



March 25, 2022

VIA ELECTRONIC MAIL

Andrew Edwards
Water Quality Standards Coordinator, Bureau of Water
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201

Dear Mr. Edwards,

The South Carolina Manufacturers Alliance (SCMA) is an organization which represents more than 400 facilities with over 80,000 employees operating and working in South Carolina. SCMA members and their respective manufacturing facilities are vital to the South Carolina economy. SCMA respectfully submits the enclosed comments and recommendations for consideration in response to the South Carolina Department of Health and Environmental Control's Notice of Drafting to amend Regulation 61-68: Water Classifications and Standards as published in South Carolina State Register, Volume 46, Issue No. 2, dated February 25, 2022.

Sincerely,

A handwritten signature in black ink that reads 'Rebecca G. Leach'. The signature is written in a cursive, flowing style.

Rebecca G. Leach
Vice President of Government Relations

**PUBLIC COMMENT:
PROPOSED AMENDMENTS TO
REGULATION R.61-68, WATER CLASSIFICATION
STANDARDS SHOULD BE DELAYED**

March 25, 2022

EXECUTIVE SUMMARY

Revised water quality standards (WQS) proposed by the South Carolina Department of Health and Environmental Control (DHEC) last month will have immediate and irreparable effect on industrial discharge permits issued in South Carolina, because they merely parrot federal policy and are not based on proper study of the effects of the new WQS pollutants on waters of the State. The proposed WQS will be 1,000 times more stringent than existing water quality standards. Cf. e.g., 80 Federal Register at 36987, Table 1, 1, 2, 4 Trichlorobenzene (Revised WQS of 0.071 ug/L) and S.C. Codes Ann. R. 61-68, Appendix, No. 92, 1, 2, 4 Trichlorobenzene (current WQS of 35 ug/L and MCL of 70 ug/L). No economic or technological feasibility studies have been considered by DHEC or EPA in proposing the new WQS, and more importantly, EPA did not intend states to adopt their “one size fits all” WQSs verbatim; rather, EPA intended states to conduct state-required studies first, which have not yet been performed in South Carolina. Accordingly, the more than 100 members of the South Carolina Manufacturing Alliance (SCMA) respectfully requests the revised WQS proposed by DHEC be delayed until required economical and technical studies of the effect of the new standards on the waters of the State, human health of South Carolinians, and the economy and industrial development can be completed.

BACKGROUND

By State Register Notice February 25, 2022, DHEC proposes to amend State water quality standards in regulation R. 61-68, Appendix, which are the bases for determining effluent limits in all State or Local wastewater discharge permits (“Revised WQS”). South Carolina State Register,

Vol. 46, Issue No. 2, p. 20 (February 25, 2022) (“Triennial Review”). The Revised WQS incorporate by reference new numeric human health criteria for ninety-four (94) chemical pollutants published by the United States Environmental Protection Agency (EPA) at 80 Federal Register 36986 (June 29, 2015) (“EPA Criterion”). To date, DHEC has not conducted studies as to the applicability or accuracy of the Revised WQS or EPA Criterion for waters of the State in South Carolina; instead, DHEC’s Triennial Review adopts the EPA Criterion without question or review. “DHEC Regulatory Development Update,” p. 16 (September 23, 2016) (Revised WQS incorporates EPA Criterion by reference); 80 Federal Register at 36989, Vol. 1 (EPA Criterion drafted without performing studies, “using externally peer-reviewed information sources” only); and DHEC “2022 Triennial Review” Website, <https://scdhec.gov/BOW/water-quality-standards/triennial-review/2022-triennial-review> (“The EPA published updated ambient water quality criteria for the protection of human health on June 29, 2015.”) (“Triennial Review”). Public comments on the Revised WQS are allowed under the Triennial Review.

STANDARD OF REVIEW

In order to be valid, regulations promulgated by an agency or department in South Carolina must be developed in accordance with terms of the implementing statute:

Boards of health and other sanitary authorities have no inherent legislative power; they cannot by their rules and regulations enlarge or vary the powers conferred on them by the law creating them and defining their powers, and any rule or regulation which is inconsistent with such law, or which is antagonistic to the general law of the state, is invalid.

30A C.J.S., Health and Environment, §14, adopted by South Carolina Attorney General, S.C. Attorney Gen. Op. No. 89-61 (May 17, 1989)(emphasis added). Therefore, the Revised WQS may not be promulgated as final Revised WQS, if they violate substantive or procedural requirements of South Carolina law.

The Clean Water Act (CWA), 33 U.S.C.A. §§ 1251 to 1388, requires each state promulgate water quality standards sufficient “to restore and maintain the chemical, physical, and biological integrity of the nation’s waters.” 33 U.S.C.A. § 1251(a). According to South Carolina Courts, DHEC must develop and promulgate the water quality standards in this State, not EPA:

The CWA, thus, places the promulgation and implementation of water quality standards squarely within the jurisdiction of state law (citations omitted).

Western Carolina Regional Sewer Authority, et al. vs. South Carolina Department of Health and Environmental Control, et al, 1999 WL 1016064, p. 6 (S.C. Admin. Law Judge Div.).

EPA periodically publishes new and revised human health information on various pollutants to help states develop these numeric water quality criteria. However, EPA makes it clear the EPA Criterion are not regulations, which South Carolina must adopt to be consistent with Federal law, but are merely non-binding and non-regulatory guidance. As EPA put it at 80 Federal Register at 36987, Col. 3, “EPA’s recommended criteria [to be considered by DHEC] do not substitute for the CWA or regulations, nor are they regulations themselves.” Id.

Moreover, to become numeric water quality standards in this State Revised WQS must be adopted in accordance with State statutes, not simply incorporated into State regulations by reference. The South Carolina Administrative Law Court (SCALC) has addressed this specific issue and requires DHEC separately evaluate each EPA Criterion in accordance with State statutory requirements:

Because EPA’s [Revised WQS] criteria documents are nonregulatory, they are not subject to the...requirements of the Federal Administrative Procedures Act, 5 U.S.C.A. §553, et seq. However, for criteria to become binding elements of State water quality standards, the CWA

requires that they be adopted by [South Carolina DHEC] in accordance with State laws governing how regulations become laws....”

Western Carolina, 1999 WL 1016064, p. 9; see also, 40 CFR 25.10(b).

The current Revised WQS do not comply with this standard. Revised WQS are authorized by the South Carolina Pollution Control Act (PCA), S.C. Code Ann. §§48-1-10 to 350, and the South Carolina Administrative Procedures Act (APA), S.C. Code Ann. §§1-23-10 to 380, in South Carolina. Existing water quality standards state “[t]hese regulations [are] promulgated pursuant to authority of the [PCA]”, S.C. Code Ann. R61-68.A.1, and the APA provides the procedures for proposing and adopting any State regulation, S.C. Code Ann. §1-23-110 to 150, 380. In fact, the SCALC expressly stated:

1. Water quality standards are a creation of State law, not Federal law, Western Carolina, 1999 WL 1016064, p. 30; and
2. Both the PCA and APA govern promulgation of Revised WQS into State law, Id. (APA is applicable) and Id. at pp. 5-6 (PCA is applicable).

Because the Revised WQS do not satisfy requirements of the PCA and APA, they must be held in abeyance or otherwise vacated until DHEC complies with statutory requirements.

PUBLIC COMMENTS BY SCMA

SCMA objects to the Revised WQS as written because the rulemaking process and the Revised WQS themselves are not consistent with South Carolina law. DHEC has not undertaken the necessary studies to revise the WQSs, EPA never intended EPA Criterion to be adopted verbatim without substantive compliance with State test requirements, and the EPA Criterion are not based on science.

**I. DHEC LACKS AUTHORITY AT THIS TIME TO INCORPORATE THE
EPA CRITERION INTO STATE REGULATIONS**

Because DHEC has not performed proper studies of each EPA Criterion and its effects on waters of the State and industrial development, the Revised WQS are premature. SCMA requests DHEC comply with the PCA and APA prior to adopting the Revised WQS as law in South Carolina.

**Comment No. 1: Revised WQS Violate PCA Because Required “Proper Studies” Have Not
Been Performed by the State**

Revised WQS proposed by DHEC may not be promulgated into final regulations, because “proper study” of each human health criterion has not been completed by DHEC. DHEC may not simply incorporate “informational sources” by reference into State water quality standards under the PCA.

The PCA requires DHEC (not EPA or another agency) perform a proper study for each water quality standard and human health criterion before a Revised WQS can be adopted for streams or groundwater in this State:

In order to attain the objectives of this chapter, [DHEC] after proper study . . . shall adopt rules and regulations and classification standards.

S.C. Code Ann. § 48-1-60 (emphasis added). The EPA Criterion, which DHEC seeks now to incorporate into State regulations by reference, are merely “technical information for states to consider”; they are not themselves “proper study” of how each EPA Criterion meets the responsibility of the PCA. 80 Federal Register at 36987, Col. 2 (“EPA’s recommended criteria provide technical information for states to consider in adopting water quality standards. . .”).

According to the PCA, DHEC must study each individual EPA Criterion to determine if that draft criterion meets the standards of State law and affects human health and State water quality. The PCA states:

It is recognized, due to variable factors, no single standard of quality and purity of the environment is applicable to all ambient air, land, or waters of the State.

Id. (emphasis added). Therefore, absent “proper study” specific to each EPA Criterion in the Revised WQS, DHEC may not incorporate the Revised WQS into State regulations or “classification standards” for waters of the State.

The water studies required by PCA do not exist. First, it is not disputed DHEC conducted no studies on the EPA Criterion and their effects on waters of the State. There is no provision in the PCA, which allows DHEC to merely copy another’s studies in place of performing the proper studies necessary for each human health criteria. That is all DHEC is proposing here: incorporating technical information sources into State Law without regard for its usefulness to waters of the State.

Second, the PCA states the DHEC studies must meet certain minimum criteria to comply with requirements of PCA. “In adopting the classification of waters and the standards of purity and quality, consideration must be given [to the following for each individual pollutant for which a Revised WQS is considered]”:

1. Health effects of the chemical on the waters of the State, given the size, depth, surface area, volume, direction, flow, gradient and temperature of each stream;
2. Suitability of the area for receiving the specific chemical pollutants;
3. Effects the pollutants may have on use of the streams.

S.C. Code Ann. § 48-1-80. To date, DHEC has done none of this¹.

DHEC has not considered any of these factors prior to proposing the EPA Criterion as Revised WQS in South Carolina. Otherwise, the State Register and implementing guidance would refer to those studies.

¹ To the extent DHEC asserts these factors are part of an applicant’s permit review process, the position contradicts the PCA. The PCA expressly requires the studies during the regulatory process, not during permitting.

Finally, to the extent DHEC wants to rely on EPA literature reviews as grounds for the Revised WQS, requisite studies under the PCA S.C. Code Ann. § 48-1-80 were not performed by EPA:

1. No studies of streams or areas around State waterbodies were conducted for each EPA Criterion prior to proposing adoption of the Revised WQS as printed by EPA in the Federal Register;
2. EPA simply “updated the human health criteria using externally peer-reviewed information sources”, so no studies of streams or areas around other waterbodies in other states were performed, 80 Federal Register at 36989, Col. 1;
3. EPA developed the Revised WQS from unidentified “science documents” related to certain toxicity values and bioaccumulation, which are not included in the public notice, DHEC has not reviewed or questioned, and are not related to the factors required by PCA, §48-1-80(1) to (4); and
4. Generic information cited by EPA to develop the Revised WQS is limited to “scientific judgments,” “health toxicity values,” and “bioaccumulation factors,” and as a result, no studies related to characteristics of waters of the State and effects of alleged toxicants were performed. 80 Federal Register 36987, Col. 2.

Absent the “proper study” required of these EPA Criterion on the health effects of streams here, suitability of the communities for these Criterion, and effects of each on the stream uses, the PCA has not been satisfied and the Revised WQS may not be adopted verbatim.

Comment No. 2: Revised WQS Violate PCA and APA Because No Consideration to is Given Economic Impact

In order to be consistent with State law, Revised WQS must also take into account economic impact of the Revised WQS on industry in the State. The Revised WQS do not do that.

Under the PCA, all water classification regulations must be “consistent with . . . maximum employment [and] industrial development of the State.” S.C. Code Ann. § 48-1-20. In formulating Revised WQS into regulations, “consideration shall be given to * * * encouraging the

most appropriate use of the lands . . . for . . . industrial purposes [and] uses which have been made or may be made . . . for industrial consumption. . . .” S.C. Code Ann. § 48-1-80(2),(3).

As written, Revised WQS violate this requirement:

[Revised WQS] criteria do not reflect consideration of economic impacts or the technological feasibility of meeting pollutant concentrations in ambient water.

80 Federal Register 36987, Col. 2 (emphasis added). Since DHEC is not conducting separate analysis of the listed EPA Criterion, no DHEC evaluation of the economic impacts has been or may be conducted. Given the Revised WQS reduce acceptable discharge levels of chemical pollutants by 1,000 times and the regulated community subject to the regulation is that same industry protected by the PCA, the economic impact on industry is verifiable, but not accounted for in the Revised WQS.

The APA mandates the agency determine “substantial economic impact” of the Revised WQS on State industry through preparation of preliminary and final assessment reports. S.C. Code Ann. § 1-23-115(B). Because the Revised WQS incorporate the EPA guidance verbatim into regulations and the EPA human health Criterion do not include economic impact analysis, DHEC is foreclosed from completing a preliminary or final assessment report without review and evaluation of the original EPA Criterion sources, which it has not done.

Finally, DHEC may not claim the economic analysis occurs through a preliminary or final assessment required by the General Assembly. The PCA is quite specific: regardless of an economic assessment under the APA, no regulation may adopt water standards, which do not allow for continued use of waters of the State for industrial purposes. Restricting wastewater discharge levels by 1,000 times will do just that.

II. EPA DOES NOT MANDATE EPA CRITERION BE ADOPTED BY DHEC AND IF FACT, REQUIRES DHEC TO CONDUCT ITS OWN EVALUATION OF USEFULNESS OF THE EPA CRITERION TO STATE WATERS

EPA's published water quality criteria were never intended to be simply incorporated into state regulations without proper study and therefore DHEC subverts intent of EPA when it does so. This is because EPA did not account for local and regional information about the waters of the State when the EPA Criterion were being developed.

Despite implications to the contrary by DHEC in the Triennial Review notice, Federal and State law expressly states EPA Criterion are not binding on DHEC:

EPA's recommended criteria do not substitute for the CWA or regulations, nor are they regulations themselves. Thus, EPA's recommended criteria do not impose legally binding requirements. States and authorized tribes have the discretion to adopt, where appropriate, other scientifically defensible water quality criteria that differ from these recommendations. Ultimately, however, such criteria must protect the designated use and be based on sound scientific rationale.

80 Federal Register at 36987, Col. 3.

EPA also states in the Federal Register Notice, its recommended criteria only provide information for "consider[ation] [by DHEC]...in adopting water quality standards", 80 Federal Register 36987, Col. 2, and "EPA's recommended criteria do not substitute for the CWA or [State] regulations themselves . . . [and] do not impose legally binding requirements", Id. at 36987, Col. 3.

Rather, a State must adopt water quality criteria protective of their own designated uses. EPA Office of Water Office of Science and Technology, EPA 822-R-15-001, EPA Response to Scientific Views from the Public on Draft Updated National Recommended Water Quality Criteria for the Protection of Human Health, § 5.1.1, p. 34 (June 2015). "Criteria must be based on a sound scientific rationale and contain sufficient parameters or constituents to protect the designated uses" for each waterbody of a given state. Id.

To that end, EPA stated in a telephone conference recently with representatives of SCMA, the Revised WQS are proposed merely for the State to determine if further research or studies are necessary for any or all of the ninety four (94) chemicals with revised criterion. EPA added that States have discretion to adopt criteria on a case-by-case basis, which differ from EPA's guidance. Id. at § 5.3.1, p. 37. EPA's recommended Criterion are general in nature and based "solely on data and scientific judgments," but do not account for local and regional data nor "reflect consideration of economic impacts or technological feasibility." Id.

The Triennial Review proposes adopting the EPA Criterion because EPA has proposed the new EPA Criterion and no other reason. "[DHEC] proposes amending R.61-68 to adopt revised water quality standards as deemed necessary to comply with federal updates and recommendations." Triennial Review, Synopsis, p. 20. In fact, the Triennial Review itself is included in the Notice of Drafting to amend existing water quality standards in South Carolina to incorporate by reference the EPA Criterion. Triennial Review, Notice of Drafting, p. 20. While DHEC notes in passing its responsibilities in this rulemaking process include giving consideration to factors in the PCA, the Triennial Review concludes the EPA Criterion will be adopted "according to Section 304(a), Section 304(f), and Section 307(a) of the CWA", not the PCA. Id.

Other states are following the directive of EPA and performing their own water quality studies rather than copying EPA Criterion into state regulations as WQS. Those states include Florida, Kentucky, Alabama, Idaho, and Tennessee. And, those states are given authority by EPA to consider a variety of social factors in the analysis like costs of compliance to industrial dischargers to meet new permit limits:

Risk management is the process of selecting the most appropriate guidance or regulatory actions by integrating the results of risk assessment with engineering data and with social, economic, and political concerns to reach a decision. In this Methodology, the choice of a default fish consumption rate which is protective of 90 percent of the general population is

a risk management decision. The choice of an acceptable cancer risk by a State or Tribe is a risk management decision.

Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health, Docket No. EPA-822-B-00-004 Section 2.2, p. 2-4 (October, 2000). As EPA stated in approving Idaho's diversion from EPA Criterion in their final WQSs, "When adopting criteria that are protective of designated uses, the federal regulations require that states have a sound scientific rationale for their decisions and, when not adopting criteria based on CWA section 304(a) guidance, criteria are based on scientifically defensible methods and/or reflect site-specific conditions. 40 CFR 131.11(b). The regulations provide this flexibility to ensure that states can address the unique conditions and characteristics of the circumstances in their state and/or of the waterbody to which the criteria will apply." EPA's Approval of Idaho's New and Revised Human Health Water Quality Criteria for Toxics and Other Water Quality Standards Provisions, p. 40 (April 4, 2019).

Because EPA does not mandate the EPA Criterion be binding on South Carolina (nor can it) and the EPA Criterion must undergo "proper study" (including consideration of the costs of the new Revised WQS), in this case EPA Criterion are not yet properly adoptable in South Carolina. The DHEC staff must delay incorporation of these criteria into State law until all PCA tests and studies are complete.

III. EPA CRITERION ARE NOT CONSISTENT WITH STATE LAW

EPA Criterion being considered by DHEC are not intended to provide values protective of human health in South Carolina. As a result, DHEC may not rely on the EPA Criterion for human health values.

As part of the EPA notice of new EPA Criterion, EPA announced revisions are based on EPA's "methodology for deriving human health criteria in Methodology for Deriving Ambient

Water Quality Criteria for the Protection of Human Health (2000) (EPA-822-B-00-004, October 2000).” EPA updated its prior human health criteria using externally peer-reviewed information sources based almost exclusively on “theoretical risks”. Derivation of Human Health Water Quality Criteria: Review of Key Scientific and Technical Assumptions and Approaches, p. F-1 (NCASI April, 2017) (“NCASI Report”).

DHEC should use state-specific science as required by the PCA to revise those EPA Criterion it does consider:

1. Health Protection Targets. The cancer risks used by EPA Criterion are 1.0×10^{-6} . South Carolina should use the cancer risks from exposure to water contaminants for the mean of the general population in order to recognize the science-based link between risk and exposure.
2. Fish Consumption Rates. The EPA Criterion are based on a fish consumption rate of 22.0 grams per day (gpd) per person, which is an increase of 5.0 gpd of fish from 2000. However, the study assumes fish is consumed from marine or estuarine waters, not grocers or restaurants. Accordingly, DHEC should use only data representative of fish consumption by South Carolina residents from South Carolina water bodies, which will be substantially less than 22.0 gpd.
3. Relative Source Contribution. The relative source contribution (RSC) is that portion of contaminants received from sources other than fish consumption. EPA uses a RSC of 20 – 80 %; prior studies used the value of 100%; this may lower the EPA Criterion by as much as 5 times the 2000 levels. This assumption is not verifiable and DHEC should reject it for actual data on RSCs.

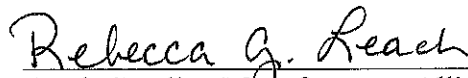
4. Implicit Assumptions. EPA use of “implicit assumptions” cloud the reliability of the EPA Criterion. Examples include: (1) assuming all waters have a constant chemical concentration equal to the EPA Criterion; (2) no reduction of concentrations during cooking; (3) fish are consumed at the maximum level of contamination over a lifetime.

See, NCASI Report, pp. F-1 to F-3 (supporting data for each item is included in the document).

REQUESTED ACTION

Because the Revised WQS severely restricts existing human health criteria necessary to obtain a permit to operate industry in South Carolina, it is requested Revised WQS be held in abeyance or vacated pending completion of proper studies required by State law.

Submitted this 25th day of March, 2022.



South Carolina Manufacturers Alliance
1340 Bull Street
Columbia, South Carolina 29201
803.799.9695