct-contact standard of 200 mg/kg may be demonstrated to be protective of child lead exposure on a property-specific basis when there is sufficient information to document that receptors will not be exposed to additional sources of lead."

Alternatively, the tables in the Rule 8 appendix could list a value of 200 ppm, with a footnote stating that a value of 100 ppm is applicable if additional sources of lead may be present. Listing the 200 ppm value first with the 100 ppm value as the exception has the same outcome, but correlates more closely to language in the US EPA guidance. Placing emphasis on the 200 ppm value may also be more consistent with the discussion in footnote 3 on page 2 of the US EPA guidance.

I also suggest that an associated TGM (or section in the VAP Support Document) be created that provides guidance on how to determine if other lead sources may be available. This can borrow from the EPA guidance (<https://semspub.epa.gov/work/HQ/100003435.pdf>), particularly bullet 2 on page 2. My initial review of the EPA guidance is that the vast majority of the state (perhaps all given current attainment status?) would not be subject to the 100 ppm standard unless there was a building on-site with lead paint or solder/plumbing (historical atmospheric deposition would not be an added source since it would be included in soil concentrations). This could perhaps be represented by a flow chart incorporating the following decision points:

- Is there a building on the property that was constructed prior to 1986?
- Does the building's potable plumbing potentially contain lead pipes or solder?
- Does a public water supply providing drinking water to the property contain lead plumbing? (Does this still apply anywhere? Everything I have heard of is related to on-property service lines and not the main supply lines).
- Are potable water service lines present at the property that may contain lead or lead solder?
- Was the building constructed prior to 1978?
- Does the building potentially contain lead paint?
- Is the property in a non-attainment area where the air lead concentrations exceed National Ambient Air Quality Standards [NAAQS]?
 - (I believe that most, if not all, areas in Ohio are presently in attainment and will presumably not get worse so this may be irrelevant now or in the future).
 - (as a note - historical atmospheric deposition of lead to soil from air emissions would not mandate the 100 ppm standard because the lead source would not be an additional source separate from the soil).

In this way, a shovel ready site with no buildings (and thus no lead paint, solder, etc.) connected to a municipal water supply with no lead service lines could use the 200 ppm presented in U.S. EPA guidance without the need to conduct a property-specific risk assessment involving bioavailability absorption fraction calculations.

Along the same lines, I am concerned by the increased risk of false positives (background or other causes) when evaluating against a 100 ppm standard. A dataset I have compiled from USGS, Ohio EPA, and other sources contains 2,662 soil lead data points in Ohio that were presumed to represent background conditions at the time they were collected by various parties. Of these approximately 4% had concentrations greater than 100 ppm. In Ohio EPA's background studies of 12 Ohio counties, 5 of the county data sets had a detection of 100 or greater (Cuyahoga, Stark, Trumbull, Mahoning, and Hamilton). Although the values were determined to be outliers, this demonstrates a likelihood of encountering concentrations of lead in soil above 100 ppm even in the absence of identified areas. Ohio EPA's county background studies were designed to provide an upper-bound estimate of the mean (UCL). To my knowledge, no studies have been conducted to establish upper prediction limits (UPLs) that would be compared to individual maximum concentrations from a property investigation. It appears to me that there may be increased likelihood of individual samples exceeding 100 ppm within some regions of the state even in the absence of identified areas. Consultants often order broad analytical suites from the laboratory that include analytes that are not chemicals of concern and begin data evaluation using maximum site-wide values as representative concentrations. This could result in an awkward situation where additional sampling would need to be conducted to support a 95 UCL establishing representative concentrations for an identified area where lead is not a chemical of concern. A new identified area with lead as a COC may then need to be created, but the boundary of the identified area may not be definable in the absence of a known source or source area. I appreciate the opportunity to review the draft rules. Please do not hesitate to contact me if you have any questions. **(Nate Wanner, Atlas)**

Response 10: Upon further review and consideration, the Voluntary Action Program (VAP) has decided to use 200 mg/kg as the generic soil direct-contact standard for lead for both residential and commercial with high frequency child exposure land use. This applicable standard is consistent with U.S. EPA's January 17, 2024 Updated Residential Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities, which states that 200 ppm should be used as a removal management level. Removal management levels help identify areas, contaminants, and conditions where a removal may be appropriate. This approach is appropriate because the VAP requires a remedy when the representative soil concentrations determined in accordance with OAC 3745-300-07(F)(6)(c) exceeds the applicable standard. While the VAP allows the use of engineering controls as an alternative to removal, engineering controls will effectively prevent exposure to soil concentrations above the applicable standard.

The footnote regarding "Lead and Compounds" was intended to reference OAC 3745-300-08(C)(3)(a)(v) which states that the generic standards for lead account for other factors and assumptions in addition to the carcinogenic and non-carcinogenic risk of lead. That paragraph also states that lead should not be included in a cumulative risk assessment. The footnotes in Tables I, II, III, and IV of Appendix A were updated to reference the correct paragraph.

Comment 11: What was the original justification for using the 0.5 for the last 30 years, essentially? Do have a reference, the science behind it, etc.? Conversely, do you have new research, science, etc. saying it is not accurate? In short what is the justification for removing it?

How is a demonstration to be made to use the 0.5 fraction contaminated as part of a risk assessment. **(Kevin Reaman, HZW Environmental Consultants)**

Response 11: After further consideration of the practicality of implementation and feedback received during outreach efforts, Ohio EPA has decided to retain a fraction contaminated of 0.5 in the calculation of the generic numerical direct-contact soil standards.

Comment 12: Below are comments regarding the proposed new generic standards. Feel free to contact me if you require further clarification or have any questions. Thank you for the opportunity to comment.

Previously the Chemical Information Database and Applicable Regulatory Standards (CIDARS) included "Supplemental Criteria" standards (e.g., for acenaphthylene, benzo(g,h,i)perylene, dibenzofuran, phenanthrene, etc.). However, these analytes do not appear to be included in the proposed CIDARS. Will the Supplemental Criteria be included?

2. Thallium is "NA" when previously standards were available in CIDARS under "Supplemental Criteria." Will there be criteria for thallium in soil?
3. Why are there no air standards for cis/trans-1,2-DCE? (Kathleen Teuscher, TRC)

Response 12: Only generic standards were included in the version of CIDARS that was shared during Interested Party Review. Ohio EPA will add supplemental criteria that may be used in a property-specific risk assessment in accordance with OAC 3745-300-09 to CIDARS.

2. Soil direct-contact supplemental criteria will be added for thallium.
3. Indoor air standards were not created for cis-1,2-DCE and trans-1,2-DCE because the available toxicity values are screening toxicity values in an appendix to a Provisional Peer Reviewed Toxicity Value (PPRTV) assessment. The screening toxicity values from PPRTV appendices are often based on surrogates, only one toxicity study, or low-confidence toxicity studies. Therefore, there is more uncertainty associated with the screening toxicity values. For these reasons, the VAP has not used screening toxicity values from PPRTV appendices in the generation of generic numerical standards. However, Ohio EPA will add indoor air supplemental criteria for these compounds to CIDARS.

3745-300-10 Ground water Classification and potable use response requirements, and urban setting designations.

Comment 13:

The Village of Sebring is currently working with the Mahoning County Land Bank on an ODOD Brownfield Clean Up Grant for the remediation of the former Royal China site under the Ohio EPA Voluntary Action Program (VAP). This 20-acre site was once the location of the largest employer in Sebring, but pottery operations ceased after a fire in the early 1970s destroyed much of the facility. Contamination from former operations has prevented re-development of the property for several decades. The recent ODOD grant has re-kindled hope in the community that this blighted area might soon be returned to productive re-use.

The environmental consultant on this project, Brownfield Restoration Group, LLC (BRG), has determined that arsenic concentrations exceeding VAP standards in the ground water are migrating offsite and that this situation could be mitigated under the VAP if the site could obtain an Urban Setting Designation (USD). BRG has further determined that the site meets all of the current rule criteria for a USD with the exception of the following:

OAC 3745-300-10(C)(1)(a) Location.

(ii) The unincorporated portion of a township that has an average population density of six hundred fifty people per square mile within the unincorporated area of the township.

Sebring is incorporated as a Village and, therefore, does not explicitly meet this criterion as currently written. However, if the word "unincorporated" were removed from this criterion, the Village of Sebring would meet the USD eligibility criteria.

While we certainly understand the technical basis for requiring a portion of a township seeking a USD to meet various critical components (e.g., population density, public water supply system, no potable water well users within a specified radius, etc.), we do not understand the basis for excluding an area simply because it has been incorporated? Note that this exclusion has nothing to do with the small size or rural nature of the village in that we easily meet the stipulated population density. In fact, we meet all of the technical USD eligibility thresholds - so a portion of a township situated in the exact same rural setting, with the exact same population, and an identical public water supply system as Sebring would qualify under the current USD rules, but for some reason the fact that we have incorporated as a village makes us ineligible. We presume that the VAP

rules did not intend to discriminate in this manner nor create a perverse incentive for a community to unincorporate itself in order to make use of this crucial tool under the VAP.

Based on the rationale provided above, we are hereby requesting that a rule change eliminating the word "unincorporated" from OAC 3745-300-10(C)(1)(a)(ii), as described herein, or some similar revision that accomplishes this end, be adopted as part of the VAP Rule Changes currently being considered. We would be glad to participate in any further discussion or exchange of information that may be beneficial to your evaluation of this request.

We appreciate the opportunity to present you with our requested VAP rule change and thank you for your consideration. Should you have any questions, or if you require any additional information, please do not hesitate to contact our office. **(Tim Gabrelcik, City Manager, Village of Sebring)**

Response 13: Upon consideration Ohio EPA added the following language to OAC Rule 3745-300-10(C)(1)(a) to allow additional villages to utilize the USD designation; 3745-300-10(C)(1)(a)(vii) A village that demonstrates it has the legal authority to enact and enforce ordinances limiting potable use of groundwater.

Comment 14: The Mahoning County Land Bank is the recipient of an Ohio Department of Development Brownfield Remediation Program award for the cleanup of the former Royal China site under the Ohio EPA Voluntary Action Program (VAP). This 20-acre site was once the location of the largest employer in Sebring, but pottery operations ceased after a fire in the early 1970s destroyed much of the facility. Contamination from former operations has prevented redevelopment of the property for several decades. The recent ODOD grant has rekindled hope in the community that this blighted area might soon be returned to productive re-use.

The environmental consultant on this project, Brownfield Restoration Group, LLC (BRG), has determined that arsenic concentrations exceeding VAP standards in the ground water are migrating offsite and that this situation could be mitigated under the VAP if the site could obtain an Urban Setting Designation (USD). BRG has further determined that the site meets all of the current rule criteria for a USD with the exception of the following:

OAC 3745-300-10(C)(1)(a) Location.

(ii) The unincorporated portion of a township that has an average population density of six hundred fifty people per square mile within the unincorporated area of the township.

Sebring is incorporated as a Village and, therefore, does not explicitly meet this criterion as currently written. However, if the word "unincorporated" were removed from this criterion, the Village of Sebring would meet the USD eligibility criteria.

While we certainly understand the technical basis for requiring a portion of a township seeking a USD to meet various critical components (e.g., population density, public water supply system, no potable water well users within a specified radius, etc.), we do

not understand the basis for excluding an area simply because it has been incorporated. Note that this exclusion has nothing to do with the small size or rural nature of the village in that it easily meets the stipulated population density. In fact, Sebring meets all of the technical USD eligibility thresholds - so a portion of a township situated in the exact same rural setting, with the exact same population, and an identical public water supply system as Sebring would qualify under the current USD rules, but the fact that the village has incorporated makes it ineligible. I presume that the VAP rules did not intend to discriminate in this manner nor create a perverse incentive for a community to unincorporate itself in order to make use of this crucial tool under the VAP.

Based on the rationale provided above, Mahoning County Land Bank hereby requests that a rule change eliminating the word "unincorporated" from OAC 3745-300-10(C)(1)(a)(ii), as described herein, or some similar revision that accomplishes this end, be adopted as part of the VAP Rule Changes currently being considered. I will gladly participate in any further discussion or exchange of information that may be beneficial to your evaluation of this request.

I appreciate the opportunity to present this VAP rule change request and thank you for your consideration. If you have questions or require any additional information, then do not hesitate to contact me. **(Debora Flora, Executive Director, Mahoning County Land Bank)**

Response 14: Upon consideration Ohio EPA added the following language to OAC Rule 3745-300-10(C)(1)(a) to allow additional villages to utilize the USD designation; 3745-300-10(C)(1)(a)(vii) A village that demonstrates it has the legal authority to enact and enforce ordinances limiting potable use of groundwater.

Comment 15: A suggested addition to the proposed OAC 3745-300-10(C)(1)(a)(vi)-

"A municipal corporation or property that is contiguous to areas that are otherwise eligible as described in paragraphs (C)(1)(a)(i) to (C)(1)(a)(iv) of this rule."

Thank you for your consideration. **(Mark Caetta)**

Response 15: USDs are intended to be an option limited to highly urbanized areas and would not be appropriate for other isolated properties. The provisions of OAC 3745-300-10(C)(1)(a)(vi) were added to allow the eligibility of villages, if they are contiguous to (*i.e.*, direct extensions of) those highly urbanized areas that are otherwise eligible. Therefore, it has been determined that it is not necessary to add the words "or property" to OAC 3745-300-10(C)(1)(a)(vi).

End of Response to Comments