

**Letters of Objection & Requests for Legislative Review**  
**15A NCAC 02B .0212, .0214, .0215, .0216, & .0218**

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May 17, 2022

Via email:

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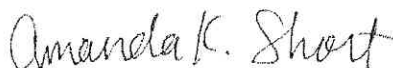
**Re: *Objection to, and Request for Legislative Review of, 15A NCAC 2B .0212, 0214, 0215, .0216, and .0218***

Members of the Commission:

This letter is an objection to the approval of 15A NCAC 02B .0212, .0214, .0215, .0216, and .0218, which contain a water quality standard for 1,4-dioxane. I request that the above rule(s) be reviewed in the upcoming legislative session as set out in N.C.G.S. 150B-21.3. I further request that the rule(s) be subject to a delayed effective date as set out in that same provision.

Thank you for your consideration.

Sincerely,



Amanda K. Short

April 18, 2022

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Re: Objection to, and Request for Legislative Review of, 15A NCAC 2B .0212, 0214, .0215, .0216, and .0218.

Members of the Commission:

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Thank you for your consideration.



Charlie Stroman, III, Manager, Environmental Health Safety and Security

CC: Lawrence Duke (Via email [lawrence.duke@oah.nc.gov](mailto:lawrence.duke@oah.nc.gov))

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**CRANFILL SUMNER<sup>LLP</sup>**

May 11, 2022

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**Via E-Mail, to:**

Christopher Ventaloro, Water Quality Standards Coordinator  
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**RE: Comments in opposition to proposed rules to be codified at 15A  
NCAC 2B .0208, .0212, .0214, .0215, .0216, and .0218,  
and request and notice for oral presentation at the May 19, 2022,  
meeting of the Rules Review Commission.**

Members of the Commission, Ms. Everett, and Mr. Ventaloro:

Please allow the remarks below to supplement our Comment delivered to each of you on April 13, 2022, in further opposition to rules proposed by the North Carolina Environmental Management Commission ("EMC") to be codified at 15A NCAC 2B .0208, .0212, .0214, .0215, .0216, and .0218. For your reference, our April 13, 2022, Comment is enclosed as **Exhibit A**.

The above-referenced rules were first reviewed by the North Carolina Rules Review Commission (“RRC”) at its April 21, 2022, meeting. For that meeting, RRC staff recommended rejecting the proposed rules because “when EMC sent the entire regulatory framework, of which these Rules are part, to the Office of State Budget Management (OSBM) for certification, EMC did not comply with the requirements of the APA as to the fiscal impact analysis (“fiscal note”) for the regulation of 1,4-dioxane.” (RRC Staff Opinion p. 1). At the April 21, 2022, meeting, undersigned counsel for the City of Reidsville, R. Robert El-Jaouhari, spoke in favor of RRC Staff and in opposition to the proposed rules. Attorney Sean Sullivan, and attorney to EMC Philip Reynolds, spoke in favor of the proposed rules and against Staff’s recommendation. Eight members of this Commission voted: four voted to adopt Staff’s recommendation, and four voted against Staff’s recommendation. This Commission then tabled this matter for its May 19, 2022, meeting.

The above-referenced rules pertain to EMC’s efforts to regulate discharges of 1,4-dioxane into surface waters. As we outlined for the RRC in our April 13, 2022, Comment, and as Mr. El-Jaouhari discussed with the RRC at its April meeting, these proposed rules neither comport with statutory authority nor rule-making requirements, nor are they reasonably necessary to effectuate a lawful purpose in light of existing EMC rules on this same subject. While undersigned counsel continue to rely on our prior written comments and Mr. El-Jaouhari’s oral presentation, this present Comment will show that EMC indeed did not conduct a fiscal analysis for the proposed 1,4-dioxane rules, will address why EMC’s reliance on pre-existing “target values” cannot excuse EMC’s failure to conduct a fiscal analysis, and will explain why EMC has failed to comply with the N.C. Gen. Stat § 150B and, therefore, fails to satisfy G.S. §150B-21.9(a)(4) of the RRC’s review.

Please allow this letter to serve as request and notice by the undersigned R. Robert El-Jaouhari for an oral statement in opposition to the referenced proposed rules at the Commission’s upcoming May 19, 2022, meeting. Mr. El-Jaouhari’s contact information appears in the above letterhead.

### **The Commission’s Review Authority.**

The RRC’s review authority of an agency’s proposed rule is limited, but multifaceted. The RRC must determine (1) whether the proposed rule is within the agency’s delegated authority, (2) whether the adoption comports with statutory restrictions and requirements for rule-making, and (3) whether a rule is “reasonably necessary to implement or interpret an enactment of the General Assembly, or of Congress, or a regulation of a federal agency[.]” in which context “[t]he Commission

shall consider the cumulative effect of all rules adopted by the agency related to the specific purpose for which the rule is proposed.” N.C. Gen. Stat. 150B-21.9(a) (emphasis added).

For the following reasons, the proposed rules fail to meet the standards for this Commission’s approval.

**EMC Did Not Perform the Necessary Fiscal Analysis.**

In its well-meaning efforts to control the impact of 1,4-dioxane in North Carolina surface waters, EMC neglects rulemaking requirements meant to control the impact of rulemaking on regulated communities. North Carolina law requires agencies to quantify and analyze the financial impact of proposed rules on regulated communities, but EMC has conceded that it has not done so for its proposed 1,4-dioxane criterion at 0.35 ug/L. The Rules Review Commission’s staff has therefore, unsurprisingly, recommended against adoption of the proposed 1,4-dioxane criterion because “EMC did not comply with the requirements of the APA as to the fiscal impact analysis (“fiscal note”) for the regulation of 1,4-dioxane.” (RRC Staff Opinion p.1). The Commission should indeed reject the proposed 1,4-dioxane rules on account of EMC’s failure to meet statutory rulemaking requirements.

The Rules Review Commission does not need to look behind the economic substance of the fiscal analysis performed by EMC for its Triennial Review, nor substitute its own judgment for EMC’s judgment with regard to the economic substance of that analysis, in order to concur with Staff that EMC “did not comply with the requirements of the APA as to the fiscal impact analysis (“fiscal note”) for the regulation of 1,4-dioxane.” (RRC Staff Opinion p. 1). Instead, the Commission need only recognize what is true from the face of the fiscal analysis EMC today insists it has properly performed—namely, that the fiscal analysis for EMC’s Triennial Review specifically, purposefully, and expressly excludes any fiscal analysis of the economic impacts of the proposed 1,4-dioxane standard at 0.35 ug/L. That exclusion is in breach of statutory rulemaking procedure, and therefore causes the proposed 1,4-dioxane rules to fail the Commission’s review at G.S. § 150B-21.9(a)(4).

Indeed, as Mr. Reynolds argued at this Commission’s April meeting, and as RRC Staff recognizes, EMC did perform a fiscal analysis for the 2020-2022 Triennial Review, of which the 1,4-dioxane rules are a part. (See Regulatory Impact Analysis

(“RIA”), at <https://deq.nc.gov/media/24795/download?attachment>).<sup>1</sup> However, EMC has not equally highlighted for this Commission the express exclusion of any analysis of the economic impacts of the proposed 1,4-dioxane rules from the RIA. That exclusion—and, therefore, EMC’s clear decision not to perform a fiscal analysis for the proposed 1,4-dioxane rules—is apparent merely from the face of the RIA that EMC relies on: in no uncertain terms, the RIA states that “we [EMC] *have not included benefit/cost estimates for 1,4-dioxane in this analysis*[.]” (RIA p. D-4 (emphasis added)), and “we [EMC] *did not attempt to monetize costs or benefits for 1,4-dioxane*.” (RIA p. D-17 (emphasis added)).

EMC, and certain proponents of the proposed 1,4-dioxane rules, believe that this exclusion is permissible because EMC previously used its own agency rules to establish an in-stream target value for 1,4-dioxane in surface waters, and because the proposed rulemaking is a mere codification of that pre-existing requirement. As this argument goes, there would be absolutely no economic impact to regulated local governments from codifying the pre-existing target values because the proposed rules and the pre-existing target value set the same standard: 0.35 ug/L maximum concentrations of 1,4-dioxane in surface water.

Several flaws in this argument show that EMC cannot rely on its prior in-stream target value to avoid statutory rulemaking requirements for a fiscal analysis, that EMC has therefore failed to meet statutory rulemaking requirements for the proposed 1,4-dioxane rules, and that the RRC must therefore reject the proposed rules for failure to satisfy G.S. § 150B-21.9(a)(4).

First, EMC’s position entirely undercuts the purpose and existence of statutory rulemaking requirements. EMC here argues that its own application of its own agency rule, 15A NCAC 02B .0208 (the “Narrative Standard”), makes a fiscal note regarding 1,4-dioxane unnecessary. This position essentially argues that an agency may avoid statutory fiscal analyses so long as its rulemaking is preceded by an internal calculation of the very standard it seeks to codify. But, agency rules cannot override legislative requirements. Such a procedure as EMC proposes is all the more offensive to statutory requirements where, as here, EMC admits every statutory trigger for a fiscal analysis of the proposed 1,4-dioxane rules, but seeks to avoid the resulting analysis by relying on EMC’s own, internal, unenforced, and untested calculations. (See April 13, 2022, comment to RRC by undersigned counsel, pp. 2-5).

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<sup>1</sup> This is the same RIA to which our April 13, 2022, comment cited *passim*.



Regardless of what EMC's own rules purport to permit it to do, the *statutory* requirement for new codifications is clear, and EMC should not be permitted to codify rules with substantial economic impacts that have never had a fiscal analysis performed.

Second, the pre-existing target value EMC relies on is only that—a *target* value. By agreement with EMC reached only six months ago, the City of Greensboro began operating under a Special Order by Consent (“SOC”) limiting 1,4-dioxane concentrations in its wastewater discharge to 35.0, 31.5, and 23.0 ug/L over a three-year period.<sup>2</sup> The SOC replaces a prior SOC entered into by EMC and Greensboro, which had *higher* permissible concentrations of 1,4-dioxane (at 45.0 and 33.0 ug/L over a two-year period), and which was amended to the current SOC following a lawsuit filed against EMC by several environmental organizations and municipal entities. More importantly, the RIA *itself* documents EMC's history of treating this value as merely a target and not a requirement: as of the time of the RIA, EMC admits that there were “no general permits that require monitoring or have limits for 1,4-dioxane[.]” that 17 individual permits have 1,4-dioxane requirements for *monitoring only* but do not have discharge limits, and that only one individual permit in North Carolina has discharge limits for 1,4-dioxane. (RIA p. D-16 (underline in original); see RIA p. D-70 (containing the “Appendix II” cited by EMC on p. D-16 of the RIA)).<sup>3</sup> EMC's own RIA thus indicates that in advance of its current rulemaking there has been no permit or regulatory control document based on the proposed 0.35 ug/L standard for Class WS waters.

Third, EMC relies on a false baseline for evaluating economic impact of the proposed rules, and that false baseline cannot remedy EMC's failure to conduct the required fiscal analysis on the impacts of the proposed 1,4-dioxane standard. As shown above and in EMC's RIA, EMC has used its own agency rule, 15A NCAC 02B

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<sup>2</sup> Greensboro's current SOC is attached here as **Exhibit B** for the Commission's reference.

<sup>3</sup> That single individual permit is identified in the RIA as the permit to Radiator Specialty Company, (RIA p. D-16). The permit limits 1,4-dioxane discharges to 80.0 ug/L—the proposed standard for the Class C waters into which Radiator Specialty Company discharges, which is approximately 228-times higher than the proposed standard of 0.35 ug/L for discharge into Class WS waters. A selection from the Radiator Specialty Company permit (and its re-issuance in 2021 to the new owner at the same site) is enclosed herewith as **Exhibit C** for the Commission's reference.



.0208, the “Narrative Standard,” to set a target value of 0.35 ug/L for 1,4-dioxane, but its use of the Narrative Standard has not resulted in *actual* regulation to 0.35 ug/L. In contrast, the proposed 1,4-dioxane rules would establish a conclusive, codified maximum 1,4-dioxane concentration at 0.35 ug/L. Thus the true regulatory environment pre-existing codification, and therefore the true baseline for a statutory economic impact analysis, is a regulatory environment including (i) 17 of 18 individual wastewater discharge permits containing no 1,4-dioxane limits as of the time of the RIA, (ii) a single individual wastewater permit that included a 1,4-dioxane discharge limit—at 80.0 ug/L—as of the time of the RIA, and (iii) a municipal wastewater discharge permit limit (for the City of Greensboro) varying at different times between 23.0 ug/L and 45.0 ug/L.

Indeed, EMC admits that its infrequent enforcement of in-stream target values—EMC’s purported baseline—has provided it with insufficient data to assess whether its proposed standards will have an economic impact. According to the RIA:

- “North Carolina began adding 1,4-dioxane monitoring requirements to NPDES permits in 2018; as such, there is not a long history of water quality data on which to base a WQBEL[water quality based effluent limit,]” (RIA p. D-16); and
- “[a]s of this writing [the RIA], DEQ is continuing to gather information on costs associated with implementation of 1,4-dioxane ITVs [In-stream Target Values]. This data was not available in time to be included in this document[.]” (RIA p. D-17).

EMC could not be more clear that there is no economic baseline grounded in the current regulatory environment—EMC has not been using the 0.35 ug/L criterion derived from its Narrative Standard to set any actual permit limitations, and so the cost of a 0.35 ug/L criterion is necessarily unknown. As a result EMC ultimately concedes, as it must, that even in light of its artificial baseline EMC is unable to evaluate the economic impact of the proposed 1,4-dioxane rules, noting only “that the ongoing costs and benefits associated with the monitoring and treatment of 1,4-dioxane are likely to be considerable.” (RIA p. D-17).

In addition to each of these specific grounds, EMC’s position on the impact of mere codification is internally inconsistent. Despite EMC’s conclusion that mere codification of in-stream target values has no economic impact, EMC’s RIA simultaneously concluded that such simple codification can have at least *possible* positive impacts for the environment (RIA pp. D-11—D-12 (table summarizing economic and environmental impact of proposed rules, indicating “possible indirect,

long-term benefit[s] to human health.”)). EMC makes this conclusion on the *benefits* of rulemaking comfortably, but in the same table EMC concludes that there are not even *possible* economic impacts following on the proposed rulemaking—and again, does so despite EMC’s several admissions of the substantial economic impacts following implementation of the proposed rules.<sup>4</sup>

EMC’s reliance on its pre-existing target values cannot substitute for statutorily-required fiscal analyses of the 1,4-dioxane rule EMC currently proposes. EMC has clearly elected not to undertake that required fiscal analysis, and as we argued in our April comment, such fiscal analysis is indeed required because EMC recognizes and repeatedly admits the substantial economic impacts the proposed 1,4-dioxane rule will have on local governments and the regulated community. The proposed 1,4-dioxane rules therefore fail to meet statutory requirements and therefore should be rejected for failure to satisfy G.S. § 150B-21.9(a)(4).

#### **The Proposed Rules Are Not Reasonably Necessary.**

The RRC should also reject the proposed 1,4-dioxane rules because they are not “reasonably necessary to implement or interpret an enactment of the General Assembly.” G.S. § 150B-21.9(a)(3). In the interest of not multiplying documents before the RRC, undersigned counsel rely on the arguments presented in our April 13, 2022, comment to the RRC. Mr. El-Jaouhari will be prepared to respond to questions of the Commissioners at the RRC’s May 19, 2022, meeting. In this comment, we request the RRC to recognize that the lack of reasonable necessity in the proposed rules is not the result of “legal sleight of hand,”<sup>5</sup> but the result of EMC’s prior rulemaking as to the “best usage” of the State’s various waters, G.S. § 143-214.1, and this Commission’s review of reasonable necessity itself necessarily including the Commission’s evaluation of “the cumulative effect of all rules adopted by the agency related to the specific purpose for which the rule is proposed.” G.S. 150B-21.9(a)(3).

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<sup>4</sup> See undersigned counsel’s April 13, 2022, comment to RRC, enclosed herewith as Exhibit A, at pp. 4-5.

<sup>5</sup> See Rebuttal Comments by Mr. Sullivan submitted to the RRC and dated April 20, 2022, p. 4.

CONCLUSION

EMC's proposed rules regarding 1,4-dioxane discharges into water supply surface waters is outside EMC's delegated authority, does not meet statutory requirements, and is not reasonably necessary in light of other rules on the same subject previously promulgated by EMC. On these bases the Commission can and should reject approval of EMC's proposed rules to be codified at 15A NCAC 2B .0208, .0212, .0214, .0215, .0216, and .0218.

Sincerely,

A handwritten signature in black ink, appearing to read "Patrick M. Mincey".

Patrick M. Mincey

A handwritten signature in black ink, appearing to read "R. Robert El-Jaouhari".

R. Robert El-Jaouhari

*Counsel to the City of Reidsville*



**Elizabeth Applegate Dieck**

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April 18, 2022

**Via E-mail (rrc.comments@oah.nc.gov; oah.rules@oah.nc.gov)**

N.C. Rules Review Commission  
1711 New Hope Church Road  
Raleigh, NC 27609

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Thank you for your consideration.

Sincerely,

Elizabeth Applegate Dieck

CC: Lawrence Duke (via email Lawrence.duke@oah.nc.gov)

PPAB 7144149v1



Water Resources Department

City of Greensboro Water Resources Department  
Post Office Box 3136  
Greensboro N.C. 27402-3136

April 11, 2022

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- No fiscal note was prepared to assess the economic impacts of the implementation of and compliance with these water quality standards and rules
- Based on the costs incurred by the City of Greensboro related to the Amended Special Order by Consent EMC SOC WQ S19-010 that addressed 1,4-dioxane, the economic impact on the regulated community (both municipal NPDES dischargers and regulated indirect industrial dischargers) will be significant
- We request that a fiscal note be conducted to determine the costs (sampling labor/supplies, laboratory analytical costs, research/engineering of advanced treatment technologies) to comply with the 1,4-dioxane water quality standards and rules

The City requests that the above rule(s) be reviewed in the upcoming legislative session as set out in N.C.G.S. 150B-21.3 and further requests that the rule(s) be subject to a delayed effective date as set out in that same provision. Thank you for your consideration regarding this matter.

Respectfully,

A handwritten signature in black ink, appearing to read 'Michael Borchers', is written over a horizontal line.

Michael Borchers, P.E., Water Resources Director



City of Greensboro  
North Carolina

Water Resources Department

City of Greensboro Water Resources Department  
Water Reclamation Division  
2350 Huffine Mill Road  
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April 14, 2022

Lawrence Duke (via email - [lawrence.duke@oah.nc.gov](mailto:lawrence.duke@oah.nc.gov))  
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- No fiscal note was prepared to assess the economic impacts of the implementation of and compliance with the 1,4-dioxane water quality standards/rules.
- Based on the costs incurred by the City related to the Amended Special Order by Consent ("SOC") EMC SOC WQ S19-010 that addressed 1,4-dioxane, the economic impact on the regulated community (both municipal NPDES dischargers and regulated indirect industrial dischargers) will be *significant*.
- We request that a fiscal note be conducted to determine the costs (sampling labor/supplies, laboratory analytical costs, research/engineering of advanced treatment technologies) to comply with the 1,4-dioxane water quality standards and rules.

The NCDEQ Regulatory Impact Analysis/Fiscal Note for the Surface Water Quality Standards, including the 15A NCAC 02B rule(s), did not assess the fiscal impact of addressing and complying with the 1,4-dioxane water quality standards. Page 17 of the document merely states, “...we did not attempt to monetize costs or benefits for 1,4-dioxane. However, it is worth acknowledging that the ongoing costs and benefits associated with the monitoring and treatment of 1,4-dioxane are likely to be considerable.”

The City of Greensboro entered into a Special Order by Consent [SOC WQ S19-010 effective May 1, 2021, with amendments effective December 1, 2021] to address elevated levels of 1,4-dioxane being discharged from the City of Greensboro T. Z. Osborne Wastewater Treatment Facility (“TZO”). The SOC requires the City to conduct sampling, monitoring, source identification/reduction activities and a public outreach program.

Since May 1, 2021, the City has incurred the following costs conducting 1,4-dioxane monitoring, source identification studies in the collection system, and increased sampling during Compliance Value exceedances:

- 1,4-dioxane commercial laboratory analysis costs of over \$107,000
- Man hours and supply cost per week for City Staff (2 people, 5 locations) = \$1,541

The Significant Industrial Users (“SIU”) of the City of Greensboro have also incurred significant costs relating to 1,4-dioxane. Shamrock Environmental is a Centralized Waste Treatment SIU located in Greensboro NC. They were found to be a significant source of 1,4-dioxane and conducted the following:

- Explored the feasibility of an advanced pretreatment system to significantly reduce the levels of 1,4-dioxane in 2017.
- From 2017-2019 Shamrock staff worked with consulting engineers to research various treatment processes (including laboratory, bench and pilot testing).
- The pilot was installed in December 2019.
- The multi-million dollar, full scale Advanced Treatment system was installed in February 2020.

Other Greensboro SIUs incurred costs relating to commercial laboratory analysis for 1,4-dioxane as a result of source identification activities: 178 samples at a cost of \$20,915.

It should be noted that 1,4-dioxane cannot be removed by conventional drinking water treatment plant processes or by conventional wastewater treatment plant processes. Implementation of the 0.35 ug/L 1,4-dioxane water quality standard in North Carolina will result in other municipalities in the state being required to conduct source identification activities and routine monitoring similar to that conducted by Greensboro. Preliminary calculations by NCDEQ indicate the TZO discharge limit would be 0.61 ug/L, a value that may likely require advanced treatment processes at TZO.



In March of 2019, I was able to visit and tour the Leo J. Vander Lans Advanced Water Treatment Facility in Long Beach, California. This plant sends 8 MGD back into the groundwater system to help prevent seawater penetration into the source water. The plant uses a combination of UV with an injection of hydrogen peroxide and reverse osmosis to remove 1,4-dioxane from the reclaimed water. I have reached out to my contact at this facility to obtain detailed construction and yearly operational costs and will provide that information upon receipt. The cost of this treatment process is in the millions of dollars for only 8MGD. The Greensboro TZO plant is rated for 56 MGD.

The City requests that the above rule(s) be reviewed in the upcoming legislative session as set out in N.C.G.S. 150B-21.3 and further requests that the rule(s) be subject to a delayed effective date as set out in that same provision.

Thank you for your consideration.

A handwritten signature in black ink, appearing to read 'E. Williams', with a long horizontal flourish extending to the right.

Elijah Williams, P.E.,  
City of Greensboro Water Reclamation Manager

April 30, 2022

Office of Administrative Hearings

Via email:

[oah.rules@oah.nc.gov](mailto:oah.rules@oah.nc.gov)

N.C. Rules Review Commission  
1711 New Hope Church Rd.  
Raleigh, NC 27609

Re: Objection to, and Request for Legislative Review of, 15A NCAC 2B .0212, 0214, .0215, .0216, and .0218.

Members of the Commission:

This letter is an objection to the approval of 15A NCAC 02B .0212, .0214, .0215, .0216, and .0218, which contain a water quality standard for 1,4-dioxane. I request that the above rule(s) be reviewed in the upcoming legislative session as set out in N.C.G.S. 150B-21.3. I further request that the rule(s) be subject to a delayed effective date as set out in that same provision.

Thank you for your consideration.



Edward Sanz  
Chief Restructuring Officer

SAK Environmental, LLC

2810 Faircroft Way  
Monroe, NC 28110  
(704) 904-0094  
[sakenvnc@gmail.com](mailto:sakenvnc@gmail.com)



May 6, 2022

N.C. Rules Review Commission  
1711 New Hope Church Rd.  
Raleigh, NC 27609

***Re: Objection to 1,4-Dioxane Method Detection Limit***

Members of the Commission:

SAK Environmental, LLC respectfully submits this letter to the North Carolina Rules Commission objecting to the approval of 15A NCAC 02B .0212, .0214, .0215, .0216, and .0218, which contain a 0.35 microgram per liter ( $\mu\text{g/L}$ ) water quality standard for 1,4-dioxane. We request that the above rule(s) be reviewed in the upcoming legislative session as set out in N.C.G.S. 150B-21.3. We further request that the rule(s) be subject to a delayed effective date as set out in that same provision.

Through SAK Environmental's experience working with facilities that have a National Pollutant Discharge Elimination System (NPDES) Permit for the discharge of remediated groundwater, SAK Environmental has found that the current treatment technologies cannot treat 1,4-Dioxane down to the proposed effluent limit of 0.35  $\mu\text{g/L}$ . In addition, analytical laboratories cannot analyze down to the proposed effluent limit. New treatment technologies will cost companies in excess of five hundred thousand (\$500,000) dollars making the cost of groundwater remediation unaffordable.

SAK Environmental, LLC appreciates the North Carolina Rules Review Commission's cooperation and assistance in this matter. Should you have any questions or require any additional information, please feel free to call me at (704) 904-0094.

Sincerely,  
SAK Environmental, LLC

A handwritten signature in dark ink, appearing to read "Stuart A. Kerkhoff", followed by a large, stylized flourish or scribble.

Stuart A. Kerkhoff, CHMM  
President



6106 Corporate Park Drive • Browns Summit, NC 27214  
336-375-1989 800-881-1098 Fax 336-375-1801  
www.shamrockenviro.com • Info@shamrockenviro.com

April 14, 2022

Lawrence Duke (via email at [lawrence.duke@oah.nc.gov](mailto:lawrence.duke@oah.nc.gov))  
N.C. Rules Review Commission  
1711 New Hope Church Rd.  
Raleigh, NC 27609  
[rrc.comments@oah.nc.gov](mailto:rrc.comments@oah.nc.gov)

*Re: Objection to 15A NCAC 02B .0212, .0214, .0215, .0216, and .0218;  
And Request for Determination of, Delayed Effective Date, and Legislative Review*

Members of the Commission:

This letter is an objection by Shamrock Environmental Corporation to the approval of 15A NCAC 02B .0212, .0214, .0215, .0216, and .0218, which contain water quality standards for 1,4-dioxane.

Shamrock is an environmental and waste services company with a facility located in Greensboro, North Carolina. Shamrock has been at the forefront of addressing 1,4-dioxane, including with the investment of more than one million dollars in the development and implementation of a proprietary treatment system at its Greensboro facility.

Shamrock requests that the Commission prepare a fiscal note to assess the substantial economic impacts of implementation of and compliance with the proposed 1,4-dioxane water quality rules. Based on Shamrock's and other industrial dischargers' and the City of Greensboro's experiences to date to address 1,4-dioxane, it appears that the economic impact of these administrative rules on the regulated community (both municipal NPDES dischargers and regulated indirect industrial dischargers) as well as taxpayers who must ultimately pay for municipal compliance, will be *significant* – totaling *many millions of dollars* across the state.

Respectfully, unless we are mistaken, we understand that no fiscal note has been prepared for the above rules, and therefore Shamrock's written request for a determination of substantial economic impact per this letter requires that the Commission must ask the Office of State Budget and Management to make a determination of whether the rules have a substantial economic impact.

Shamrock also requests that the above rules be reviewed in the upcoming legislative session and further requests that the rules be subject to a delayed effective date.

Thank you for your consideration.

Greg Kiser  
Chief Executive Officer  
Shamrock Environmental Corporation

- 🏆 2011 - Largest Triad Environmental & Ecological Consulting Firm
- 🏆 2010 - Largest Triad Environmental & Ecological Consulting Firm
- 🏆 2009 - Ranked #1 Environmental Services Corp.
- 🏆 2008 - Ranked #1 Environmental Services Corp.



- 🏆 2004 - GE Ecomagination Leadership Award
- 🏆 2003 - Fast 50 Company
- 🏆 2002 - Best Places to Work
- 🏆 1999 - Fast 50 Company



Brad Nations  
Vice President, Manufacturing  
Unifi Manufacturing, Inc.  
805 Island Drive  
Madison, NC 27025  
April 22, 2022

N.C. Rules Review Commission  
1711 New Hope Church Rd.  
Raleigh, NC 27609  
rrc.comments@oah.nc.gov  
oah.rules@oah.nc.gov

Re: Objection to, and Request for Legislative Review of, 15A NCAC 2B .0212, .0214, .0215, .0216, and .0218.

Members of the Commission:

This letter is an objection to the approval of 15A NCAC 02B .0212, .0214, .0215, .0216, and .0218, which contain a water quality standard for 1,4-dioxane. Unifi Manufacturing, Inc. requests that the above rule(s) be reviewed in the upcoming legislative session as set out in N.C.G.S. 150B-21.3. We further request that the rule(s) be subject to a delayed effective date as set out in that same provision.

Thank you for your consideration.

A handwritten signature in black ink, reading "Brad Nations", is positioned above the typed name and contact information.

**Brad Nations**  
Vice President, Manufacturing  
Unifi Manufacturing, Inc.  
336-427-1161  
bnations@unifi.com

## Harmon Environmental, PA

615 Bruce Thomas Road  
Monroe, North Carolina 28112

704-292-4527  
harmonenvironmental.com

May 5, 2022

N.C. Rules Review Commission  
1711 New Hope Church Rd.  
Raleigh, NC 27609

***Re: Objection to Proposed 1,4-Dioxane Standard***

Members of the Commission:

Harmon Environmental, PA respectfully submits this letter to the North Carolina Rules Commission objecting to the approval of 15A NCAC 02B .0212, .0214, .0215, .0216, and .0218, which contain a 0.35 microgram per liter ( $\mu\text{g/L}$ ) water quality standard for 1,4-dioxane. We request that the above rule(s) be reviewed in the upcoming legislative session as set out in N.C.G.S. 150B-21.3. We further request that the rule(s) be subject to a delayed effective date as set out in that same provision.

Harmon Environmental, PA currently utilizes Pace Analytical Services, LLC for our analytical needs. When we were made aware of this proposed effluent limit, we contacted Pace to discuss their ability to achieve this goal. Pace indicated that the lowest 1,4-dioxane concentrations they can report are based on SW-846 Method 8260 SIM and EPA Method 624 SIM. These two methods have reporting limits of 2  $\mu\text{g/L}$  and method detection limits of 0.862  $\mu\text{g/L}$ .

In addition to the limit not being readily available through commercial laboratories. The costs associated with the SIM methodology increases the analytical costs for the Permit holder without achieving the proposed limit.

It is our opinion that technology should be considered in establishing new standards or the standards become ineffective.

Please call or email if you have any questions.

Sincerely,  
**Harmon Environmental, PA**



Richard L. Harmon, P.G.  
President/Principal Hydrogeologist