

SCPPA South Carolina Pulp & Paper Association

585 Wflamette Rd. Bennettsville, SC 29512

October 24, 2016

VIA ELECTRONIC MAIL

Mr. Andrew Edwards
Bureau of Water
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Re: Proposed Amendments to Regulation 61-68,
Water Classifications and Standards

Dear Mr. Edwards:

The South Carolina Pulp and Paper Association (SCPPA) is a trade association comprised of the following companies that manufacture pulp and paper products in South Carolina: Domtar, First Quality Tissue, International Paper, KapStone, Resolute Forest Products, WestRock and Sonoco. SCPPA member companies employ thousands of South Carolinians in high-paying jobs, lead the way on recycling and renewable energy generation, and sustainably manage South Carolina's forests.

Section 303(c)(2)(B) of the Federal Clean Water Act (CWA) requires that South Carolina update its water quality standards at least once every three years (the "Triennial Review"). During the current Triennial Review process DHEC is proposing to adopt U.S. EPA's June 2015 revised human health water quality criteria for ninety-four (94) chemical pollutants based on new assumptions for exposure inputs (body weight, drinking water consumption, and fish consumption), bioaccumulation factors, toxicity values, and relative source contributions. These proposed amendments to the State's water quality standards, if adopted, may affect the nature or amount of wastewater that SCPPA member facilities are allowed to discharge to surface waters, potentially requiring member companies to reduce their current operations or limit future expansion. For these reasons, the SCPPA member companies are substantially affected by DHEC's proposed rule.

The SCPPA members support DHEC's efforts to improve the State's water quality standards. However, we have significant concerns about the methodology U.S. EPA has used to derive the June 2015 HHWQC and encourage DHEC to carefully consider whether wholesale adoption of the Agency's standards is scientifically defensible and in the best interests of the State. Many of the SCPPA companies are members of the National Council for Air and Stream Improvement, Inc. (NCASI), and we strongly support NCASI's comments on the State's proposal to adopt U.S. EPA's HHWQC without modification. We would like to highlight a few of the issues raised in those comments.

Deterministic Method

U.S. EPA's June 2015 HHWQC were developed using a deterministic method, which analyzes a discrete set of scenarios to determine what an outcome might be (for example, evaluation of best and worst case scenarios). Use of the deterministic methodology to conduct risk assessments for purposes of establishing HHWQC has a number of shortcomings: it does not adequately represent the full range of variability in the exposed population of concern; it results in the equal weighting of each outcome and does not predict the likelihood of any particular outcome; and it can lead to inaccurate results due to the oversimplification of interactions among variable inputs. Due to these shortcomings, the deterministic risk assessment method can result in "compound conservatism," which NCASI has described in its comments as a condition where "the actual degree of protectiveness in criteria can far exceed the target and stated level of protectiveness." SCPPA strongly encourages DHEC to consider using superior and more current probabilistic risk assessment methods to derive South Carolina's HHWQC. We believe that use of probabilistic approaches to update the State's water quality standards will minimize the problems of compounded conservatism and better evaluate risk across the entire population of exposed individuals.

Bioaccumulation Factors (BAF)

The BAF used by U.S. EPA to develop the 2015 HHWQC are based on uncertain science. For example, the Agency calculated BAFs in part directly from existing bioconcentration factors (BCF), but, to our knowledge, a transparent summary of the complete set of assumptions and procedures used in developing BAFs has not been made available for peer or public review. SCPPA believes that adopting HHWQC based on BAFs rather than BCFs requires further state-specific scientific support and significantly more transparency.

Relative Source Contribution (RSC) Factors

People are exposed to pollutants through a variety of pathways, not just surface water. The intended purpose of the RSC is to keep the all sources of exposures to a toxic substance — not just drinking water and fish consumption - from exceeding the relevant reference dose, or U.S. EPA's maximum acceptable oral dose of a toxic substance.

There are various methods of calculating an RSC, and the Agency has chosen to use the percentage approach to derive the RSC on which the June 2015 HHWQC are based. The percentage method relies on comparisons to actual exposure levels of hypothetical individuals rather than comparisons to safe exposure levels or the "reference dose." However, environmental rules and regulations have been effective in reducing our exposures to toxic substances, and in most cases we are exposed to chemicals at levels lower than what is considered safe. Thus, use of the percentage approach to determining the RSC has the effect of forcing water quality criteria lower, but does not do much to protect human health.

NCASI's comments on DHEC's proposal to amend Regulation 61-68 include an extensive discussion of the scientific problems with application of the percentage method for determining the RSC. SCPPA strongly urges DHEC to consider the relative merits

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of alternative methods - specifically the subtraction method - for calculating the RSC before issuing a final rule.

Fish Consumption Rate

U.S. EPA's 2015 HHWQC are based on an assumption that the exposed population consumes about 22 grams/day of fish on each and every day over the course of 70 years. This assumption is overly conservative. According to statistics published by NOAA Fisheries, the per capita consumption of fish and shellfish in the U.S. has gradually decreased since 2004.¹ The HHWQC also have been derived using inaccurate assumptions regarding the concentration of chemicals found within fish tissue, including the assumption that the concentration of toxic substances are the result of discharges occurring at the legally maximum level from all potential sources on a continuing basis. As a practical matter, it is unreasonable to presume that all discharges would contain the legally maximum level simultaneously.

In conclusion, wholesale adoption of U.S. EPA's 2015 HHWQC will lead to more impaired water listings and impose extremely costly treatment obligations on municipal and industrial dischargers alike, with virtually no demonstrable improvement in human health protection. South Carolina has discretion to adopt HHWQC that differ from the U.S. EPA standards, provided they are scientifically defensible and protect the human health and designated water uses. For the reasons discussed in this letter and NCASI's more detailed comments, SCPPA does not believe the 2015 federal HHWQC are appropriate for South Carolina or sufficiently supported by sound science and data. SCPPA appreciates the opportunity to provide these comments, and urges the State to undertake further evaluation and seek additional public input on the complex technical and policy issues associated with the proposed HHWQC before proceeding to issue a final rule.

Sincerely,



Harrison Watson
Chairman, SCPPA

¹ U.S. Department of Commerce, National Oceanic and Atmospheric Administration, and National Marine Fisheries Service, Fisheries of the United States 2014, pp.105-111, September 2015.