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Date: 10/27/2009 4:50 PM
Subject: Plant Washington Comments
Attachments: OCRK comments OCT 2009.pdf

Please accept the attached comments on behalf of Ogeechee-Canoochee Riverkeeper and Altamaha Riverkeeper. These comments supplement those submitted on our behalf by Southern Environmental Law Center and GreenLaw.

Thank you,

Chandra Brown
Riverkeeper/Executive Director

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Protecting Our Rivers, Preserving Our Way of Life

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Via Email

October 27, 2009

Director
Georgia Environmental Protection Agency
2 Martin Luther King Jr. Drive, Suite 1152 East Tower
Atlanta, Georgia 30334

RE: Plant Washington Comments

Dear Sir/Madam,

I am writing to you today on behalf of Ogeechee-Canoochee Riverkeeper, Inc. and Altamaha Riverkeeper and Altamaha Coastkeeper (herein, Riverkeepers) regarding the proposed permits for the coal plant, Plant Washington. The comments are to supplement those submitted on behalf of the Riverkeepers by GreenLaw and Southern Environmental Law Center.

The Riverkeepers are opposed to the issuance of the draft permits for Plant Washington due to the additional pollution loads to these waterbodies and the people who depend on them. The current permits would allow Plant Washington to emit 105 pounds per year of mercury to the air and fail to require monitoring for mercury in water discharges to the Oconee and Ogeechee Rivers. These additional mercury loads will endanger the health and well being of Georgia's citizens who have a constitutional right to fish and hunt, yet eating these fish or feeding them to their family may harm the health of their children.

Mercury is a dangerous neurotoxin that poses a significant health threat to developing babies and young children. According to the American Academy of Pediatrics, the most critical source of methylmercury exposure is fish consumption by the mother before or during pregnancy and by young children.[1] A study conducted by the Centers for Disease Control found that as much as 10% of women in the US have mercury levels high enough to potentially cause negative health effects in developing babies.[2] Based on this data, US EPA estimates that more than 300,000 newborns each year may have increased risk of learning disabilities associated with in utero exposure to methylmercury.[3]

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[1] Goldman, L.R. et al. 2001. Technical Report: Mercury in the Environment: Implications for Pediatricians. Pediatrics 108(1).

[2] Centers for Disease Control and Prevention. 2001. Blood and hair mercury levels in young children and women of child bearing age—United States, 1999. MMWR Morb Mortal Wkly Rep. 50(3). http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5008a2.htm

[3] US EPA. 2009. Mercury: Human Exposure: Methylmercury Exposure. http://www.epa.gov/mercury/exposure.htm

Plant Washington Will Create a Mercury "Hot Spot"

Coal fired power plants are a major source of mercury to streams. Coal-burning power plants are the largest human-caused source of mercury emissions to the air in the United States, accounting for over 40 percent of all domestic human-caused mercury emissions.[4] In Georgia, according to the 2005 toxic release inventory, this number is approximately 80% for all release to the air land and water. For stack emissions alone, coal plants in Georgia are responsible for over 85% of the mercury to our air.[5]

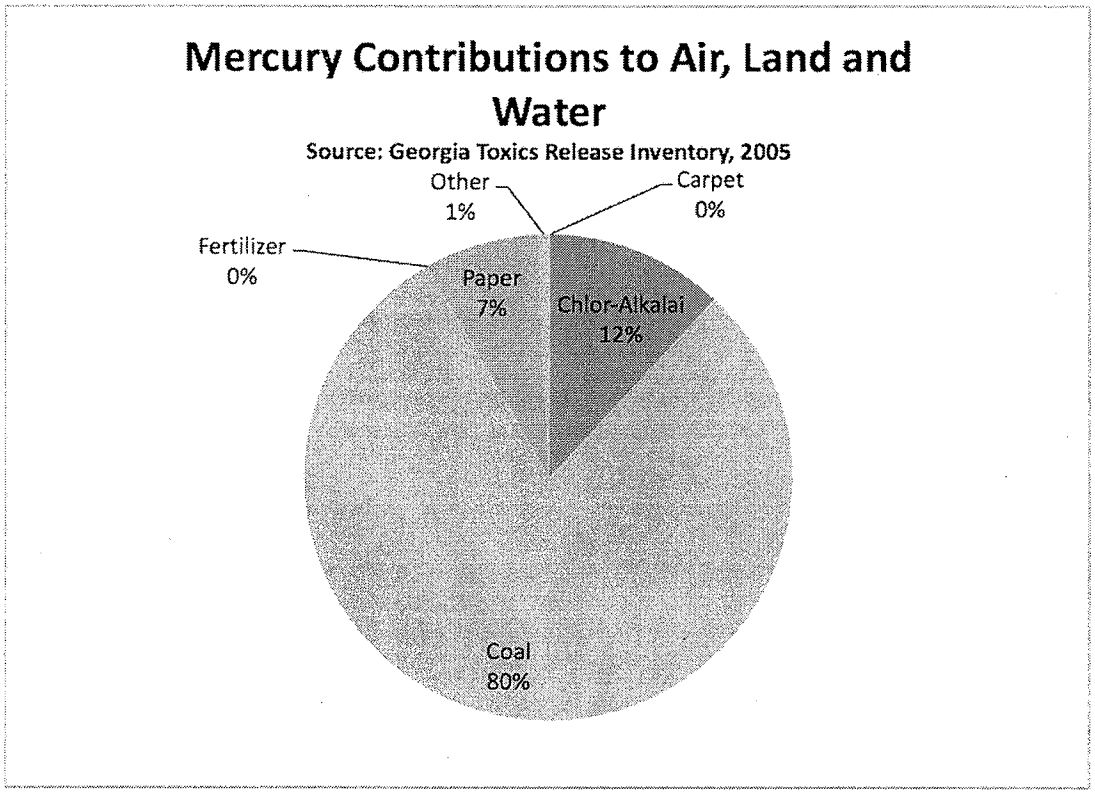

Figure 1. TRI Hg Emissions

This data is supported by data collected in the Ohio valley that found that 70% of mercury came from coal combustion. This study utilized meteorological analysis to determine that a majority of the mercury deposition found at the in the area was due to local and regional sources.[6]

Recent research conducted by the US Geologic Survey (USGS) found that blackwater streams, like the Ogeechee, Canoochee and Ohoopee are the most vulnerable river systems in the US to mercury pollution. The study supports other findings that the unique water quality characteristics of blackwater streams convert mercury from air pollution when it enters these waters into methylmercury, which is more available to the food chain. However, the study also found that in relatively undeveloped watersheds, like the Upper Ogeechee, with a high density

[4] US EPA. 2009. Mercury: Basic Information. http://www.epa.gov/mercury/about.htm

[5] Georgia Environmental Protection Division. 2005. Georgia Toxics Release Inventory. xhttp://www.gaepd.org/Files_PDF/gaenviron/ertspill/gatri_rpt_2005.pdf

[6] Keeler, G. et al. 2006. Sources of Mercury Wet Deposition in Eastern Ohio, USA. Env Sci and Technol. 40 (19), pp 5874–5881

of wetlands and forest and high concentrations of dissolved organic carbon in the water, methylmercury was found in higher concentrations.[7]

Since mercury has been found to fall in high abundance relatively close to its source, blackwater rivers have been found to convert mercury from air pollution into its more toxic form, and the area around Plant Washington is dominated by a prevalence of these vulnerable river systems, we believe that there is sufficient evidence to support the assertion that Plant Washington will create a hot spot of mercury pollution in the local blackwater streams. As discussed in more detail below, these streams, the Ogeechee, Canoochee, and Ohoopee, are all greatly exceeding acceptable levels for mercury in fish. The additional loading of mercury to these rivers will further send these streams out of compliance with the requirements of the Clean Water Act.

Draft Permits Violate the Clean Water Act

The Ogeechee, Canoochee, Atlamaha, and Ohoopee Rivers are within the airshed and likely will receive additional mercury loads from air deposition from Plant Washington. In addition, all of these rivers have Total Maximum Daily Loads (TMDLs) for mercury. As a result of the overwhelming data on the toxicity of mercury to humans, EPA established a reference dose for mercury of 0.0001 mg/kg/day MeHg for humans. Subsequently, the Georgia Environmental Protection Division adopted the tissue residue criterion (TRC) of 0.3 mg/kg of total mercury in fish as the level that triggers a TMDL. It should be noted that this TRC is based on the average weight of the person consuming the fish as 70 kg (154.3 lbs). Figure 2 shows the TMDL for each water body, the estimated load from atmospheric and point sources and the percent reduction required to meet the TMDL requirements.

TMDL Data	Canoochee[8]	Ogeechee[9]	Ohoopee[10]	Altamaha[11]
TMDL Load	5.52 kg/year	9.52 kg/year	3.77 kg/year	53.10 kg/year
Load Allocation (Atmospheric Sources)	5.32 kg/year	9.32 kg/year	3.58 kg/year	47.22 kg/year
Wasteload Allocation (Point Sources)	0.20 kg/year	0.20 kg/year	0.19 kg/year	0.63 kg/year
Current Annual Average Load	8.45 kg/year	16.4 kg/year	4.99 kg/year	Not provided
% Required Reduction from All Sources	35%	42%	24%	Not provided

[7] Scudder, B.C., et al. 2009. Mercury in Fish, Bed Sediment, and Water from Streams Across the United States, 1998-2005. USGS Scientific Investigations Report 2009-5109.

[8] US EPA. 2005. Total Maximum Daily Load (TMDL) for Total Mercury in Fish Tissue Residue in the Canoochee Watersheds.

[9] US EPA. 2005. Total Maximum Daily Load (TMDL) for Total Mercury in Fish Tissue Residue in the Ogeechee Watersheds.

[10] US EPA. 2002. Total Maximum Daily Load (TMDL) for Total Mercury in Fish Tissue Residue in Ohoopee Watershed Including Listed Segments.

[11] US EPA. 2002. Total Maximum Daily Load (TMDL) for Total Mercury in Fish Tissue Residue in Altamaha River Including Listed Segments.

In 2001, the Altamaha River was found to be within the water quality criterion established by the Georgia Environmental Protection Division for mercury. However a TMDL was still established as fish in the river have quantifiable levels of mercury. According to data collected by EPA, over half (6 of 10) of the fish from trophic level 4 that were collected exceeded 0.3 mg/kg mercury of fish. Those fish, combined with the fish from trophic level 3, resulted in a TRC of 0.2 mg/kg mercury—just under the established water quality criterion. No reduction in mercury inputs to the Altamaha was determined to be needed. However, clearly an increase of mercury from point sources and atmospheric sources could put the fish in the river above the TRC.[12]

Failure to Ensure Compliance with TMDL for Atmospheric Sources

As mentioned above the Ogeechee River and several other blackwater river systems are directly adjacent to or nearby the proposed coal plant. The draft air permit issued by the Georgia Environmental Protection Division would allow Plant Washington to emit 105 pounds (47.63 kg) of mercury every year to the air near these vulnerable river systems. The draft permits also fail to require mercury emissions limits during startup, shutdown and maintenance.

The TMDLs for the Ogeechee, Canoochee and Ohoopee Rivers require reductions in mercury emissions to these rivers. Adding an additional 105 + pounds every year of mercury clearly violates the stated allocations and the intent of the TMDL process.

Furthermore, EPD fails to support its assertions that upcoming reductions in mercury emissions by other plants will provide additional capacity for air emissions of mercury from Plant Washington. In the development of these TMDLs EPA established a methodology for determining atmospheric deposition of mercury to these watersheds.[13] Clearly, these tools were available for EPD's use to support their theory that future technology installations at other facilities will result in compliance with the TMDLs for these river systems.

In fact, a review of these documents shows that the load allocations for atmospheric sources were based on the assumption that future atmospheric emissions would be reduced. For example, for the Ohoopee River, the TMDL estimates that by 2025 there will be a 42% to 54% reduction in mercury deposition to the Ohoopee River, if the Clean Air Act rules promulgated in 2002 stand and are enforced.[14] EPD's failure to use this analysis to determine if an additional, significant source of mercury to the airshed of the Ohoopee River and other waterbodies within the airshed of Plant Washington, is clearly a violation of the Clean Water Act.

Failure to Ensure Compliance with TMDL for Point Sources

There are 8 permitted discharge points in the NPDES Permit, 7 to a tributary of the Ogeechee River and 1 to the Oconee River. None of these discharge points will be monitored on a regular

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[12] Ibid.

[13] US EPA, Region 4. 2000. Atmospheric Mercury Loadings in the Savannah River Basin. Appendix A: Savannah River Mercury TMDL. US EPA, Region 4, Atlanta, GA.
And
US EPA, Region 4. 2002. Total Maximum Daily Load (TMDL) Development for Total Mercury in the Ohoopee Watershed. Appendix A: Analysis of Atmospheric Deposition of Mercury to the Ohoopee River Watershed. US EPA, Region 4, Atlanta, GA.

[14] Ibid.

basis for mercury. Since the Ogeechee River has an established TMDL for mercury, and EPD would be permitting 7 discharges to a tributary, these discharges must require mercury monitoring.

EPD has stated in the public meetings on Plant Washington that these outfalls to the Ogeechee River system would only discharge during 100-year flood events. However, the permit, as drafted, places no requirements on when there may be a discharge from these outfalls. The permit would allow discharge at any time from these areas without any reporting or limitation on the amount of mercury the discharges are contributing to an already overloaded system.

Furthermore, recent research has found that mercury emission control technology has resulted in an increase in mercury discharges to water. The wastewater discharge to the Oconee River will not be monitored for mercury, a clear violation of the TMDL for the Altamaha River system. "The wasteload allocation is determined by multiplying NPDES permitted flow (5.0 cms) by the water quality target (4.0 ng/l), if in the event a facility expands its facility and the permitted flow [is] increase[d] so would this wasteload allocation."[15] By failing to require mercury monitoring in a major tributary of the Altamaha River, EPD is impairing the ability to allot the appropriate loading to ensure that the Altamaha River remains in compliance with the TRC.

Plant Washington Application Process Has Failed to Comply with the Georgia Planning Act of 1989

As mentioned above, the Riverkeepers are very concerned about the potential additional mercury load to the vulnerable blackwater river systems in our area. In speaking with leaders in surrounding communities about this concern, it is clear that many leaders in these communities were not aware of the proposal or had not been asked to comment on the proposal.

Clearly, there is a tremendous potential for Plant Washington to impact neighboring communities' air and water resources. According to the Department of Community Affairs,

> Developments of Regional Impact (DRIs) are large-scale developments that are likely to have regional effects beyond the local government jurisdiction in which they are located. The Georgia Planning Act of 1989 authorized the Department of Community Affairs (DCA) to establish procedures for review of these large-scale projects. These procedures are designed to improve communication between affected governments and to provide a means of revealing and assessing potential impacts of large-scale developments before conflicts relating to them arise. At the same time, local government autonomy is preserved since the host government maintains the authority to make the final decision on whether a proposed development will or will not go forward.[16]

The Riverkeepers believe that this DRI process should have been triggered through several actions taken by Washington County, including the passing of a resolution in support of the coal plant. It is also our understanding that there is a proposal to close a county maintained road, Mayview Road, and potentially other actions that involved the local government, including the determination of whether the solid waste facility is consistent with the Solid Waste

[15] US EPA. 2002. Total Maximum Daily Load (TMDL) for Total Mercury in Fish Tissue Reside in Altamaha River. US EPA, Region 4, Atlanta, GA.

[16] http://www.dca.ga.gov/development/PlanningQualityGrowth/programs/regionalimpact.asp

Management Plan (SWMP).Washington County's failure to solicit input from adjacent communities prior to the submission of the application materials by Power4Georgians to EPD is potentially a violation of the Georgia Planning Act of 1989.

On behalf of the Riverkeepers, I urge EPD to deny the permits that have been issued for Plant Washington.

Sincerely,

Chandra Brown
Riverkeeper/Executive Director