**JEFFERY W. KITCHENS**
ACTING DIRECTOR

**KAY IVEY**
GOVERNOR

Alabama Department of Environmental Management
adem.alabama.gov
1400 Coliseum Blvd. 36110-2400 ▪ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700 ▪ FAX (334) 271-7950

June 3, 2025

**MEMORANDUM**

TO: A. Frank McFadden, P.E. Chairman
Environmental Management Commission

COPIES TO: Commission Members
Debi Thomas

FROM: Jeffery W. Kitchens
Acting Director

SUBJECT: Rulemaking Petition to Amend Human Health Toxic Pollutant Criteria Factors Applicable to State Waters

On April 15, 2025, a number of Petitioners (represented by David Ludder) jointly submitted a petition ("Human Health Factor Petition") requesting revisions to ADEM Administrative Code Rule 335-6-10 Appendix A, to revise oral Reference Dose (RfD) values for five toxic pollutants (Cyanide, 1,3-Dichlorobenzene, 4,6-Dinitro-2-methylphenol, Ethylbenzene, and Toluene), revise oral Cancer Potency Factor (CPF) values for six toxic pollutants (1,3-Dichloropropylene, 2,4-Dinitrotoluene, Hexachloroethane, Pentachlorophenol, Trichloroethylene, and Arsenic), and replace an oral RfD value with an oral CPF value for one toxic pollutant (1,2,4-Trichlorobenzene). These factors, in addition to numerous other factors, are utilized to calculate Human Health Toxic Pollutant criteria in State Waters. This memorandum provides background information on the issue and offers the Acting Director's views regarding the petition.

**Recommendation**

The Department recommends that the EMC deny the Petition. In considering a petition for rulemaking, the Commission may consider, among other factors, the views of the Director of the Department, whether alternative means of obtaining the same or similar relief are presently available to the petitioner, and any other relevant factors, evidence, data or information. *See* ADEM Admin. Code rs. 335-2-2-.05(a), (f) and (i). In this case, the requested petition to modify the rule is premature, as the Department is still actively reviewing the matter and making progress. Furthermore, the issues raised in the Petition are being considered in the context of ADEM's triennial review of the State's water quality standards which provides members of the public,



**Birmingham Office**
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

**Decatur Office**
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)

**Coastal Office**
1615 South Broad Street
Mobile, AL 36605
(251)450-3400
(251) 479-2593 (FAX)

including the Petitioners, an opportunity to present relevant evidence, data, and information on the subject matter.

**Background**

The EMC first adopted toxic pollutant criteria for surface waters in 1991. Alabama's Water Quality Standards found at ADEM Admin. Code r. 335-6-10-.07 include criteria for toxic pollutants for the protection of human health, freshwater aquatic life, and marine aquatic life. Human health criteria are defined in ADEM Admin. Code r. 335-6-10-.07(d). For certain pollutants, equations are used to calculate human health criteria utilizing a number of factors, including but not limited to those in Appendix A.

> (d) Except as noted in Table 1, two human health criteria are provided for each pollutant--a criterion for consumption of water and fish, and a criterion for consumption of fish only. For certain pollutants, the human health criterion for consumption of water and fish may represent a maximum contaminant level (MCL) developed under the Safe Drinking Water Act.
>
> 1. For pollutants classified by the U.S. Environmental Protection Agency as non-carcinogens, the criteria shall be given by the following equations, except where numeric values are given in Table 1.
>
> (i) Consumption of water and fish:
>
> conc. (mg/l) = (HBW x RfD x RSC)/[(FCR x BCF) + WCR] **(Eq. 16)**
>
> (ii) Consumption of fish only:
>
> conc. (mg/l) = (HBW x RfD x RSC)/(FCR x BCF) **(Eq. 17)**
>
> where (in Equations 16 and 17):
>
> HBW = human body weight, set at 70 kg
>
> RfD = reference dose, in mg/(kg-day)
>
> RSC = relative source contribution
>
> FCR = fish consumption rate, set at 0.030 kg/day
>
> BCF = bioconcentration factor, in l/kg
>
> WCR = water consumption rate, set at 2 l/day

2. For pollutants classified by the U.S. Environmental Protection Agency as carcinogens, the criteria shall be given by the following equations, except where numeric values are given in Table 1.

(i) Consumption of water and fish:

conc. (mg/l) = (HBW x RL)/(CPF x [(FCR x BCF) + WCR]) **(Eq. 18)**

(ii) Consumption of fish only:

conc. (mg/l) = (HBW x RL)/(CPF x FCR x BCF) **(Eq. 19)**

where (in Equations 18 and 19):

HBW = human body weight, set at 70 kg

RL = risk level, set at 1 x $10^{-6}$ (except for arsenic which is set at 1 x $10^{-5}$)

CPF = cancer potency factor, in (kg-day)/mg

FCR = fish consumption rate, set at 0.030 kg/day

BCF = bioconcentration factor, in l/kg

WCR = water consumption rate, set at 2 l/day

RfD, RSC, BCF, and/or CPF factors are provided in Appendix A for 101 pollutants.

In 2015, EPA published final updated ambient water quality criteria for the protection of human health for 94 chemical pollutants to include updates to the toxicity factors, exposure factors (body weight, drinking water consumption rate, fish consumption rate), and the addition of bioaccumulation factors in lieu of bioconcentration factors for most parameters. (Note the Petitioners have chosen only a few factors to be included in the regulations without considering all other factors.) These National Recommended Water Quality Criteria published by EPA pursuant to § 304(a) of the Clean Water Act provide guidance for states and tribes to use to establish water quality standards and are strictly *recommendations*. EPA's recommended criteria do not impose legally binding requirements, and states and authorized tribes have the discretion to adopt, where appropriate, other scientifically defensible water quality criteria that differ from these recommendations.

In accordance with § 303(c) of the Federal Clean Water Act and 40 CFR § 131.20, Alabama conducts a "triennial review" of its water quality standards at least once every three years. This process gives the State the opportunity to thoroughly examine EPA's recommendations prior to proposing any changes to State water quality standards. It also provides the public with the opportunity to make comments and suggestions on State water quality standards. Should the state not adopt new or revised criteria for parameters for which EPA has published new or updated CWA § 304(a) criteria recommendations, then the state shall provide an explanation when it

submits the results of its triennial review to the Regional Administrator. *See* 40 CFR § 131.20(a). To date, the Department has not adopted EPA's recommended human health criteria and has submitted its explanation that it is still evaluating the suggested criteria for suitability to Alabama state waters.

In 2016, nine petitioners represented by David Ludder requested ADEM revise and adopt its water quality criteria regulations based upon EPA's 2015 publication. The EMC subsequently denied the petition based upon ADEM Admin. Code r. 335-2-2-.05(f) ("whether alternative means of obtaining the same or similar relief are presently available to the petitioner or have in the recent past been made available to the petitioner") and because the issue raised in the petition would be considered in the context of ADEM's triennial review of the State's water quality standards. In 2017, the petitioners requested EPA make a determination that the promulgation of new or revised water quality criteria for priority toxic pollutants, applicable to the navigable waters in the State of Alabama, are necessary to meet the requirements of the Clean Water Act and to have the Administrator prepare and publish proposed regulations at 40 C.F.R. Part 131, Subpart D setting forth new or revised water quality criteria for such priority toxic pollutants. In 2018, EPA denied the petition on the grounds that states and authorized tribes need a reasonable period of time to consider any new data and the latest science, as well as time to review and assess published EPA guidance including national recommended human health and aquatic life criteria for various pollutants. EPA also indicated it prefers that EPA and states work in partnership to effectively utilize resources to address pollution and assist in the state's adoption of new and revised criteria.

In 2022, the Environmental Defense Alliance, Waterkeepers Alabama, and Alabama Rivers Alliance, once again submitted a petition to EPA requesting a determination be made that new or revised water quality criteria for toxic pollutants in Alabama waters are necessary to protect human health and to meet the requirements of the Clean Water Act. EPA has not responded to the 2022 Petition and notably has not made the requested determination.

**Discussion**

As indicated in the Human Health Factor Petition, the Petitioners have commented during the Department's triennial reviews with requests to update human health and aquatic life criteria. While a number of years have passed since EPA published its suggested water quality criteria, Alabama has been utilizing its available resources to review the suggested criteria. In fact, ADEM held stakeholder listening sessions on February 7, 2024, with environmental groups (including a number of representatives of the petitioners) and on April 10, 2024, with industry representatives to discuss the Water Division's progress on review and expected rulemaking to incorporate, where appropriate, EPA's updated aquatic and human health criteria. (See attached presentation and sign-in sheet with attendees for the February 7, 2024, session). As indicated on slide 33, ADEM expected to adopt/revise aquatic life criteria during calendar year 2024. Public notice to revise aquatic life criteria was published in December 2024 and during the EMC's April 2025 meeting, the Commission signed a resolution to approve the changes. As indicated on slide 34, ADEM plans to hold additional stakeholder listening sessions and adopt/revise human health criteria as deemed appropriate during calendar years 2025 – 2026.

Alabama is not an outlier in Region 4. Due to the complexity and volume of changes recommended by EPA, none of the Region 4 states have adopted the new human health criteria. ADEM has been maintaining communication with EPA regarding its review of the human health criteria. There are a number of acceptable methods to develop appropriate human health criteria. In fact, EPA has recently notified ADEM and other states that they will be releasing a tool in EPA's repository on GitHub utilizing R programming to assist states in developing their human health criteria using a probabilistic risk assessment approach. ADEM believes prior to adopting/revising the human health criteria, a thorough review of this methodology is appropriate. As authorized, the Department will use the triennial review period to accept, revise, or deny the recommended human health criteria, as well as consider new data and information it receives from all stakeholders, including the Petitioners.

As part of its review, the Department is currently evaluating *all* of EPA's suggested human health factors to determine their suitability for Alabama's waters. For example, EPA's 2015 suggested criteria utilize a different chemical accumulation factor than the Department uses, making premature adoption without a comprehensive assessment technically unsound. ADEM is also taking into consideration exposure factors based on Alabama-specific statistical data rather than relying solely on the national data. Adopting cherry-picked factors, which are a subset of all the factors utilized in the calculations, as suggested by the Petitioners, may result in criteria which are not properly scientifically based. It could also result in water quality criteria changing multiple times over several years, which is a resource-intensive undertaking, resulting in application of water quality limitations in permits that are not necessary or are not restrictive enough. In addition, the Department believes it is appropriate to review the new probabilistic risk assessment tool EPA plans to release. Thus, the EMC should deny the Petition because it is premature to adopt these factors without a comprehensive evaluation of *all* factors in light of all relevant information.

**Conclusion**

The issues related to water quality standards raised in the Human Health Factor Petition are subject to ongoing review under the Department's established, and EPA-approved, triennial review. This process, and the end product resulting from ADEM's triennial review, provides members of the public, including the Petitioners, an opportunity to present relevant evidence, data, and information on the subject matter. ADEM will consider the issues raised in the Petition in the context of the established triennial review.

The Department has indeed made progress on updating the toxic aquatic life criteria and has established and has also communicated with the petitioners an expected timeline to proceed with updating the human health criteria. Granting the Petition would unnecessarily accelerate ADEM's review of all data and information pertaining to the human health criteria. This would force Departmental rulemaking to proceed in a manner that ignores several factors used in calculating a scientifically justifiable standard and would not allow for requested and planned additional stakeholder sessions prior to initiating the formal rulemaking process.

Accordingly, the Department recommends that the EMC deny the Petitioners' request, with the understanding that the issues raised in the Petition are currently being considered in totality with all relevant data and information within the current triennial review period.

LAW OFFICE OF
**DAVID A. LUDDER**
A Professional Limited Liability Company

June 11, 2025

***Delivered via Electronic Mail***
Environmental Management Commission
Attn: A. Frank McFadden, Chair
1400 Coliseum Boulevard
Montgomery, AL 36110-2400

Re: **Petition to Amend Ala. (ADEM) Admin. Code Chap. 335-6-10, Appendix A**

Dear Chairman McFadden:

I am in receipt of a memorandum sent to you by Acting Director Jeffrey W. Kitchens on June 3, 2025 recommending that the Commission deny the *Petition to Amend Ala. (ADEM) Admin. Code Chap. 335-6-10, Appendix A* filed on April 22, 2025. This letter responds to the Acting Director's rationales for his recommendation.

## I. The EMC has a mandatory duty to give a reasoned consideration to the merits of proposed amendments to Appendix A.

*Code of Alabama 1975*, § 41-22-8 provides that after submission of a petition for rulemaking, "the agency either *shall* deny the petition in writing *on the merits*, stating its reasons for the denial, or initiate rule-making proceedings . . .." (Emphasis added). "This section is intended to provide the members of the public with a mechanism for affecting the content of an agency's rules . . .." *Commentary*, Code of Alabama 1975, § 41-22-8. *See* Bonfield, Arthur E., *The Iowa Administrative Procedure Act: Background, Construction, Applicability, Public Access to Agency Law, the Rulemaking Process*, 60 Iowa L. Rev. 731, 892 (Apr. 1975) ("this provision allows the public to prod an agency to action in a way that seeks to ensure that those satisfied with the status quo are forced to

9150 McDougal Court ◆ Tallahassee ◆ Florida 32312-4208 ◆ Telephone 850-386-5671
Facsimile 850-999-6435 ◆ Email DavidALudder@enviro-lawyer.com ◆ Web www.enviro-lawyer.com

reexamine their positions in light of new views and changed conditions. . . . The provision also benefits the agency and the public-at-large because it ensures wiser and sounder-government by directing the agency's attention to situations in which the issuance, amendment, or repeal of rules may be desirable.").

The *Petition* asks the Commission to give fair consideration to amending the toxicity values of twelve (12) pollutants in Appendix A that are toxic to humans when they consume contaminated water and/or fish. The existing toxicity values for these toxic pollutants, adopted many years ago by the Commission, allow humans to be exposed to concentrations that, according to newer science and scientific analyses, may have deleterious effects on human health or may result in excessive cancer risk. Newer science and scientific analyses developed by the U. S. Environmental Protection Agency and presented in and with the *Petition* demonstrate that these twelve pollutants are more toxic than previously thought. The merits of the *Petition* warrant the initiation of rulemaking proceedings to update the toxicity values for these twelve (12) toxic pollutants. Denying the *Petition* or delaying rulemaking will result in continued inadequate protection of human health.

## II. The EMC has a mandatory duty to amend Appendix A to reflect the toxicity values in IRIS.

Ala. (ADEM) Admin. Code r. 335-6-10-.07(1)(d)1.(iii) provides:

> The values used for the reference dose (RfD) ***shall be values available through the U.S. Environmental Protection Agency's Integrated Risk Information System (IRIS)*** . . . except where other values are established pursuant to subparagraph (1)(g). The RfD . . . values for specific pollutants are provided in Appendix A.

Ala. (ADEM) Admin. Code r. 335-6-10-.07(1)(d)2.(iii) provides:

> The values used for the cancer potency factor (CPF) ***shall be values available through the U.S. Environmental Protection Agency's Integrated Risk Information System (IRIS)*** . . . except where other values are established pursuant to subparagraph (1)(g). The CPF . . . values for specific pollutants are provided in Appendix A.
>
> Subparagraph (1)(g) provides:
>
> Numeric criteria may be computed by the Department from equations 16, 17, 18, and 19 using values for the reference dose (RfD), [and] cancer potency factor (CPF) . . . determined by the Department in consultation with the Alabama Department of Public Health after review of information available from sources other than the U.S. Environmental Protection Agency's Integrated Risk Information System (IRIS) or ambient water quality criteria documents.

Of the seven (7) toxic pollutants identified in the *Petition* for which higher cancer potency values are recommended, four (4) of the cancer potency values are published in the U.S. Environmental Protection Agency's Integrated Risk Information System (IRIS). These are:

Hexachloroethane (CAS No. 67-72-1) (IRIS, 2011); *see Petition* at ¶ 15
Pentachlorophenol (CAS No. 87-86-5) (IRIS, 2010); *see Petition* at ¶ 16
Trichloroethylene (CAS No. 79-01-6) (IRIS, 2011); *see Petition* at ¶ 17
Arsenic (CAS No. 7440-38-2) (IRIS, 2025); *see Petition* at ¶ 19

Of the five (5) toxic pollutants identified in the *Petition* for which lower reference dose values are recommended, one (1) of the reference dose values is published in the U.S. Environmental Protection Agency's Integrated Risk Information System (IRIS). This is:

Cyanide (CAS No. 57-12-5) (IRIS, 2010); *see Petition* at ¶ 9

The toxicity values for these five (5) toxic pollutants in Appendix A are not the values in IRIS. The Department has not determined alternative toxicity values in consultation with the Alabama Department of Public Health for these five (5) toxic pollutants. The toxicity values for theses five (5) toxic pollutants in Appendix A are not consistent with the toxicity values published in IRIS. Accordingly, the Commission must amend Appendix A to conform the toxicity values of these 5 toxic pollutants in Appendix A to those published in IRIS.

## III. The EMC has a duty to follow defensible science.

The toxicity values provided in Appendix A are used by the Department in the calculation of human health water quality criteria. 40 C.F.R. § 131.11 directs states to adopt water quality criteria that are based on sound scientific rationale. Cf. 40 C.F.R. § 131.5 (EPA may review whether state water quality criteria are based on sound science).

The *Alabama Environmental Management Commission and Alabama Department of Environmental Management Unified Strategic Plan* (Jan. 20, 2024) includes the following value statement:

> **Clear, Science-Based Decisions and Policies to Protect Human Health and the Environment** – We seek clarity, consistency and certainty in our regulations, methods and actions, ensuring they are based on objective, peer-reviewed scientific standards and that they provide protection and fair treatment for all citizens.

*Id.* at 1.

Commission Chair Frank McFadden stated at the Commission's October 11, 2024 meeting of the Commission:

> With these goals in mind, we should rely on the best science we can find to guide our policymaking and enforcement actions to have clean water, air, and land resources. That sounds simple, I guess, but can be challenging even for those of us who have some relevant technical background in some of these areas. Why? Because we have to rely on research done by others, publications by others, technical presentations by others, with many filters on that information as it comes out, not to mention and not to forget our big brother at EPA.

*Minutes*, Envtl. Mgmt. Comm'n Meeting (Oct. 11, 2024) at 37. He continued:

> [W]e have to rely on the law and good science. We have to follow the law first and make decisions on the best science we can get and in that order. Sometimes environmental stakeholders or industry stakeholders don't really like what the law is, and we don't sometimes have a choice in that but to enforce that.

*Id.* at 40.

The *Petition* presents proposed amendments to the toxicity values of twelve (12) toxic pollutants. Five (5) of the 12 toxicity values are from the U.S. Environmental Protection Agency's Integrated Risk Information System and seven (7) are from the U.S. Environmental Protection Agency's Ambient Water Quality Criteria documents published in 2015. The U.S. Environmental Protection Agency considers these values to be reflective of the best available science. These values have undergone rigorous internal and external review, including public review. It does not appear from the record that the Department commented on the Ambient Water Quality Criteria documents published in 2015 or the Integrated Risk Information System assessment of Inorganic Arsenic concluded in 2025. Acting Director Kitchens has not offered *any* evidence to the Commission that contradicts the proposed toxicity values for these 12 toxic

pollutants. Accordingly, it is appropriate to initiate rulemaking to adopt the proposed amendments to Appendix A.

## IV. The EMC's duty is to prioritize protection of human health.

In *Code of Alabama 1975*, § 22-22A-2, the Legislature made a finding that "the resources of the state must be managed in a manner compatible with the environment, and the *health* and welfare of the citizens of the state." Section 22-22A-2(1) provides that "[t]o this end, the Alabama Department of Environmental Management is created . . . in order . . . to protect *human health* and safety . . .." "The mission at ADEM is to assure for all citizens of the State a safe, *healthful*, and productive environment." https://adem.alabama.gov/. *See Alabama Environmental Management Commission and Alabama Department of Environmental Management Unified Strategic Plan* (Jan. 20, 2024) at 1.

The Legislature did not authorize the Commission to consider whether other states have delayed the adoption of toxicity values for the 12 toxic pollutants addressed in the *Petition*. Thus, Acting Director Kitchens' suggestion that the Commission should delay adoption of the proposed amendments to Appendix A because "none of the Region 4 states have adopted the new human health criteria" recommended by EPA in 2015 is asking the Commission to make an arbitrary decision.

The proposed amendments to Appendix A are necessary to protect human health. Denying the *Petition* or delaying rulemaking to amend Appendix A will result in continued inadequate protection of human health contrary to the express intention of the Legislature and mission of the Department.

## V. The EMC should not delay the proposed amendment of Appendix A in anticipation that EPA will adopt a probabilistic criteria calculation tool.

Acting Director Kitchens has asserted that denying the requested amendment of Appendix A is appropriate because of the prospect that the U.S. Environmental Protection Agency will develop, and approve the use of, a new tool for the probabilistic computation of human health water quality criteria.

A Surface Water Probabilistic Risk Online (swPRO) tool was recently developed by the National Council for Air and Stream Improvement, Inc. *See* Coyle, J., et al., *An Open-source Shiny Tool for the Derivation of Human Health Water Quality Criteria using Probabilistic Risk Assessment*, Integrated Envtl. Ass. Mgmt. (accepted for publication pending peer review May 8, 2025), *available at* https://academic.oup.com/ieam/advance-article/doi/10.1093/inteam/vjaf060/ 8131461?login=false and attached hereto. The National Council for Air and Stream Improvement, Inc. is a regulated-industry organization. *See Membership Prospectus* (undated), *available at* https://www.ncasi.org/wp-content/uploads/2024/03/ NCASI-Regular-Membership-Prospectus-3-24.pdf. The swPro tool is intended to generate human health water quality criteria using a "probabilistic" methodology, rather than the current "deterministic" methodology used by the U.S. Environmental Protection Agency, the Department, and every other state for more than three decades.

The swPRO tool was developed using the R statistical software v. 4.3.3 and scripted as a tool using the Shiny framework (shiny package v. 1.8.1.1). It requires the input of sufficient data on a given population's human body weight, fish consumption rate, and drinking water intake rate to determine an accurate distribution of each of these parameters. These data and distributions might be obtained from the Centers for Disease Control and Prevention's (CDC's) National Health and Nutrition Examination Survey (NHANES) III national data set or other sources. Once a valid distribution for each parameter is determined, the regulatory agency would define the number of individuals to be used in a Monte Carlo simulation. The Monte Carlo simulation would generate a "virtual" or "synthetic" population of individuals, each of whom are assigned a human body weight, fish consumption rate, and drinking water intake rate in accordance with the statistical distributions for each parameter. These data would then be

coupled with other fixed-value data, such as pollutant toxicity value (Reference Dose or Cancer Potency), bioaccumulation value, relative source contribution value, cancer target risk level, etc. The swPro tool would then calculate water quality criteria for whatever percentage of the population the regulatory agency determines should be protected by the criteria.

While the swPro tool may simplify the generation of water quality criteria based on a probabilistic risk assessment approach, the use of a probabilistic risk assessment approach to derive water quality criteria is by no means widely accepted. "Regulatory acceptance of PRA [Probabilistic Risk Assessment] in establishing HHWQC [Human Health Water Quality Criteria] in the U.S. remains non-existent." *See An Open-source Shiny Tool for the Derivation of Human Health Water Quality Criteria using Probabilistic Risk Assessment, supra* at 34. "Currently, no country has promulgated PRA-derived HHWQC." *Id.* at 35. Acceptance of this "novel" methodology by the U.S. Environmental Protection Agency will probably necessitate a revision of EPA's *Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health*, EPA-822-B-00-004 (Oct. 2000), *available at* https://www.epa.gov/ sites/default/ files/2018-10/documents/methodology-wqc-protection-hh-2000.pdf. This will undoubtedly require peer review, public comment, and reconciliation of comments. Acceptance of the probabilistic methodology to develop human health water quality criteria is certain to be controversial, if for no other reason than because it is based on a "virtual" or "synthetic" population rather than a real population, and because it tends to generate higher minimum criteria than those developed using the deterministic methodology, thereby lessening the existing protection of human health. For all of these reasons, the Commission should not expect that the EPA will make a decision to approve the probabilistic methodology to developing human health criteria during the current triennial review.

Given the uncertainty and time delays associated with implementation of a probabilistic methodology to deriving water quality criteria, the Commission should proceed to consider amending Appendix A. Moreover, it should be

recognized that the swPro tool, as it is currently designed, uses the Reference Dose and Cancer Potency values published by the U.S. Environmental Protection Agency in water quality criteria documents. Thus, amendment of the outdated values in Appendix A is appropriate regardless of whether the Department wants to pursue the adoption of criteria developed using a probabilistic tool like the swPro tool.

## VI. The EMC should not deny the Petition on the grounds that the present triennial review offers an alternative means of obtaining amendment of Appendix A.

Acting Director Kitchens' assertion that the current triennial review offers an alternative means obtaining an amendment to Appendix A is disingenuous. As stated in the *Petition* at ¶¶ 25-30, environmental groups have asked the Department to update the criteria factors, including Appendix A, during each of the last *four* triennial reviews: 2015-2017 (hearing date July 16, 2015); 2018-2020 (hearing date July 26, 2018); 2021-2023 (hearing date August 19, 2021); and 2024-2026 (hearing date August 21, 2024). Each time, the Department failed to provide a firm commitment to propose that the Commission adopt new and revised human health water quality criteria factors, including revisions to Appendix A. The Department's response to the comments presented during the 2024-2026 triennial review offers no assurance that new and revised criteria factors will be proposed or adopted before August 21, 2026. Moreover, the environmental group stakeholder meeting held by the Department on February 7, 2024 did not demonstrate any progress being made toward the proposal and adoption of new and revised human health water quality criteria. All it was, was a lecture about how human health water quality criteria are calculated under existing rules using the "deterministic" methodology.

EPA has developed toxicity values for the 12 toxic pollutants identified in the *Petition* based on the best science available. The Department has not challenged the validity of EPA's recommended toxicity values. The present triennial review, like the four triennial reviews before, does not offer a viable

means of obtaining an amendment to Appendix A. This rulemaking *Petition* to the Commission offers the only viable opportunity to obtain an amendment to Appendix A given that the triennial review process has failed to do so. A petition to the Commission is exactly what the Legislature envisioned when it authorized petitions for rulemaking in Code of Alabama 1975, § 41-22-8. The status quo urged by the Department cannot be continued.

Sincerely,

David A. Ludder
Attorney for Petitioners

enc: Coyle, J., et al., *An Open-source Shiny Tool for the Derivation of Human Health Water Quality Criteria using Probabilistic Risk Assessment*, Integrated Envtl. Ass. Mgmt. (accepted for publication pending peer review May 8, 2025)

cc: Jeffrey W. Kitchens, Acting Director (via electronic mail)
Robert Tambling, Assistant Attorney General (via electronic mail)
Todd Carter, General Counsel (via electronic mail)