

RAS Q99

Hearing Docket

From: Jerry McCollum [jerrymc@gwf.org]
Sent: Thursday, March 19, 2009 5:09 PM
To: Hearing Docket
Cc: jbartonmanley@bellsouth.net
Subject: Limited Appearance Statement from Georgia Wildlife Federation
Attachments: Vogtle Expansion comments - Georgia Wildlife Federation 3-19-09.doc

Ladies and Gentlemen:

Please accept the attached WORD document containing comments submitted on behalf of the Georgia Wildlife Federation. We appreciate the opportunity to submit these comments regarding the application by Southern Nuclear Operating Company for an Early Site Permit to construct two additional nuclear reactors at the Vogtle Electric Generating Plant. Thank you for your consideration of our comments.

Jerry L. McCollum
President & CEO
Georgia Wildlife Federation

Jim Manley, Chair
Board of Directors
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Docket NO. 52-011-ESP

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From: Jerry McCollum <jerrymc@gwf.org>

To: <hearingdocket@nrc.gov>

CC: <jbartonmanley@bellsouth.net>

Subject: Limited Appearance Statement from Georgia Wildlife Federation

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Comments by the Georgia Wildlife Federation to the Final Environmental Impact Statement for an Early Site Permit Related to Construction of Nuclear Units (GP 1000) #3 and #4 at Plant Vogtle, Waynesboro/Burke County, Georgia

General

The Georgia Wildlife Federation (GWF) submits the following comments on the Final Environmental Impact Statement for an Early Site Permit (ESP) to construction of nuclear reactor units #3 and #4 at the current Plant Vogtle site.

Created by Georgia sportsmen in 1936, the GWF is a broad based, statewide non-profit conservation organization representing more than 50,000 members. The Georgia Wildlife Federation is committed to its mission to encourage the intelligent management and wise use of Georgia natural resources; water, forest, plant life and its dependent wildlife. The Board of Directors, having been directly involved in comment formulation, wish to express their appreciation for this opportunity to comment on this proposal. Significant consideration by members of the Board has been made in this effort to express concerns, support alternatives and encourage the applicant to thoroughly consider all impacts, future consequences and wildlife needs during construction and power production phases described in this EIS for an ESP. This is a focused effort to identify and express potential or perceived impacts related to Final EIS for ESP. Reliable power production combined with alternative energy sources and demand side energy conservation strategies is necessary to serve all of Georgia now and into the future. It is the desire of the GWF Board of Directors that this must be done by all power producers with all due consideration given to wildlife impacts on both a site specific and landscape scale.

Case for Future Increased Demands

The GWF recognizes the reality of human population growth trends moving towards the Southeastern United States. Population projections predict Georgia will continue to grow and potentially add another 1.2 million citizens within the next decade. Even with aggressive demand management, residential, commercial and industrial growth will bring an increased demand for energy generally and for base load production specifically. As the American public continues a hue and cry for more effective policy, including energy efficient automobiles and more electric vehicles, electricity demand will increase. Should auto manufacturers be successful in saturating the American market with a line of affordable electric cars, the demand for electricity will increase in Georgia. Should population growth and economic demand for electrical power reach or surpass the current supply threshold there would be a significant impact on the well being of our way of life. More important from a conservation viewpoint, there would also be a significant pressure to add power production using older technologies for the cheapest, most readily available forms of energy. Reverting to older technologies, fuels, and methods of power production, traditionally resulting in degraded air and water qualities impacted by a

myriad of discharge pollutants, will most likely not meet federal standards and guidelines. These options, most likely coal and oil, are considered to have the highest impact and be the most damaging to our air and water that in turn negatively impact our quality of life. The United States dependency of foreign sources of energy, that most notably includes oil, has resulted in stressed markets, a recession, social demand for alternative sources of energy and the current political will to reduce greenhouse gases, seek alternatives and zero-emissions alternatives (green energy), re-invent power delivery through redesign of electric grids, support "smart metering" all to create a hybrid suite of energy production alternatives on the American landscape. As carbon cap and trade with emission reductions are expected, it is imperative to weigh all options, concurrent with the opinion of the current administration, including increased nuclear facilities.

There will be impacts on one or more of our natural resources dependent on our choices. Though expensive to construct, the most readily available, commercially viable, near-zero emissions base load alternative is nuclear power. Although not completely carbon neutral (as uranium processing and transportation require additional energy), nuclear in comparison to burning coal and oil is certainly the "lesser of two evils" when delivering reliable power generation for base load supporting future growth. On the other hand, nuclear power production is an intense water consumer. There are also significant concerns for spent fuel storage, safety, and security. The consideration for the expansion of capacity for power production should be coupled with intensely applied conservation efficiencies and other green technologies, notably solar and wind, for the reduction of green house gases, mercury and other health impairing gas and chemical emissions.

Demand for Alternative Energy

Georgia is the largest state east of the Mississippi River. Even so, our state has fewer clean alternatives for commercial power production available for development than many other states. Alternatives to traditional carbon dioxide emitting fossil fuels to augment existing power production sources include wind, solar, geothermal, tidal, biomass, natural gas conversions of coal fired plants, and landfill gas harvesting. As a source without a direct carbon footprint, nuclear power production is a beneficial technology in that it does not add to existing greenhouse gases that contribute to global warming. The question is whether the use of increased energy efficiency technologies and future retrofitting of advanced technologies to reduce the consumption of water is a reasonable trade-off for the most expensive construction project in the history of the power producers offering this proposal. Implementing supply side conservation strategies, technologies and alternatives may be cost effective but that case has not yet been convincingly made. Power conservation by ratepayers will equate to less need in power production. However, conservation measures involve social behaviors and conduct and such measures cannot substitute for effective planning for reliable base load energy production.

With a new federal administration aggressively pursuing reliable alternative energies, there are sources that have higher potential dependent on the site-specific location of production. For instance, it is common knowledge the plains states can produce more energy on a commercial scale from wind farms than can other states. The desert Southwest is known for its solar capabilities and potentials. On the other hand, Germany

has developed a significant solar capacity for power production although this country only has a daily average of two solar hours. The state of Georgia, however, has a daily average of five solar hours and has no existing or proposed commercial solar power production.

In the Southeastern U.S., particularly in Georgia, our hydropower potential is tapped out. There are no additional financially viable and productive locations for hydropower dams. This situation combined with recent low flows and high demand for municipal water supply throughout Georgia means that more hydropower development is not an option.

One hydropower alternative that has been mentioned is the Flint River basin. The Georgia Wildlife Federation is adamantly and inalterably opposed to construction of new dams on the Flint River and the inevitable destruction of fish and wildlife habitat. This opposition is validated and justified due to the lack of hydropower potential, unreliable flow regimes, continued cycles of drought, over-permitted capacities by municipal and industrial consumption withdrawal upstream and concerns for in-stream resources.

To reduce carbon emissions, negate the need for additional carbon based fuel consumption, and reduce America's dependency on foreign oil, reliable alternatives might include increased development of electrical power from wind, solar, tidal, natural gas, and nuclear. All these alternatives have little or no carbon impacts. This new demand for additional power will require production processes that have impacts on wildlife habitat, riparian systems, and air quality. Relying on and reverting to older technologies burning fossil fuels only further amplify concerns for climate change and the resulting negative consequences to sustainable wildlife populations. The mission of the Georgia Wildlife Federation will be best served by the pursuit of production alternatives which prove to be the most productive for the most effective cost and the most benign in their long-term impact on the wildlife and other natural resources of our state.

Air

Reduction of CO₂ emissions, mercury and other chemical contaminants is of high interest and recommended to meet global warming/climate change challenges. Existing industrial air discharges consume portions of the air shed that is part of the public shared resource. Standards of the U.S. Environmental Protection Agency and the Georgia Environmental Protection Division continue to restrict particulate size and numbers moving many areas of Georgia closer to non-attainment. Introducing additional air contaminants only exacerbates the problem and conflicts with existing land/wildlife management practices such as prescribed fire. Air impacts presented by the ESP applicant are minimal and, if valid, will not have the severe impact that a coal-fired plant would have. This would minimize future areas of restrictions for the timber industry, foresters, land managers, public safety, and the use of prescribed fire.

Water

Primary water impacts and concerns presented by the applicant have to do with water consumption at Plant Vogtle. The Georgia Wildlife Federation is concerned with water withdrawals and returns (consumption/loss), thermal exchange (delta T), dissolved

oxygen (DO) and total percentage use of river flow. It has been projected that a 6% use at 7Q10 is a maximum use volume, with approximately 70% of that water being "consumed" and only 30% returned to the river with a Delta T of 3-5 degrees. However, the Savannah River is a highly regulated system with systematic releases potentially averting the need to ever see this ultimate low flow. All precautionary measures should be taken to minimize water quantity/quality impacts and assure the integrity of the in-stream aquatic habitat. Minimizing impacts to aquatic habitat and dependent wildlife species is required whether in drought or normal (seasonal) rainfall events during the construction phase or post construction energy production phase addressed by the Final Environmental Impact Statement. Regardless of permitted capacity and use, water consumption should be minimized to meet the management objectives and assure that all fisheries resources will be maintained in a diverse healthy condition and continue to be available to adjoining Georgia and South Carolina fishermen and our visiting anglers.

With regard to state permitted withdrawal capacities, Southern Nuclear, Georgia Power, and their partners should agree to oppose the trade, sell, or lease of any state water permit or portion thereof. GWF opposes "water permit trading" and will oppose state legislation or any administrative attempts to allow the sale, lease, or trade of any unused volumes or revoked permits held by industrial, municipal, private, or agricultural permit holder. Should the applicant recognize water savings through future efficiencies, new technologies, and conservation measures, those savings should be applied to future permit requests or relinquished to the state for redistribution or protection.

The function of the intake canals should be continually monitored with increased frequencies during critical spawning and migration periods. Studies have shown impingement or entrainment of fish, eggs, fry, etc. has been minimal on existing intake structures. GWF recommends the most efficient measures be added to existing and future intake structures to ensure the highest level of protections are afforded to all wildlife dependent on the Savannah River.

In-stream impacts (drought vs. normal rainfall events) should be monitored daily. Upstream and downstream impacts will be recognized and may result in the need for future impoundment releases designed to solve specific water supply problems. Downstream demand increasing stress on the river and lake habitats will likely be met with disapproval by local constituents, property owners, environmentalists, recreational users and fishermen. All efforts to avoid such water demand conflicts should be considered before issuance of this permit and beginning construction and power production.

In-stream water concerns include thermal exchange, dissolved oxygen values, and increased particulate concentration released directly into the river. Large quantities of water use combined with discharge impacts can negatively affect waste assimilative capacity and withdrawals significant distances down stream. Alternate sources of water should be considered to augment or offset river withdrawals, including accessing deep-water aquifers, re-use of treated wastewater, and the utilization of a "dry cooling" sealed re-circulation system. These and other alternatives should receive every consideration

and extensive and adequate scrutiny by local, state and federal agencies charged with protecting the public health, safety and welfare now and into the future.

Savannah River Dredging

Both rail and river barge transportation of the reactor units to the Plant Vogtle site appear to have been considered. For the river barge alternative, there is a projected need to dredge the Savannah River in as many as 15 locations. A rumor also exists that the U.S. Corps of Engineers has been asked to dredge a channel nine feet in depth over the entire distance from Savannah Harbor to the Plant Vogtle site.

The Board of Directors of the Georgia Wildlife Federation is opposed to dredging any portion of the Savannah River except as may be absolutely necessary to make a one-time trip up river for each reactor unit. Timed impoundment releases coordinated with high winter flows for transportation may avoid the need to dredge at all. In addition, the Georgia Wildlife Federation has learned that a de-commissioned reactor unit was recently delivered up the river to the Savannah River L-Reactor site for permanent storage. This barge had to pass the Vogtle site for this delivery. Therefore, there is significant evidence that the proposed Vogtle reactors can be delivered without dredging. Barge transportation must avoid critical migration and spawning seasons and areas identified by the Georgia Department of Natural Resources, Wildlife Resources Division, Nongame and Conservation Section as significant or sensitive wildlife areas. The limited opportunity to combine high winter flows with sufficient release may sufficiently support limited barge traffic, negating the need to dredge, and limiting the impact on fisheries and the environment, should the river barge alternative even be considered.

The Georgia Wildlife Federation appreciates the opportunity to submit these comments to the proposed addition of two nuclear reactor units for commercial power production at Plant Vogtle.

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