SOUTHERN ENVIRONMENTAL LAW CENTER

Telephone 919-967-1450 | 601 WEST ROSEMARY STREET, SUITE 220 CHAPEL HILL, NC 27516-2356 | Facsimile 919-929-9421

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Via email: publiccomments@ncdenr.gov

The Hon. Michael S. Regan
North Carolina Department of Environmental Quality
217 West Jones Street
Raleigh, North Carolina 27603

Re: CCR Rules

Dear Secretary Regan:

The Southern Environmental Law Center submits these additional comments on the Department's proposed coal ash rules, on behalf of itself and Appalachian Voices, Catawba Riverkeeper Foundation, Dan River Basin Association, MountainTrue, Roanoke River Basin Association, Sierra Club, Southern Alliance for Clean Energy, Sound Rivers, and Winyah Rivers Foundation.

As we previously set out at meetings and in comments, our principal concern about these proposed rules is that DEQ not establish a DEQ permitting program for the federal CCR Rule. A DEQ permitting program for the federal CCR Rule would undercut the rights of North Carolina's citizens to enforce the federal CCR Rule, would impose unnecessary and unsustainable costs and burdens on DEQ itself, and adds nothing to the ability of DEQ to regulate, monitor, and enforce as to coal ash sites in North Carolina. The maximum protection for North Carolina's communities and clean water would be provided by a strong state permitting program of state rules by DEQ and direct enforcement of the federal CCR Rule by citizens and DEQ if and when necessary. We would hope that strong enforcement by DEQ of North Carolina's state rules and permits, along with the deterrent effect of possible direct enforcement of the federal CCR Rule by citizens or DEQ in federal court, would ensure that Duke Energy obeys the law and does not repeat its pollution of North Carolina's water resources.

The following comments are intended to strengthen DEQ's proposed state coal ash rules. As we understand it, these rules were intended to include within North Carolina's state coal ash rules the strongest protections contained in the federal CCR Rule.

However, as set out below, at critical points these proposed rules weaken the requirements of the federal CCR Rule when they are incorporated into North Carolina's state rules. In fact, these proposed rules have been written to embrace EPA Administrator's Pruitt's

proposed "flexibilities," which are designed to protect Duke Energy and other polluters from having to take action to deal with their coal ash pollution.

The Proposed DEQ Rules Weaken Groundwater Protections

The federal CCR Rule is very clear:

> 'Within 90 days of finding that any constituent listed in appendix IV to this part has been detected at a statistically significant level exceeding the groundwater protection standard defined under § 257.95(h), or immediately upon detection of a release from a CCR unit, the owner or operator must initiate an assessment of corrective measures to prevent further releases, to remediate any releases and to restore affected area to original conditions.'

40 C.F.R. § 257.96 (a).

For groundwater contamination, this obligation to remediate and restore is triggered when a pollutant exceeds the maximum contaminant level (MCL) or the background concentration. 40 C.F.R. § 257.95 (h).

DEQ's proposed rules appropriately set the trigger at the most protective of the MCL, the state water quality standard, the IMAC, or the background concentration of the pollutant. However, DEQ's proposed rules go on to allow the Division to create "an alternative protection standard" when there is not an MCL or a water quality standard. 15A NCAC 13B .2015 (b) (4). In the absence of this "alternative" standard, the governing standard would appropriately be the background concentration. As written, this provision would allow groundwater pollution above background; in other words, it would allow Duke Energy to pollute North Carolina's groundwater. And in setting the "alternative" standard, DEQ can consider the vague categories of "other site-specific exposure or potential exposure to ground water." 15A NCAC 13B .2015 (b) (5).

Although the proposed rule is not written in this way, it may be that DEQ intended the "alternative" standard in (b) (4) to be stricter than background. If so, then the phrase "stricter than the standard set out in (b) (3)" should be inserted. But if DEQ intends that the standard will not be stricter than the background concentration, then there is no need for (b) (4) other than to set out a more lenient standard that would excuse Duke Energy from correcting its pollution of groundwater. In that case, (b) (4) should be deleted.

The DEQ proposed rule adds another set of ways for Duke Energy to avoid remediation of its groundwater pollution. First, the Division may determine that remediation is not necessary if the groundwater is polluted by multiple sources and the Division decides that Duke Energy's remediation would not provide "significant reduction in risk to actual or potential receptor." 15A NCAC 13B .2015 (f). This exemption allows DEQ to make a discretionary decision,

subject to political influence and the pressures of Duke Energy. It also abandons groundwater if it is polluted by multiple sources. Instead, in these rules DEQ should require Duke Energy to stop and remediate its pollution and require the same of other polluters; DEQ should not allow Duke Energy to escape responsibility for its pollution because others are polluting also. This section also inserts the vague notion of "risk" analysis, without any notion of how that would be measured.

In addition, this section allows Duke Energy to get a pass for its pollution if the groundwater is "not currently or reasonably expected to be a source of drinking water." 15A NCAC 13B .2015 (f) (2). Groundwater has other uses, including agricultural use. Further, groundwater is a public resource for generations to come, and is not just a resource for immediate or foreseen use. Duke Energy should not be allowed to operate malfunctioning and polluting coal ash sites and to pollute groundwater, and North Carolina's groundwater should not be a resource dedicated to Duke Energy's coal ash pollution. This subsection ends with a phrase concerning hydraulic connection that is garbled and is not comprehensible. That phrase may be intended to allow Duke Energy the benefit of dilution of pollution as it moves to larger amounts of groundwater, an unacceptable outcome.

Then, this section allows Duke Energy to escape remediation if remediation is "technically impracticable." 15A NCAC 13B .2015 (f) (3). The phrase is undefined and would be subject to manipulation by Duke Energy and indeterminate evaluation by DEQ. Presumably, this phrase means Duke Energy does not have to remediate its pollution if Duke Energy and the Division think the remediation is not worth the effort. Such decisions have been made poorly in the past and have exposed the state's citizens and clean water to serious pollution and catastrophic events. This section should be deleted, or at least "impracticable" be replaced with "impossible."

Finally, the section ends with the undefined and vague concept of "unacceptable cross-media impacts." 15A NCAC 13B .2015 (f) (4).

In short, these excuses for Duke Energy's pollution and malfunctioning coal ash sites are subject to expensive wrangling and litigation, battles over interpretation, Duke Energy's pressure, and political decision making. This section should be deleted.

The DEQ proposed rules do not appear to have a firm deadline for the initiation of the remedial action. The federal CCR Rule provides that Duke Energy's assessment for corrective action must be completed in 90 days and may be extended no more than 60 days upon certification by a professional engineer. 40 C.F.R. § 257.96. Then, as soon as feasible, a remedy must be selected; and, within 90 days of selection, the remedy must be implemented. 40 C.F.R. §§ 257. 97 &98.

In addition, the DEQ proposed rule delays Duke Energy's obligation to implement the corrective action plan, by extending the 90-day deadline in 40 C.F.R. § 257.98 (a) to 120 days,

15A NCAC 13B .2015 (h). This section also has a drafting mistake, in that it provides that the "owner and operator shall submit in a corrective action plan," when it should say that the "owner and operator shall." The subsequent provisions are not parts of a corrective action plan, but rather actions that the owner or operator must take.

Since 2013, a consistent theme in public comments concerning coal ash proposals has been the need for firm deadlines for Duke Energy to take action and DEQ to make decisions. More than nine years have passed since the Kingston collapse, more than five years have passed since North Carolina citizens have been enforcing the law against Duke Energy's coal ash pollution, and more than four years have passed since the Dan River catastrophe. For a decade or more, Duke Energy's groundwater contamination has been documented. Yet, to date, DEQ has not required Duke Energy to take remedial action for groundwater contamination at any site in North Carolina.

These rules must have firm deadlines for action by both Duke Energy and DEQ for them to be meaningful. North Carolina has had groundwater rules in the law for years, but DEQ has yet to enforce them and Duke Energy has yet to live up to them.

In 15A NCAC 13B .2015 (h) (1) (B), DEQ's proposed rules have weakened Duke Energy's obligation to establish a corrective action groundwater monitoring program that "demonstrates" the effectiveness of the remedy, by requiring a program that only "indicates" the effectiveness. 40 C.F.R. § 257.98 (a) (1) (ii).

In 15A NCAC 13B .2015 (h) (1) (3) (E), DEQ's proposed rules have further weakened Duke Energy's obligations. Under the federal CCR Rule, in selecting interim measures, Duke Energy must consider weather conditions that may cause the migration or release of any constituents listed in Appendix IV. 40 C.F.R. § 257.98 (a) (3) (v). DEQ's proposed rules limit that obligation to the release or migration of "hazardous" constituents – without explaining how they are different from the Appendix IV constituents.

In short, as written, the proposed DEQ rules are a significant step backwards in groundwater protection and create many opportunities for Duke Energy to continue and avoid remediating its coal ash pollution, to argue about and litigate its responsibility, and to delay fixing a release and cleaning it up.

Also, EPA has recognized now that boron should be included in Appendix IV, and it should be added to Appendix IV in the DEQ rules. EPA explained that boron presents unacceptable human and ecological risks, that it is present in many coal ash damage cases, and that it reaches receptors sooner than other coal ash pollutants. Consequently, boron should be included in Appendix IV. 83 Fed. Reg. 11589 (March 18, 2018).

Bromides should also be listed in Appendix IV. Bromides from Duke Energy's coal ash sites have caused spikes in carcinogens in public drinking water supplies. Duke Energy's

bromide pollution is a topic of its criminal plea agreement with the United States Department of Justice and its criminal probation. After a citizen suit, bromides were recently removed from a Duke Energy air permit that DEQ had proposed. It is important that Duke Energy's bromide pollution be carefully watched, stopped, and cleaned up.

Finally, given the notorious history of hexavalent chromium and vanadium in North Carolina wells near coal ash sites, these constituents should be included in Appendix IV, also. These substances have plagued drinking water wells near Duke Energy's coal ash sites, and they pose a significant public health risk. They are conspicuous in their absence.

DEQ's Proposed Rules Weaken Protections Against the Irresponsible Use of Coal Ash

The concept of so-called "beneficial use" of coal ash is subject to abuse and can be used by coal ash owners to get rid of their problem by spreading it across the landscape and creating new coal ash pollution problems throughout North Carolina. The federal CCR Rule puts specific limits on "beneficial use," requiring (1) a functional benefit; (2) substitution for the use of a virgin material that therefore conserves natural resources; (3) compliance with relevant product specifications, regulatory standards, and design standards, and that coal ash not be used in excess quantities; and (4) a limit of unencapsulated use to 12,400 tons, with protective limits on releases to air and water. 40 C.F.R. § 257.53

In contrast, DEQ's proposed rules define "beneficial" and "benefit" minimally and generally, without the protections of the federal CCR Rule, to mean "projects promoting public health and environmental protection, offering equivalent success relative to other alternatives, and preserving natural resources." 15A NCAC 13B .2002.

To our knowledge, Duke Energy is not currently allowing coal ash to be used for unlined fill; the settlement agreement between the Yadkin Riverkeeper and Duke Energy for the Buck site and the Superior Court Orders issued at to seven other sites forbid it. However, there remains the possibility of misuse of coal ash in the future and from other sites and sources. DEQ's rules should protect North Carolina at least as much as does the federal CCR Rule.

DEQ Should Not Use Provisions from Municipal Solid Waste Landfill (MSWLF) Regulations to Weaken Coal Ash Disposal Protections

From the presentations made at the hearings and meetings held so far, it appears that DEQ's proposed coal ash rules have incorporated provisions from MSWLF regulations that weaken the coal ash rules. It is a mistake and inappropriate to use municipal landfill regulations to govern the disposal of an industrial waste, coal ash, containing toxic substances.

Regulation of municipal solid waste landfills falls under the Resource Conservation and Restoration Act ("RCRA") § 4010, which states that the Administrator must promulgate criteria for MSWLFs that are "necessary to protect human health and the environment **and may take**

into account the practicable capabilities of such facilities."[1] In addition, this section of RCRA specifically provides for some flexibility. For instance, section 4010(c) allows exemptions from the use of groundwater monitoring wells to detect releases, and section 4010(c)(4) allows suspension of groundwater requirements in certain circumstances.[2] EPA may consider costs under section 4010(c) in promulgating the MSWLF regulations.[3]

Regulation of coal ash is governed by a more protective standard than the MSWLF regulations. RCRA section 4004 states that "[t]he Administrator shall promulgate regulations containing criteria for determining which facilities shall be classified as sanitary landfills and which shall be classified as open dumps . . . . At a minimum, such criteria shall provide that a facility may be classified as a sanitary landfill and not an open dump only if there is **no reasonable probability of adverse effects on health or the environment from disposal of solid waste at such facility**."[4] Put simply, "EPA is charged with issuing regulations to address all 'reasonable probabilities of adverse effects' (i.e., all reasonably anticipated risks) to health and the environment from the disposal of solid waste."[5] This standard does not allow any consideration of "practicable capabilities" of facilities. The standard applied to CCR facilities must be those necessary to ensure "no reasonable probability of adverse effects on health or the environment." In addition, the provisions governing CCR do not authorize any exemptions from groundwater monitoring requirements.

Unlike the MSWLF regulations, EPA cannot consider cost in regulating CCR: "Congress did not authorize the consideration of costs in establishing minimum national standards under RCRA section 4004(a)."[6] In complying with RCRA sections 4004 and 4005, EPA's 2018 proposed revisions state numerous times that cost cannot be a factor when it determines whether to grant a waiver from rule requirements.[7]

Furthermore, EPA agrees that the MSWLF and CCR regulations are governed by two different standards. In the 2018 proposed revisions, EPA states "**the rulemaking record for some part 258 provisions may not fully support a determination that a particular provision meets the RCRA section 4004(a) standard or will be 'at least as protective' as EPA's CCR regulations**."[8]

Furthermore, the storage in perpetuity of millions of tons of industrial waste, which contain toxic substances and even radioactivity, is substantially different from the storage of household garbage and other wastes placed in a municipal landfill. North Carolinians expect DEQ to provide them greater protection from coal ash than the protections built into a municipal landfill.

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[1] RCRA § 4010(c) (emphasis added).
[2] *Id.*
[3] *See* Solid Waste Disposal Facility Criteria, 56 Fed. Reg. 56,078, 50,983 (Oct. 9, 1991) ("[I]t would appear that Congress explicitly authorized EPA to consider costs under 4010(c) . . . .").
[4] RCRA § 4004(a) (emphasis added).
[5] 80 Fed. Reg. at 21,310.
[6] *Id.* at 21,406.
[7] *See, e.g.*, 83 Fed. Reg. at 11,601 (determination that no remediation of a release is necessary cannot be made "on the grounds that the cost of treating the water to remove the contaminants is too high"); *id.* at 11,615 ("An increase in costs . . . is not sufficient" to demonstrate no alternative capacity for non-CCR wastestreams).
[8] 83 Fed. Reg. at 11,597. (emphasis added).

CCR and MSWLF are governed by two different standards for public health and environmental protection purposes. ADEM cannot apply standards for municipal solid waste landfills under Section 4010 and Part 258 to state permit programs because it is contrary to the more protective standards required by RCRA and the 2015 CCR Rule

DEQ Should Make Clear that Water Resources are Protected from Unlined Coal Ash Lagoons Upon Closure

Like the federal CCR Rule, DEQ's proposed rules make clear that Duke Energy can close a coal ash lagoon in place only if the closure will "control, minimize or eliminate, to the maximum extent feasible, post-closure infiltration of liquids into the waste" and "preclude the probability of future impoundment of water, sediment, or slurry"; and that closure in place can take place only if "prior to installing the final cover system," "free liquids [are] eliminated by removing liquid wastes or solidifying the remaining waste and waste residues." 15A NCAC 13B .2013 (c) (3) (A) & (B).

However, despite the plain language of the federal CCR Rule as repeated in DEQ's proposed rules, Duke Energy persists in arguing that it can leave coal ash sitting in groundwater and leave in place an impoundment held back by a portion of the coal ash dam. To foreclose this baseless argument, DEQ should make clear in these rules that Duke Energy cannot leave coal ash sitting in groundwater when it closes a coal ash lagoon and cannot continue to impound coal ash.

Other Comments

1. Section 2002 (24) is garbled.

2. Section 2002 (50). "Overfills" –the construction of a coal ash landfill over a closed impoundment – should be banned. Duke Energy has tried this in the past, but there is no need to have this practice repeated in the future. Overfills make it more difficult to reach the coal ash in the unlined pit when the ash needs to be removed due to pollution, leaching, and seeping; and this practice will make it more difficult to access ponded ash for recycling into concrete and cement.

3. Section 2203 (c) (4) (A) is garbled.

4. Section 2006 (c) (4). This section allows new CCR landfills to be sited in floodplains in certain circumstances. There is no reason why any new CCR landfill in North Carolina should be placed in a floodplain.

5. Section 2006 (c) (5) (G). The comparable provision of the federal CCR Rule requires certification from a qualified professional engineer that the siting requirements of the rule have been met. 40 C.F.R. § 257.61 (b). That requirement has been removed

from DEQ's proposed rules. The elimination of certification by a qualified professional engineer is one of the so-called "flexibilities" proposed by Administrator Pruitt. This approach takes away any professional certification of technical determinations and leaves them to decision making by Duke Energy and political officials in the agency. In every instance, DEQ should retain requirements that qualified professional engineers certify determinations.

6. Section 2006 (c) (8). This section deals with siting of new CCR units in unstable areas and omits a number of the protections in 40 C.F.R. § 257.64, including certification by a qualified professional engineer.

7. Section 2006 (c). Included in the list of concerns when siting a new CCR unit should be the impact of the new unit's site on any nearby properties that have been set aside previously to mitigate for wetlands impacts. A new CCR unit should not impair the functioning of mitigation properties.

8. Section 2013 (c) (1) (A) and (B) are garbled.

9. Section 2013 (c) (1) (C). The reference to "new surface impoundments" should be deleted. There will be no new surface impoundments in North Carolina.

Since 2013, in thousands upon thousands of comments and at public hearings and at a multitude of meetings and hearings across North Carolina, North Carolina's communities have made it clear that they expect their government to provide them the maximum protection against Duke Energy's coal ash pollution. DEQ can respond appropriately to the wishes of the citizens of the state only if it puts in place a set of strong state coal ash rules, without exceptions and outs for Duke Energy and with firm deadlines, and preserves the citizens' right to go directly to federal court to enforce the federal CCR Rule.

Thank you for your consideration.

Sincerely,

Frank S. Holleman III
Senior Attorney

cc: Bill Lane, Esq. (via email)