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May 15, 2014

VIA EMAIL DELIVERY to EPDComments@dnr.state.ga.us

James A. (Jac) Capp
Branch Chief
Watershed Protection Branch
Georgia Environmental Protection Division
2 Martin Luther King Jr. Drive SE
Suite 1152
Atlanta, Georgia 30334

Re: **Draft Non-Farm Surface Water Withdrawal Permit – Southern Nuclear Operating Company – Vogtle Electric Generating Plant (Units 3 and 4)**

Dear Mr. Capp:

As a follow-up to the recent public hearing on the above-referenced permit, the Southern Environmental Law Center and the Turner Environmental Law Clinic at Emory Law School respectfully submit the following supplemental written comments. Like our written prior comments, these are submitted on behalf of the Savannah Riverkeeper and the Southern Alliance for Clean Energy. We are providing these supplemental comments as permitted by EPD's Notice of Public Hearing, which states that written comments are welcomed, and may be submitted through the close of business on May 15, 2014. We appreciate the opportunity to provide these additional comments.

These supplemental comments attach and incorporate by reference the technical reports of Bill Powers, P.E., and Shawn P. Young, Ph.D. Their reports expand upon our prior comments, detailing reasons why the draft permit is deficient and suggesting means of curing those deficiencies. The reports are attached hereto as Exhibit 1 (Powers report) and Exhibit 2 (Young report).

In addition, we provide the following supplemental commentary:

1. **EPD should consider technical guidance posted on EPD's own website that links water withdrawal permitting and NPDES permitting.**

In our initial comments we requested that EPD withdraw the draft permit and reconsider it in conjunction with the required NPDES permit and regional planning efforts. Initial Comments at 6-8. We raised concerns surrounding the ongoing TMDL/5R process for dissolved oxygen in the Savannah River and EPD's resulting delay in issuance of any NPDES permits for discharges into the Savannah until the completion of that TMDL/5R process. We commented

that as a legal and practical matter the water withdrawal permit and NPDES permit should be considered in tandem.

Further support for this point is found in an EPD sponsored study prepared by the Institute of Government at the University of Georgia, “Linking State Water Programs to Watershed Management” (hereinafter “Linking State Water Programs”). This study can be found on EPD’s Technical Guidance webpage for Water Withdrawal Permitting: http://www.gaepd.org/Documents/techguide_wpb.html#wwp, and is attached hereto as Exhibit 3. According to the study, discharge and withdrawal permits are “directly linked” – meaning the “approval of one program is dependent on compliance with another.” *See* Linking State Water Programs at 39.

Here, the draft water withdrawal permit is “directly linked” to the required NPDES permit that Southern Nuclear will need to obtain from EPD. The draft permit and accompanying application materials even assume the existence of an NPDES permit for Plant Vogtle Units 3 & 4, basing calculations for consumptive water loss from the river on an assumed return of a certain percentage of the withdrawal back to the Savannah River. Considering the water withdrawal and NPDES permits together could potentially “reduce redundancies and increase cost-effectiveness.” *See id.* at 41. It would also “result[] in better information, supporting a more comprehensive approach to managing water-related responsibilities.” *Id.*

NPDES permits for discharges into the Savannah River will not be issued until the dissolved oxygen TMDL/5R process has been completed. The dissolved oxygen TMDL/5R, when established, will impact all water users along the Savannah. Because the required NPDES permit and the water withdrawal permit for Vogtle 3 & 4 are so intertwined, as described above and in our initial comments, EPD should delay this permit until the dissolved oxygen TMDL/5R is established and until EPD can consider the NPDES permit for the proposed new reactors. Only then can EPD ensure that any unreasonable adverse impacts on other users are fully considered. *See* O.C.G.A. § 12-5-31(g). As such, we request that EPD withdraw the draft permit and reconsider it together with the required NPDES permit for Plant Vogtle Units 3 & 4.

In addition to explaining the direct link between water withdrawal permits and NPDES permits, this technical guidance also states that “[w]ithdrawal permits may be delayed until applicable watershed assessments and/or other requirements have been satisfactorily completed for these programs.” *Id.* at 25. In accordance with this guidance, we request that EPD delay issuing this water withdrawal permit until the dissolved oxygen TMDL/5R for the Savannah River is established, and as described in detail below, until the USACE Savannah River Basin Comprehensive Study is complete.

2. EPD should wait until phase two of the USACE Comprehensive Study, focusing on drought management, has been completed before issuing the draft water withdrawal permit.

In our initial comments, we also requested that EPD consider the water withdrawal permit in conjunction with regional planning efforts in the Savannah River Basin. Initial Comments at 6-8. USACE, along with the South Carolina Department of Natural Resources and Georgia EPD, are currently preparing the second phase of the Savannah River Basin Comprehensive Study. This regional planning study was initiated in 2000. The purpose of the

Comprehensive Study is to assess current and future needs of the Savannah River Basin for water resource related issues – including, but not limited to, fish and wildlife management, recreation, and water supply and quality.

The second phase, being prepared now, is focused on drought management. This phase commenced on September 18, 2013 and is slated to take approximately 18 months. In February 2014, USACE’s Savannah District explained that this phase will address reduction in outflows at Thurmond Dam during drought conditions and how many days those minimum flows can continue before significant impacts occur to the economy and environment. USACE estimates 12 more months (from end of February 2014) before completion of the final report. *See 6 Months Later: An Update on the Comprehensive Study*, US Army Corps of Engineers Savannah District (February 24, 2014), <http://balancingthebasin.armylive.dodlive.mil/2014/02/24/compstudyupdate/>.

Because this phase of the study comprehensively addresses drought management with an emphasis on outflows at Thurmond Dam and minimum flows required from Thurmond Dam, it will shed light on the impacts of drought on downstream users. This information will help inform EPD of potentially unreasonable adverse impacts on other users caused by the withdrawal of 74 MGD for Plant Vogtle Units 3 & 4, downstream of the Thurmond Dam. As such, EPD should wait until the USACE completes the second phase of the Savannah River Basin Comprehensive Study before issuing this water withdrawal permit.¹

- 3. EPD should consider the Union of Concerned Scientist Report on “Power Failure: How Climate Change Puts Our Electricity at Risk – and What We Can Do” (April 2014) showing how, in recent years, four power plants in Georgia have been impacted by water shortage and water temperature problems.**

In April 2014, the Union of Concerned Scientists released a report, “Power Failure: How Climate Change Puts Our Electricity at Risk – and What We Can Do” (hereinafter “Power Failure”), addressing the impacts of extreme weather events on our nation’s electricity system, available at <http://www.ucsusa.org/assets/documents/Power-Failure-How-Climate-Change-Puts-Our-Electricity-at-Risk-and-What-We-Can-Do.pdf>, and attached hereto as Exhibit 4. According to the UCS report, from 2006-2013, in Georgia alone, four power plants have shut down or reduced output because of water problems – either not enough water or the water available was too warm. *See Power Failure* at 7. The proposed water withdrawal of 74 MGD would further decrease water flow in the Savannah River, leading to increased water temperatures (and the required NPDES permit, which has not yet been applied for or considered, will allow Southern Nuclear to discharge heated water back into the Savannah). If power plants in Georgia are already shutting down/reducing output because water is too warm or because of water shortages, then this water withdrawal permit for Plant Vogtle Units 3 & 4 will only exacerbate existing problems and potentially create unreasonable adverse effects on other users – for example, other power plants along the river may be forced to shut down or reduce output because of water problems. For this reason, and for the reasons set forth in our initial comments, EPD should

¹ Further, Southern Nuclear’s application – specifically, its drought contingency plan – is currently incomplete because it cannot fully consider ongoing regional drought management planning.

revise the draft permit to include low flow requirements to ensure there are not unreasonable adverse impacts on other users. *See also* Initial Comments at 11-12.

4. EPD should clarify inconsistencies in the permit file regarding average vs. worst case scenario consumptive water use for the draft permit.

The permit file is unclear as to whether the permit’s projected consumptive use of 43.2 MGD is a “worst case consumptive use” or an “average consumptive use.” This consumptive use estimate is used to calculate the average consumptive use percentage for the draft permit – 71%. According to the October 2012 Summary Effects Assessment for Southern Nuclear Water Withdrawal Permit (hereinafter “Summary Effects Assessment”) included in the permit file, Southern Nuclear claims that it “used a worst-case consumptive use estimated value of 66.84 cfs (43.2 MGD).” Summary Effects Assessment at 5 (Oct. 26, 2012). In other places in the record, this same value is described as the “average consumptive water use.” Permit File, Vogtle Correspondence 2, Email from Matthew Thomas Montz to Phillip White (Feb. 17, 2012). We request that EPD clarify this confusion and explain what data and calculations it used to conclude that there would be an average consumptive water loss of 71%. Further, we request that EPD include a worst case consumptive water loss calculation as well – like it did in a 2012 draft approval for this permit (concluding that the worst case scenario studied involves a consumptive loss to the River of 88%), attached hereto as Exhibit 5.

We appreciate the opportunity to submit these additional comments and look forward to receiving EPD’s responses.

Respectfully submitted,



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