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*Via First Class U.S. Mail and Electronic Mail*

Mr. Bob Sledge  
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Raleigh, North Carolina 27699-1617.  
[publiccomments@ncdenr.gov](mailto:publiccomments@ncdenr.gov)

**Re: Draft Special Order by Consent for Duke Energy's Allen, Marshall and Rogers/Cliffside Facilities (EMC SOC WQ S17-009)**

Dear Mr. Sledge:

On behalf of the Catawba Riverkeeper Foundation, Inc. (the "Foundation"), MountainTrue, the Sierra Club, and the Waterkeeper Alliance (together the "conservation groups"), we are providing these comments on the draft Special Order by Consent ("SOC") related to seepage from Duke Energy's coal ash basins at the Cliffside, Allen and Marshall steam stations. The undersigned organizations have members who rely on the quality of the Broad River, Catawba River, Lake Wylie and Lake Norman for their livelihoods and who regularly fish, swim, boat and recreate on these waters. For years, these groups have advocated through administrative processes, the public arena, and in court for proper cleanup and remediation of Duke Energy's unlined, leaking coal ash pits.

Several of these groups, along with DEQ and Duke Energy, are party to ongoing litigation stemming from Duke Energy's contamination of surface water and groundwater caused by its storage of wet coal ash in massive unlined pits. In August 2013, DEQ filed a verified complaint with the Mecklenburg County Superior Court in which DEQ itself stated that Duke's unpermitted discharges to rivers violate state law and that "without . . . taking corrective action," they "pose[] a serious danger to the health, safety and welfare of the people of the State of North Carolina and serious harm to the water resources of the State."<sup>1</sup> Nearly five years have passed since DEQ asked the court to enter a permanent injunction requiring Duke to "abate the violations" at its leaky ash ponds. To this day, Duke's massive coal ash ponds at Allen, Marshall, and Cliffside continue to leak pollutants into groundwater, streams, rivers and lakes.

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<sup>1</sup> Verified Complaint & Motion for Injunctive Relief, State of North Carolina ex rel. N.C. DENR, DWQ v. Duke Energy Carolinas, LLC, No. 13 CVS 14661 (Mecklenburg Co., May 24, 2013), ¶ 197. DEQ's complaint is available for download at <https://deq.nc.gov/news/hot-topics/coal-ash-nc/coal-ash-enforcement>.

The SOC recognizes that Duke Energy’s seeps “cause or contribute to pollution of classified waters of the State.” SOC p. 2. Now, Duke and DEQ propose this SOC to “address issues related to elimination of seeps.” We understand the SOC will be in place for an interim period while the ash basins are decanted, under the premise that decanting will eliminate some seeps. We agree, in principle, that elimination of seeps is required to comply with the law, including the Clean Water Act. And we agree that any SOC should include concrete, enforceable milestones towards eliminating seeps. However, in order for this SOC to genuinely address polluted seepage, instead of merely perpetuating existing conditions that have gone on for too long, several important changes must be made.

First, the SOC must require meaningful corrective action to eliminate any remaining seeps at the end of the decanting period. As presently structured, the SOC appears to leave off-ramps for enforcement against certain kinds of contaminated seeps. Second, the SOC must be expanded beyond “non-engineered” seeps to cover all seeps. Engineered seeps are just as illegal as non-engineered seeps, as Duke knows based on its guilty pleas entered at other plants for coal ash contamination escaping through engineered seeps. DEQ cannot credibly authorize these leaks through a permitting process. Third, the scope of seeps and contaminants must encompass the full range of seeps and contaminants flowing from the coal ash basins.

Although we support decanting as an interim step towards cleaning up coal ash, this SOC will be rendered mostly a meaningless paper exercise if the end result is simply buying Duke time to allow contaminated seeps to flow indefinitely into the future.

### **1) Corrective Action Must Ensure That Polluted Discharges Through Seeps Are Eliminated**

Following decanting, DEQ states “Duke Energy must take appropriate corrective action” for seeps that remain. This corrective action requirement attaches, as it should, to engineered and non-engineered seeps that remain once decanting is concluded. SOC ¶ 2(d) (further corrective action). (In the next section we address the problem with trying to permit engineered seeps in the meantime.) However, there are several problems embedded within the current proposal, which could effectively allow seeps impacted by coal ash to evade corrective action. To be an effective enforcement instrument, the SOC must be revised to close any loopholes that allow coal-ash contaminated seeps to keep flowing indefinitely.

First, under “additional compliance measures,” the SOC describes a process for Duke Energy to have seeps “disposed.” SOC p. 9. Disposed seeps are those that do not need further corrective action. SOC p. 10. If disposed simply meant eliminated, this would make sense. But the SOC includes off-ramps that, as proposed, would allow coal-ash contaminated seeps to keep flowing. These off-ramps seem to reflect fundamental misunderstandings of the scope of the Clean Water Act.

For example, unless DEQ adds clarifying language in the SOC, category (3) of dispositioning could be interpreted to allow contaminated seeps that are polluted by coal ash to continue to flow, so long as concentrations remain below state water quality criteria. In particular, the conclusion that “the seep is no longer impacted by flow from any coal ash basin” is hinged on a determination that concentrations of certain pollutants “meet State criteria.” If by

meet state criteria, DEQ and Duke mean that achieving water quality standards will excuse seeps from further enforcement, then DEQ is functionally allowing Duke Energy to pollute in violation of the Clean Water Act, with no end in sight. Even worse would be if DEQ intends to allow Duke to rely upon interim action levels in place for the SOC period as the “state criteria” to determine the need for further corrective action. Seeps must be re-evaluated, without the benefit of the action levels established for the SOC period, and they must be compared to background concentrations in unimpacted streams.

As we have explained previously, there is no exception under the CWA for unpermitted discharges of pollutants, even if such discharges do not cause a water quality standard to be exceeded. The CWA concerns itself with *any* point source pollutant discharges, not just with discharges of pollutants that rise to a level that DEQ views as problematic. “The term ‘discharge of a pollutant’ . . . means *any* addition of *any* pollutant to navigable waters from any point source.” 33 U.S.C. § 1362(12) (emphasis added); 40 C.F.R. § 122.2. As recognized by the 4<sup>th</sup> Circuit Court of Appeals, the statute clearly covers all additions, “no matter how small.” *W. Va. Highlands Conservancy, Inc. v. Huffman*, 625 F.3d 159, 166-67 (4th Cir. 2010). Therefore, discharges of pollutants that either do not have a state water quality standard or do not result in an exceedance of such a standard do not get a free pass under the CWA. This means determining whether “the seep is no longer impacted by flow from any coal ash basin” for purposes of dispositioning in category (3) of the SOC’s corrective action requirements must turn on a more credible proxy to determine influence of coal ash. For example, seep sampling should be evaluated against legitimate surface water background samples that are unimpacted by Duke Energy’s pollution.

In addition, category (2) allows a seep that “does not constitute” or “flow to” waters of the United States to be deemed dispositioned. To the extent “flow to” means via a surface water connection, the SOC proposes to excuse seeps that appear to terminate before connecting with a stream, wetland, river or lake. Yet this would allow seeps that connect to adjacent waterbodies via short groundwater hydrologic connections to continue.

The CWA is a strict liability statute prohibiting the discharge of any pollutant to a water of the United States without a proper permit. 33 U.S.C. § 1311(a). Duke Energy cannot evade the CWA by discharging pollutants to streams and rivers through short, hydrological groundwater connections. EPA has stated repeatedly that the CWA applies to such hydrologically-connected groundwater discharges. *E.g.*, 66 Fed. Reg. 2960, 3015 (Jan. 12, 2001) (“EPA is restating that the Agency interprets the Clean Water Act to apply to discharges of pollutants from a point source via ground water that has a direct hydrologic connection to surface water.”); *accord* 55 Fed. Reg. 47990, 47997 (Nov. 16, 1990) (announcing stormwater runoff rules and explaining that discharges to groundwater are covered by the rule where there is a hydrological connection between the groundwater and a nearby surface water body). In addition to EPA, “[t]he majority of courts have held that groundwaters that are hydrologically connected to surface waters are regulated waters of the United States, and that unpermitted discharges into such groundwaters are prohibited under section 1311.” *Friends of Santa Fe Cty. v. LAC Minerals, Inc.*, 892 F. Supp. 1333, 1358 (D.N.M. 1995) (citations omitted).

This principle continues to be affirmed by the courts, and has been applied to Duke's facilities. *Yadkin Riverkeeper, Inc. v. Duke Energy Carolinas, LLC*, 141 F. Supp. 3d 428, 445 (M.D.N.C. 2015) ("This Court agrees with the line of cases affirming CWA jurisdiction over the discharge of pollutants to navigable surface waters via hydrologically connected groundwater, which serves as a conduit between the point source and the navigable waters."); *see also Hawai'i Wildlife Fund v. Cty. of Maui*, No. 15-17447, 2018 WL 650973, at \*9 (9th Cir. Feb. 1, 2018) ("The County could not under the CWA build an ocean outfall to dispose of pollutants directly into the Pacific Ocean without an NPDES permit. It cannot do so indirectly either to avoid CWA liability. To hold otherwise would make a mockery of the CWA's prohibitions").

DEQ possesses no authority to ignore polluted seeps that are traveling short distances through groundwater and discharging into the adjacent rivers, lakes and streams.

Next, for seeps that are submitted for further corrective action because they continue to flow and are impacted by coal ash, the SOC must be clear that the objective is to eliminate seeps, if compliance with state and federal laws is to be achieved. Instead, the draft SOC requires Duke to submit a Seep Characterization Report describing how seeps "will be *managed*." SOC p. 10 (emphasis added). This, in turn, becomes a proposed amendment to the groundwater corrective action plan for the facility, subject to public comment. A plan to merely manage seeps is inconsistent with the very premise of the SOC, to eliminate seepage through decanting. If decanting does not achieve the expected results, Duke Energy must be required to take further corrective action and remediation measures that actually eliminate the seepage of pollutants to state waters from the coal ash basins.

## **2) The SOC Must Encompass All Leaks from Duke's Unlined Coal Ash Pits.**

The SOC goes only part of the way toward abandoning DEQ's past attempts to authorize leaks from Duke's coal ash ponds. This SOC recognizes the non-engineered seeps for the illegal leaks that they are, and does not confuse them with intended discharge points. But the SOC also repeats folly of the past by attempting to authorize the "engineered" seeps – essentially the seeps occurring through a "pipe" or "channel." SOC p. 3, ¶ 1(f). These engineered seeps "will be addressed in the NPDES permits." SOC p. 2, ¶ 1(a). Presumably by "address", DEQ means it will "authorize" a leaking wastewater treatment facility, allowing coal ash polluted wastewater to escape through channelized leaks and seeps instead of through the normal discharge. This defeats the purpose of the waste treatment system authorized by the permit. Wastewater treatment systems operate by retaining pollutants removed by their designed treatment systems, like settling in the basins, and then discharging treated water. Structures in earthen dams, like toe drains, are designed to discharge water for structural integrity purposes, as the SOC recognizes (¶ 1(e)); conversely, these are not intended routes for pollution to escape through. The discharge of water polluted with coal ash contaminants through seeps and leaks should not be permitted under the CWA, or else the entire purpose and function of the waste treatment system would be evaded. This is just as true for engineered seeps as it is for non-engineered seeps.

In addition, many of these engineered seeps coincide with jurisdictional waters, like streams and wetlands, as we have raised in comments on draft NPDES permits to DEQ. For example:

- Allen: Duke Energy has identified S-3 and S-4 each as a “Tributary towards Lake Wylie,” in its Discharge Assessment Plan. *See* Duke Energy Carolinas, LLC, Discharge Assessment Plan, Allen Steam Station, at Table 1 & Fig. 2 (April 2016) [hereinafter “DAP”].<sup>2</sup> Seeps S-3 and S-4 are downgradient from the active ash basin and coincide with streams visible on historical topographic maps. *See id.* at Fig. 1; CAP I Fig. 2-2. Duke Energy itself has conceded that the “Catawba River” and “all tributaries of the Catawba River” are jurisdictional “waters of the United States.” *See* Joint Factual Statement, *U.S. v. Duke Energy*, No. 5:15-CR-62-H, No. 5:15-CR-67-H, No. 5:15-CR-68-H (E.D.N.C), ¶ 22.
- Cliffside: Duke Energy lists S-6 as a tributary to the Broad River in its Discharge Assessment Plan. *See* Duke Energy Carolinas, LLC, Discharge Assessment Plan, Cliffside Steam Station, at Table 1 & Fig. 2 (April 2016) [hereinafter “DAP”].<sup>3</sup> Seep S-6 is located downgradient from the downstream dam of the active ash basin and coincides with historical Suck Creek discharge. *See id.* at Fig. 1; Comprehensive Site Assessment, Fig. 2-3.1.<sup>4</sup> Duke Energy itself has conceded that the “Broad River” and “all tributaries of the Broad River” are jurisdictional “waters of the United States.” *See* Joint Factual Statement, *U.S. v. Duke Energy*, No. 5:15-CR-62-H, No. 5:15-CR-67-H, No. 5:15-CR-68-H (E.D.N.C), ¶ 22.<sup>5</sup>

Seeps that are jurisdictional waters of the United States cannot themselves be permitted as channels to convey pollutants to other jurisdictional waters. The CWA provides no mechanism to convert such jurisdictional waters *into* point source discharges. The CWA “requires permits for the discharge of ‘pollutants’ *from* any ‘point source’ *into* ‘waters of the United States.’” 40 C.F.R. § 122.1(b)(1) (emphasis added). By definition, a “point source” cannot be a “water of the United States;” a point source conveys pollutants *to* a water of the United States. In sum, jurisdictional waters cannot be point sources; instead, water quality standards must be met *in* the jurisdictional waterbody, meaning in the so-called seep. For this additional reason, engineered seeps that are jurisdictional waters cannot be co-opted into permits. DEQ must expand the SOC to include these engineered seeps and must measure water quality compliance in the first jurisdictional water encountered by the seep.

### 3) The SOC Must Monitor All Detected Seeps and Contaminants

If the SOC is to provide any meaningful evaluation of seeps during and after decanting, it should include *all* of the non-engineered seeps and *all* of the relevant coal ash constituents.

<sup>2</sup> Available at DEQ’s website at the following link: [https://ncdenr.s3.amazonaws.com/s3fs-public/Water%20Quality/NPDES%20Coal%20Ash/Seep%20ID%20Plans/April16assessmentplans/Topo%20and%20DAP\\_Allen\\_04.29.2016\\_FINAL.pdf](https://ncdenr.s3.amazonaws.com/s3fs-public/Water%20Quality/NPDES%20Coal%20Ash/Seep%20ID%20Plans/April16assessmentplans/Topo%20and%20DAP_Allen_04.29.2016_FINAL.pdf)

<sup>3</sup> Available at DEQ’s website at the following link: [https://ncdenr.s3.amazonaws.com/s3fs-public/Water%20Quality/NPDES%20Coal%20Ash/Seep%20ID%20Plans/April16assessmentplans/Topo%20and%20DAP\\_Cliffside\\_04.29.2016\\_FINAL.pdf](https://ncdenr.s3.amazonaws.com/s3fs-public/Water%20Quality/NPDES%20Coal%20Ash/Seep%20ID%20Plans/April16assessmentplans/Topo%20and%20DAP_Cliffside_04.29.2016_FINAL.pdf)

<sup>4</sup> The DAP and CSA also identified other continuously-flowing seeps as tributaries of the Broad River, like S-1 and S-8, that are not receiving permit coverage. Ignoring these seeps is also erroneous, as addressed below. For the CAP 2 sampling round (September 2015), the 2B standard for mercury was also exceeded at Seep S-1.

<sup>5</sup> Available at <https://www.duke-energy.com/media/34a6a9f07c39463d99cdd060358b782b.ashx>

To do this, the list of pollutants to be monitored in Attachment B of the SOC should, at a minimum, reflect the pollutants actually escaping the ponds. Currently, it does not. For example, missing from the list are aluminum, cobalt, iron, manganese and vanadium, which escape through seeps around the Allen plant, according to Duke Energy’s own testing. Barium, beryllium, cobalt, iron, manganese, and vanadium discharge through seeps around the Cliffside plant. All of these known coal ash constituents, as well as other constituents known to occur in ash pond discharge – like bromide and hexavalent chromium – must be monitored and analyzed, if the SOC is to effectively gauge impacts to streams, rivers and lakes that receive polluted seepage.

Next, DEQ must also make clear that where site-specific “interim action levels” are not set, existing water quality standards apply. In other words, in the absence of an “interim action level,” a violation of an existing standard would be the baseline to determine when additional measures are needed to comply with water quality standards.

Third, the locations of sampling must be expanded beyond the “representative” seep samples identified in order to exercise adequate oversight over seeps during the decant period. Duke Energy’s coal ash ponds are enormous sites; expert reports prepared on behalf of the Conservation Groups and already on file with DEQ have demonstrated that hydrogeology and the manifestation of contaminated discharge varies across the sites. If DEQ is proposing to limit seep sampling only to the starred locations on the maps, then it is proposing to ignore significant areas impacted by known contamination.

In addition to these issues, which apply to multiple facilities, below we address problems related to specific seeps in Attachment A of the SOC:

- a. Allen: The first list of “non-engineered” seeps identifies locations at Allen.
  - This list inexcusably ignores two contaminated seeps previously identified by the Catawba Riverkeeper in fall 2016. Sampling from the southernmost of these two seeps detected cobalt and boron; the locations of these seeps are known to Duke Energy and also provided at the following link. These seeps cannot be ignored. [https://www.google.com/maps/d/viewer?mid=1EpprLdPkqPZL8nJnDU\\_xC7tYicaWTNGS&ll=35.17812035386553%2C-81.00586583464053&z=15](https://www.google.com/maps/d/viewer?mid=1EpprLdPkqPZL8nJnDU_xC7tYicaWTNGS&ll=35.17812035386553%2C-81.00586583464053&z=15)
  - S-9: the corrugated metal pipe has a coordinate that appears to be about 1,000 feet too far north in the coordinates. The link above provides a more accurate location.
  - S-1: a seep coinciding with a stream that flows to the southeast of the active basin is dismissed as supposedly unimpacted by coal ash. Duke Energy’s own testing detected fluoride and chromium in S-1 previously. *See* Discharge Assessment Report (2016). As discussed above, there is no lawful exception for discharges that carry coal ash pollutants, even if they do not exceed numeric water quality standards. DEQ must ensure with robust sampling that

any seep dismissed on the grounds that sampling has “not indicated the presence of coal combustion residuals” truly is unimpacted by coal ash.

- The SOC map indicates only one “representative seep” at Allen, near S-2, which is south of the ash basins, despite that emergent seeps are scattered north along the river front of both the inactive and active ash basins. Monitoring must be included in seep complexes that emerge along and between both impoundments to gauge ongoing impacts to the Catawba River and its adjacent streams and wetlands during the interim period of decanting.

b. Marshall:

- In addition to the upstream seep sample location for S-1 (where it first enters the stream), an additional sampling point should be added further down the stream where additional seepage/AOW enters the stream, before it flows into Lake Norman.
- The location of the “instream” site (orange star) needs to be located further west in the main channel, in a location that will not be affected by the cooling water intake.

c. Cliffside:

- Seeps S-1, S-5, S-8, S-9, S-12, S-24, S-26, S-34, S-35 are dismissed by the SOC as supposedly unimpacted by coal ash. However, Duke Energy’s own sampling has reported coal ash constituents within seeps DEQ is proposing to ignore. For example, Duke Energy’s contractor reported the 2B standards for mercury and aluminum were exceeded at Seep S-1 and aluminum was exceeded in S-8. CAP 2 Report p. 15 and Table 2-10. Sampling in S-12 has shown vanadium, manganese, and high levels of iron, and nearby S-5 sampling detected vanadium. *See, e.g.*, CAP 1 Fig. 2-2. To reiterate, there is no lawful basis for DEQ to turn a blind eye to polluted discharges. Currently DEQ’s conclusions cannot be squared with Duke Energy’s sampling.
- The two “representative seep” locations at Cliffside, which approximate seeps S-7 and S-2, are grossly inadequate to monitor impacts to water quality from ongoing seepage. As to S-7, it is not even clear that Duke Energy acknowledges this seep is impacted by coal ash. *See* CSA at 45 (downplaying impacts to S-7). Even if S-7 hypothetically was a typical contaminated seep at Cliffside, there is a large physical distance with various points of seepage between the locations of S-7 and S-2. Concentrations in samples from seep S-3, for example (well upstream of S-7) have exceeded relevant standards for cobalt, iron, manganese, sulfate, thallium and total dissolved solids. *See* CAP 1 Figs. 1-5, 2-2. Duke Energy has itself stated S-3 coincides with a “tributary of Broad River,” (Cliffside Discharge Assessment Plan. Fig. 2, 2016); therefore the downstream location in the Broad River also cannot serve to evaluate impacts at the S-3/tributary location. In addition to the enforcement

gap in the physical distance between the “representative” seeps, S-2 as a proxy for nearby seeps S-18 and S-19 is highly questionable, in light of the greater exceedances of 2L and 2B standards in S-18 and S-19 (boron, cadmium, chromium, cobalt, iron, manganese, thallium, vanadium, sulfate, and TDS, along with mercury levels). *See id.* Finally, seep sampling must be added to the seep/wetlands in the area of S-14, S-15, S-16, S-21, at the toe of Suck Creek dam, to assess impacts to Suck Creek in that area.

#### 4) Schedule and Conditions for Safely Decanting

We recognize decanting is a necessary step toward stopping the outdated practice of sluicing wet ash through massive unlined basins beside North Carolina’s waterways. We support the fastest timetable possible that also protects the receiving water and integrity of the structure of the dams.

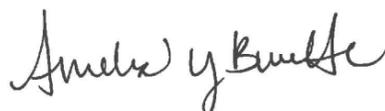
The SOC itself does not specify particular conditions for decanting and dewatering, but it premises its own accelerated schedule upon no requirement by DEQ “to implement physical / chemical treatment during decanting, *except as required by an NPDES permit.*” SOC p. 7 (emphasis added). We understand this defers decanting and dewatering terms for the main outfall into the permit. DEQ must make sure the WQBELs derived from the Reasonable Potential Analysis conducted for ash pond outfalls are protective in light of the pace of closure activities being proposed in the SOC. Past experience with this issue at the Riverbend plant demonstrates technologies like filtration are readily available to reduce pollutants during decanting and dewatering.

In the draft modification of the Marshall permit, however, DEQ proposes to eliminate a requirement for Duke Energy to “treat the wastewater discharged from the ash pond/ponds by the physical-chemical treatment facilities.” In the absence of a record explaining the consequence of removing this condition and assurances and measures that will be taken to assure water quality standards are protected during accelerated closure activities, DEQ must retain the condition. As we have explained in comments on the Marshall permit, DEQ cannot relax any technology-based limitations imposed from the last permits without violating anti-backsliding provisions of the CWA. 33 U.S.C. § 1342(0); 40 C.F.R. § 122.44(l)(1) (“[W]hen a permit is renewed or reissued, interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit . . . .”)

#### 5) Conclusion

We support decanting as an interim step towards cleaning up coal ash in North Carolina. However, unless the SOC is amended, this proposal too will be rendered a hollow exercise that simply buys Duke time, allowing contaminated seeps to flow indefinitely into the future. The Conservation Groups are committed to seeing Duke Energy held to compliance with environmental laws that require our waterways to be protected against leaking coal ash ponds.

Sincerely,



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