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License Renewal Division  
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Mail Stop T-6, D59  
U.S Nuclear Regulatory Commission  
Washington, D.C. 20555

RE: Environmental Impact Statement for the License Renewal Application for Edwin I. Hatch Nuclear Reactors I and II by the Southern Nuclear Operating Company and others.

#### COMMENTS OF CAMPAIGN FOR A PROSPEROUS GEORGIA

The following comments are filed by Campaign for a Prosperous Georgia (CPG) as part of the Environmental Impact Statement process for the License Renewal Application for Edwin I. Hatch Nuclear Reactors I and II by the Southern Nuclear Operating Company and others. The comments herein are a supplement to oral comments made by Rita Kilpatrick, May 10, 2000, before the NRC in Vidalia, Georgia.

CPG is a non-profit conservation and energy consumer organization headquartered in Atlanta with a field office located in Savannah. We are a statewide organization with members throughout Georgia and have focused on energy and nuclear concerns for 17 years.

#### Area of Vital Ecological Significance

The area where the Hatch nuclear plant is located in Appling County along the banks of the Altamaha River is an area of vital ecological significance to Georgia and the region. The livelihood of hundreds of thousands of people depends on this river and billions of dollars of resources from fisheries, agriculture, tourism, and other coastal activities are at stake here.

#### Earthquake Zone

One major concern is that Plant Hatch is located in an earthquake zone that threatens the public and the surrounding environment. On Jan. 18, 2000 there was an earthquake with a magnitude of 2.5-4 with the epicenter at Lake Sinclair. According to specialists at the Georgia Institute of Technology, there was no fault but rather a zone of weakness and these shifts occur regularly every 2-4 years. These shifts, in addition to the Charleston earthquake zone, would further threaten the operational integrity of the plant.

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### Vulnerability to Hurricanes and Wildfires

A major concern is that every decade in the 50's, 60's, 70's and 80's, a hurricane has crossed South Georgia. The NRC report "Effects of Hurricane Andrew on Turkey Point Nuclear Generating Station (August 20-30, 1992)" shows serious consequences. Also, the severe gridlock that has occurred during hurricane evacuations in Florida is comparable to the type of gridlock that would occur in the event of a catastrophic event surrounding Hatch.

In addition, wildfires pose a threat to the area. At present, there is a wildfire that firefighters are trying to contain near Waycross in South Georgia. As recently occurred at the nuclear facility in Los Alamos, wildfire forced the town and workers to evacuate the area. A similar or worse occurrence at Hatch would force worker evacuation and threaten plant and public safety.

### Natural Deterioration of the Plant

The plant is decayed and contaminated at present. This will worsen with time due to the deteriorating effects that radiation has on a nuclear plant. The Hatch reactors have a cracked core shroud, held together by steel braces which become brittle and corroded due to exposure to radiation. These have the potential to snap due to vibration leading to severe problems.

Continuous serious problems at Hatch that included automatic shutdowns (6-15-99, 6-28-99 and 1-26-00) are other examples of major problems, faulty equipment and aging machinery. The aging status of the plant and the lack of aging monitoring are of high concern to public safety.

Added concerns, which CPG supports, are identified in a May 3, 2000 petition filed by the Union of Concerned Scientists regarding aging effects due to radiation, specifically the degradation of liquid and gaseous radwaste systems.

### Unacceptable Contamination of Air, Water, and Land

There has already been unacceptable damage and risk to the immediate environment. Extending plant operations will worsen the situation.

During the December 3-4, 1986 spill of 141,500 gallons of highly radioactive contaminated water from the spent fuel pool resulted in 44,000 gallons of that contaminated water released between the reactor buildings and contaminated on-site soils, equipment, asphalt, walls, turbine buildings, control building, hot machine shop, nitrogen storage area among other locations. This was in part due to leaking seals, lack of attention to documented problems, equipment failures, inadequate licensee action, and inoperable leak detection systems, all of which resulted in the highly contaminated water also contaminating the river, sediment, wetlands (swamp) and would have seeped into the groundwater adding to the existing groundwater contamination from numerous prior events. Prior events include the 1979 failure of a pump seal in the condenser tank system that contaminated the local aquifer or the release of radioactive RHR service water system containing Manganese 54, Cobalt 60, Zinc 65, and Xenon 135.

State documents from 1999 confirm that Hatch has contaminated sediments in the Altamaha River. Radioactive contamination of sediments attributed to operations of Hatch have extended as far as Jesup and Darien.

Hatch is situated over a major regional limestone aquifer system of groundwater resources and the surrounding community relies on underground wells; therefore water quality and health are of top concern. One of the local aquifers near the plant is an unconfined Miocene/Pliocene aquifer (Hydrologic Atlas 18).

A June 2, 1995 Inspection Report shows that leaking fuel caused increases in radioactivity in liquid effluent dumped into the Altamaha River in 1994 and increases in particulate forms of radioactivity as gaseous effluents released to the air, including Cobalt 58, Cobalt 60, Zinc 65, Cesium 134, Cesium 137.

The absence of independent analysis on levels of radioactive contamination in the river and waterways is a high concern. Independent analysis is sorely needed. It should be noted that state analysis only involves cross-checking and cannot be considered independent analysis.

The NRC Docket shows the site has become a radioactive dump inadequately held together; for example, the wall thinning and pitting of the piping systems is so bad (resulting from conditions such as but not limited to flow-assisted corrosion and microbiological corrosion and radioactive decay products) that the Southern Company has sought relief to use alternative repair techniques which would result in adding more metals around the pipes to restore wall thickness rather than replacing the pipes, requesting permission to use an ASME-approved code which has not been incorporated into NRC regulatory guide 1.147 and thus is not available for application at nuclear power plants as the Southern Company has stated in its third 10-year interval Request for Relief RR-25.

Detailed inspection reports from 1999 alone showed multiple equipment failures that could have had serious consequences, including meltdown.

The Hatch licensee dumped radioactive contaminated sludge on the land since 1982 without ever surveying the sludge until May 1992, which would have seeped into groundwater (Jan. 8, 1993 Inspection Report). The State of Georgia was negligent as an agreement state in issuing National Pollutant Discharge Elimination System (NPDES) permits for disposing of sludge, which did not address measurements for or content of radioactive material in the sludge.

A practice existed for years of upending radioactive contaminated drums, so that the residue would drain onto the ground from the drums which held radioactive waste oil and water, contaminated the soil and an underground storage tank with Cobalt 60, Manganese 54, Zinc 65, and Cesium 137. Subsequently contaminated soil was removed, but it is unclear where it was taken. Although the contaminated underground storage tank was removed and stored on-site at Hatch, the groundwater and possibly workers would have been contaminated and this issue was never addressed (Special Report 1-sp-80-3 Contaminated Soil at Waste Oil Storage Area).

The dam on Lake Sinclair owned by the Southern Company was completed in 1953. This is an old dam and would not have been built to current specifications of a modern dam. A severe earthquake could break the dam, which would release a massive amount of water. The effect of dam breakage particularly in times of major flooding on the Oconee, Ocmulgee and Altamaha rivers could have catastrophic consequences not only to Hatch but to the Independent Spent Fuel Storage Installation (ISFSI) for high-level radioactive waste currently constructed next to the Altamaha River.

The NRC has revealed that the ISFSI casks will give off 125 millirems/hr on the side of the cask over pack and 85 millirems/hr on the top. This will stream to the environment and will further add to the radiological burden to people in the area and to the environment, including wildlife and migrating birds, at levels over and above already existing contamination and above daily releases of radioactive contamination to water and air, due to current plant operations.

Goat farms and families with goats located in and around Appling County face added risks because tritium has a high transfer factor (17 times higher for goat milk than for cow milk), according to study done for the U.S. Department of Energy.

#### Worker Contamination

After years of operation the licensee has problems refueling without contaminating workers and the surrounding site; for example, Mar. 12, 1990 Inspection Report where the particulate airborne Cobalt releases were 5.2 times the already high maximum permissible concentration in air and 17 individuals were contaminated (14 contaminated internally), the contamination events actually started in Aug. 1989 and continued until Jan. 1990 and the contamination of personnel, equipment, and fuel water was significant. Over the years the NRC has repeatedly put concerns in writing due to "the continuing radiological and contamination control deficiencies" yet the NRC has been ineffective in bringing corrective change.

#### Historic Preservation and Ecologically Significant Sites in the Wind Paths and Surrounding Area

The following, among other local historic and ecologically significant sites, would be lost forever in the event of a catastrophic accident:

- J. Clayton Stephens Museum of Local History located in an adjacent county where local history is assembled;
- The Little Ocmulgee State Park on the Little Ocmulgee River in McRae;
- Horse Creek Wildlife Management Area in the Ocmulgee proper;

- The Gordonia-Altamaha State Park at Reidsville;
- Altamaha River Bioreserve.

### Low-Income Population Impacts

There is not adequate attention to issues surrounding economic justice and the long-term, negative economic implications of Plant Hatch on the community. The area is being contaminated to the extent that the location is made undesirable for future economic development. This will only worsen with extended plant operations.

### Unacceptable Fatalities and Injuries in the Event of Serious Accident

If there were a meltdown, there would be an unacceptable number of immediate fatalities and peak early injuries due to radiation and additional unacceptable fatalities and injuries from an accident and meltdown in the radioactive spent fuel pool.

Hatch's aging reactors, spent fuel pool and proposed ISFSI pose unacceptable risks to people, agriculture and fishing in the surrounding area. It would constitute malfeasance and negligence on the part of the NRC to re-license this plant and to allow the storage cask scheme to go forward.

The licensee's analysis of severe accident mitigation alternatives is grossly deficient.

The Brookhaven National Laboratory study done for the NRC in 1997 determined that spent fuel accidents with a full storage pool as exists at Hatch would cause 101 prompt fatalities within a 500-mile distance, 138,000 latent fatalities and 2,170 square miles of land that could never be de-contaminated. According to other government documents, reactors of the Hatch GE Mark I type can begin to melt down in as little as 40 minutes due to known design deficiencies.

The lack of a traditional containment dome at Hatch adds to public health and economic risks.

### Increased Liability for Local and State Governments

The utility industry is undergoing dramatic change involving deregulation, plant sales, and company mergers that create an unstable and unsafe environment for nuclear plants and the surrounding communities. New companies that may purchase old facilities are often unaware of the historical record at nuclear plants. Southern Company, which operates the plant, is undergoing continual reorganization that heightens uncertainties. The company has encountered notable problems with risky investments in global expansion, as evident in reviewing the company's annual reports and filings with the U.S. Securities & Exchange Commission.

As nuclear companies close down and walk away from radioactively contaminated areas in the future, the liability for clean-up will fall on local governments to deal with the contamination at the site and in the surrounding area. There is no mechanism for remediation or responsibility for dealing with high levels of contamination that will only escalate with continued plant operations in the future and the site could fall to a "third party," most likely the state or municipality. Generation of more waste including the proposed 5000 additional assemblies will exacerbate growing liability to local governments.

#### Handling of Generic Industry Problems

We have concern that the NRC frequently categorizes problems as generic industry problems. We request that the NRC treat all problems and areas of concern raised about Plant Hatch in this re-licensing proceeding and others as "site specific problems," not generic industry problems.

#### Inadequate Analysis of Alternatives

The applicant's analysis of alternatives is inadequate and does not consider a viable set of alternatives. Also, the extent of economic analysis done on the alternatives is unclear in the application. Some alternatives are clearly not in the public interest nor the company's economic interest: (1) new coal, (2) new oil, and (3) new nuclear.

The most recent long-range Integrated Resource Plan for Georgia Power Company, approved by the Georgia Public Service Commission, identifies ways that the company plans to secure power supplies in the long term based on future, projected demand. It should be noted that this PSC-approved plan assumes that Hatch reactors will retire according to Hatch's original license in 2014 and 2018.

The applicant has not properly assessed the following renewable energy options:

(1) Wind power options: The applicant states that there are not adequate wind/ land resources in Georgia, and that wind is not an option. Land use maps indicate that the northeast corner of Georgia has small but good sites. It is important to note that throughout the U.S., many good sites are not on any resource maps. When energy developers are asked to find a resource at a reasonable price they seem to find the wind resource. The applicant could also negotiate with other companies to wheel wind power from other states. Off shore is a growing resource.

(2) Solar: The applicant states that solar is too expensive, and that Georgia does not possess adequate resources. The most cost effective photovoltaic (pv) applications are roof top and building integrated where distribution and reliability issues are addressed. Roof top pv and building integrated pv installations have no environmental impact.

(3) Geothermal: Geothermal heat pumps are a viable option in Georgia, already under development, with potential to expand significantly.

(4) Wood energy and biomass: The upgrade of inefficiency of current biomass plants should be considered. Also, agricultural waste, urban wood waste, and methane gas recovery from landfills should be considered.

Renewable energy supplies in combination with energy efficiency and cleaner generation (fuel cells, cogeneration, micro turbines, high efficiency gas, bio-fuels, etc.) can make a major, low cost impact on the applicant's dirty and unsafe generation profile. The do-nothing approach presented in the application is inadequate. There is a clear need to ramp up renewables, efficiency and cleaner generation today if customers future needs are to be met.

Similar to Americans nation-wide, Georgians are asking for clean air and clean water. The applicant parties can make this happen if they use economic leverage to support clean power. Regarding renewable energy programs, CPG urges that the Southern Company and its partners begin participation in the Center for Resource Solutions, a voluntary certification program that requires utility participants to follow specific guidelines that promote renewable resources. The goal of this program is to help regulated utilities offer programs to its customers to meet a high standard of public accountability. The Tennessee Valley Authority, which serves part of Georgia, launched a Green Power Switch program in April 2000 which give its customers the choice of paying a small premium to ensure that some of their electricity comes from non-polluting, renewable energy sources. We believe the applicant can significantly surpass TVA in "green power" development.

Attached herein is an excerpt from the Integrated Resource Plan by Georgia Power Company, filed in the past at the Georgia Public Service Commission for consideration in the company's long-range planning. Several of these programs were never implemented. Although current policy at the Georgia PSC requires a "ratepayer impact measures" screening test for energy efficiency programs to be approved for rate-based customer service programs, the company has in the past and currently has the ability to develop programs that go beyond the screening test. The company has had ample opportunity to develop its own energy-efficient programs for customers outside of rate-based approved programs. Unfortunately, to date, such programs have been designed primarily to build customer electric load which encourage usage at times that bolster nuclear supplies. This load-building effort is detrimental and should be abandoned, along with the pursuit of extended operations at Hatch.

Georgia is exporting power equivalent to that generated by Hatch. No analysis was presented about the contract terms and the potential for retaining the power in the state.

#### False Claims to be "Environmentally Clean"

The bravado with which the nuclear industry touts that nuclear power is "environmentally clean," including during the public hearings on Hatch re-licensing, requires that the record be set straight

about complaints raised to date. In 1998, the federal Better Business Bureau ruled that advertisements placed by the Nuclear Energy Institute on behalf of the nuclear industry were misleading and that the industry should "discontinue" its "inaccurate" statements. Last year, the Federal Trade Commission also agreed that the industry "failed to substantiate its general environmental benefit claims." Attached herein is the Federal Trade Commission's finding.

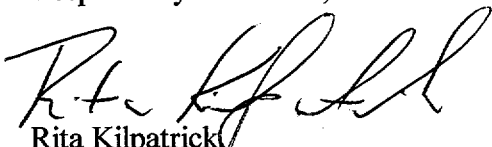
### Conclusion

Building a safe, affordable and efficient energy supply that provides safe jobs to the area is a top priority.

In closing, we request the following:

- rejection of the licensee's application to extend Hatch's operating life;
- clean-up of the contaminated areas;
- pumping of the radioactively contaminated groundwater;
- retrieval of all particulate radiation, in particular Cobalt 60 in sediment, sub-surface soil, groundwater, and river water both on site and in the Altamaha River and in any adjacent creeks, tributaries, wetlands, and swamps within and without the licensee's protected area;
- decontamination of all equipment, material and buildings on-site;
- adequate compensation of contaminated workers and any of the general public who may have been affected or whose well water may have been affected;
- and irreversible revocation of the plant license;
- a halt of the proposed Independent Spent Fuel Storage Installation.

Respectfully submitted,



Rita Kilpatrick  
Executive Director