

South Carolina Department of Natural Resources



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March 14, 2008

Mr. James M. Landreth
Vice President, Fossil and Hydro Operations
South Carolina Electric & Gas Company
111 Research Drive
Columbia, SC 29203

ATTENTION: Mr. Bill Argentieri

REFERENCE: Saluda Dam Hydroelectric Project (FERC Project No. 516) Draft License Application

Dear Mr. Landreth:

Personnel of the South Carolina Department of Natural Resources (DNR) have reviewed the *Draft License Application* (DLA) for the proposed relicensing of the Saluda Dam Hydroelectric Project (Saluda Project) submitted by South Carolina Electric and Gas Company (SCE&G) pursuant to requirements of the Federal Energy Regulatory Commission (FERC). As you know, DNR staff has participated in many meetings referenced in the application. SCE&G has demonstrated considerable interest identifying the relicensing objectives of DNR, and on behalf of the myriad of South Carolina (SC) natural resource users, this is appreciated.

DNR is the principle advocate for and steward of natural resources in SC. This agency is responsible for the protection, management and enhancement of wildlife and fisheries resources in SC pursuant to Titles 48 and 50, South Carolina Code of Laws (1976), as amended. DNR also is charged with regulating watercraft operation and associated recreation, including establishing boating safety standards. Title 49, South Carolina Code of Laws, (1976) as amended, authorizes DNR as the state agency responsible for considering water supply (domestic, municipal, agricultural and industrial) issues, water quality facilities and controls, navigation facilities, hydroelectric power generation, outdoor recreation and fish and wildlife opportunities, as well as other water and land resource interests. This title also charges DNR with aquatic plant management, comprehensive drought response planning and coordination, and the conservation,

protection and management of floodplain lands including those designated as State Scenic Rivers.

DNR relicensing management objectives were provided to SCE&G in written comments (August 15, 2005) addressing the Initial Consultation Document. The relicensing role of DNR includes identification of impacts to natural resources associated with project operations, and assistance in identification of methodologies for avoiding and/or minimizing those impacts to the environment and associated users. Where Saluda Project impacts cannot be avoided or minimized DNR will advocate that appropriate mitigation is warranted.

The DLA is well organized and represents the culmination of a significant body of work. The document includes the majority of the information needed to assess project impacts. Although some information needs including Instream Flow Study results and the Recreation Plan were not finalized when the DLA was issued, DNR staff have participated in Technical Working Committees (TWC) addressing these issues and have provided comments reflecting the most recent meetings. Protection, mitigation and enhancement (PM&E) measures also were not proposed for a number of resource areas and could not be evaluated. In this correspondence DNR comments have been prepared to:

1. Correct or clarify factual statements,
2. Evaluate how well any proposed PM&E measures address DNR management objectives, and
3. Propose additional PM&E measures consistent with DNR management objectives.

Specific Comments

Initial Statement

DNR submits no comments.

Exhibit A: Project Description

DNR submits no comments.

Exhibit B: Project Operations

Page B-1: Project operations are described in Section 1.0. The Saluda Project is a relatively large project operated as a reserve generation facility, which is different than a facility operated as a peaking or load following facility. Operating the Saluda Project as a reserve facility means SCE&G must be able to provide approximately 200 MW of electricity within 15 minutes to meet emergency electrical demand from either the applicant or the Virginia-Carolinas Electric Reliability Council. Utilization of the Saluda Project is the SCE&G preferred method of meeting reserve requirements and provides a reliable source of energy necessary to meet consumer demands. DNR submits operating as a reserve generation facility carries the same responsibilities for tail-water and downstream safety precautions, education and awareness as a

peaking facility. These responsibilities and precautions should be commensurate with the size of the hydroelectric project.

Environmental impacts associated with large hydroelectric projects must be considered and noted by DNR. These impacts include, but are not necessarily limited to:

1. Shoreline erosion,
2. Unstable riverine habitat,
3. Reduced dissolved oxygen in waters,
4. Blockage of fish migrations,
5. Downstream safety concerns, and
6. Increased non-point source pollutants resulting from development.

Page B-2: In Section 1.3 operations during adverse inflow conditions are listed. DNR recommends a proposed low inflow protocol be included in this section. The protocol should describe actions to be implemented during drought classifications ensuring water resources are conserved and equitably shared with all users.

Page B-5: Section 2.4 in the DLA is a placeholder for the reservoir guide curve to be provided in the final license application. The current Saluda Project License sets a minimum reservoir elevation of 345 ft Saluda Plant Datum (SPD) and a maximum reservoir elevation of 360 ft SPD. SCE&G normally operates the reservoir in the range of 350-358 ft SPD. Occasionally the reservoir is drawn down to near 345 ft SPD for vegetation control or maintenance. SCE&G sets target reservoir elevations for each month of the year using a guide curve, to allow for seasonal inflow variations. These target elevations may vary from year-to-year, depending on inflow available, maintenance activities, unit availability, etc. Under target elevations the lake typically reaches 358 ft SPD at the beginning of June. Beginning in September, water is released to achieve 350 ft SPD by December 31, refill begins around January 1, and water releases are coordinated in order to reach 358 ft SPD by June 1.

DNR has been party to discussions in the Recreation TWC to consider a guide curve that would keep the reservoir in the range of 354-358 ft SPD, with 358 ft SPD being reached by April 1 of each year and maintaining 358 ft SPD until the first Monday of September (to coincide with Labor Day) of each year. DNR concurs with targeting the operating level of Lake Murray between the 354 and 358 ft SPD as often as possible. However, there may be times when it is necessary to draw the reservoir down to 350 ft SPD, or less, for fisheries and/or aquatic plant management. Technical studies also conducted in the Water Quality TWC indicate lowering the water level on a regular basis may be very beneficial to protecting water quality. Maintaining or enhancing the water quality of Lake Murray is vital to aquatic resources and users, and DNR strongly supports any operational activities determined to be necessary to meet or exceed State water quality standards.

DNR notes maintaining a full pool during the fall and winter months, as opposed to lowering the reservoir, would be beneficial to annually migrating and wintering waterfowl. Drawing the reservoir down during winter isolates migrating and wintering waterfowl from using shallowly

flooded habitat along shoreline areas where desirable moist-soil and submersed aquatic vegetation can be located for waterfowl foraging opportunities.

DNR recommends the reservoir guide curve be maintained as proposed by the Recreation TWC with the exceptions provided in Section 1.3 of the draft license application, and that PM&E measures be identified and implemented to address loss of historic wintering and migrating waterfowl populations and recreational waterfowl hunting opportunities.

Exhibit C: Construction History

DNR submits no comments.

Exhibit E: Environmental Report

Page 2-4: The last paragraph on this page states the *fish growth study indicated that a significant and healthy trout fishery exists in the Lower Saluda River*. DNR recommends this wording be revised in the final license application. The study actually determined growth rates for trout during 2002-03, and it evaluated some biological factors potentially influencing trout growth rates. While the study did demonstrate the potential for excellent trout growth during the limited study period, the study did not measure any of the other factors, such as fish mortality, fishing effort and success or harvest measures. Understanding these factors also would be necessary in order to describe the fishery as *significant and healthy*.

Page 3-7: The paragraph addressing the mussel survey states *the field study documented 15 species of mussels occurring in Lake Murray, its tributaries, the Lower Saluda River (LSR), and the upper Congaree River*. This sentence implies mussels were collected in the LSR, and this is incorrect. It is suggested *LSR* be removed from the sentence, or clarified as in Section 3.9.4.

Page 3-26: Study results from the 2006 macroinvertebrate community study conducted on the LSR are summarized in Section 3.9.3. Results from the 2007 study were not available. The results of the 2006 study, which are similar to previous studies conducted in this area, demonstrate the near-field impact of hydroelectric projects on invertebrate communities. While invertebrate communities improve in both species richness and abundance as the distance of sampling stations increase from the dam, the current study shows that populations are depressed near the dam. While the implementation of instream flows may enhance invertebrate populations, mitigation may be necessary.

Page 3-27: Study results from the mussel survey are reported in Section 3.9.4. SCE&G conducted a comprehensive survey of mussels in the project vicinity. While mussels were documented in most of the survey areas, no mussels were located in the LSR. Results indicate habitat for mussels is wide-spread throughout the project area with the exception of the LSR, indicating habitat in the LSR has been impacted by the operation of the project. While the reasons for the absence of mussels in the LSR are not known, this provides an opportunity for restoration or mitigation.

Page 3-28: Section 3.9.5 notes the instream flow study conducted in the LSR. Since the completion of the DLA, the Instream Flow TWC on several occasions has evaluated the study results. A seasonal flow recommendation and a low flow recommendation was developed and submitted to the operations committee for modeling. Both recommendations reported out of the Instream Flow TWC are consistent with DNR management objectives and the State Water Plan.

Page 4-14: The section on existing measures to be continued and new measures proposed by the applicant for rare, threatened and endangered (RT&E) species in the project boundary or under project influence is incomplete. DNR suggests management plans for RT&E species in the project boundary or under project influence should be developed in coordination with the resource agencies, and RT&E management plans should be included as part of the license application. RT&E management plans should include the bald eagle (*Haliaeetus leucocephalus*) and wood stork (*Mycteria americana*), and DNR also recommends a management strategy and protection mechanism for the purple martin (*Progne subis*) island roosting site be developed.

Page 5-18: Section 5.2.2 describes the agreement to develop a memorandum of understanding between SCE&G and DNR to address aquatic plant management. This document should be developed and included with the final license application.

Page 5-21: Section 5.5 is incomplete in addressing existing measures to be continued and new measures proposed by the applicant for RT&E botanical species. DNR suggests a management plan be developed for RT&E botanical species, such as the rocky shoals spider lily (*Hymenocallis coronaria*) located within the Saluda Project and its area of influence.

Page 7-5: Section 7.2.1.1 addresses public access sites and describes 15 formal sites owned and managed by SCE&G. The facilities at 11 of these sites are not compliant with the Americans with Disabilities Act, and DNR recommends a recreation plan priority should be to upgrade these sites where applicable.

Page 7-19: Section 7.3.1 addresses existing recreational use. DNR is not surprised that boat and bank fishing were the highest recreational uses, and this agency indicates the recreation plan should prioritize facilities providing additional fishing opportunity and specifically for bank and pier based anglers.

DNR also recommends shoreline access to the LSR be enhanced. Additional access is warranted due to increasing numbers of recreational users, and additional access will augment safe ingress and egress from the river.

Page 7-23: Section 7.4 addresses adequacy of existing recreation sites to accommodate existing and potential future uses. Based on this information, with the exception of Rocky Point Creek, only the largest facilities (Billy Dreher, Dam Site, and Park Site) are operating within designed use and could accommodate additional use. The remaining 11 sites are approaching capacity or regularly meet or exceed design use capacity. Clearly, there is a strong need for additional recreational use capacity on Lake Murray.

Page 7-32: Section 7.6.1 addresses the scheduling of recreational flows. The Downstream Flows TWC has developed a proposed schedule for recreational flows for boating and wade fishing/swimming; this schedule is currently being reviewed by SCE&G. The proposal includes a request for the Saluda Project to be removed from its usual reserve operations on certain recreational flow days, particularly days scheduled for wade fishing/swimming. DNR is supportive of the TWC proposal and encourages SCE&G to adopt and implement the recreational flow schedule as soon as possible.

Page 7-34: In Section 7.6.1 a reference is made to the need to evaluate additional sirens and strobe lights in the LSR to warn recreational users of rising water levels. Due to frequent stranding events associated with hydroelectric operations, and the fact that there are areas of the river where the existing warning system is ineffective, DNR submits additional warning devices are warranted. Start-up of hydroelectric units also should be phased to ensure the rate of rising water does not exceed 0.02 feet per minute.

Page 7-38: Section 7.7.2 provides a description of the LSR Corridor Plan and the Plan Update, but it is not clear about the actual extent of the trail system proposed in the Plan Update. The Plan Update features a conceptual plan for a 10-mile greenway trail system along the north bank of the river connecting Saluda Shoals Park with Gardendale landing, Riverbanks Zoo, and Lake Murray Dam. A two-mile section of the Three Rivers Greenway, the proposed Saluda River Walk, is also included in Plan Update. DNR recommends SCE&G consider methods to support the development of the proposed greenway trails along the lower Saluda to provide additional public access to the river, as suggested above.

Page 7-42: Section 7.9 is a placeholder for the Recreation Plan. A final Recreation Plan was not completed when the DLA was finalized. Several Recreation TWC meetings have been conducted, since the DLA was issued, to discuss proposed recreational facilities and enhancements to existing facilities. SCE&G discussed recreational enhancements in a proposal dated March 3, 2008. DNR concurs with SCE&G that proposed recreational enhancements would address some of the recreational needs of the project. To assist in a full evaluation of the proposal, a schedule for these proposed enhancements should be developed. A time frame also should be developed to reconvene a stakeholder meeting to discuss additional recreational needs and to conduct the next recreational use and needs study.

DNR has enclosed (attached) a list of recommended recreational facility enhancements. It is requested the list be considered for implementation during the next license period. SCE&G also should consider designating the riverine area in the upper project as a featured paddling area. While motor watercraft should not and cannot be excluded from this area, any future boating access facilities could be designed for canoe and kayak users, and a restriction should be placed on the construction of docks on any SCE&G property.

Page 8-14: Section 8.3 is a placeholder for applicant proposed mitigation for lake and land management. DNR has been involved with the development of a revised shoreline management plan and guidelines. This agency also participated in numerous discussions directed toward rebalancing current shoreline management classifications. When considering rebalancing of

project lands, it is important to consider changes occurring during the current licensing period. According to the Saluda Project 1977 license application, there were approximately 15,000 acres of land within the project boundary. In 1977, when SC&G applied for the current operating license, approximately 5,800 acres had been sold, 2,700 acres were under easement for project uses, and 6,500 acres were held in fee simple.

Based on 2007 SCE&G management prescriptions, 7,944 acres of the 9,778 acres available for sale have been sold, leaving 1,834 acres in the Future Development classification.

Most of the project lands sold by SCE&G have been developed. Much of this development has resulted in direct natural resource impacts to the shoreline of Lake Murray. These impacts include but are not necessarily limited to:

1. Loss of native riparian vegetation
2. Armoring of land and water interfaces,
3. Installation of concrete boat ramps eliminating aquatic habitat,
4. Implied loss of the public use of project shore lands,
5. Increased non-point source pollutants such as sediment, nutrients and fecal coliform bacteria, and
6. Loss of a natural setting and view shed desirable by many citizens.

DNR has expressed concerns for a number of years to SCE&G and FERC that aesthetics, the shoreline habitat for fish and wildlife, and the opportunity for public recreation have been impacted by shoreline development. These natural resource and user impacts will worsen if adequate shoreline is not protected.

In a 2003 FERC Order, SCE&G was instructed to rebalance the existing land classifications. This rebalancing is being addressed in the Lake and Land Management TWC. Through this TWC, approximately 350 tracts in the remaining 1,840 acres currently classified as Future Development lands were reviewed and scored for economic and natural resource values. Natural resources valuation also included consideration for land and water access for passive recreational activities. Based on the evaluation, DNR and SCE&G each proposed a plan to rebalance lands in the Future Development classification.

DNR staff has reviewed the proposed management plan for future development property offered by SCE&G. The plan furnishes a much greater level of protection for natural resources than previously provided. The plan would be improved further by implementing the following recommendations:

1. Increase width of the proposed buffer from 75 to 100 feet,
2. Increase width of shoreline needed to acquire a dock from 150 to 200 feet,
3. Identify additional strategic properties on the main body of the lake to be protected from development,
4. Identify and provide a large tract of land adjacent to the project supporting traditional land and water based public recreation,

5. As ordered by FERC acquire, develop and fund an area to support the management of migrating and wintering waterfowl,
6. Extend the scope of the plan to address how SCE&G will manage its riparian lands and islands in the Lower Saluda Scenic River corridor, and describe how these areas will be protected from development over the new license period, and
7. Place all lands currently classified as Forest Management into Conservation Easement classification.

Exhibit F: General Design Information

DNR submits no comments.

Exhibit H: Miscellaneous filing material

On page H-2, a reference is made to the evaluation for the need of additional sirens and strobe lights to the Lower Saluda River to warn recreational users of rising water levels. Due to frequent stranding events associated with hydroelectric operations, and the fact that there are areas of the river where the existing warning system is ineffective, DNR submits additional warning devices are warranted. Start-up of hydroelectric units also should be phased to ensure the rate of rising water does not exceed 0.02 feet per minute.

Other

Term of the new license: DNR will recommend a license term that is commensurate with the adequacy that P, M and E measures address natural resource interests and allow for adaptive management during the term of the new license.

Conclusion

DNR appreciates the opportunity to provide comments regarding the DLA for the Saluda Project. It is trusted agency efforts have been constructive to the relicensing process, and that these comments will be deemed important in the task of moving forward. As you are aware, the DNR Project Manager for the Saluda Project is Dick Christie. If you or any of your staff have further questions regarding this correspondence or DNR participation in the process please do not hesitate to contact him at: Dick Christie; SCDNR; 1771-C Highway 521 By-pass South; Lancaster, SC 29720; 803-289-7022

Sincerely,

Robert D. Perry

Robert D. Perry
Director, Office of Environmental Programs

Mr. James M. Landreth
Saluda Project Draft License Application
March 14, 2008

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c: Amanda Hill USFWS
Pace Wilber NOAA-NMFS
Tony Bebber SCPRT

Attachment as stated

Facility Recommendations for the Saluda Project

Lexington County

#1 – Rocky Point Landing

- Pave access drive and existing parking area to eliminate the migration of sediments into the lake and to provide organized parking and traffic flow.
- Provide additional paved, organized parking on either the existing site or find close off-site parking.
- Create boating channel from ramp to access lake level 345' or find alternate site to access low water periods to replace this site.
- Provide an ADA accessible floating courtesy dock system to allow use at low lake levels.

#2 – Hilton Landing

- Rehabilitate the existing floating courtesy dock system to comply with ADA Standards for use at low lake levels.
- Provide hard surfaced walkway from parking area to fishing pier that meets ADA Standards.
- Improve access drive by paving to eliminate the migration of sediments into the lake and control dust.

#3 – Larry Koon Landing

- Provide ADA accessible fishing pier with hard surfaced walkway from parking area to fishing pier that meets ADA Standards.
- Widen existing driveway entrance to eliminate the “trailer drop” into the drainage ditch.
- Provide close, paved and striped overflow parking area.

#5 – Saluda Shoals Park Access

- Provide bank access area to deep water for fishing opportunities up-stream.
- Provide ADA accessible fishing pier with a hard surface area ADA accessible.

#6 – James Metts Landing

- Provide bank access area to deep water for fishing opportunities.

#7 – Lake Murray Dam Landing

- Rehabilitate the existing floating courtesy dock system to comply with ADA Standards for use at low lake levels.

- Provide ADA accessible fishing pier to allow deep-water fishing during lake drawdowns to level 345'.

Saluda River Canoe Access

- Provide bank access area to deep water for fishing opportunities.

#8 – Shull Island Ramp

- Rehabilitate existing ramp to access deeper water and provide steeper slope.
- Provide an ADA accessible floating courtesy dock system to allow use at low lake levels.
- Pave and delineate parking area to eliminate the migration of sediments into the lake and to provide organized traffic flow and parking.

Saluda County

#1 – River Bend Landing

- Pave and delineate parking areas to eliminate the migration of sediments into the lake and to provide organized traffic flow and parking.
- Provide hard surfaced walkway from parking area to fishing pier that meets ADA Standards.
- Rehabilitate the existing floating courtesy dock system to comply with ADA Standards for use at low lake levels.

#2 – Murray Shores Landing

- Delineate parking spaces and travel ways to allow for organized parking.
- Provide ADA accessible fishing pier with hard surfaced walkway from parking area to fishing pier that meets ADA Standards.
- Rehabilitate the existing floating courtesy dock system to comply with ADA Standards for use at low lake levels.
- Improve access drive by paving to eliminate the migration of sediments into the lake and control dust.

#3 – Lake Murray Estates Landing

- Pave and delineate parking area to eliminate the migration of sediments into the lake and to provide organized traffic flow and parking.
- Provide hard surfaced walkway from parking area to fishing pier that meets ADA Standards.
- Rehabilitate the existing floating courtesy dock system to comply with ADA Standards for use at low lake levels.

Newberry County

#1 – Sunset Recreation Area Landing

- Pave and delineate parking area to eliminate the migration of sediments into the lake and to provide organized traffic flow and parking.
- Rehabilitate the existing floating courtesy dock system to comply with ADA Standards for use at low lake levels.
- Provide hard surfaced walkway from parking area to fishing pier that meets ADA Standards.
- Eliminate drop-off conditions on sides of ramp either by adding stabilization material or rehabilitating the ramp.

Macedonia Church

- Do not understand this area. If SCE&G owns this area, they should provide at least (2) ADA accessible fishing piers with hard surfaced walkway from parking area to fishing pier that meets ADA Standards.

#3 – Billy Dreher Park Landings

- Assist SCPRT by rehabilitating the existing floating courtesy dock systems to comply with ADA Standards for use at low lake levels.
- Provide at least (2) ADA accessible fishing pier with deep-water access to lake level 345', with hard surfaced walkway from parking area to fishing pier that meets ADA Standards.

#5 – Kempson's Bridge Landing

- Rehabilitate the existing floating courtesy dock system to comply with ADA Standards for use at low lake levels.
- Provide hard surfaced walkway from parking area to fishing pier that meets ADA Standards.
- Provide additional paved, organized parking for vehicle/trailer use.
- Provide proper number of handicap parking spaces for both vehicle/trailers and car only spaces. There are currently none provided.

#6 – Higgins Bridge Landing

- Pave access drive and existing parking area to eliminate the migration of sediments into the lake and to provide organized parking and traffic flow. Access drive should allow for two-way traffic flow for safety concerns.