October 31, 2007

Donald van der Vaart, Ph.D., P.E.
Chief, Air Permits Section
Division of Air Quality, NCDENR
1641 Mail Service Center
Raleigh, NC 27699-1641

Attention: Air Permits Section

Re: Official Comments to the North Carolina Division of Air Quality on Cliffside Coal Plant

Please receive these comments from the Southern Alliance for Clean Energy and other undersigned organizations as expression of the serious concerns that our groups have with the proposal for Duke Energy to build a new Unit 6 of 800MW at their Cliffside facility. These written comments supplement verbal statements that have been provided to DAQ through both formal and citizen hearings on the permit.

Let us first start by saying that the state of North Carolina Division of Air Quality and Department of Environment and Natural Resources have an obligation and moral responsibility to guide potential sources of air pollution toward the cleanest and safest route to protect human health and the environment. Global warming is by far one of the most serious issues facing mankind today. For DAQ to heedlessly move forward on this permit without fully considering the consequences of additional carbon dioxide emissions from North Carolina would be irresponsible, counter-productive, and dangerous to our environment, air quality, and economy. Carbon regulations are imminent in this country and possibly the state within the next 5 years. DAQ is also bound by law under the Clean Air Act to require the Best Available Control Technology and to conduct modeling for actual air emissions from new facilities.

Imminence of Carbon Regulation

On April 2nd of 2007, the U.S. Supreme Court, in Massachusetts v. EPA, handed down a precedent-setting and groundbreaking ruling that will allow the Environmental Protection Agency to regulate carbon dioxide emissions from vehicles. This ruling is the first, and most fundamental move for the federal government to address necessary emission reductions of global warming pollution from all sources. While it does not mandate EPA to act, we can see that this ruling creates a platform on which to base future emission regulations at the state and federal levels. The landmark ruling overturned EPA's impermissible interpretation of the CAA, which the Agency had relied upon to avoid regulating greenhouse gases.[1]

The Court explained:
The statutory text forecloses EPA's reading. The Clean Air Act's sweeping definition of "air pollutant" includes "*any* air pollution agent or combination of such agents, including *any* physical, chemical ... substance or matter which is emitted into or otherwise enters the ambient air...." § 7602(g) (emphasis added). On its face, the definition embraces all airborne compounds

[1] Massachusetts v. Environmental Protection Agency, 127 S.Ct.. 1438, 167 L.Ed.2d 248 (2007) or Massachusetts v. EPA is 549 US 1438.

of whatever stripe, and underscores that intent through the repeated use of the word "any." Carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons are without a doubt "physical [and] chemical ... substance [s] which [are] emitted into ... the ambient air."

As a result of the Court's finding that CO_2 and other global warming pollutants are "pollutants" for purposes of the Clean Air Act, these substances are pollutants "subject to regulation under the Act" as this phrase is used in the PSD provisions of the Act. Therefore, the Court's decision triggers the obligation for permitting agencies, including North Carolina's Department of Environment and Natural Resources and the Division of Air Quality, to include carbon dioxide emission limits in Prevention of Significant Deterioration permits.[2]

Just this month, in fact, the Kansas Department of Health and Environment (KDHE), denied the air quality permit for the two proposed 700-megawatt generators at the Sunflower Electric Power Corporation plant. This is a landmark decision in which the Secretary of KDHE cited the Massachusetts vs. EPA Supreme Court ruling as the main reason for their decision. "I believe it would be irresponsible to ignore emerging information about the contribution of carbon dioxide and other greenhouse gases to climate change and the potential harm to our environment and health if we do nothing. Denying the Sunflower air quality permit, combined with creating sound policy to reduce carbon dioxide emissions can facilitate the development of clean and renewable energy to protect the health and environment of Kansans," said Roderick L. Bremby, Sectretary of KDHE.[3]

Momentum is also gaining rapidly on Capitol Hill to embrace a global warming bill that would set limits on carbon dioxide emissions and create a carbon marketplace. Support for a carbon cap on emissions is growing, with proponents on both sides of the aisle representing many, diverse constituencies. Evidence that the political climate is warming broadly to reduce global warming pollution exists with North Carolina's own Senator Elizabeth Dole's (R) cosponsorship of the original America's Climate Security Act, released on October 18, 2007.[4] We are likely to see significant movement, if not passage, of a global warming bill in the 110th Congress of 2008.

Finally, the uncontrolled carbon dioxide emissions this plant would emit flies in the face of the state's current diligent efforts with the Legislative Commission on Global Climate Change, which is only half way through their tenure. Commissioners of this process are working hard to understand and propose solutions to the state's existing contributions to global warming pollution. Adding new pulverized coal plants before solidifying a comprehensive plan locks the state and ratepayers into unnecessary future carbon risks.

North Carolina's Division of Air Quality must consider the significance of the Supreme Court ruling, the recent actions of other permitting agencies in similar decisions, the momentum in

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[2] 40 C.F.R. § 52.21(b)(50)(iv)

[3] Kansas Department of Health and Environment. "Press Release: KDHE Denies Sunflower Electric Air Quality Permit". October 18, 2007

[4] Statement by Sen. Dole on introduction of ACSA, 10-18-07. "Dole, Colleagues Introduce Bipartisan Bill to Address Climate Change: Uses market-driven approach to reduce greenhouse gas emissions." Available on the web: http://usclimatenetwork.org/federal/lieberman-warner-bill/senators-statements/dole-statement/

Congress, and the unfinished business of the state Climate Commission. These are clear signals that we need to create plans immediately to significantly reduce our global warming pollution, not add more sources before we know the extent of future regulation. DAQ would be wise to fully weigh the risks to the state of allowing more carbon dioxide sources on-line. We ask that DAQ not approve any new air permits containing carbon dioxide before the state has a carbon-contingency and control plan. Moreover, controlling CO_2 from a pulverized coal facility is an extremely cost-prohibitive and energy intensive process, making it a nearly non-existent possibility.[5,6] DAQ must be more strategic in foreseeing the future of air pollution requirements and think sophisticatedly for how to best plan for NC's citizens.

Carbon Risk

Based on the above knowledge that North Carolina may very well be dealing with state or federal regulations on carbon dioxide in the near future, allowing new sources of pollution to come on-line now is irresponsible and harmful to North Carolina ratepayers. Carbon dioxide is retained for over 100 years in the atmosphere, so this facility's impact to global warming, if constructed, will continue to harm and warm the planet into the year 2110 and beyond. Even though CO_2 is not currently subject to regulation, the longevity of the impacts of CO_2 in the atmosphere demand more significant consideration than typical criteria air pollutants.

Moreover, Duke Energy's 8 existing coal plants already emit 40.7 million tons of carbon dioxide into the atmosphere annually, which are significant contributors to global warming, must be omitted. As carbon regulations solidify, Duke Energy and the state of North Carolina will inevitably need to figure out how to reduce the pollution from these facilities or take them offline. Duke may be hoping the existing facility and new facility at Cliffside could get grandfathered into new regulations and avoid compliance requirements, but this is an irresponsible and careless step to the detriment of all North Carolinians facing the risks of global warming impacts.

Best Available Control Technology

Under the Clean Air Act, the state may only issue an air permit that requires Duke to build a plant that employs Best Available Control Technology (BACT). BACT requires an emission limitation based on the maximum degree of reduction of each pollutant subject to regulation under the Clean Air Act emitted from a major emitting facility. The pulverized coal facility proposed by Duke employs neither BACT nor is it a sensible option in a day and age where we know that global warming impacts are negatively impacting our quality of life in North Carolina and must be stopped.[7] **The proposed facility does not maximize emission reductions for the criteria air pollutants**, or for mercury. Carbon dioxide, the chief global warming pollutant should be regulated under BACT.

Many proponents of the facility claim that Duke Energy is using the most modern air pollution controls and that this plant is the cleanest option, but evidence demonstrates that this is not true. *There is gasification technology on the market that would more effectively capture all emissions, and Southern Alliance for Clean Energy officially requests that DAQ reconsider their definition*

[5] DOE/NETL. "Chilled Ammonia-based Wet Scrubbing for Post-Combustion CO2 Capture". February 2007.
[6] NCDENR. "Carbon Dioxide Emissions Reduction Strategies for North Carolina". September 2005: p. VII
[7] NCDENR. "Carbon Dioxide Emissions Reduction Strategies for North Carolina". September 2005.

of BACT for this and all future baseload generation power plants facilities. Gasification now would ensure that we have options for the near future to capture and sequester the 6 million tons of CO_2 emissions expected on an annual basis from the facility. Carbon capture technologies are an essential component to any baseload coal facility, if indeed a coal plant must be built.

Another concern we have is that DAQ is actually on record recommending that "clean coal," non-combustion coal, and other emerging low-emissions technologies should be strongly considered in reviewing new facility proposals. DAQ has the discretion to include these newer technologies in their criteria for approving or denying a permit. We also request that DAQ do a Best Available Control Technology (BACT) analysis for controlling mercury emissions, because Duke's current plan for addressing the emission of the neurotoxin is not by any means actual BACT.

Air Pollution Permitting and Modeling

Duke Energy is trying to use pollution cuts from the installation of a scrubber on the existing Unit 5 and retirement of existing units 1-4 to evade permit review (by "netting out") for ozone-forming nitrogen oxides (NO_x) and soot-forming sulfur dioxides (SO_2).[8] Yet, the North Carolina Clean Smokestacks Act actually already requires these pollution cuts. North Carolina regulations do not allow utilities to use these Clean Smokestacks pollution reductions to escape permit review for new facilities, but that is exactly what Duke wants to do. Duke is seeking to exploit a loophole in the law that would allow them to get credit for the legally required pollution cuts in the context of this new facility. The Clean Smokestacks Act was landmark legislation and Duke's attempt to "double-dip" makes mockery of the Act by escaping formal permit review.

Furthermore, Duke is attempting to escape permit review of the actual impacts this new plant's emissions would have on our Class I areas – those areas, like the Great Smoky Mountains National Park, Joyce Kilmer, Slick Rock Wild and Scenic Area, and the Linville Gorge, are afforded the highest level of protection under the Clean Air Act. Duke's Cliffside Units 1-5 are currently operating illegally in violation of the Clean Air Act because they received un-permitted modifications.[9] The shutting down of these illegally modified units should not qualify Duke to receive pollution reduction credits to build and pollute more. DAQ must require Duke to undergo a permit review and to model their actual emissions from this facility to determine any impacts on the air sheds of our cities and Class I natural areas in close proximity. If the facility at Cliffside is as clean as Duke proposes, then they should have no reason to evade demonstration of this fact. Lastly, NC needs to show how the proposal at Cliffside works within the North Carolina Regional Haze Progress Goal.

Southern Alliance for Clean Energy would also like to officially express disappointment that DAQ has currently denied all other opportunities for public input on this air permit. It is simply negligent on DAQ's part to avoid additional public input and the opportunity to hear concerns citizens around the state might have about a new source of global warming pollution, toxic mercury, haze and ozone. This is absolutely an issue of statewide, if not one of global concern. We ask that DAQ think seriously about how well you will be representing the interests of

[8] Southern Environmental Law Center. "Draft Air Permit Talking Points," September 2007.
[9] Southern Environmental Law Center. "Draft Air Permit Talking Points," September 2007.

citizens when you make your decision based only on input gained in Forest City. Air pollution knows no boundaries and will impact every citizen of North and South Carolina and beyond.

In closing, the Division of Air Quality for North Carolina has an opportunity to guide the state toward leadership in creating a clean energy future by protecting air quality in the most sophisticated and progressive manners. Full considerations of the impacts of the air pollutant carbon dioxide and maximum controls for nitrogen oxide, sulfur dioxide, and mercury must be your first and foremost concern. Right now Duke Energy is NOT being a leader by proposing a facility that uses old-school technology and perpetuates our dependence on the dirtiest form of energy known to man. When we have solar panels, wind turbines, efficient homes, building materials, appliances, and a plethora of alternatives, dirty coal is a shameful choice. We formally request that DAQ deny Duke Energy's request for this air permit, or in the alternative, require Duke to capture and sequester carbon dioxide as BACT; thus leading North Carolina into a clean energy future.

We formally request direct notification of any related or final decision on the air permit.

Respectfully Submitted,

Ulla-Britt Reeves
Regional Program Director
Southern Alliance for Clean Energy
29 N. Market Street, Suite 409
Asheville, NC 28801

Alison Carpenter
Co-Director
SURGE Network
PO Box 1188
Chapel Hill, NC 27514

Bart Melton
Program Analyst
Southeast Regional Office
National Parks Conservation Association
706 Walnut Street, Suite 200
Knoxville, TN 37902

June Blotnick
Executive Director
Carolinas for Clean Air Coalition
P.O. Box 30204
Charlotte, NC 28230

cc: Margaret Love, Public Hearings Officer