

**APPENDIX A**

**STAKEHOLDER CONSULTATION AND CORRESPONDENCE  
PART 3**

William B. Hendrix, Jr.  
18662 Newberry Road  
Blair, South Carolina 29015

January 28, 2015

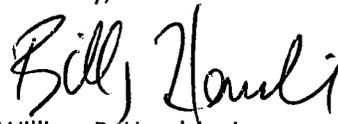
Mr. William R. Argentieri, P.E.  
Manager of Civil Engineering  
South Carolina Electric & Gas Company  
220 Operation Way  
Mail Code A221  
Cayce, South Carolina 29033-3701

Re: Relicensing FERC Project 1894

Dear Bill:

Pursuant to our last meeting, I have requested and received from FERC a copy of the Final Report of the Board of Consultant's for the above-referenced project. After reviewing the document, I still have some questions and would ask that you please help clarify them for me. The only report I see referenced is a report prepared by Gibbs and Hill entitled, "Lower Reservoir Operation Study," dated May 1978. Is this the same report as the "USGS Study" that you referenced in our last meeting as well as in the materials presented in your Companies meetings of September 19 and December 4, 2012? I would also ask that you confirm our conversations in our last meeting that the land acquisition for this project was based on an USGS Study. Finally, I would ask that you please provide me copies of these studies/plans.

Sincerely,

A handwritten signature in black ink that reads "Billy Hendrix". The signature is written in a cursive, slightly slanted style.

William B. Hendrix, Jr.



March 18, 2015

Mr. William B. Hendrix, Jr.  
18662 Newberry Road  
Blair, South Carolina 29015

Re: South Carolina Electric & Gas Company  
Parr Hydroelectric Project  
FERC Project No.1894  
Response to letter dated January 28, 2015

Dear Mr. Hendrix:

With this letter I am responding to your letter of January 28, 2015, in which you requested that South Carolina Electric & Gas Company (Company), as the licensee for the Parr Hydroelectric Project, FERC Project No. 1894 (Project), provide you with certain information and materials concerning the basis upon which the Federal Energy Regulatory Commission (FERC) established the Project boundary line (PBL) in the upper reaches of the Parr Reservoir in the vicinity of a tract of land which you own. From public meetings convened in 2012 as part of the ongoing FERC relicensing of the Project and from individual conversations with you in 2014, we understand that you consider that the PBL need not be set between the 275.3- and 276-foot contours in the upper reaches of the reservoir near your property.

As detailed below and consistent with our prior oral discussions, the PBL along the full length of the reservoir was established in conformity with the specific obligations set forth in the Project's license, and has been approved by FERC. For these reasons, there is no reason to revisit the matter.

The placement of the PBL was established in accordance with the requirements of the current license for the Project as issued by the Federal Power Commission (FPC), the predecessor agency to the FERC, in *South Carolina Electric & Gas Co.*, 52 FPC 537 (1974). The FPC's order authorized, among other things, the redevelopment of the Parr Dam and Reservoir and the development of the Fairfield pumped storage facility with its associated Monticello Reservoir. Included in the redevelopment of the Parr Dam was the installation of crest gates that raised the height of the dam. For your reference, a copy of the FPC's license order is enclosed.

For purposes of your inquiry regarding the PBL, Article 6 of the license directed that, within five years from the issuance of the license, the Company was to acquire title in fee or the right to use in perpetuity all lands, except those of the United States, necessary or appropriate for

the construction, maintenance, and operation of the Project. 52 FCP at 555. This is a standard obligation of all hydroelectric licenses issued under the Federal Power Act. Then, in Article 48(b) the FPC established specific minimal conditions concerning the level of the boundary for the Parr Reservoir by stating that the “lands encompassed by the project boundary shall include, but not be limited to . . . [s]horeline lands up to the 270 foot contour or up to 50-feet, horizontal measure, from the 266-contour of the [Parr] reservoir . . .” 52 FPC at 564.

In order to determine what properties would be affected by the operation of the Parr Dam with its new crest gates and be in compliance with Article 48, the Company obtained the assistance of the United States Geological Survey (USGS) to study the backwater effect of the crest gates. Related to this assessment is Article 39 of the license, which requires the Company to operate the Parr and Monticello Reservoirs in such a manner that the releases from the Parr Dam during flood flows are not to be greater than flows which would have occurred in the absence of the Project. Based on the requirements of Article 39, a flow in the Broad River of 40,000 cubic feet per second (cfs) was applied as the benchmark to determine a combination of backwater effects from natural river flows, the drawdowns from the pumped storage facilities, and the crest gates being lowered.

Using that stream flow, the USGS determined that the backflow up the Parr Reservoir would produce flood waters rising well beyond the minimum 270-foot contour level, set by license Article 48, to approximately the 278-foot contour. The backflow data was reflected on two sheets entitled “U.S.G.S. Backwater Profiles: Parr Hydroelectric Project No. 1894: South Carolina Electric & Gas Company.” Copies of those two sheets are enclosed with this letter.

With regard to the property that you have identified to the Company, please note on Sheet 2 of 2 and the rising graph lines between the line captioned “Enoree River” and the line marked “End of Project’s Influence.” You will note that at a flow of 40,000 cfs, the projected flood level rises from the 275.3-foot contour to approximately the 278-foot contour, at which point the backwater effect ceases.

Based on the flood levels projected by the USGS, the Company secured the necessary property rights to the lands along the shores of the Broad River that would be inundated at the 40,000 cfs river flow. By the autumn of 1977, the Company had purchased fee title to the lands lying on either side of the Broad River upstream from the confluence of the Broad and Enoree Rivers. The Company then prepared and filed with the FERC on June 26, 1981 a list of the property acquisitions, designated as Exhibit F, and the property maps depicting the PBL, designated as Exhibit K to the Project’s license. By order date August 19, 1981, the FERC approved both exhibits.

For your records, I am providing you with the FERC-approved Exhibit K, Sheet 1 of 20 (an overall map of the Project Area) and Sheet 15 of 20. Sheet 15 covers the area of your concern. On Sheet 15, you will observe the flood levels as transposed from the USGS

Mr. William B. Hendrix, Jr.  
Parr Hydroelectric Project, FERC Project No.1894  
Response to letter dated January 28, 2015  
Page 3

Backwater Profiles with the figures matching the USGS Station Numbers appearing on the upper left hand corner of Sheet 1 of Exhibit K.

In your letter of January 28, 2015, you inquired whether the Company could confirm that the report prepared by Gibbs and Hill, entitled "Lower Reservoir Operation Study," dated May 1978, is the same as the USGS study. While the Lower Reservoir Operation Study did include some consideration of possible flooding upstream of the Parr Dam, that study, undertaken in compliance with Article 39 of the license, was more concerned with the operation of the new crest gates and flooding downstream of the dam, all based on certain flooding scenarios. The study conducted by the USGS was concerned solely with the flooding above the dam. With regard for copies of those studies the Company has explored its archives and has discussed the matter with the USGS. That effort failed to locate any copies of the reports upon which the maximum power pool level was established, as reflected on Sheets 1 and 15 of Exhibit K.

As expressed at the beginning of this letter, the Company considers establishment of the PBL fully resolved. The Company has acquired all property rights along the shores of the Parr Reservoir and its tributaries which remain necessary for the operation and maintenance of Project No. 1894. The FERC has approved the placement of the PBL, and the Company does not see any need to revisit the issue at this time. Moreover, even if the Company were to see a need in the future to reexamine the placement of the PBL, any such change that might be approved by the FERC does not mean that the Company would necessarily convey such lands then outside of the PBL as excess property. Article 48 of the license, quoted above, does not preclude, but, in fact, recognizes the possibility of acquisition of lands beyond the minimal requirements of the license.

The Company appreciates your interest in the relicensing of the Project, and trusts that this letter has responded to the matters posed in your letter. If you have any further questions concerning the PBL, please contact me at (803) 217-9162 or [bargentieri@scana.com](mailto:bargentieri@scana.com).

Very truly yours,



William Argentieri, Manager Civil Engineering  
Fossil/Hydro Technical Services

Enclosures

c: H. E. Delk/PH File  
J. H. Hamilton/ J. Stuckey

# HEINONLINE

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Before Commissioners: John N. Nassikas, Chairman; Albert B. Brooke, Jr., Rush Moody, Jr., William L. Springer and Don S. Smith.

SOUTH CAROLINA ELECTRIC & GAS COMPANY, PROJECT NO. 1894

ORDER ISSUING NEW LICENSE (MAJOR), AUTHORIZING PROJECT REDEVELOPMENT, PERMITTING USE OF PROJECT WATERS FOR CONDENSER COOLING PURPOSES, VACATING HEARING ORDER, AND PERMITTING WITHDRAWAL OF INTERVENTION

(Issued August 28, 1974)

On July 26, 1972, South Carolina Electric & Gas Company (Applicant) of Columbia, South Carolina, filed an amended application for new license requesting: (1) a new license under Section 15 of the Federal Power Act (Act) for the existing 14.9 megawatt (mW) Parr Hydroelectric Project No. 1894, (2) authorization to construct a 518.4 mW pumped storage development (Fairfield Pumped Storage Facility) which would utilize the enlarged Parr Reservoir as the lower pool, and (3) authorization to use the upper pool (Monticello Reservoir) of the Fairfield facility as a cooling impoundment for a proposed 900 mW nuclear steam-electric generating facility, known as Unit 1 of the V. C. Summer Nuclear Complex, for which a construction permit was issued by the Atomic Energy Commission in A.E.C. Docket No. 50-395 on March 21, 1973.

This amended application supersedes parts of the original new license application for the existing hydroelectric project filed June 19, 1969, and amended February 27 and November 16, 1970, as well as parts of a subsequent application filed September 30, 1971, and revised March 1, 1972, which embraces the concept of project redevelopment to include the Fairfield Facility and the use of water from the Monticello Reservoir for cooling purposes in connection with the V. C. Summer Nuclear Complex. Public notice of the June 19, 1969, new license application was issued January 14, 1971, with March 3, 1971, as the last day for filing protests or petitions to intervene. Notice was published in the *Federal Register* on January 23, 1971 (36 Fed. Reg. 1171). No protests or petitions to intervene were filed in response to such notice. Public notice of the amended application was issued November 1, 1972, with January 8, 1973, as the last day for filing protests or petitions to intervene. Notice of the amended application was published in the *Federal Register* on November 8, 1972 (37 Fed. Reg. 23750).

Petitions to intervene out-of-time were tendered for filing by Robert A. and Martha M. Westbrook on April 9, 1973, as amended August 3, 1973, and by W. R. Robinson on March 6, 1974. By orders issued October 4, 1973, and April 23, 1974, the respective petitions to intervene were accepted for filing and granted.

On September 7, 1973, W. R. Robinson and Robert A. and Martha M. Westbrook were served with a copy of the Draft Environmental Impact Statement and a copy of Commission Order No. 415-C, 18 CFR § 2.81 (1974), 48 FPC 1442. No comments were received in response to the Draft Environmental Impact Statement from the intervenors.

By our order issued in this proceeding on August 9, 1974, we set a hearing on the application and permitted the withdrawal of the petition to intervene filed by W. R. Robinson. Subsequent to our order of August 9, 1974, John D. McLeod, attorney for intervenors Robert A. and Martha M. Westbrook, by a telegram dated August 16, 1974, requested that the Westbrook's petition to intervene be withdrawn. On August 19, 1974, Applicant filed a motion for reconsideration of our order of August 9, 1974.

We believe that Robert A. and Martha M. Westbrook should be permitted to withdraw their petition to intervene. In so doing, we realize that the controversy which formed the basis of our previous order providing for hearing in this proceeding is no longer present. Therefore, we are also vacating those portions of our order of August 9, 1974, which provided for a hearing.

Notice of Availability of Commission Staff's Draft Environmental Impact Statement was issued on August 31, 1973, and published in the *Federal Register* on September 7, 1973 (38 Fed. Reg. 24418). Notice of Availability of Commission Staff's Final Environmental Impact Statement was issued on March 13, 1974, and published in the *Federal Register* on March 20, 1974 (39 Fed. Reg. 10486). On March 20, 1974, 10 copies of the Staff's Final Environmental Impact Statement were transmitted to the Council on Environmental Quality.

The redeveloped project will be located in Newberry and Fairfield Counties, South Carolina, on the Broad River a navigable water of the United States, approximately 26 river miles upstream from the City of Columbia, South Carolina. The project will affect lands of the United States within the Sumter National Forest. The project will include the existing and redeveloped works of the 14.9 mW Parr hydroelectric development which consists of a steel-frame brick powerhouse containing 6 generators rated at 2,480 kilowatts (kW) each, and provision for 2 additional units; a 2,715-foot-long dam composed of a 300-foot integrally constructed powerhouse section, a 300-foot earth dike, a 90-foot non-overflow section, and a 2,000-foot concrete overflow section, 35 feet high, with crest at elevation 257.0 feet mean sea level (m.s.l.), surmounted by Bascule gates; a 4,400-acre reservoir at maximum controlled surface elevation 266 feet, m.s.l., at the dam, extending upstream for 13 miles, having a useable storage capacity of 29,000 acre-feet in a drawdown of 10 feet, providing water for operation of the conventional hydroelectric development and serving as the lower reservoir of the Fairfield facility; and transmission and appurtenant facilities hereinafter described. The project further includes works of the Fairfield Pumped Storage Facility comprising the reservoir of the 14.9 mW Parr hydroelectric development heretofore described; the 6,800-acre Monticello Reservoir having a total capacity of 400,000 acre-feet at the 425-foot, m.s.l., maximum pool elevation, and a useable storage capacity of 29,000 acre-feet in an operating drawdown of 4.5 feet; four random-fill dams impounding Monticello Reservoir having lengths of 5,000, 3,400, 1,700, and 900 feet, each with crest at elevation 434 feet m.s.l.; a 400-foot-wide, 600-foot-long, intake channel in the south abutment of the 5,000-foot-long dam; a gated intake structure with invert at elevation 375 feet m.s.l. and four 800-foot-long, 26-foot-diameter, surface penstocks bifurcating into eight 18-foot-diameter concrete-encased penstocks; a semi-outdoor generating station (Fairfield Powerhouse) housing 8 reversible pump-turbine units, each having a minimum capacity of 83,000 horsepower at the minimum head of 150 feet, to be operated by remote-automatic, local-automatic, or local-manual control option, directly coupled to 8 motor-generators, each with a nameplate rating of 64,800 kW in the generating mode and 100,000 horsepower when operated as a motor; and transmission and appurtenant facilities hereinafter described. Recreational features of the project comprise a boat launching area adjacent to the crossing of Heller's Creek by County Road 28 in Parr Reservoir; a 300-acre subimpoundment to be created in the northern end of Monticello Reservoir having a public boat launching area with parking and sanitary facilities on land acquired for recreational purposes; a scenic overlook on the eastern shore of Monticello Reservoir with parking, picnic, and sanitary facilities; and appurtenant facilities.

The South Carolina Pollution Control Authority issued a Water Quality Certificate, pursuant to Section 401 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. §§ 1251-1376, 1341, by letter dated January 11, 1973, which stated that, assuming the operation of the 900 mW Unit 1 of the V. C. Summer Nuclear Complex, there is reasonable assurance that the construction and operation of the Monticello impoundment and the Fairfield Pumped Storage Facility will not violate applicable water quality standards. By letter dated February 13 1973, the South Carolina Pollution Control Authority issued a permit for the dredging of a tailrace canal for the Fairfield Pumped Storage Facility along Frees Creek. By letter dated June 26, 1974, the South Carolina Department of Health and Environmental Control stated that there is reasonable assurance that the redeveloped Parr Hydroelectric Development will not violate applicable water quality standards and stated its intent to certify this development.

Study of the existing and proposed structures indicates that the project, its structures and appurtenant facilities will be safe and adequate provided proper materials and accepted construction practice and procedure are used.

With respect to economic feasibility, even before the recent escalation of fuel costs<sup>1</sup> and lack of supplies, studies show that estimated annual project costs of the redeveloped project to include authorization to use Monticello Reservoir for cooling the proposed 900 mW Unit 1 of the V. C. Summer Nuclear Complex compare favorably to costs for a gas turbine alternative and are more feasible than either nuclear or other fossil fuel alternatives. Estimated annual project costs of the redeveloped project to include use of Monticello Reservoir for cooling a second potential 900 mW nuclear unit would make the project more economically feasible than any nuclear or fossil fuel alternative. Studies show that no other conventional and pumped storage hydroelectric sites located within the Applicant's service area are as economically feasible for development.

Pursuant to Section 2.81 of the Commission's Rules then in effect, 18 CFR § 2.81 (1972), Applicant submitted an Exhibit W or environmental report. Based upon an independent analysis of information contained in this report, the Final Environmental Statement, Virgil C. Summer Nuclear Station of the Atomic Energy Commission dated January 25, 1972, and independent investigations by Commission Staff, Commission Staff compiled a Draft Environmental Impact Statement on the proposed project and circulated it among the interested Federal, State, and local agencies as well as to individuals and organizations for comment pursuant to Commission Order No. 415-C, issued December 18, 1972, 48 FPC 1442 (1972). After consideration and review of these comments, a Final Environmental Impact Statement was prepared by Commission Staff. On the basis of the information contained in the Staff Final Environmental Impact Statement and other data on file with the Commission, we believe that the beneficial effects to be derived from redevelopment of the Parr Project No. 1894 to include the use of Monticello Reservoir for cooling the 900 mW Unit 1 of the V. C. Summer Nuclear Complex, subject to the conditions hereinafter imposed, outweigh the adverse effects upon the environment. We discuss hereinafter the relevant environmental impacts which we have considered pursuant to Section 102(2)(C) of the National Environmental Policy Act of 1969, 42 U.S.C. § 4432 (2)(C).

Construction of the redeveloped Parr Project No. 1894 and the V. C. Summer Nuclear Station will result in the influx of a construction force of 1,800 workers,

<sup>1</sup> FPC Form 423 reports pursuant to 18 CFR § 141.61 (1974) show that fuel costs for the gas turbine alternative are more than twice as high as those costs used in the economic feasibility studies referred to in the Staff Final Environmental Impact Statement.

600 of which would be employed in connection with the construction of the Parr project. It is estimated that approximately 30% of the anticipated 1,800 workers are now living within a 25-mile radius of the project area. Since the majority of the remaining labor force would relocate in Columbia, South Carolina, the number of workers relocating in the project area will probably be small. Local area service facilities should absorb these workers without any great difficulty. After construction a small permanent increase in local population would result in connection with operation and maintenance of the project and the nuclear station. For the above noted reasons we do not believe that the disruption of local services and local businesses will be significant.

Disruption of traffic, schools, and school busing could occur during construction of the proposed project. State Highway 215 will be the primary road used in connection with construction. The Applicant has consulted with the South Carolina Highway Department and arranged for necessary improvements at two places of concern, the intersection of State Highways 213 and 215 and the entrance to the proposed nuclear station, to insure maximum highway safety. Furthermore, the Applicant has discussed with the School Bus Division of the South Carolina Department of Education, the need to arrange construction shift times and related travel in order to minimize conflicts with school bus schedules.

The major adverse impact on the area's human resources would result from the relocation of up to 25 families, 5 small cemeteries, and portions of State Route 215 and County Route 99 due to the inundation of 6,800 acres of land by the upper reservoir.

In the license this day issued, we are requiring Applicant to establish a relocation advisory service and to provide reasonable financial assistance for relocation purposes. With respect to the 5 cemeteries in the project area, we note that the Applicant has relocated and marked these cemeteries as stated in the South Carolina Department of Archives and History's letter dated October 20, 1972. While the relocation of State Route 215 and County Route 99 is unavoidable if the project is built, we note that County Route 99 will be relocated at Applicant's expense. Furthermore, we are requiring Applicant to provide access roads for those individuals not displaced by the project but adversely affected by the road relocations.

The inundation of the area within the proposed upper reservoir will result in the loss of 700 acres of agricultural lands. Agriculture is neither a major land use nor major source of income and constitutes only 17 percent of total land use in Fairfield and Newberry Counties. Furthermore, agricultural use has declined 4.3 percent in the period 1958 to 1967. Low fertility and high soil erodibility makes the land unsuitable for intertilled crops. Agricultural land is now used for small scale crop production or for pastureland.

In addition, 3,000 acres of pine plantations and 3,000 acres of mixed pine and bottomland hardwood will be lost by creation of the reservoir. The pine stands have commercial value as timber and pulp. The mixed pine and bottomland hardwood stands support commercial timber operations and provide wildlife cover and food. Fairfield County is the most heavily forested county in the State of South Carolina. Five major paper and pulp companies own 76,200 acres of forested land in Fairfield County. The Sumter National Forest comprises another 12,100 acres in Fairfield County. The volume of softwood harvested has increased considerably since the year 1958 while the hardwood harvest has decreased. Forestry is a major commercial resource adversely affected by the proposed project.

The installation of Bescule gates on top of the existing Parr dam will result in the inundation of 2,550 acres of bottomland hardwoods in Parr Reservoir. Additionally, 300 acres of national forest land presently used as a waterfowl management area would be lost. However, an existing quarry operation 10 miles upstream from the existing Parr dam would not be affected.

The proposed project would affect the Davis Plantation, a registered National Historic Site. The shoreline of the Monticello Reservoir would be 1,000 feet from the plantation at the nearest point. Views from the Davis Plantation would be changed from a view of rolling wooded hills to a view of water, which would include periodic mud flats, as noted below.

Two sites listed on the South Carolina survey of historic places, Fonti Flora and Monticello Church, will be in the area of the Monticello Reservoir. The South Carolina Department of Archives and History by letter dated October 20, 1972, stated that there would be no adverse effect on these historic properties. Four archaeological sites located in the project area would not be inundated. However, in view of the fact that some unknown sites may be inundated, we are providing for archeological survey and salvage excavations before construction and inundation.

The 4.5 foot daily fluctuation of the Monticello Reservoir would create mud flats when drawn down. However, less fluctuation and high water levels would be present on weekend days when the greatest recreational use would occur. More extensive fluctuation of water levels (10 feet) would occur on the Parr Reservoir. Mud flats of an average width of 375 feet would be created with the reservoir fully drawn down. This adverse visual impact would occur during early morning hours on weekdays and, more significantly, during the weekend period of greatest recreational use. However, the only views of the reservoir from roads would be at points where a secondary road crosses Cannon's and Heller's Creek. We believe the planting of selected species of plants will minimize the adverse visual impacts at both reservoirs and are so conditioning this license.

None of the species considered endangered in South Carolina by the United States Fish and Wildlife Service (America alligator, eastern brown pelican, southern bald eagle, Eskimo curlew, American ivory-billed woodpecker, Backman's warbler) are known to nest or reside in the project area. Some wildlife species, however, would be affected by the inundation of 2,550 and 6,800 acres for the Parr and Monticello Reservoirs, respectively.

Loblolly pine-hardwood forest and longleaf pine forest generally support 1 deer per 30 to 50 acres and 1 deer per 73 acres, respectively. South Carolina bottomland hardwoods, however, support 1 deer per 13 acres. Thus, the beneficial habitat and food producing characteristics of a bottomland hardwood environment are normally significant for whitetailed deer populations. We do not believe, however, that these general carrying capacities of South Carolina forests are representative of carrying capacities in the project area for the following reasons.

As noted in the Final Environmental Impact Statement, pine plantations, mixed pine-hardwood plantations, and hardwood forests are the three forest communities in the areas proposed to be inundated. The pine plantations contained a sparse understory. No shelter, forage, or browse is significantly available. Limited amounts of Walter's smilax, honeysuckle, blackberry, and dogwood are found; but no deer have been observed or trapped. Thus, the carrying capacity of the 3,000 acres of pine plantations to be inundated by the Monticello Reservoir is low.

The carrying capacity of the mixed pine and bottomland hardwood forest, on the other hand, is fair. Walter's smilax and sedge constitute the most abundant

browse for wildlife. Understory vegetation is diverse although none of the vegetative types can be considered abundant. This forest type, primarily located along Frees Creek, represents the best quality wildlife habitat in the project area and produces deer at or near the 1 deer per 30 to 50 acres carrying capacity heretofore noted.

The bottomland hardwood stands along the Parr Reservoir do not produce significant understory vegetation because these stands are mature and dense, thus restricting light penetration. Understory vegetation is most significant near railroad and transmission line rights-of-way, abandoned farm fields, and abandoned roads. However, these openings do not constitute a substantial portion of this area. The carrying capacity of this area is substantially less than 1 deer per 13 acres. Thus, the total number of white-tailed deer adversely affected by the inundation of Monticello and Parr Reservoirs will not be as great as would be expected on the basis of representative South Carolina standards.

Other game species found within the project area include rabbit, squirrel, quail, and dove. Wild turkeys were reintroduced into the adjacent Sumter National Forest during the years 1953 to 1956. Turkeys, singly and in small flocks, have been occasionally sighted in the project area. Opossum and raccoon were also noted in the project area. Populations of these species were low in the pine plantations. Only songbirds and small mammals (cotton mouse, golden mouse, short-tail shrew, pine vole) were observed. The mixed pine and bottomland hardwood areas contained opossum and raccoon. Small mammals were more abundant here than in the pine plantations. Songbirds were less abundant than in the pine plantations. The mature trees of the bottomland hardwood forest near Parr Reservoir produce an annual mast crop (acorns, seeds) which is primarily utilized by squirrel and turkey. Populations of other wildlife species do not appear to be significant due to the restricted light penetration previously noted.

Waterfowl have historically used the Broad River as a migratory flyway and meeting area. Fluctuations in the Parr Reservoir will not preclude use of the reservoir for feeding purposes either for resident or migratory waterfowl species.

Some wood duck nesting areas along Parr Reservoir will be eliminated by the 2,500-acre inundation. Wood duck is the only resident waterfowl species. The 10-foot daily fluctuation of Parr Reservoir will curtail successful shoreline nesting and rearing of wood duck young. More importantly, the inundation of lands in connection with Parr Reservoir will destroy 300 acres of Sumter National Forest used as a waterfowl management area, resulting in further loss of wood duck nesting habitat. The absence of suitable nesting habitat is a major limiting factor at present. Additionally, fluctuation of Parr Reservoir will adversely affect a small existing population of fur bearers.

We note that a memorandum of understanding between the Applicant and the South Carolina Wildlife and Marine Resources Department has been negotiated which provides for the dedication of 90 acres of suitable Broad River bottomland by Applicant for development as a greentree reservoir site. Additionally, Applicant has entered into an agreement with the United States Forest Service which provides for land exchanges between the parties, the dedication of a minimum of 90 acres for greentree reservoirs,<sup>2</sup> and the payment of money by Applicant to revise the Broad River Waterfowl Management Plan, with \$4,000 specified as the initial advance deposit. These agreements should minimize the adverse environmental impacts on waterfowl and furbearers.

The inundation of 2,550 and 6,800 acres for Parr and Monticello Reservoirs, respectively, will adversely affect wildlife populations to the extent that species migrating from the inundated areas could not be absorbed in adjacent areas. This

<sup>2</sup> A greentree reservoir, as defined in the agreement, is a reservoir with controlled fall and winter water levels surrounded by mast bearing hardwood forest species.

will occur if these areas have species populations at or near the carrying capacity of the area. If all adjacent areas have species population at or near the carrying capacity, species populations will be reduced by disease, starvation, or hunting pressure until a new ecological balance is established. In this context, we note that construction of the 1-mile-long Fairfield-Summer transmission tieline and relocation of a Duke Power Company Transmission line will also displace wildlife during the construction period. However, after the construction period, edge habitat management along these lines will provide a greater variety of food and cover for wildlife in these areas and thus mitigate to some extent adverse effects on wildlife. Furthermore, we note that extensive timber cutting operations in Fairfield and Newberry Counties will increase forest openings and understory vegetation. These operations increase the carrying capacity of the area for wildlife and increase the possibility that wildlife migrating from the project area can be absorbed in adjacent areas.

In the interest of further mitigating any potential adverse effects on waterfowl and wildlife, we are, however, requiring Applicant to file for Commission approval a waterfowl habitat mitigation plan as part of a revised Exhibit S in cooperation with the South Carolina Wildlife and Marine Resources Department and the United States Department of the Interior's Bureau of Sport Fisheries and Wildlife. We have also provided for the filing of a revised Exhibit S within 5 years after issuance of this license which shall set out a schedule for protecting and enhancing the fish and wildlife affected by the project. Finally, we are requiring Applicant to study the feasibility of constructing subimpoundments on Heller's and Cannon's Creeks for the purpose of providing recreational benefits, including additional waterfowl and wildlife habitat and to submit such study and any plans for implementation as part of its revised Exhibit R within one year after issuance of the license. These subimpoundments, if found to best serve public recreational needs, would be constructed in lieu of developing the 180.5 acre parcel on Heller's Creek and the 387 acre parcel near Fairfield Powerhouse for recreational purposes as proposed in the application. We believe the implementation of these memoranda of understanding and license conditions should mitigate most, if not all, of the adverse effects on wildlife and waterfowl heretofore noted.

The effects of proposed project operation on the aquatic environment include the effects of construction and operation of the Fairfield and Parr project components (water level fluctuations in both reservoirs; pumping operations) as well as the effects of operation of the V. C. Summer Nuclear Station. These effects are considered below.

During construction of the proposed project works, turbidity in the Broad River will increase and result in the reduction of rooted algae necessary to support higher food chain aquatic organisms. We are requiring Applicant to take reasonable measures to prevent soil erosion and stream siltation during construction of the project in order to minimize this short-term adverse environmental impact.

Operation of the proposed project is not expected to substantially increase soil erosion so as to result in siltation of Parr Reservoir. Such adverse effects will be more pronounced during the construction period and for a short time thereafter. The Applicant will be required to take all reasonable measures to prevent soil erosion and stream siltation caused by the operation and mainte-

nance of the project. Soil erosion should also be minimized by the planting of selected species of plants, heretofore noted.

Pumping operations at the Fairfield facility will cause an exchange of fish and associated aquatic organisms between reservoirs. A review of the species and populations of fish involved and, more importantly, the particular design of and operational mode for the pump-turbines shows that fish mortalities will not be substantial.

Daily fluctuations in the Parr Reservoir of the magnitude heretofore noted will adversely affect benthic organisms which are relatively immobile. Consequently, an increase in biomass and carrying capacity of Parr Reservoir will not be realized even though such an increase would normally be expected where 2,550 surface acres of aquatic habitat are created. Water level fluctuations in Monticello Reservoir will have a minimal effect on the spawning of nest building centrarchids. Spawning of largemouth bass and bluegill would be adversely affected by the decreased surface area caused by the 10-foot fluctuation of Parr Reservoir.

Operation of the Summer station will have a significant impact on the biota of Monticello Reservoir in the intake structure, heat exchangers, effluent discharge canal, and mixing zones. Impingement of fish on the cooling water intake screens will not be significant since approach velocities of water to and water velocities through these screens are sufficiently low. Fish impinged on the screen will be suffocated. Plankton and small fish will also be drawn through the screen. Thermal and mechanical stresses will be imposed on these organisms as they travel through the condenser system.

Significant mortalities will occur when reservoir temperatures are 80°F or higher. Such mortalities pose a serious threat to the viability of the reservoir's ecosystem where the volume of cooling water pumped through the condenser system is a significant part of that reservoir's volume. However, only approximately 0.5 percent of the reservoir's volume will be pumped through the condenser system daily. Assuming the worst possible temperature conditions and complete planktonic kills, this planktonic loss will be small when compared to the size of the reservoir's standing crop. We note that a mechanical cleaning system, rather than biocides, will be used to prevent condenser tubing fouling. This cleaning system will mitigate adverse impacts on plankton.

Thermal discharges from the Summer Nuclear Station will raise water temperatures in the discharge canal to a maximum of 113°F. The discharge canal and pond will occupy 40 acre-feet of water out of the 440,000 acre-feet volume of Monticello Reservoir. Surface temperatures in the mixing zone between the pond and the rest of the reservoir would be lethal to fish life, through subsurface temperatures in the mixing zone will be acceptable. Furthermore, fish will be able to avoid areas in the mixing zone with unfavorable temperatures.

Under the worst conditions of low water and high withdrawal rates, waters released from Monticello to Parr will be no greater than 3°F warmer than Parr Reservoir water. This temperature increment could alter the species diversity of aquatic organisms in Parr Reservoir in the vicinity of Frees Creek but will have no discernible impact on fish in Parr Reservoir or the Broad River downstream.

We note, however, a more serious potential problem with respect to thermal discharges. Fish are attracted to warm areas in reservoirs during the winter. Sudden decreases in temperature in these areas during the winter as a result of nuclear station shutdown on the Monticello Reservoir can result in significant fish mortality. Furthermore, these zones may adversely affect fish populations through changes in maturation time, disease resistance, behavior and metabolic

rates. Although the commercial and sport fishing in Monticello Reservoir is expected to be slight, we are providing that the Applicant monitor this particular aspect of the project operation for inclusion in the revised Exhibit S.

The adverse effects on water quality of chemical discharges from the nuclear station to Monticello Reservoir have been discussed in the Atomic Energy Commission's Final Environmental Statement. These chemical discharges were separated into the following categories: start-up wastes, floor drain and oil-contaminated wastes, ion exchange regenerant wastes, sewage and other sanitary wastes, and steam generator blowdown. We believe that none of these discharges would significantly alter water quality and adversely affect aquatic biota.

In light of these potential adverse environmental impacts on the water quality of project waters, we are requiring Applicant to monitor the water quality of Parr and Monticello Reservoirs at selected locations as set out in the Final Environmental Impact Statement. This monitoring program will be for a period of five years from the date of commencement of project operation. At the end of this period Applicant will be required to file a final report on the monitoring program, including recommendations for further monitoring and proposals for the maintenance and improvement of the aquatic environment.

Enlargement of Parr Reservoir will create conditions conducive to actinomycete growth and odor production by increasing the amount of organic nutrients. Odor problems in the Columbia municipal water supply were found by the U.S. Environmental Protection Agency to be caused by nutrients in the Broad River upstream from the Parr Reservoir. The maximum increase in temperature of water discharged through the Fairfield Facility will not greatly increase actinomycete development. As previously noted, this water temperature increase will be greatest in the vicinity of Frees Creek. This water will be diluted by waters of the Parr Reservoir so that no increase in water temperature and conditions conducive to actinomycete development would be apparent below Parr Dam. In any event, we are requiring Applicant to monitor odors in its water quality station downstream of Parr Dam and promptly alert the Columbia municipal water treatment plant personnel should musty odors be detected.

In addition, we are requiring Applicant to monitor dissolved oxygen, temperature, stream flow, conductivity, and pH at its water quality station downstream of Parr Reservoir on a continuous basis. We are also requiring Applicant to monitor turbidity and heavy metals on a monthly basis, or more often if found necessary.

Turning to recreational development, we are approving a 300-acre subimpoundment planned for the north corner of Monticello Reservoir. This subimpoundment will be only slightly affected by thermal discharges from the nuclear station and the periodic intermixing with turbid waters from the Monticello Reservoir. We note that the existing fishery in Parr Reservoir and the Broad River is classified as very poor due to turbidity. We are requiring Applicant to study and develop fish management plans to maximize the sport fishing potential of Parr Reservoir, particularly Heller's and Cannon's Creeks, and of the Monticello Reservoir subimpoundment. Development and implementation of satisfactory plans should offset any losses to the existing fishery.

We note that the 300-acre subimpoundment recreational facilities will be the first in Fairfield County. Problems may arise due to maximum use of the picnic area, and possible overuse of the fishing impoundment could occur within a short period of time. We are requiring the filing of revisions to the Exhibit R within one year from the date of the issuance of this license which will show

additional proposed recreational facilities. We believe recreational use of Frees Creek as proposed by Applicant will be inhibited by the combined effects of drawdown and rapid stream flow due to the operation of the Fairfield facility. However, as previously noted, we are further requiring Applicant to study the feasibility of constructing recreational subimpoundments on Heller's and Cannon's Creeks in lieu of developing the 180.5-acre recreational parcel on Heller's Creek and the 387-acre recreational parcel on Frees Creek near Fairfield Powerhouse. Required minimum flow releases averaging 800 cfs daily should adequately protect downstream public recreational use and development.

Construction and operation of the proposed project by Applicant will result in certain adverse effects which are considered unavoidable. The displacement of 25 families, the loss of 700 acres of agricultural and 8,550 acres of forest land, the influx of construction workers, and scenic and aesthetic changes are the primary unavoidable adverse impacts on the human environment. Approximately 9,400 acres of wildlife habitat will be lost. The extent and severity of the resulting displacement of wildlife to adjacent areas is presently unknown. As heretofore noted, we do not believe this adverse effect upon wildlife will be substantial.

Some unavoidable fish mortality will occur as a result of the operation of the Fairfield pump-turbines. Many aquatic organisms in the condenser cooling water for the V. C. Summer nuclear plant will be killed, especially in the warmer months of the year. However, as heretofore noted, we do not believe that the adverse impacts on aquatic organisms will be significant.

We have considered alternatives to the proposed project. The alternatives were: licensing of the redeveloped Parr project without allowing the use of Monticello Reservoir for condenser cooling purposes; licensing of the project with a smaller upper reservoir; denial of the application; Federal takeover of the project; power purchases from other systems; coal-fired and nuclear steamelectric plants; oil-fueled gas turbines; other conventional and pumped-storage hydroelectric projects; and conservation of energy.

Our review of the alternative sources of power production convinces us that they are less attractive than the proposed project. The adverse environmental impacts of such alternatives would include noise, visual impacts, emissions, and increased heat rejection. In addition, the operation of alternative thermal power sources would deplete even further the Nation's critically short fossil fuel supplies.

At the same time that we attempt to make the most efficient use of our non-depleting hydroelectric resources consistent with environmental protection, it is our opinion that electrical energy conservation practices are desirable and should be promoted vigorously. Though conservation cannot eliminate growth in energy demand and the need to expand electric generating capacity, such a program could effect a significant reduction in the need for new generating capacity over the next decade.

We believe that relicensing the redeveloped Parr Project best meets the standard of Section 10(a) of the Act. 16 U.S.C. § 803(a). That section requires that a project approved shall "be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of water power development, and for other beneficial public uses, including recreational purposes \* \* \*."

We have examined the question of comprehensive development in terms of resource conservation, water quality control, fish and wildlife protection, navi-

gation, coordination of project capacity with facilities in the region, and the economic consequence of takeover. With respect to water quality control, fish and wildlife protection, and navigation, we believe that relicensing with appropriate license conditions will adequately protect such resource values. The redevelopment of the Parr Project will also provide needed public recreation facilities.

We do not believe that Federal takeover of the existing project pursuant to Section 14 of the Act (16 U.S.C. § 807) would be in the public interest. Project No. 1894 subject to Federal takeover has an installed capacity of 14.9 mW. The substantial reconstruction proposed by Applicant includes a 518.4 mW pumped-storage facility and a 900 mW nuclear plant. The proposed redevelopment would not be subject to takeover. Applicant's redevelopment will maximize the energy-producing capacity of the region. For example, the installed capacity of the existing Parr Project amounts to approximately .49 percent of the Applicant's total system capacity for 1974, while the redeveloped Parr Project and associated V. C. Summer Nuclear Unit #1 would represent approximately 32 percent of the Applicant's system capacity for 1978.<sup>3</sup>

The Applicant is a member of Southeastern Electric Reliability Council (SERC). Elimination of the Parr Project from the Applicant's system would decrease member reserves, and consequently, system reliability. Without the Parr redevelopment, it is estimated that Applicant's system reserve for 1978 would be about 6.9 percent versus 19.8 percent with redevelopment which compares favorably with the planned reserve capacity for SERC.

There are no existing Federal projects within the Santee River Basin. The only Federal facilities within reasonable transmission distance are the Hartwell (264 mW) and Clark Hill (280 mW) hydroelectric projects, which are not available to fulfill the necessary pumping requirements. Thus, were the Federal Government to take over the existing plant and develop on its own an associated project with a similar capacity of 518.4 mW as proposed by the Applicant without the nuclear plant, there is no generation available from Federal projects to support its operation.

The Applicant estimates the fair value of the existing project to be \$15,000,000. As of June 30, 1971, it estimates its net investment at \$1,533,000 and reasonable severance damages in excess of \$190,000. The Applicant further estimates that the total amount due it upon Federal takeover would be approximately \$1,743,000.

Even assuming that takeover of this project would result in some additional income to the Federal treasury in excess of direct expenses, it would appear that any such amounts would be to some extent offset by the corresponding losses in Federal income taxes. In addition, the impacts upon local governments by reason of takeover would be substantial. Approximately 7 percent of Fairfield County's and 3 percent of Newberry County's annual tax revenues are attributable to the existing Parr Project. The estimated annual taxes contributed by the project to local, State, and Federal governments is \$214,000. It is estimated that the potential tax revenues and fees to local, State, and Federal governments after development and expansion would be \$1,000,000 annually.

The short-term use of the local environment as represented by a license period of up to 50 years would provide benefits in power generation, recreational use and economic growth. These benefits contrast, however, with the effects of the ecological alterations, heretofore noted, caused by the construction and operation of the project. For instance, the inundation of 2,550 additional acres of land by enlargement of the existing Parr Reservoir and construction of the

<sup>3</sup> Table 1-1, Final Environmental Impact Statement for South Carolina Electric & Gas Company, Project No. 1894, pages 1-5.

6,800-acre Monticello Reservoir would result in the relocation of as many as 25 families and loss of forest and agricultural resources and wildlife habitat. Notwithstanding these short-term local impacts, we believe the maintenance and enhancement of long-term productivity will best be achieved by devoting the land and water resources of the area to the highest use they are capable of supporting *i.e.*, the production of electric power.

The Parr Project will result in the irreversible and irretrievable commitment of those construction materials and supplies which will not be salvaged after their use, as well as water lost through evaporation from both Parr and Monticello Reservoirs. It will be possible to remove structures, drain the impoundment, and replant trees at the end of the license period. To the extent that the project area were not restored to its natural state, the elimination of forest land would also be an irretrievable commitment of resources.

By letter dated September 15, 1972, the Secretary of the Commission requested comments pursuant to Section 4(e) of the Act from appropriate Federal, State and local agencies on the amended application. Federal agencies were also requested to submit comments and recommendations on takeover of the project pursuant to Section 14 of the Act and Section 16.8 of the Commission's Regulations under the Federal Power Act. No recommendation for Federal takeover of the project has been received.

The U.S. Department of the Army, Corps of Engineers (Corps), by letter dated December 14, 1972, stated it had no objection to issuance of a license. The Corps discussed the possible effect which the proposed 9-foot increase in the elevation of Parr Reservoir would have on a potential upstream Federal development, known as the Blairs Project. The Blairs Project was recommended in a plan for development of the Santee River. S. Doc. No. 189, 78th Cong., 2d Sess. (1944). The Corps stated that construction of this facility in the near future was unlikely. Furthermore, the redeveloped Parr Project would not significantly affect plans for redevelopment of the Santee River Basin. Therefore, the Corps stated that it had no objection to issuance of the license containing the usual conditions for the protection of the public interest. The Corps has approved the plan of the Parr Dam as it affects navigation by letter dated May 1, 1974.

The U.S. Atomic Energy Commission by letter dated December 13, 1973, which transmitted a copy of its Draft Environmental Impact Statement and a copy of its Safety Evaluation Report for A.E.C. Docket No. 50-395, stated that no license conditions to protect the interests of the Atomic Energy Commission were recommended.

The U.S. Department of the Interior (Interior) by letter dated June 15, 1973, stated that the proposed project will not directly affect any existing or proposed units of the National Park System or any sites that are eligible or recommended for registration as National, Historical, Natural, or Environmental Education Landmarks. Interior did recommend against issuance of a license until an acceptable Exhibit S is filed. We believe the public interest will be better served by issuance of the license with provision for the filing of a revised Exhibit S pursuant to Article 54 of the license. Such a revised Exhibit S will be based on the results of the comprehensive long-term post operational monitoring programs which will determine the effects on fish and wildlife. The availability of this information will enable us to further protect and enhance fish and wildlife in the area as may be necessary or appropriate.

Interior also discussed the impact of the redeveloped Parr project on a potential downstream Federal development, known as the Frost Shoals Project.

S. Doc. No. 189, *supra*. We note that there is no present plan or schedule for construction of this facility.

Interior further objected to the inclusion of the 55 acres of islands in the Monticello Reservoir for future recreational use since 20 of these acres are within a proposed nuclear exclusion zone. Atomic Energy Commission regulations state that "activities unrelated to operation of the reactor may be permitted in an exclusion area under appropriate limitations, provided that no significant hazards to the public health and safety will result." 10 CFR § 100.3(a) (1973). With appropriate safeguards we believe these islands may serve public recreational needs and are requiring their inclusion within the project boundary.

Interior stated that the 387-acre recreational parcel adjacent to Fairfield Powerhouse is inappropriate for recreational development due to the limited recreation capability of Monticello and Parr Reservoirs, lack of public access, proposed restricted public use of the Fairfield tailrace, transmission lines, railroad right-of-way, and steep and hilly topography. We are reserving decision on the suitability of the 387-acre recreational parcel pending the completion of a study which will compare the recreational advantages and disadvantages of this site and the 187-acre recreational parcel heretofore noted with possible subimpoundments on Cannon's and Heller's Creeks.

Finally, Interior requested that recreational lands extend a minimum of 200 horizontal feet from the high water mark. We are requiring Applicant to acquire in fee shoreline lands up to the 270-foot contour or up to 50 feet horizontal measure from the 266-foot contour, whichever is greater, on Parr Reservoir and shoreline lands up to the 430-foot contour or up to 50 feet horizontal measure from the 425-foot contour, whichever is greater, on Monticello Reservoir. This license condition will provide a strip of land 50 to 200 feet in horizontal measure along these reservoirs.

We do not preclude the possibility of requiring Applicant to acquire additional land for recreational purposes in the future. At this time, however, with the exception of those areas of intensive recreational use heretofore considered, we believe the acquisition of a strip of land 50 to 200 feet in width around the Monticello and Parr Reservoirs adequately protects the public interest. Other comments submitted by Interior have been addressed in the Final Environmental Impact Statement and considered by this Commission.

The U.S. Department of Agriculture, Forest Service (Forest Service) transmitted with its letter dated December 20, 1973, a Memorandum of Agreement between the Forest Service and the Applicant providing, in part, for the interests of the Forest Service. The details of this agreement have been heretofore noted. The Forest Service also suggested that a detailed development plan for the 300-acre subimpoundment be drafted which would include a parking lot for a minimum of 40 cars. We have conditioned the license to require the filing of such a detailed plan within one year from the date of issuance of this license. Finally, the Department of Agriculture recommended that the entire area within the triangle bounded by State Route 215, relocated State Route 99, and County Road 347 be considered for dedicating to public recreation in connection with the Monticello Reservoir subimpoundment. We are requiring that the Applicant include such land in the feasibility study to be filed pursuant to Article 45.

By letter dated November 7, 1972, the U.S. Department of Health, Education, and Welfare commented on the health aspects of proposed recreational facilities and recommended that the plans for sanitary facilities be submitted to the South Carolina State Board of Health for approval. In Article 43 we have

provided for the filing of a solid waste management plan approved by the appropriate State agency.

The U.S. Department of Transportation by letter dated November 9, 1972, noted that the enlargement of the Parr Project will have a minimal effect on the highway system but will require the relocation of portions of South Carolina Highway Route 99 and Route 215, both of which are included in the Federal Aid Secondary System of highways. The Department expressed concern regarding the cost of these road relocations. We note that legislation has been passed by the South Carolina General Assembly and approved by the Governor which provides for relocation of State Route 99 at Applicant's expense.

The South Carolina Water Resources Commission by letter dated December 12, 1972, stated that approval of the application would have less adverse environmental effects than its alternatives and urged the issuance of a license.

The South Carolina Recreation Commission by letter dated October 27, 1972, stated that they supported the project, primarily in light of the recreational benefits of the Monticello subimpoundment.

The South Carolina Department of Agriculture (Department) by letter dated November 3, 1972, stated that the benefits to be derived from the project far outweigh the adverse effects. The Department also stated that the adverse impact of the project on agriculture is not substantial.

The South Carolina Public Service Commission, the State Development Board, the South Carolina State Commission of Forestry, the Town of Winnsboro, the County of Newberry, and the City of Columbia by letters dated October 18, 1972, October 16, 1972, November 6, 1972, December 18, 1972, November 14, 1972, and November 16 1972, respectively, offered no objection to issuance of a license.

The South Carolina Department of Archives and History by letter dated October 20, 1972, commented on the project's effect on historical places and five small cemeteries. These comments have been addressed in this order heretofore.

The South Carolina Wildlife and Marine Resources Department (Department) by letter dated February 16, 1973, stated that a memorandum of understanding had been signed by the Department and the Applicant concerning water flow and land management. We have provided for minimum flow releases in Article 14 of the license.

The South Carolina Land Resources Conservation Commission (Commission) by letter dated December 22, 1972, offered no objection to the project. The Commission did recommend that an erosion control plan be developed to control erosion arising during and after construction. We have provided for these concerns in Articles 21, 40, and 47 of the license.

Applicant indicates that it plans at some future date to construct a second, and perhaps a third, 900 mW nuclear steam-electric generating unit. We note that the application for this project only includes a request for the use of the Monticello Reservoir "as a cooling impoundment for the proposed V. C. Summer Nuclear Complex (A.E.C. Docket No. 50-395)," and the only unit which was the subject of licensing before the Atomic Energy Commission was the 900 mW Unit 1 of the V. C. Summer Nuclear Complex. Although the Staff's Draft and Final Environmental Impact Statement considered the impacts of future nuclear units, we are approving in this license order only the use of Monticello Reservoir waters to cool the 900-mW Unit 1 of the V. C. Summer Nuclear Complex. If, in the future, Applicant desires to construct any steam electric generating plants on project lands or wishes to construct any plants which would utilize project waters for cooling purposes, then prior to construction it must file an appropriate application for Commission approval.

We believe that the subject matter of the instant application has been fully developed and considered by this Commission. These facts have been fully developed in the Draft Environmental Impact Statement and comments thereon, as set out in the Final Environmental Impact Statement, and other data on file with the Commission. Therefore, we do not believe that a public hearing will contribute any new and relevant information and conclude that it is not in the public interest to hold a hearing in this proceeding.

Turning to the transmission facilities connected with this project, we conclude that the generator leads and 2.3-kV lines for six units, the three 2.3/13-kV transformers at the hydro station, the 13-kV tie from the hydro station to the 72.5 mW Parr Steam Plant, the 2.3-kV tie from the hydro station to the nearby 2.3/23-kV Parr distribution substation, the 2.3/23-kV, 5,000 kVA transformer bank at the Parr distribution substation, and appurtenant facilities at the existing Parr Hydroelectric Project are primary lines within the meaning of Section 3(11) of the Act. At the Fairfield Pumped-Storage Facility, the generator leads, the step-up facilities, the two 230-kV lines from Fairfield Powerhouse to the V. C. Summer Nuclear Station switchyard, and appurtenant facilities are "primary lines". All other lines connected to the V. C. Summer Nuclear Station switchyard are part of Applicant's interconnected system.

We have previously noted that no recommendation for Federal takeover of the existing Parr Hydroelectric Project has been received. We believe, also, that a recommendation to Congress for Federal takeover of the project on our own motion, pursuant to Section 16.9 of the Regulations, would be inappropriate for the reasons discussed hereinbefore. For many of the same reasons we believe it would also be inappropriate to issue a non-power license on our own motion.

No conflicting applications for a license pursuant to Section 15 of the Act are pending before this Commission. We conclude on the basis of the facts before us that a new power license should be issued to the Applicant effective on the first day of the month in which this order is issued and terminating June 30, 2020. We believe that such a term is appropriate because of the substantial amount of new construction which will occur in connection with this redeveloped project. This also takes into consideration the operation of the project under annual licenses since July 1, 1970.

*The Commission finds:*

(1) The Parr Project No. 1894 affects lands of the United States and is located on a navigable waterway of the United States.

(2) The Applicant, South Carolina Electric & Gas Company, is a corporation incorporated under the laws of the State of South Carolina and has submitted satisfactory evidence of compliance with the requirements of all applicable State laws insofar as necessary to effectuate the purposes of a license for the project.

(3) Public notice of the filing of the application was given on November 1, 1972. Robert A. and Martha M. Westbrook and W. R. Robinson filed petitions to intervene out-of-time.

(4) The petition of Robert A. and Martha M. Westbrook and the petition of W. R. Robinson have been granted.

(5) Intervenors Robert A. and Martha M. Westbrook should be permitted to withdraw their petition to intervene. Therefore, a public hearing is neither warranted nor in the public interest.

(6) No conflicting application is before the Commission.

(7) The project does not affect a government dam, nor will the issuance of a license therefor, as hereinafter provided, affect the development of any water resources for public purposes which should be undertaken by the United States.

(8) Subject to the terms and conditions hereinafter imposed, the project is best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of water-power development, and for other beneficial public uses, including recreational purposes.

(9) The installed horsepower capacity of the project hereinafter authorized for the purpose of computing the capacity component of the administrative annual charge based on such capacity to be paid under the license for the project for the cost of administration of Part I of the Act is reasonable as hereinafter fixed and specified.

(10) It is desirable to reserve for a later date a determination as to the amount of annual charges for the use, occupancy and enjoyment of lands of the United States.

(11) The plans of the structures affecting navigation have been approved by the Corps of Engineers.

(12) The term of the license hereinafter authorized is reasonable.

(13) The following described transmission facilities which are included in the application for license, are parts of the project within the meaning of Section 3(11) of the Act and should be included in the license for the project: at the existing Parr Hydroelectric Project, the generator leads and 2.3-kV lines for six units, the three 2.2/13-kV transformers at the hydro station, the 13-kV tie from the hydro station to the 72.5 mW Parr Steam Plant, the 2.3-kV tie from the hydro station to the nearby 2.3/23-kV Parr distribution substation, the 2.3/23-kV, 5,000 kVA transformer bank at the Parr distribution substation, and appurtenant facilities; and at the proposed Fairfield Pumped Storage Facility, the generator leads, the step-up facilities, the two 230-kV lines from Fairfield Powerhouse to the V. C. Summer Nuclear Station, and appurtenant facilities.

(14) The Exhibits designated and described in paragraph (B) below conform to the Commission's Rules and Regulations and should be approved as part of the license for the project.

(15) The estimated cost of the redeveloped project compared to the estimated cost of suitable alternatives is reasonable.

(16) The Applicant has demonstrated satisfactory evidence that it has the necessary financial capabilities to undertake the redevelopment and operation of the project.

(17) No recommendation for Federal takeover has been received.

(18) Takeover of the existing Parr Hydroelectric Project No. 1894 is unwarranted at this time and it is appropriate and in the public interest to issue a new power license to Applicant subject to the terms and conditions hereinafter imposed.

*The Commission orders:*

(A) This license is hereby issued to South Carolina Electric & Gas Company (hereinafter Licensee) under the Act for a period commencing the first day of the month in which this order is issued and terminating June 30, 2020, for the redevelopment, operation and maintenance of the Parr Project No. 1894, located on the Broad River, in Fairfield and Newberry Counties, South Carolina, and which occupies lands of the United States within the Sumter National Forest, and further would affect navigable waters of the United States, subject to the terms and conditions of the Federal Power Act which is incorporated herein by reference as part of this license, and subject to such rules and regulations as the Commission has issued or prescribed under the provisions of the Act.

(B) The Parr Project No. 1894 consists of :

(i) all lands constituting the project area and enclosed by the project boundary, the limits of which are otherwise defined and/or interests in such lands necessary or appropriate for the purposes of the project, whether such lands or interests therein are owned or held by the Licensee or by the United States; such project area, project boundary, and other facilities being generally shown and described by certain exhibits which form part of the application for license and which are designated and described as follows :

*Exhibit J*: Sheet 1 (FPC No. 1894-25) filed September 30, 1971, revised March 18, 1974, and entitled: "General Area Map"

Sheets 2 and 3 (FPC Nos. 1894-26 and 27) filed September 30, 1971, revised March 18, 1974, and entitled "Operating Territory", showing Licensee's transmission system, power plant locations, and interconnections; and

*Exhibit K*: Sheet 8 (FPC No. 1894-44) filed March 1, 1972, revised July 26, 1972 and March 18, 1974, and entitled: "General Map of Project Area"

(ii) project works consisting of :

(a) Existing and redeveloped works of the Parr Hydroelectric Development consisting of : (1) a steel-frame brick powerhouse containing 6 generators rated at 2480 kW, each, and provisions for 2 additional units; (2) a 2715 foot long dam composed of a 300-foot integrally constructed powerhouse section, a 300-foot earth dike, a 90-foot non-overflow section, and a 2000-foot concrete overflow section, 35 feet high, with crest at elevation 257.0 feet, m.s.l., surmounted by Bascule gates; (3) a 4400 acre reservoir at maximum controlled surface elevation 266 feet, m.s.l., at the dam, extending upstream for 13 miles, having a useable storage capacity of 29,000 acre-feet in a drawdown of 10 feet, providing water for operation of the conventional hydroelectric development and serving as the lower reservoir of the pumped storage facility; and (4) transmission facilities composed of generator leads and 2.3-kV lines for six units, three 2.3/13-kV transformers at the hydro station, the 13-kV tie from the hydro station to the 72.5 mW Parr steam-electric plant, the 2.3-kV tie from the hydro station to the nearby 2.3/23-kV Parr distribution substation, and the 2.3/23-kV, 5,000 kVA transformer bank at the Parr distribution substation;

(b) The Fairfield Pumped Storage Facility, consisting of : (1) the Parr Reservoir which serves as the lower pool; (2) a 6800-acre upper pool (Monticello Reservoir having lengths of 5000, 3400, 1700, and 900 feet, each with crest at elevation pool elevation, and a useable storage capacity of 29,000 acre-feet in an operating drawdown of 4.5 feet; (3) four random-fill dams impounding Monticello Reservoir having lengths of 5000, 3400, 1700, and 900 feet, each with crest at elevation 434 feet, m.s.l.; (4) a 400-foot-wide, 600-foot-long, intake channel in the south abutment of the 5,000-foot-long dam; a gated intake structure with invert at elevation 375 feet, m.s.l.; and four 800-foot-long, 26-foot diameter, surface penstocks bifurcating into eight 18-foot-diameter concrete-encased penstocks; (5) a semi-outdoor type generating station (Fairfield Powerhouse) housing 8 reversible pump-turbine units, each having a minimum capacity of 83,000 horsepower at the minimum head of 150 feet, to be operated by remote-automatic, local-automatic, or local-manual control option, directly coupled to 8 motor-generators, each with a nameplate rating of 64,800 kilowatts in the generating mode and 100,000 horsepower when operating as a motor; and (6) associated transmission facilities including generator leads, the step-up facilities, and the two 230-kv transmission lines from Fairfield Powerhouse to the V. C. Summer Nuclear Station;

(c) Recreational features consisting of : (1) a boat launching area adjacent to the crossing of Heller's Creek by County Road 28 in Parr Reservoir; (2) a 300-

acre subimpoundment in the northern end of Monticello Reservoir having a public boat launching area with parking and sanitary facilities; and (3) a scenic overlook on the eastern shore of Monticello Reservoir with parking, picnic, and sanitary facilities; and

(d) Appurtenant facilities:

\* \* \* the location, nature, and character of which are shown and described by exhibits hereinbefore cited and by certain other exhibits which also form part of the amended application for license and which are designated and described as follows:

Exhibit L	FPC No. 1894-	Date filed	Showing
Sheet 2.....	36	Sept. 30, 1971	Fairfield Powerhouse and Switchyard Plans.
Sheet 3.....	46	Mar. 18, 1974	Section through Units, Fairfield Powerhouse.
Sheet 4.....	47	Mar. 18, 1974	Intake and Penstocks, Fairfield Powerhouse.
Sheet 5.....	39	Sept. 30, 1971	Frees Creek Dam.
Sheet 6.....	40	Sept. 30, 1971	One Line Electrical Schematic Diagram, Fairfield Powerhouse.
Sheet 7.....	41	Mar. 1, 1972	Parr Dam and General Layout.
Sheet 8.....	42	Mar. 1, 1972	Parr Powerhouse and Section through Units.
Sheet 9.....	43	Sept. 30, 1971	Sectional Plan of Parr Power Structure and One Line Electrical Schematic Diagram.

*Exhibit M:* Three typewritten pages entitled "Fairfield Pumped Storage Facility—Major Equipment", pages 1, 2, and 3 of 4 pages of Exhibit M filed July 26, 1972. One typewritten page entitled "Part Hydroelectric Facility—Major Equipment", page 4 of 4 pages of Exhibit M filed July 26, 1972.

*Exhibit R:* Eleven typewritten pages and two sketches (Typical Boat Launching Facility and Typical Overlook and Picnic Area—Exhibits R-1 and R-2, respectively) entitled "Recreation Use Plan" filed July 26, 1972; and one tracing, Exhibit R, Sheet 3 (FPC No. 1894-45) filed March 1, 1972, revised July 26, 1972, entitled "Proposed Recreational Development".

*Exhibit V:* Twenty-four typewritten pages of text entitled "Natural, Historic, and Scenic Values and Resources" filed July 26, 1972, and above listed Exhibit K, Sheet 8 (FPC No. 1894-44).

(iii) All of the structures, fixtures, equipment, or facilities used or useful in the maintenance and operation of the project and located within the project area, and such other property as may be used or useful in connection with the project or any part thereof, whether located on or off the project area, if and to the extent that the inclusion of such property as part of the project is approved or acquiesced in by the Commission; together with all riparian or other rights, the use or possession of which is necessary or appropriate in the maintenance or operation of the project.

(C) This license is also subject to the following terms and conditions:

*Article 1.* The entire project, as described in the order of the Commission, shall be subject to all the provisions, terms and conditions of the license.

*Article 2.* No substantial change shall be made in the maps, plans, specifications, and statements described and designated as exhibits and approved by the Commission in its order as a part of the license until such change shall have been approved by the Commission: *Provided, however,* That if the Licensee or the Commission deems it necessary or desirable that said approved exhibits, or any of them, be changed, there shall be submitted to the Commission for approval revised, or additional exhibit or exhibits covering the proposed changes which, upon approval by the Commission, shall become a part of the license and shall supersede, in whole or part, such exhibit or exhibits theretofore made a part of the license as may be specified by the Commission.

*Article 3.* The project works shall be constructed in substantial conformity with the approved exhibits referred to in Article 2 herein or as changed in accordance with the provisions of said article. Except when emergency shall require for the protection of navigation, life, health, or property, there shall not be made without prior approval of the Commission any substantial alteration or addition not in conformity with the approved plans to any dam or other project works under the license or any substantial use of project property; and any emergency alteration, addition, or use so made shall thereafter be subject to such modification and change as the Commission may direct. Minor changes in uses of project property or the project works or divergence from such approved exhibits may be made if such changes will not result in decrease in efficiency, in material increase in cost, in an adverse environmental impact, or in impairment of the general scheme of development; but any such minor changes made without the prior approval of the Commission, which in its judgment have produced or will produce any of such results, shall be subject to such alteration as the Commission may direct.

*Article 4.* Upon the completion of the project, or at such other time as the Commission may direct, the Licensee shall submit to the Commission for approval revised exhibits insofar as necessary to show any divergence from or variations in the project area and project boundary as finally located or in the project works as actually constructed when compared with the area and boundary shown and the works described in the license or in the exhibits approved by the Commission, together with a statement in writing setting forth the reasons which in the opinion of the Licensee necessitated or justified variations in or divergence from the approved exhibits. Such revised exhibits shall, if and when approved by the Commission, be made a part of the license under the provisions of Article 2 hereof.

*Article 5.* The construction, operation, and maintenance of the project and any work incidental to additions or alterations shall be subject to the inspection and supervision of the Regional Engineer, Federal Power Commission, in the region wherein the project is located, or of such other officer or agent as the Commission may designate, who shall be the authorized representative of the Commission for such purposes. The Licensee shall cooperate fully with said representative and shall furnish him a detailed program of inspection by the Licensee that will provide for an adequate and qualified inspection force for construction of the project. Construction of the project works or any feature thereof shall not be initiated until the program of inspection for the project works or any such feature thereof has been approved by said representative. The Licensee shall also furnish to said representative such further information as he may require concerning the construction, operation, and maintenance of the project, and of any alteration thereof, and shall notify him of the date upon which work will begin, as far in advance thereof as said representative may reasonably specify, and shall notify him promptly in writing of any suspension of work for a period of more than one week, and of its resumption and completion. The Licensee shall allow him and other officers or employees of the United States, showing proper credentials, free and unrestricted access to, through and across the project lands and project works in the performance of their official duties. The Licensee shall comply with such rules and regulations of general or special applicability as the Commission may from time to time prescribe for the protection of life, health, or property.

*Article 6.* The Licensee within five years from date of issuance of the license shall acquire title in fee or the right to use in perpetuity all lands, other than lands of the United States, necessary or appropriate for the construction, maintenance and operation of the project. The Licensee, its successors and assigns shall,

during the period of the license, retain the possession of all project property covered by the license as issued or as later amended, including the project area, the project works, and all franchises, easements, water rights, and rights of occupancy and use; and none of such properties shall be voluntarily sold, leased, transferred, abandoned, or otherwise disposed of without the prior written approval of the Commission, except that the Licensee may lease or otherwise dispose of interests in project lands or property without specific written approval of the Commission pursuant to the then current regulations of the Commission. The provisions of this article are not intended to prevent the abandonment or the retirement from service of structures, equipment, or other project works in connection with replacements thereof when they become obsolete, inadequate, or inefficient for further service due to wear and tear; and mortgage or trust deeds or judicial sales made thereunder, or tax sales, shall not be deemed voluntary transfers within the meaning of this article.

*Article 7.* In event the project is taken over by the United States upon the termination of the license, as provided in Section 14 of the Act, or is transferred to a new licensee or to a non-power licensee under the provisions of Section 15 of the Act, the Licensee, its successors and assigns will be responsible for and will make good any defect of title to or of right of occupancy and use in any of such project property which is necessary or appropriate or valuable and serviceable in the maintenance and operation of the project, and will pay and discharge, or will assume responsibility for payment and discharge, of all liens or incumbrances upon the the project property created by the Licensee or created or incurred after the issuance of the license: *Provided*, That the provisions of this article are not intended to require the Licensee, for the purpose of transferring the project to the United States or to a new Licensee, to acquire any different title to or right of occupancy and use in any of such project property than was necessary to acquire for its own purposes as Licensee.

*Article 8.* The actual legitimate original cost of the project, and of any addition thereto or betterment thereof, shall be determined by the Commission in accordance with the Act and the Commission's Rules and Regulations thereunder.

*Article 9.* After the commencement of operation of the project under the license, six percent per annum shall be the specified rate of return on the net investment in the project for determining surplus earnings of the project for the establishment and maintenance of amortization reserves, pursuant to Section 10(d) of the Act; one-half of the project surplus earnings, if any, accumulated under the license, in excess of six percent per annum on the net investment, shall be set aside in a project amortization reserve account as of the end of each fiscal year: *Provided*, That, if and to the extent that there is a deficiency of project earnings below six percent per annum for any fiscal year or years under the license, the amount of such deficiency shall be deducted from the amount of any surplus earnings accumulated thereafter until absorbed, and one-half of the remaining surplus earnings, if any thus cumulatively computed, shall be set aside in the project amortization reserve account; and the amounts thus established in the project amortization reserve account, including such amounts established under previous license or licenses, shall be maintained therein until further order of the Commission.

*Article 10.* For the purpose of determining the stage and flow of the stream or streams on which the project is located the amount of water held in and withdrawn from storage, and the effective head on the turbines, the Licensee shall install and thereafter maintain such gages and stream-gaging stations as the Commission may deem necessary and best adapted to the requirements; and shall

provide for the required readings of such gages and for the adequate rating of such stations. The Licensee shall also install and maintain standard meters adequate for the determination of the amount of electric energy generated by said project works. The number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, shall at all times be satisfactory to the Commission and may be altered from time to time if necessary to secure adequate determinations, but such alteration shall not be made except with the approval of the Commission or upon the specific direction of the Commission. The installation of gages, the ratings of said stream or streams, and the determination of the flow thereof, shall be under the supervision of, or in cooperation with, the District Engineer of the United States Geological Survey having charge of stream-gaging operations in the region of said project, and the Licensee shall advance to the United States Geological Survey the amount of funds estimated to be necessary for such supervision or cooperation for such periods as may be mutually agreed upon. The Licensee shall keep accurate and sufficient record of the foregoing determinations to the satisfaction of the Commission, and shall make return of such records annually at such times and in such forms as the Commission may prescribe.

*Article 11.* The Licensee shall install additional capacity or make other changes in the project as directed by the Commission to the extent that it is economically sound and in the public interest to do so, after notice and opportunity for hearing.

*Article 12.* The Licensee shall, after notice and opportunity for hearing, coordinate the operation of the project, electrically and hydraulically, with such other projects or power systems and in such manner as the Commission may direct in the interest of power and other beneficial public uses of water resources, and on such conditions concerning the equitable sharing of benefits by the Licensee as the Commission may order.

*Article 13.* Whenever the Licensee is directly benefited by the construction work of another licensee, a permittee, or the United States of a storage reservoir or other headwater improvement, the Licensee shall reimburse the owner of the headwater improvement for such part of the annual charges for interest, maintenance, and depreciation thereof as the Commission shall determine to be equitable, and shall pay to the United States the cost of making such determination as fixed by the Commission. For benefits provided by a storage reservoir or other headwater improvements of the United States the Licensee shall pay to the Commission the amounts for which it is billed from time to time for such headwater benefits and for the costs of making the determinations pursuant to the then current Commission Regulations under the Federal Power Act.

*Article 14.* The United States specifically retains and safeguards the right to use water in such amount, to be determined by the Secretary of the Army, as may be necessary for the purposes of navigation on the navigable waterway affected; and the operations of the Licensee, so far as they affect the use, storage and discharge from storage of waters affected by the license, shall at all times be controlled by such reasonable rules and regulations as the Secretary of the Army may prescribe in the interest of navigation, and as the Commission may prescribe for the protection of life, health, and property, and in the interest of the fullest practicable conservation and utilization of such waters for power purposes and for other beneficial public uses, including recreational purposes, and the Licensee shall release water from the project reservoirs at such rate in cubic feet per second, or such volume in acre-feet per specified period of time as the Secretary of the Army may prescribe in the interest of navigation, or as the

Commission may prescribe for the other purposes hereinbefore mentioned. Pending further order by the Commission on its own motion or at the request of others, including the State of South Carolina Wildlife and Marine Resources Department and the Fish and Wildlife Service of the U.S. Department of the Interior, after notice and opportunity for hearing, the Licensee shall :

(a) discharge from the Parr powerhouse during initial filling of the project reservoirs and during all months of the year, except March, April, and May, a minimum flow of 150 cfs and a minimum daily average flow of 800 cfs, or the daily natural inflow to the Parr Reservoir (less evaporative losses from the Parr and Monticello Reservoirs), whichever is the lesser amount; and

(b) discharge from the Parr powerhouse during the striped bass spawning season in the months of March, April, and May a minimum flow of 1,000 cfs or the average daily natural inflow into the Parr Reservoir (less evaporative losses from the Parr and Monticello Reservoirs), whichever is the lesser amount :

*Provided*, That Licensee shall take reasonable measures to determine the daily natural inflow to the Parr Reservoir : *Provided further*, That, whenever it is foreseeable that the daily natural inflow into the Parr Reservoir (less evaporative losses from Parr and Monticello Reservoirs) will be released, the Licensee shall promptly notify the State of South Carolina Wildlife and Marine Resources Department : *And provided further*, That such flows may be modified temporarily if required by operating emergencies beyond the control of the Licensee and for short periods for fishery management purposes upon mutual agreement between the Licensee and the State of South Carolina Wildlife and Marine Resources Department.

*Article 15.* On the application of any person, association, corporation, Federal agency, State or municipality, the Licensee shall, after notice and opportunity for hearing, permit such reasonable use of its reservoir or other project properties, including works, lands and water rights, or parts thereof, as may be ordered by the Commission in the interest of comprehensive development of the waterway or waterways involved and the conservation and utilization of water resources of the region, for water supply, or for the purpose of steam-electric, irrigation, industrial, municipal or similar uses. The Licensee shall receive reasonable compensation, at least full reimbursement for any damages or expenses which the joint use causes him to incur, for use of its reservoir or other project properties or parts thereof for such purposes, any such compensation to be fixed by the Commission either by approval of an agreement between the Licensee and the party or parties benefiting or after notice and opportunity for hearing. Applications shall contain information in sufficient detail to afford a full understanding of the proposed use, including satisfactory evidence that the applicant possesses necessary water rights pursuant to applicable State law, or a showing of cause why such evidence cannot be concurrently submitted, and a statement as to the relationship of the proposed use to any State or municipal plans or orders which may have been adopted with respect to the use of such waters.

*Article 16.* In the construction or maintenance of the project works, the Licensee shall place and maintain suitable structures and devices to reduce to a reasonable degree the liability of contact between its transmission lines and telegraph, telephone and other signal wires or power transmission lines constructed prior to its transmission lines and not owned by the Licensee, and shall also place and maintain suitable structures and devices to reduce to a reasonable degree the liability of any structures or wires falling or obstructing traffic or en-

dangering life. None of the provisions of this article are intended to relieve the Licensee from any responsibility or requirement which may be imposed by other lawful authority for avoiding or eliminating inductive interference.

*Article 17.* The Licensee shall, for the conservation and development of fish and wildlife resources, construct, maintain, and operate, or arrange for the construction, maintenance and operation of such reasonable facilities and comply with such reasonable modifications of the project structures and operation as may be ordered by the Commission upon its own motion or upon the recommendation of the Secretary of the Interior or the fish and wildlife agency or agencies of any State in which the project or a part thereof is located, after notice and opportunity for hearing.

*Article 18.* Whenever the United States shall desire, in connection with the project, to construct fish and wildlife facilities or to improve the existing fish and wildlife facilities at its own expense, the Licensee shall permit the United States or its designated agency to use, free of cost, such of Licensee's lands and interest in lands, reservoirs, waterways and project works as may be reasonably required to complete such facilities or such improvements thereof. In addition, after notice and opportunity for hearing, the Licensee shall modify the project operation as may be reasonably prescribed by the Commission in order to permit the maintenance and operation of the fish and wildlife facilities constructed or improved by the United States under the provisions of this article. This article shall not be interpreted to place any obligation on the United States to construct or improve fish and wildlife facilities or to relieve the Licensee of any obligation under this license.

*Article 19.* The Licensee shall construct, maintain and operate or shall arrange for the construction, maintenance and operation of such reasonable recreational facilities including modifications thereto, such as access roads, wharves, launching ramps, beaches, picnic and camping areas, sanitary facilities and utilities, and shall comply with such reasonable modifications of the project structures and operations as may be prescribed hereafter by the Commission during the term of this license upon its own motion or upon the recommendation of the Secretary of the Interior or other interested Federal and State agencies, after notice and opportunity for hearing.

*Article 20.* So far as is consistent with proper operation of the project, the Licensee shall allow the public free access, to a reasonable extent, to project waters and adjacent project lands owned by the Licensee for the purpose of full public utilization of such lands and waters for navigation and for outdoor recreational purposes, including fishing and hunting; *Provided*, That the Licensee may reserve from public access, such portions of the project waters, adjacent lands, and project facilities as may be necessary for the protection of life, health, and property. Licensee, in the interests of promoting optimum recreational use and protecting the scenic values of project lands and waters, may to a reasonable extent grant permits to individuals or groups of individuals for landscape planting on project lands, or for the construction of access roads, wharves, landings, and other similar facilities, the occupancy of which may, under appropriate circumstances, be subject to the payment of rent in a reasonable amount: *Provided*, That Licensee in granting such permits, shall require that permittees provide for multiple occupancy and use of such facilities, where feasible, and shall ensure that such facilities are constructed and maintained in such a manner so as to be consistent with shoreline aesthetic values: *Provided further*, That the Licensee, prior to the granting of said permits and construction of such facilities, shall file for Commission approval as part of its Exhibit R a master plan for the entire proj-

ect showing the location and typical design of such facilities and the use of project lands adjacent thereto. The master plan shall be prepared in conformance with the requirements of the then existing Rules and Regulations of the Commission.

*Article 21.* The Licensee shall be responsible for and shall take reasonable measures to prevent soil erosion on lands adjacent to any stream(s) or body of water, natural or artificial, and to prevent siltation of waters within the project or downstream or other forms of water or air pollution resulting from construction, operation or maintenance of the project. The Commission, upon request or upon its own motion, may order the Licensee to take such measures as the Commission may find to be necessary or appropriate for these purposes, after notice and opportunity for hearing.

*Article 22.* The Licensee shall install appropriate instrumentation and other devices to monitor seepage, uplift, and performance of the project structures and reservoir slopes. A plan of instrumentation and a schedule of recording instrument readings shall be filed with the Commission prior to initial filling of the upper reservoir. The Licensee shall furnish periodically to the Commission, as may be requested by the Commission or its authorized representative, a report and analysis of the instrument readings.

*Article 23.* Insofar as any material is dredged or excavated in the prosecution of any work authorized under the license, or in the maintenance of the project, such material shall be removed and deposited in such a manner that said removal and deposit will reasonably preserve the project environmental values and will not interfere with traffic, both land and water. Dredging and filling in a navigable water of the United States will be done to the satisfaction of the District Engineer, Department of the Army, in charge of the locality.

*Article 24.* Whenever the United States shall desire to construct complete, or improve navigation facilities in connection with the project, the Licensee shall convey to the United States, free of cost, such of its lands and its rights-of-way and such right of passage through its dams or other structures, and permit such control of pools as may be required to complete and maintain such navigation facilities.

*Article 25.* The operation of any navigation facilities which may be constructed as a part of or in connection with any dam or diversion structure constituting a part of the project works shall at all times be controlled by such reasonable rules and regulations in the interest of navigation, including the control of the level of the pool caused by such dam or diversion structure, as may be made from time to time by the Secretary of the Army.

*Article 26.* The Licensee shall furnish free of cost to the United States power for the operation and maintenance of navigation facilities at the voltage and frequency required by such facilities and at a point adjacent thereto whether said facilities are constructed by the Licensee or by the United States.

*Article 27.* The Licensee shall for the protection of navigation, construct, maintain and operate at its own expense such lights and other signals on fixed structures in or over navigable waters of the United States as may be directed by the Secretary of the Department in which the Coast Guard is operating.

*Article 28.* Timber on lands of the United States cut, used, or destroyed in the construction and maintenance of the project works, or in the clearing of said lands, shall be paid for and the resulting slash and debris disposed of in accordance with the requirement of the agency of the United States having jurisdiction over said lands. Payment for merchantable timber will be at current stumpage rates, and payment for young growth timber below merchantable size will

be at current damage appraisal value. However, the agency of the United States having jurisdiction may sell or dispose of the merchantable timber to others than the Licensee, with the provision that timber so sold or disposed of will be cut and removed from the area prior to or without undue interference with clearing operations of the Licensee and in coordination with his project construction schedules. Such sale or disposal to others will not relieve the Licensee of the responsibility for the clearing and disposing of all slash and debris from project lands.

*Article 29.* The Licensee shall do everything reasonably within its power and shall require its employees, contractors, and employees of contractors to do everything reasonably within their power, both independently and upon the request of officers of the agency concerned to prevent, make advance preparations for suppression, and suppress fires on the lands to be occupied or used under the license. The Licensee shall be liable for and pay the costs incurred by the United States in suppressing fires caused from the construction, operation, or maintenance of the project works or of the work appurtenant or accessory thereto under the license.

*Article 30.* The Licensee shall interpose no objection to, and shall in no way prevent, the use by the department or agency of the United States having jurisdiction over the lands of the United States affected, or by persons or corporations occupying lands of the United States under permit, of water for fire suppression from any stream, conduit or body of water, natural or artificial, used by the Licensee in the operation of the project works covered by the license, or to the intake by said parties of water for sanitary and domestic purposes from any stream, conduit, or body of water, natural or artificial, used by the Licensee in the operation of the project works covered by the license.

*Article 31.* The Licensee shall be liable for injury to, or destruction of, any buildings, bridges, roads, trails, lands, or other property of the United States, occasioned by the construction, maintenance, or operation of the project works or of the works appurtenant or accessory thereto under the license. Arrangements to meet such liability, either by compensation for such injury or destruction, or by reconstruction or repair of damaged property, or otherwise, shall be made with the appropriate department or agency of the United States.

*Article 32.* The Licensee shall allow any agency of the United States, without charge, to construct or permit to be constructed on, through, and across those project lands which are lands of the United States such conduits, chutes, ditches, railroads, roads, trails, telephone and power lines, and other means of transportation and communication not inconsistent with the enjoyment of said lands by the Licensee for the purposes of the license. This license shall not be construed as conferring upon the Licensee any right of use, occupancy, or enjoyment of the lands of the United States other than for the construction, operation, and maintenance of the project as stated in the license.

*Article 33.* In the construction and maintenance of the project, the location and standards of roads and trails on lands of the United States and other uses of lands of the United States, including the location and condition of quarries, borrow pits, and spoil disposal areas, shall be subject to the approval of the department or agency of the United States having supervision over the lands involved.

*Article 34.* The Licensee shall make provision, or shall bear the reasonable cost, as determined by the agency of the United States affected, of making provision for avoiding inductive interference between any project transmission line or other project facility constructed, operated, or maintained under the license,

and any radio installation, telephone line, or other communication facility installed or constructed before or after construction of such project transmission line or other project facility and owned, operated, or used by such agency of the United States in administering the lands under its jurisdiction.

*Article 35.* The Licensee shall cooperate with the United States in the disposal by the United States of mineral and vegetative materials, under the Act of July 31, 1947, 61 Stat. 681, *as amended* (30 U.S.C. § 601, *et seq.*) from lands of the United States occupied by the project or any part thereof: *Provided*, That such disposal has been authorized by the Commission and that it does not unreasonably interfere with the occupancy of such lands by the Licensee for the purposes of the license: *Provided further*, That in the event of disagreement, any question of unreasonable interference shall be determined by the Commission, after notice and opportunity for hearing.

*Article 36.* If the Licensee shall cause or suffer essential project property to be removed or destroyed or to become unfit for use, without adequate replacement, or shall abandon or discontinue good faith operation of the project or refuse or neglect to comply with the terms of the license and the lawful orders of the Commission mailed to the record address of the Licensee or its agent, the Commission will deem it to be the intent of the Licensee to surrender the license. The Commission, after notice and opportunity for hearing, may require the Licensee to remove any or all structures, equipment and power lines within the project boundary and take any such other action necessary to restore the project stream(s), lands, and facilities remaining within the project boundary to a condition satisfactory to the United States agency having jurisdiction over its lands or the Commission's authorized representative, as appropriate, or provide for the continued operation and maintenance of non-power facilities and fulfill such other obligations under the license as the Commission may prescribe. The Commission, in its discretion, may also terminate the license.

*Article 37.* The right of the Licensee and of its transferees and successors to use or occupy waters, over which the United States has jurisdiction, or lands of the United States under the license, for the purpose of maintaining the project works or otherwise, shall absolutely cease at the end of the license period, unless Licensee has obtained a new license pursuant to the then existing laws and regulations, or an annual license under the terms and conditions of this license.

*Article 38.* The Licensee shall, to the satisfaction of the Commission's authorized representative install and operate such signs, lights, sirens or other devices below the powerhouses to warn the public of fluctuations in flow from the project, and shall install such signs, lights and other safety devices above the spillway and powerhouse intakes, as may be reasonably needed to protect the public in its recreational use of project lands and waters.

*Article 39.* The Licensee shall operate the project reservoirs in such a manner that releases from the lower reservoir during flood flows shall be no greater than flows which would have occurred in the absence of the project.

*Article 40.* Licensee shall clear the project area in accordance with the Land Clearing Plan consisting of seven typewritten pages filed as Exhibit R-4 in the amended application filed July 26, 1972. Further, the Licensee shall avoid or minimize any disturbance caused by construction and maintenance of the project works to the natural, scenic, historical and recreational values of the area, blending project works with the natural view, and revegetating, stabilizing and landscaping any construction areas located outside the area of the project reservoir. Licensee shall clear and keep clear to an adequate width lands along

open conduits and shall dispose of all temporary structures, unused timber, brush, refuse, or other unneeded material resulting from the clearing of lands or from the maintenance or alteration of the project works. In addition, all trees along the periphery of reservoirs which may die during operations of the projects shall be removed. All clearing of the lands and disposal of the material shall be done with due diligence and to the satisfaction of the authorized representative of the Commission and in accordance with appropriate Federal, State and local statutes and regulations.

*Article 41.* The Licensee shall, prior to commencement of construction, consult with the University of South Carolina to determine the extent of any archaeological survey and salvage excavations that may be necessary prior to any construction activities and provide funds in a reasonable amount for any needed surveys or salvage excavations to be conducted and completed prior to construction and/or flooding, whichever is applicable.

*Article 42.* Licensee shall take such measures as may be necessary for control of vectors at the project and shall seek, in this regard, the recommendations of the South Carolina Department of Health and Environmental Control. In the event of Licensee's failure to undertake effective control measures, the Commission reserves the right to order, after notice and opportunity for hearing, Licensee to take appropriate measures for the control of vectors at the project.

*Article 43.* Licensee shall consult and cooperate with the South Carolina Department of Health and Environmental Control, and comply with local regulations in planning and providing for the collection, storage, and disposal of solid wastes generated through public access and use of project lands and waters and, within one year after the commencement of operation of the project, shall file with the Commission a solid waste management plan which has been approved by the Department of Health and Environmental Control. This plan shall provide: (a) the location of solid waste receptacles to be provided at public areas including campgrounds, picnicking areas, and boat access areas; (b) schedules of collection for the above receptacles; (c) provisions for including in the subject plan any public use areas as they are developed; and (d) disposal sites and methods of disposal.

*Article 44.* Licensee, following consultation and cooperation with the Bureau of Outdoor Recreation of the U.S. Department of the Interior; the South Carolina Wildlife and Marine Resources Department; and the South Carolina Department of Parks, Recreation, and Tourism, shall study the feasibility of constructing recreation subimpoundments (reservoirs with stable water surface elevations) with adjacent access or recreation areas at suitable locations on Cannon's and Heller's Creeks, or other arms of Parr Reservoir, in lieu of reserving and developing for recreational purposes the 180.5-acre parcel on Heller's Creek at County Road 28 and the 387-acre parcel opposite Fairfield Powerhouse, as shown on Exhibit R-3 (FPC No. 1894-45). Within one year following issuance of the license, Licensee shall file, for Commission approval, revisions of Exhibit R implementing findings of the study including, but not limited to, a schedule for development of (1) said 180.5-acre and 387-acre parcels for recreational purposes, or (2) said alternative recreation subimpoundments and adjacent recreation areas for fishing, waterfowl hunting, sightseeing, and other uses. Such revisions of Exhibit R shall conform to the Commission's then existing Rules and Regulations, including the economic effect of such development on project operation.

*Article 45.* Licensee, following consultation with the Bureau of Outdoor Recreation of the U.S. Department of the Interior and the South Carolina Department

of Parks, Recreation, and Tourism, shall within one year following the date of issuance of the license file, for Commission approval, revisions of Exhibit R showing: (1) appropriate site development plans, construction costs, and development schedules for the scenic overlook generally as shown on Exhibit R-2 approved herein, and (2) recreation facilities additional to those proposed for the Monticello subimpoundment boat launch area, to include water supply, picnicking, and additional parking facilities, following feasibility studies.

*Article 46.* The Licensee shall retain a Board of three or more qualified independent consultants who have not participated substantially in the design of the proposed project works, to review the design, specifications and construction of the project for safety and adequacy. Among other things, the Board shall assess the geology of the project site and surroundings; the proposed design, specifications, and construction of the dam, powerhouse, electrical and mechanical equipment involved in water control and emergency power supply; the construction inspection program; construction procedures and progress; instrumentation; the filling schedule for the upper reservoir and plans for surveillance during the initial filling. The Licensee shall submit to the Commission copies of the Board's report on each meeting. The Licensee shall also submit a final report of the Board upon completion of the project.

*Article 47.* The Licensee shall, during the construction and operation of the project, continue to consult and cooperate with the Bureau of Sport Fisheries and Wildlife, the South Carolina Wildlife and Marine Resources Department, the South Carolina Pollution Control Authority, and other appropriate environmental agencies for the protection and development of the natural resources and values of the project area. The Commission reserves the right, after notice and opportunity for hearing, to require such reasonable changes in the project and its operation as may be found necessary or appropriate to preserve and promote the environment of the project area, as provided herein by Articles 11 and 14.

*Article 48.* Licensee shall purchase in fee and include within the project boundary all lands necessary or appropriate for project operations, including lands for recreational use and shoreline control. The lands encompassed by the project boundary shall include, but not be limited to:

(a) All islands formed by the 226-foot contour of the lower reservoir and by the 425-foot contour of the upper reservoir.

(b) Shoreline lands up to the 270-foot contour or up to 50-feet, horizontal measure, from the 266-foot contour of the lower reservoir, whichever is greater; and shoreline lands up to the 430-foot contour or up to 50-feet, horizontal measure, from the 425-foot contour of the upper reservoir, whichever is greater: *Provided*, That the project boundary except with respect to land necessary or appropriate for recreational purposes, shall not exceed 200 feet, horizontal measure, from the 266-foot or the 425-foot contour, unless satisfactory reasons to the contrary are given:

*Provided further*, That the project boundary in the area of the V. C. Summer Nuclear Station shall be the 425-foot contour, as shown on Sheet 8 (FPC No. 1894), Exhibit K. Licensee within one year after completion of land acquisition shall file an Exhibit F and, for Commission approval, a revised Exhibit K.

*Article 49.* Following consultation with the South Carolina Wildlife and Marine Resources Department, Licensee shall file for Commission approval within six months after the date of issuance of the license its plans for a study to determine suitable plant species which would be tolerant to living in the alternately flooded and dewatered shoreline zones on Parr and Monticello reservoirs caused

by pumped storage operation of the project, for the purpose of preventing erosion and shoreline sedimentation, improving the scenic values, and improving the fish and wildlife habitat. Following completion of such study, Licensee shall file for Commission approval its proposals for implementing the findings of the study. The study report and implementation proposals shall be filed as revision to Exhibit V and shall include test plot plantings, follow-up evaluations, costs, and schedules.

*Article 50.* Licensee, for the purpose of monitoring and determining the quality of the aquatic environment of Parr Reservoir and Monticello Reservoir, including the 300-acre subimpoundment, so as to realize its full recreational potential, shall conduct a water quality monitoring program at selected locations for a period of five years from the date of commencement of project operation. Sampling shall be done at least monthly and include measurements of dissolved oxygen, pH, conductivity, temperature profiles, carbon dioxide, total dissolved solids, total alkalinity, total hardness, chloride, sulfate, phosphate, nitrate, BOD, COD, heavy metals, silica, calcium, magnesium, sodium, and turbidity. Annual progress reports and, within one year following conclusion of the monitoring program, a final report shall be filed showing the findings of this program together with recommendations of any need for further sampling or for proposals for maintenance or improvement of the aquatic environment to such reservoirs as shown to be desirable by the studies. The Commission reserves the right, after notice and opportunity for hearing, to require such reasonable changes in the project and its operation as may be found necessary or appropriate to maintain or improve the aquatic environment of such reservoirs, as provided herein by Articles 11 and 14.

*Article 51.* Licensee, at its water quality station in the Broad River downstream of Parr Reservoir, shall monitor on a continuous basis dissolved oxygen, temperature, stream flow, conductivity, and pH; and on a monthly basis, or more often if found necessary, turbidity and heavy metals. To assist the personnel of the Columbia, South Carolina, water treatment plant in the early detection of musty odors in Broad River waters, the Licensee shall include odor samples in its water quality monitoring program and, should musty odors be detected, promptly alert the Columbia water treatment plant personnel.

*Article 52.* The use of Monticello Reservoir as a source and repository of condenser cooling water for the 900-mW Unit 1 of the V. C. Summer Nuclear Station is hereby approved and authorized. If Licensee desires to use project lands or project waters for any other planned fossil fuel or nuclear steam-electric generating units, Licensee shall file for Commission approval an application for amendment of license, conforming to the then existing Rules and Regulations of the Commission, requesting authorization for such use or uses.

*Article 53.* The Licensee shall, in cooperation with the South Carolina Wildlife and Marine Resources Department and the U.S. Bureau of Sport Fisheries and Wildlife, conduct studies to determine the sport fishing potential of Parr reservoir and the 300-acre subimpoundment within Monticello reservoir, and shall develop appropriate fish management plans from these studies. Results of studies, proposals for any programs, and copies of any cooperative agreements shall be filed for Commission approval as parts of the revised Exhibit S.

*Article 54.* Following consultation and cooperation with the South Carolina Wildlife and Marine Resources Department and the Fish and Wildlife Service of the U.S. Department of the Interior, Licensee, within five years after issuance of the license, shall file for Commission approval a revised Exhibit S, prepared in accordance with the then existing Rules and Regulations of the Commission.

The revised Exhibit S shall include, *inter alia*, specific management plans with costs and implementation schedules, for the protection and enhancement of fish and wildlife resources affected by the project and shall be based on results of biological studies and post operational monitoring conducted to help determine such effect, as outlined in Licensee's Exhibit W. The plan shall also include plans for mitigation of waterfowl habitat loss and disruption of the Broad River Waterfowl Management Plan caused by the redevelopment of the project and shall consider the development of bottomland hardwood areas which can be shallowly flooded during hardwood dormant growth periods for the purpose of attracting waterfowl.

*Article 55.* Licensee shall, within one year following issuance of a license, file for Commission information an amendment to the Exhibit V, showing estimated costs of measures for preserving and enhancing the natural, historic, and scenic values and resources during the construction and operation of the project, as proposed in the Exhibit V.

*Article 56.* The Licensee shall make use of the Commission guidelines as issued in Order No. 414\* and other recognized guidelines for treatment of transmission line rights-of-way and shall clear such portions of transmission line rights-of-way across lands of the United States as are designated by the officer of the United States in charge of the lands; shall keep the areas so designated clear of new growth, all refuse, and inflammable material to the satisfaction of such officer; shall trim all branches of trees in contact with or liable to contact the transmission lines; shall cut and remove all dead or leaning trees which might fall in contact with the transmission lines; and shall take such other precautions against fire as may be required by such officer. No fires for the burning of waste material shall be set except with the prior written consent of the officer of the United States in charge of the lands as to time and place.

*Article 57.* The Licensee shall establish a relocation advisory service and give reasonable financial assistance to assist in the relocation of persons now located in the project area and to minimize any hardship to such persons arising from such relocation, and within six months of the date of issuance of the license and annually thereafter during the construction of the project, shall report to the Commission on the success of its efforts. The provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, 42 U.S.C. § 4601, *et seq.* shall be used as a guide to implement this article.

*Article 58.* The Licensee shall provide, or arrange for the provision of, an access road to the nearest existing or relocated highway for those persons not displaced by the project but who have lost any access to the highways relocated as a consequence of this project. The location of such access roads shall be determined after consultation with said persons. Each access road shall be of a type and construction equivalent to existing access roads used by said person and shall be constructed without expense to said person.

*Article 59.* The Licensee shall commence construction of the project within one year from the effective date of the license and shall thereafter in good faith and with due diligence prosecute such construction and shall complete construction of such project works within five years from the effective date of the license.

*Article 60.* The Licensee shall pay the United States the following annual charge effective the first day of the month in which the order issued :

(i) For the purpose of reimbursing the United States for the cost of administration of Part I of the Act, a reasonable annual charge as determined by the

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\* [Editor's note : Reported, 44 FPC 1491].

Commission in accordance with the provisions of its regulations, in effect from time to time. The authorized installed capacity for such purposes is 711,040 horsepower.

(ii) For the purpose of recompensing the United States for the use, occupancy, and enjoyment of Sumter National Forest lands an amount to be established at a future date, upon Commission approval of revised Exhibit K filed pursuant to Article 48.

*Article 61.* The terms and conditions expressly set forth in the license shall not be construed as impairing any terms and conditions of the Federal Power Act which are not expressly set forth herein.

(D) The exhibits designated and described in Paragraph (B) above are hereby approved and made a part of this license to the extent heretofore noted.

(E) Intervenors Robert A. and Martha M. Westbrook are hereby permitted to withdraw their petition to intervene.

(F) The hearing provided in our order of August 9, 1974, in this proceeding is hereby vacated.

(G) This order shall become final 30 days from the date of its issuance unless application for rehearing shall be filed as provided in Section 313(a) of the Act, and failure to file such an application shall constitute acceptance of this license. In acknowledgment of the acceptance of this license it shall be signed for the Licensee and returned to the Commission within 60 days from the date of issuance of this order.

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Before Commissioners: John N. Nassikas, Chairman; Albert B. Brooke, Jr., Rush Moody, Jr., William L. Springer and Don S. Smith.

TEXAS GAS TRANSMISSION CORPORATION, DOCKET NO. CP74-297

FINDINGS AND ORDER AFTER STATUTORY HEARING PERMITTING AND APPROVING  
ABANDONMENT OF FACILITIES

(Issued August 28, 1974)

On May 17, 1974, Texas Gas Transmission Corporation (Applicant) filed in Docket No. CP74-297 an application pursuant to Section 7(b) of the Natural Gas Act for permission and approval to abandon approximately 10.22 miles of its Scottsville 3-inch pipeline, together with certain measuring and regulating equipment associated therewith which were constructed in 1931, all as more fully set forth in the application in this proceeding.

Applicant proposes to abandon in place a 10.22-mile portion of its Scottsville 3-inch pipeline located in Warren and Allen Counties, Kentucky, and to salvage, at a value of \$258, associated measuring and regulating equipment. The facilities to be abandoned have deteriorated to the point where they cannot be operated and meet the requirements of the Natural Gas Pipeline Safety Act of 1968 (49 U.S.C. 1671, *et seq.*) and the regulations promulgated thereunder.

The subject facilities are currently used to supply 16 farm tap or rural customers of Western Kentucky Gas Company (Western Kentucky) in Applicant's Zone 3. Western Kentucky and all the farm tap customers have agreed to the proposed abandonment and the latter have made arrangements for alternate fuels. Applicant states that there will be no change in the contract demand or the quantity entitlements of Western Kentucky in Zone 3.





56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

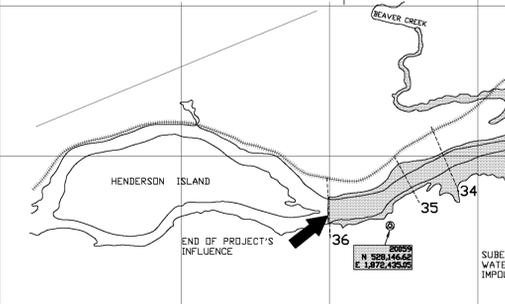
**PROJECT BOUNDARY LINE ELEVATIONS FOR PARR RESERVOIR (MINIMUM)**

USGS STATION NO.	DISTANCE FROM PARR DAM (FT.)	ELEVATION OF PROJECT BOUNDARY LINE (MINIMUM)	BASED ON
1	100	270.0	Flood of record (224,000 CFS) in river with Fairfield built but not operating. All Spillway Gates fully down.
2	1,000	270.0	
3	3,000	270.0	
4	6,000	270.8	
5	7,800	271.3	
6	9,850	272.1	
7	12,300	272.8	
8	14,600	274.1	
9	15,500	274.3	
10	17,700	275.3	
11	20,400	275.8	
12	25,700	276.7	
13	25,600	277.4	
14	30,600	279.2	
15	32,700	279.7	
16	35,300	270.0	40,000 CFS in river and all Fairfield units operating. All Spillway Gates fully down. (Table 4-AIS-21-74).
17	37,400	270.0	
18	40,100	270.0	
19	42,600	270.0	
20	45,300	270.0	
21	48,100	270.0	
22	49,800	270.0	
23	51,000	270.0	
24	53,600	270.2	
25	54,900	270.4	
26	55,100	270.5	
27	58,000	271.3	
28	61,000	272.2	
29	64,100	273.1	
30	66,800	274.1	
31	69,000	274.7	
32	71,600	275.3	
33	74,800	276.0	
34	76,600	276.5	
35	79,200	278.0 P.B.L. CLOSES HERE	
36	82,500	280.3	
37	87,400	282.1	
38	91,100	283.6	
39	94,800	285.6	

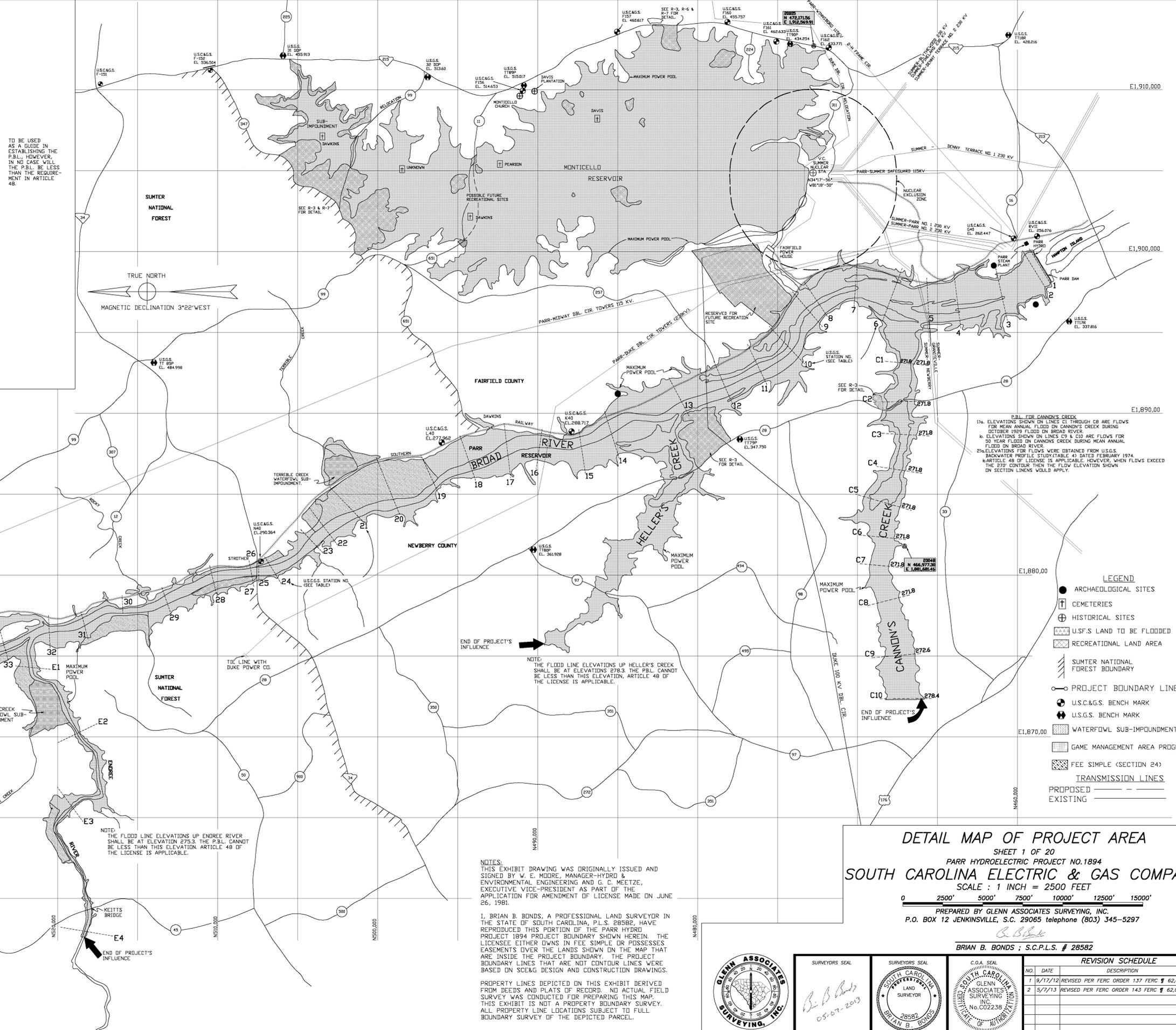
ARTICLE 48 OF THE F.P.C. LICENSE STATES THAT ON THE PARR RESERVOIR, WE SHALL DOWN IN FEE AND INCLUDE WITHIN THE P.B.L. ALL LANDS UP TO THE 270 FOOT CONTOUR OR UP TO 50 FEET, HORIZONTAL MEASURE, FROM THE 266 FOOT CONTOUR, WHICHEVER IS GREATER. ALL P.B.L. SHALL BE RUN IN STRAIGHT LINE SEGMENTS EQUAL TO OR SLIGHTLY GREATER THAN ELEVATIONS SHOWN. HOWEVER, THE P.B.L. SHALL NOT EXCEED 200 FEET, HORIZONTAL MEASURE, FROM THE 266 FOOT CONTOUR UNLESS IT CAN BE JUSTIFIED.

**Federal Acreage Occupied by the Project Boundary**

Drawing No.	Tract No.	Federal Acreage (Flowage Easement)	SCE&G Owned Section 24 Lands (Fee Simple)
K-14	193	-	72.14
K-17	198	17.88	-
K-15/16	200	120.55	25.35
K-14	211	-	26.13
K-13	213	-	28.26
K-10/13	214	-	390.65
K-17	226	3.09	-
K-16/17	227	12.52	-
K-17	232	3.14	-
K-17	248	0.33	-
K-17	264	0.93	-
K-15	266	0.05	-
K-10	271	4.12	-
Total		162.61	542.53



- NOTES:**
- ON THE MONTICELLO RESERVOIR & SUB-IMPONEMENT THE PROJECT BOUNDARY LINE IS GENERALLY A MAXIMUM 800 FEET FROM THE 450' CONTOUR EXCEPT IN RECREATIONAL AREAS OR DEEMED NECESSARY BY FIELD INSPECTION (SEE "K" SHEETS 2-20 FOR DETAILS).
  - THE P.B.L. AROUND PARR RESERVOIR IS GENERALLY ALONG THE FLOOD OF RECORD AS ADJUSTED FOR THE INFLUENCE OF PARR DAM, AS INDICATED ON TABLE THIS SHEET.
  - ALL LANDS WITHIN THE PROJECT BOUNDARY LINE ARE OWNED IN FEE SIMPLE BY SOUTH CAROLINA ELECTRIC AND GAS COMPANY, UNLESS OTHERWISE SHOWN ON K-2 THRU K-17.
  - PROJECT BOUNDARY LINE IS NOT SHOWN ON THIS SHEET, EXCEPT IN RECREATIONAL AREAS, BUT IS SHOWN IN DETAIL ON SHEETS K-2 THRU K-20.
  - ELEVATIONS SHOWN CORRECTED ACCORDING TO RECENT SURVEY BASED ON U.S.C&G.S.M.S.L.
  - SOUTHERN RR. R/W IS EXCLUDED FROM PROJECT, EXCEPT TO THE EXTENT OF FLOWAGE RIGHTS (SEE EXHIBIT "F").
  - NO TREES ARE TO BE CUT ON AREAS INDICATED AS ISLANDS OR RECREATIONAL AREAS.
  - CO-ORDINATES SHOWN ARE BASED ON THE STATE GRID SYSTEM.

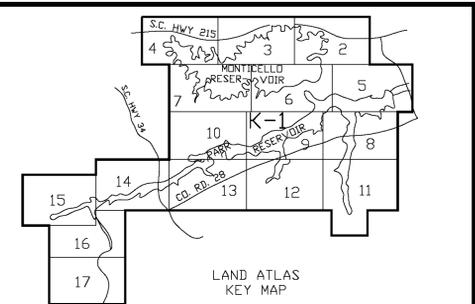


TO BE USED AS A GUIDE IN ESTABLISHING THE P.B.L., HOWEVER, IN NO CASE WILL THE P.B.L. BE LESS THAN THE REQUIREMENT IN ARTICLE 48.



P.B.L. FOR CANNON'S CREEK  
 1. ELEVATIONS SHOWN ON LINES C1 THROUGH C8 ARE FLOWS FOR MEAN ANNUAL FLOOD ON CANNON'S CREEK DURING OCTOBER 1999 FLOOD ON BROAD RIVER.  
 2. ELEVATIONS SHOWN ON LINES C9 & C10 ARE FLOWS FOR 50 YEAR FLOOD ON CANNON'S CREEK DURING MEAN ANNUAL FLOOD ON BROAD RIVER.  
 3. ELEVATIONS FOR FLOWS WERE OBTAINED FROM U.S.G.S. BACKWATER PROFILE STUDY (TABLE 4) DATED FEBRUARY 1974. ARTICLE 48 OF LICENSE IS APPLICABLE. HOWEVER, WHEN FLOWS EXCEED THE 270' CONTOUR THEN THE FLOW ELEVATION SHOWN ON SECTION LINES WOULD APPLY.

- LEGEND**
- ARCHAEOLOGICAL SITES
  - ⊕ CEMETERIES
  - ⊕ HISTORICAL SITES
  - ▨ U.S.F.S. LAND TO BE FLOODED
  - ▨ RECREATIONAL LAND AREA
  - ▨ SUMNER NATIONAL FOREST BOUNDARY
  - PROJECT BOUNDARY LINE
  - U.S.C.&G.S. BENCH MARK
  - U.S.G.S. BENCH MARK
  - ▨ WATERFOWL SUB-IMPONEMENTS
  - ▨ GAME MANAGEMENT AREA PROGRAM
  - ▨ FEE SIMPLE (SECTION 24)
  - ▨ TRANSMISSION LINES
  - ▨ PROPOSED
  - ▨ EXISTING

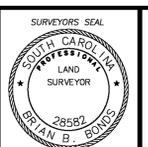


**NOTES:**  
 THIS EXHIBIT DRAWING WAS ORIGINALLY ISSUED AND SIGNED BY W. E. MOORE, MANAGER-HYDRO & ENVIRONMENTAL ENGINEERING AND G. C. MEETZE, EXECUTIVE VICE-PRESIDENT AS PART OF THE APPLICATION FOR AMENDMENT OF LICENSE MADE ON JUNE 26, 1981.

I, BRIAN B. BONDS, A PROFESSIONAL LAND SURVEYOR IN THE STATE OF SOUTH CAROLINA, P.L.S. 28582, HAVE REPRODUCED THIS PORTION OF THE PARR HYDRO PROJECT 1894 PROJECT BOUNDARY SHOWN HEREIN. THE LICENSEE EITHER OWNS IN FEE SIMPLE OR POSSESSES EASEMENTS OVER THE LANDS SHOWN ON THE MAP THAT ARE INSIDE THE PROJECT BOUNDARY. THE PROJECT BOUNDARY LINES THAT ARE NOT CONTOUR LINES WERE BASED ON SCE&G DESIGN AND CONSTRUCTION DRAWINGS.

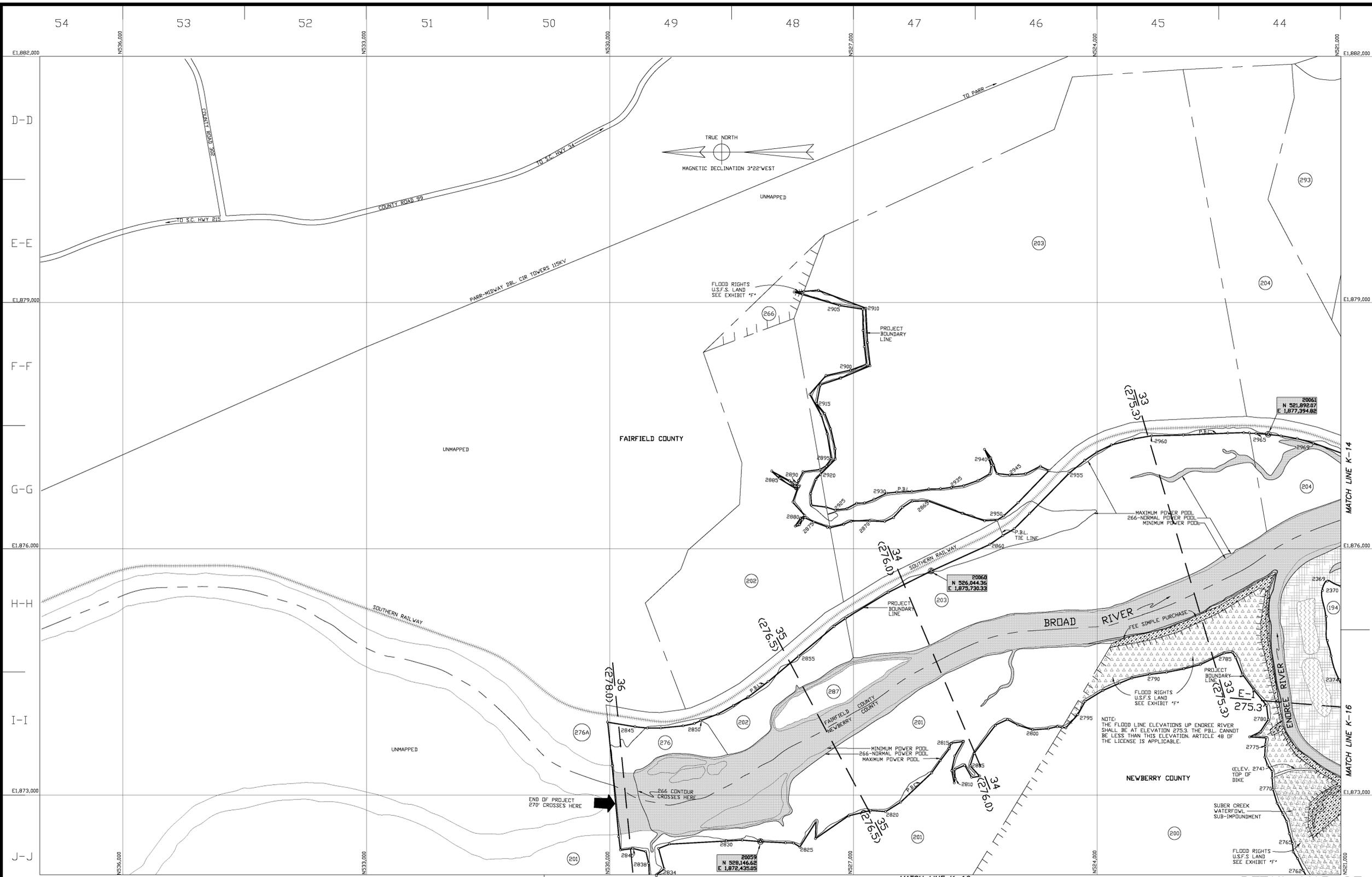
PROPERTY LINES DESIGNATED ON THIS EXHIBIT DERIVED FROM DEEDS AND PLATS OF RECORD. NO ACTUAL FIELD SURVEY WAS CONDUCTED FOR PREPARING THIS MAP. THIS EXHIBIT IS NOT A PROPERTY BOUNDARY SURVEY. ALL PROPERTY LINE LOCATIONS SUBJECT TO FULL BOUNDARY SURVEY OF THE DEPICTED PARCEL.

**DETAIL MAP OF PROJECT AREA**  
 SHEET 1 OF 20  
 PARR HYDROELECTRIC PROJECT NO. 1894  
**SOUTH CAROLINA ELECTRIC & GAS COMPANY**  
 SCALE: 1 INCH = 2500 FEET  
 0 2500' 5000' 7500' 10000' 12500' 15000'  
 PREPARED BY GLENN ASSOCIATES SURVEYING, INC.  
 P.O. BOX 12 JENKINSVILLE, S.C. 29065 telephone (803) 345-5297



**REVISION SCHEDULE**

NO.	DATE	DESCRIPTION	CHECKED
1	9/17/12	REVISED PER FERC ORDER 137 FERC # 62,033	BBB
2	5/7/13	REVISED PER FERC ORDER 143 FERC # 62,095	BBB



**ORIGINAL NOTES:**

1. ALL PROPERTY WITHIN THE PROJECT BOUNDARY LINE IS OWNED IN FEE SIMPLE BY S.C.E.&G. CO. UNLESS OTHERWISE SHOWN ON EXHIBIT "F".
2. ALL PROPERTIES & PROPERTY LINES WERE SHOWN OUTSIDE P.B.L. AS A CONVENIENCE FOR HISTORICAL PURPOSES FOR S.C.E.&G. CO.
3. DETAILED DESCRIPTION FOR PROJECT BOUNDARY LINE IS SHOWN ON SHEETS K-18 THRU K-20.
4. LAND PARCELS ARE KEYS FOR EXHIBIT "F" BY ENCIRCLED NUMBERS. EX (3)
5. LANDS ABUTTING P.B.L. ON THE EXTERIOR ARE IN PRIVATE OWNERSHIP UNLESS SHOWN OTHERWISE ON EXHIBIT "F".
6. CO-ORDINATES SHOWN ARE BASED ON THE STATE GRID SYSTEM (NAD27)
7. ELEVATIONS SHOWN ARE BASED ON THE U.S.C.&G.S. DATA (M.S.L.)
8. THE P.B.L. AROUND PARR RESERVOIR IS GENERALLY ALONG THE CONTOUR OF THE FLOOD OF RECORD AS ADJUSTED TO ACCOUNT FOR THE INFLUENCE OF PARR DAM, AS INDICATED ON EXHIBIT K-1.
9. ALL ISLANDS ARE TO REMAIN IN THEIR NATURAL STATE.
10. SOUTHERN R.R. R/W IS EXCLUDED FROM PROJECT, EXCEPT TO THE EXTENT OF FLOWAGE RIGHTS. SEE EXHIBIT "F".

**NOTES:**

THIS EXHIBIT DRAWING WAS ORIGINALLY ISSUED AND SIGNED BY W. E. MOORE, MANAGER-HYDRO & ENVIRONMENTAL ENGINEERING AND G. C. MEETZE, EXECUTIVE VICE-PRESIDENT AS PART OF THE APPLICATION FOR AMENDMENT OF LICENSE MADE ON JUNE 26, 1981.

I, BRIAN B. BONDS, A PROFESSIONAL LAND SURVEYOR IN THE STATE OF SOUTH CAROLINA, P.L.S. 28582, HAVE REPRODUCED THIS PORTION OF THE PARR HYDRO PROJECT 1894 PROJECT BOUNDARY SHOWN HEREIN. THE LICENSEE EITHER OWNS IN FEE SIMPLE OR POSSESSES EASEMENTS OVER THE LANDS SHOWN ON THE MAP THAT ARE INSIDE THE PROJECT BOUNDARY. THE PROJECT BOUNDARY LINES THAT ARE NOT CONTOUR LINES WERE BASED ON SCE&G DESIGN AND CONSTRUCTION DRAWINGS.

PROPERTY LINES DEPICTED ON THIS EXHIBIT DERIVED FROM DEEDS AND PLATS OF RECORD. NO ACTUAL FIELD SURVEY WAS CONDUCTED FOR PREPARING THIS MAP. THIS EXHIBIT IS NOT A PROPERTY BOUNDARY SURVEY. ALL PROPERTY LINE LOCATIONS SUBJECT TO FULL BOUNDARY SURVEY OF THE DEPICTED PARCEL.

**LEGEND**

- ARCHAEOLOGICAL SITES
- ⊕ CEMETERIES
- ⊕ HISTORICAL SITES
- ⊕ U.S.F.S. LAND TO BE FLOODED
- ⊕ RECREATIONAL LAND AREA
- ▨ SUMTER NATIONAL FOREST BOUNDARY
- PROJECT BOUNDARY LINE
- ⊕ U.S.C.&G.S. BENCH MARK
- ⊕ U.S.G.S. BENCH MARK
- ▨ WATERFOWL SUB-IMPOUNDMENTS
- ▨ GAME MANAGEMENT AREA PROGRAM
- ▨ FEE SIMPLE (SECTION 24)
- TRANSMISSION LINES
- PROPOSED
- EXISTING

**DETAIL MAP OF PROJECT AREA**

SHEET 15 OF 20

PARR HYDROELECTRIC PROJECT NO. 1894

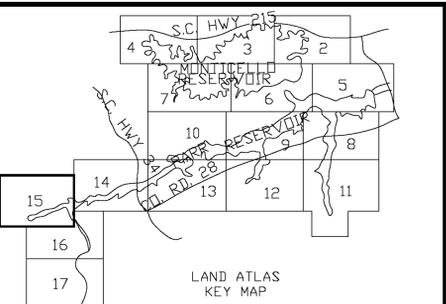
**SOUTH CAROLINA ELECTRIC & GAS COMPANY**

SCALE : 1 INCH = 500 FEET

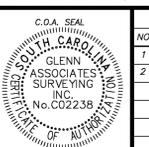
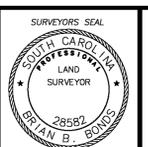
0 500' 1000' 1500' 2000' 2500' 3000'

PREPARED BY GLENN ASSOCIATES SURVEYING, INC.  
P.O. BOX 12 JENKINSVILLE, S.C. 29065 telephone (803) 345-5297

BRIAN B. BONDS ; S.C.P.L.S. # 28582



SURVEYORS SEAL  
B. B. Bonds  
05-07-2013



REVISION SCHEDULE			
NO.	DATE	DESCRIPTION	CHECKED
1	9/17/12	REVISED PER FERC ORDER 137 FERC # 62,033	BBB
2	5/7/13	REVISED PER FERC ORDER 143 FERC # 62,095	BBB

William B. Hendrix, Jr.  
18662 Newberry Road  
Blair, South Carolina 29015

May 4, 2015

Mr. William R. Argentieri, P.E.  
Manager of Civil Engineering  
South Carolina Electric & Gas Company  
220 Operation Way Mail Code A221  
Cayce, South Carolina 29033-3701

Re: Relicensing FERC Project 1894

Dear Bill:

Thank you for your letter dated March 18, 2015. Could you please provide me with copies of the list of the property acquisitions, designated as Exhibit F, and the property maps depicting the PBL, designated as Exhibit K to the Project's license that were filed with FERC on June 26, 1981 as well as FERC's order dated August 19, 1981 approving both exhibits, as referenced in the second page of said letter?

Sincerely,

A handwritten signature in black ink, appearing to read "William B. Hendrix, Jr.", written in a cursive style.

William B. Hendrix, Jr.



May 27, 2015

Mr. William B. Hendrix, Jr.  
18662 Newberry Road  
Blair, South Carolina 29015

Re: South Carolina Electric & Gas Company  
Parr Hydroelectric Project  
FERC Project No.1894  
Response to letter dated May 4, 2015

Dear Mr. Hendrix:

I am responding to your letter dated May 4, 2015 requesting additional information concerning the Federal Energy Regulatory Commission's (FERC) establishment of the Project boundary line (PBL) of the Parr Reservoir. As noted in my previous letter dated March 18, 2015, the Company considers establishment of the PBL fully resolved. The Company has acquired all property rights along the shores of the Parr Reservoir and its tributaries which remain necessary for the operation and maintenance of FERC Project No. 1894. There is no reason to revisit the matter as the reservoir was established in conformity with the specific obligations set forth in the Project's license and has been approved by FERC. Moreover, even if the Company were to see a need in the future to reexamine the placement of the PBL, any property removed from the PBL with the FERC approval would then become non-Project lands and precluded from the jurisdiction of the FERC. In reference to your request for various documents, we must respectfully decline that request. We consider this matter closed and are unwilling to expend additional time and resources retrieving documents for you on this matter.

If you have any further questions, please contact me at (803) 217-9162 or [bargentieri@scana.com](mailto:bargentieri@scana.com).

Very truly yours,

A handwritten signature in blue ink that reads "William Argentieri". The signature is fluid and cursive, with the first and last names being the most prominent.

William Argentieri, Manager Civil Engineering  
Fossil/Hydro Technical Services

c: H. E. Delk, Jr./PH File  
J. H. Hamilton/ J. Stuckey

William B. Hendrix, Jr.  
18662 Newberry Road  
Blair, South Carolina 29015

June 9, 2015

Mr. William R. Argentieri, P.E.  
Manager of Civil Engineering  
South Carolina Electric & Gas Company  
220 Operation Way  
Mail Code A221  
Cayce, South Carolina 29033-3701

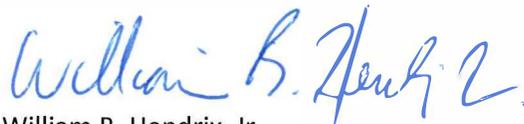
Mr. Henry Mealing  
Kleinschmidt Associates  
204 Caughman Farm Lane, Ste.301  
Lexington, South Carolina 29072

Re: FERC Project 1894 Relicensing

Dear Sirs:

Pursuant to Code of Federal Regulations (18 C.F.R. 16.8(b) (5), attached please find request for information and study request.

Sincerely,

A handwritten signature in blue ink that reads "William B. Hendrix, Jr." with a stylized flourish at the end.

William B. Hendrix, Jr.

**(I) IDENTIFICATION OF INFORMATION TO BE PROVIDED AND STUDY TO BE PERFORMED**

The Pre-Application Document (PAD) that South Carolina Electric & Gas (SCE&G) has submitted to the Federal Energy Regulatory Commission (FERC) for the re-licensing of this Project is inaccurate and incomplete. The PAD does not accurately describe or reflect the actual Project Boundary Line (PBL) that was established for the Project or the actual length of the project. The PBL that was established by SCE&G does not comply with the guidelines and directives established by FERC when the license was issued. In addition, the survey method that was used to delineate the PBL is not in compliance with FERC's license. Requestor is asking that any and all information and documentation regarding the establishment of the PBL be provided. This information should contain, but not be limited to: (1) complete copies of any studies conducted by, or on the behalf, of SCE&G in regards to the establishment of the PBL, (2.) copies of any amendments to Exhibit J or Exhibit K that have been made since the issuance of the License for this Project, (3.) copies of any correspondence or documents between SCE&G and FERC in regards to SCE&G acquiring additional land beyond what was required in the license that was issued for the project, and (4.) Copies of any FERC Orders or correspondence approving the acquisition of additional lands other than as required in the original license. Lacking the production of the above-referenced documentation and information, requestor asks that a new study be undertaken to determine how, and upon what criteria, SCE&G established the PBL. This new study will determine whether or not the PBL was established in accordance with FERC regulations and was carried out with FERC's approval. This study would include the production of a true elevation survey of the PBL for the project.

**(II) IDENTIFICATION OF BASIS FOR DETERMINATION**

The license issued authorizing this Project by FERC on August 28, 1974, provides very specific guidelines as to what property is to be acquired for the project and included within the Project's Boundary. "Finally, Interior requested that recreational lands extend a minimum of 200 horizontal feet from the high water mark. We are requiring Applicant to acquire in fee shoreline lands up to the 270-foot contour or up to 50 feet horizontal measure from the 266-foot contour, whichever is greater, on Parr Reservoir...this license condition will provide a strip of land 50 to 200 feet in horizontal measure along these reservoirs. "(Pages 19 and 20 of license. *Exhibit 1*)

"We do not preclude the possibility of requiring Applicant to acquire additional lands for recreational purposes in the future. At this time, however, with the exception of those areas of intensive recreational use heretofore considered, we believe the acquisition of a strip of land 50

to 200 feet in width around the Monticello and Parr Reservoirs adequately protects the public interest.” (Page 20 of license. *Exhibit 1*)

“Article 48. Licensee shall purchase in fee and include within the project boundary all lands necessary or appropriate for project operations, including lands for recreational use and shoreline control. The lands encompassed by the project boundary shall include, but not be limited to:

.... (b) Shoreline lands up to the 270-foot contour or up to 50-feet, horizontal measure, from the 266-foot contour of the lower reservoir, whichever is greater:....Provided, That the project boundary except with respect to land necessary or appropriate for recreational purposes, shall not exceed 200 feet, horizontal measure, from the 266-foot or the 425-foot contour, unless satisfactory reasons to the contrary are given:” (Page 44 of license. *Exhibit 2*)

These guidelines for acquiring lands for the project are also reflected in the PAD that SCE&G has currently filed with FERC for the relicensing of this project. “Article 48: License shall purchase in fee and include within the project boundary all lands necessary or appropriate for project operations, including lands for recreational use and shoreline control. The lands encompassed by the project boundary shall include, but not be limited to:....(b) Shoreline lands up to the 270-foot contour or up to 50-foot horizontal measure from the 266-foot contour of the lower reservoir, whichever is greater:... Provided that the project boundary except with respect to land necessary or appropriate for recreational purposes, shall not exceed 200 feet, horizontal measure, from the 266-foot or the 425-foot contour, unless satisfactory reasons to the contrary are given.” (Page 3-12 and 3-13 – Pre-Application Document, January 2015 *Exhibit 3*) “Article 48 of the Project License issued in 1974 required that SCE&G purchase in fee and include within the Project boundary...shoreline lands up to the 270-foot contour, or 50 feet (measured horizontally) from the Parr Reservoir’s 266-foot contour, whichever is greater...Provided that the Project Boundary, except with respect to land necessary or appropriate for recreational purposes, shall not exceed 200 feet, horizontally measured from the 266-foot...” (Section 3, Page 8 – Shoreline Management Plan Parr Reservoir, September 2014. *Exhibit 4*) “SCE&G owns all lands or obtained flowage rights within the Project boundary surrounding Parr Reservoir. As noted, this area is referred to as the “Buffer Zone” and may encompass an area up to the 270-foot contour or measuring up to 50 feet but no greater than 200 feet horizontally from the 266-foot contour on Parr Reservoir, whichever is greater.”(Section 3.2, Page 10 – Shoreline Management Plan Parr Reservoir, September 2014. *Exhibit 5*)

In reality the land acquisition that was done for property determined to be within the project boundary of this project was not based on the guidelines spelled out in the license issued by FERC, and was instead based on the Broad River’s 100 year flood of record. Exhibit K

documents for this project reflect the large discrepancy between what was required by FERC as a condition of the license and what SCE&G actually acquired. "Notes: 2. The P.B.L. around Parr Reservoir is generally along the flood of record as adjusted for the influence of Parr Dam, as indicated on table this sheet" (SCE&G Exhibit K-Sheet 1, Exhibit 6) "Elevation of Project Boundary Line (Minimum) Based on Flood of record (224,000 CFS) in river with Fairfield built but not operating. All spillway gates fully down." (SCE&G Exhibit K-Sheet 1, Exhibit 7) The flood of record for this area occurred in 1928 and 1929 with waters reaching an elevation of 285' – 19' above the current crest level of the dam and the Maximum Reservoir Operating Level (Full Pool) (Parr Hydroelectric Project P-1894 – Table of Standard Project Numbers.) and 16.5 'above the Maximum Rated Capacity of the dam's spillway. The Exhibit K documents have numerous notes and wording in reference to the elevation level of the reservoir that are not based on the license and in fact contradict the license requirements. These notes also contradict information that is in the PAD that is currently before FERC for approval:

- (1.) "THE FLOOD LINE ELEVATIONS UP HELLER'S CREEK SHALL BE AT ELEVATION 278.3. THE P.B.L. CANNOT BE LESS THAN THIS ELEVATION, ARTICLE 48 OF THE LICENSE IS APPLICABLE."
- (2.) "ARTICLE 48 OF LICENSE IS APPLICABLE. HOWEVER, WHEN FLOWS EXCEED THE 270' CONTOUR THEN THE FLOW ELEVATION SHOWN ON SECTION LINES WOULD APPLY."
- (3.) "THE FLOOD LINE ELEVATIONS UP ENOREE RIVER SHALL BE AT ELEVATION 275.3. THE PBL CANNOT BE LESS THAN THIS ELEVATION. ARTICLE 48 OF THE LICENSE IS APPLICABLE."
- (4.) "ALL P.B.L. SHALL BE RUN IN STRAIGHT LINE SEGMENTS EQUAL TO OR SLIGHTLY GREATER THAN THE ELEVATIONS SHOWN." (*Exhibit 8*)

While the license does state that there is the possibility of acquiring additional lands if "satisfactory reasons to the contrary are given," or such lands were "necessary or appropriate for project operations," there has been no record of any such reasons being presented to FERC by SCE&G or of FERC approving any additional land acquisition other than that authorized under the original license. SCE&G would be hard pressed to justify the acquisition of lands 19' above the crest level of the dam, which they obviously have no means of controlling, as "necessary or appropriate for project purposes." While SCE&G has claimed to have filed revised Exhibits F & K in 1981, and to have received approval of these revisions by FERC Order dated August 19, 1981, they have been unable or unwilling to produce copies of said documents. SCE&G informed Requestor on May 27, 2015 that "they consider this matter closed and are unwilling to expend additional time and resources retrieving documents." (*Exhibit 9*)

The current Exhibit K documents on file have a reference note, "This Exhibit drawing was originally issued....as part of the Application for Amendment of License made on June 26, 1981." Requestor has been informed by FERC personnel that they have no record of any Application for Amendment. The land that SCE&G acquired for this project extends anywhere from an elevation of 270' up to elevations as high as 285' – 19' above the crest level of the dam and the project's Maximum Reservoir Operating Level and 16.5' above the Maximum Rated Capacity of the dam's spillway. SCE&G maintains their land acquisition was based on a United States Geological Survey (USGS) study. This in itself would seem to establish, and be an admission, that the acquisition was not done in accordance with the requirements of the FERC license as there is no reference in the license, or any subsequent filings, to the use or need of such a study. When Requestor initially asked SCE&G for copies of this study he was told by the Company's Manager of Civil Engineering, William Argentieri, "We've been looking for a copy of that study for years." Later the same day (October 30, 2014) that the request for a copy of the study was made, Requestor received an e-mail from Argentieri stating, "Good news, even though I cannot find the final report, the USGS backwater study drawings have enough information on them to help us understand the reasoning used to determine the location of the Parr Reservoir project boundary line." (*Exhibit 10*) In a subsequent meeting to discuss this "good news", requestor was shown two engineering profile sheets supposedly showing the elevations of the PBL as it related to the water flows during the flood of record in the Broad River. The sheets were unsigned and had no engineering seals. When asked for narrative or pertinent data information that was produced in conjunction with the study, Requestor was told that SCE&G had no such information. Incredibly, SCE&G now wants Requestor and the general public, to blindly accept that the thousands of acres of land that were acquired for this project was based and according to a study that they have no copy of, or are unwilling to produce. It would seem that whatever study was apparently done, it was not in conjunction with establishing the PBL. The two sheets supplied to Requestor, have revision dates much later than the recording dates of the deeds acquiring lands within the PBL. Negotiations for these land acquisitions were initiated well before the dates on the sheets and it would certainly take a suspension of disbelief to think that the PBL was not established well before the signing and recording of deeds. It seems more likely that this USGS study, if actually fully conducted, was not done so in conjunction with the establishment of the PBL, but instead with regard to issues that were discovered well after the land acquisition process was complete. The use of "Straight Line Segments" to establish the PBL is in direct conflict with the license requirements. All references to establishing the PBL in the license call for horizontal measures from the established elevation. SCE&G has previously admitted that this practice was not in compliance with the methods prescribed in the license, and have deeded property back to landowners as a result of this non-compliance.

### (III) RESOURCE ISSUES AND GOALS/OBJECTIVES FOR THESE RESOURCES

The land acquisition process that SCE&G conducted as part of this project resulted in hundreds of acres of land being unnecessarily acquired. Large tracts of these lands were never intended for project purposes and have instead been utilized as exclusive hunting property, which includes a boat landing on the Broad River, for SCE&G employees, retirees and their political operatives. Unlike the rest of the property acquired for this project, all the land acquired above the SC Rte. 34 Bridge over the Broad River was never placed into the State of South Carolina's Department of Natural Resources game management program. SCE&G has placed posted signs on the property and it has been used exclusively for hunting by their operatives. In a period of time where they have yearly sought rate increases from their customers, SCE&G has spent tens of thousands of dollars, if not more, maintaining the properties for hunting. (*Exhibit 11*) It should also be noted that these properties are located from 13 to 15 miles from the dam of this project. All of SCE&G's presentations and documents that have been filed, including Exhibit K, relicensing website and the PAD, continue to refer to the reservoir as being 13 miles long -in reality it is 15 miles long. (Presentations dated 9/19/2012 & 1/20/2013- Parr Hydroelectric Project Hydrologic Data - Parr Reservoir (full) 13 miles long- Joint Agency/Public Meeting dated 4/14/15) The acquisition process that was conducted for this project has resulted in countless landowners being unnecessarily deprived of the resources and benefits of their property. These resources and benefits are now being enjoyed by SCE&G and its employees. SCE&G corporately benefits through the harvest of timber on the property that was acquired, and SCE&G employees get the benefit of a free hunt club. Prior to being acquired by SCE&G, these lands provided a source of income not only for the landowners, but the numerous individuals living in the Western Part of Fairfield County who were employed in timber, hunting and farming activities. Ironically, these individuals having lost all benefit of these lands, are now as customers of SCE&G, in the position of having to finance the upkeep of the property they lost to SCE&G's hunt club, as well as the Company's record corporate profits, through year after year of rate increases. Surely this was not what FERC had in mind when they established the elevation of the PBL of this project as being no more than 200 feet horizontal measure from the elevation of 266' - the elevation of 266' being the top of the crest gates of the dam and the Maximum Reservoir Operating Level (Full Pool.) The requested information and study will review whether or not the resources that are part of the land that was acquired for this project are being used for the purposes for which they were originally said to have been intended for and whether or not they would be best served by being returned to the original landowners.

#### **(IV) STUDY METHODOLOGY/ALTERNATIVES**

The issue of the establishment of the PBL has been completely ignored through the initial process of this re-licensing. There have been no discussions or studies done to address the issue. The majority of study requests that are proposed, are addressed to study issues downstream of the dam of this project. In light of SCE&G's lack of producing any concrete documentation substantiating how they went about acquiring land within the PBL of this project, it would seem only appropriate that as part of a relicensing process, a study be conducted to review the process that was initially conducted in regards to the land acquisition for this project. Such a study would certainly include a complete re-survey of the PBL based on true elevations and the horizontal measure there from. There is no other method available which would insure the accuracy and authenticity of the PBL.

#### **(V) DOCUMENTATION OF STUDY METHODOLOGY AS GENERALLY ACCEPTED PRACTICE**

Requestor is unaware of any method of establishing or confirming property lines other than through the use of a survey - as such, this would certainly be considered accepted practice.

#### **(VI) EXPLANATION AS TO HOW INFORMATION/STUDY REQUESTED WILL BE USEFUL IN FURTHERING RESOURCE GOALS/OBJECTIVES**

From the time the land acquisition for this project was conducted, until the present date, there have been lingering questions and doubts by the landowners effected, as to the legitimacy and need for the acquisitions. Three generations of landowners have had to live with the loss and use of their land. Livelihoods once supported through timber harvesting, row-cropping and hunting are no longer available. In their place, a well maintained hunt club for SCE&G employees, retirees and political operatives. This has been particularly bothersome to said landowners, as throughout the acquisition process, they were continuously advised by SCE&G representatives, that their land would be inundated once the project was complete and of no viable use to them. The reality could not be any further from the truth.

One would certainly assume, that through a re-licensing process such as the one currently being conducted for this project, any issues involving discrepancy's or questions, would be thoroughly re-examined and vetted. One would also assume that SCE&G would strive to make the re-licensing process as transparent and through as possible. Accordingly, the information and study requested above would insure that all land acquired for the project was done so in accordance with FERC regulations. If it is found that these regulations were not followed, they will provide a starting point for the return of lost resources to their rightful owners.

# **Section 1**

recommended for registration as National, Historical, Natural, or Environmental Education Landmarks. Interior did recommend against issuance of a license until an acceptable Exhibit S is filed. We believe the public interest will be better served by issuance of the license with provision for the filing of a revised Exhibit S pursuant to Article 54 of the license. Such a revised Exhibit S will be based on the results of the comprehensive long-term post operational monitoring programs which will determine the effects on fish and wildlife. The availability of this information will enable us to further protect and enhance fish and wildlife in the area as may be necessary or appropriate.

Interior also discussed the impact of the redeveloped Parr project on a potential downstream Federal development, known as the Frost Shoals Project. S. DOC. NO. 189, supra. We note that there is no present plan or schedule for construction of this facility.

Interior further objected to the inclusion of the 55 acres of islands in the Monticello Reservoir for future recreational use since 20 of these acres are within a proposed nuclear exclusion zone. Atomic Energy Commission regulations state that "activities unrelated to operation of the reactor may be permitted in an exclusion area under appropriate limitations, provided that no significant hazards to the public health and safety will result." 10 CFR §100.3(a) (1973). With appropriate safeguards we believe these islands may serve public recreational needs and are requiring their inclusion within the project boundary.

Interior stated that the 387-acre recreational parcel adjacent to Fairfield Powerhouse is inappropriate for recreational development due to the limited recreation capability of Monticello and Parr Reservoirs, lack of public access, proposed restricted public use of the Fairfield tailrace, transmission lines, railroad right-of-way, and steep and hilly topography. We are reserving decision on the suitability of the 387-acre recreational parcel pending the completion of a study which will compare the recreational advantages and disadvantages of this site and the 187-acre recreational parcel heretofore noted with possible subimpoundments on Cannon's and Heller's Creeks.

Finally, Interior requested that recreational lands extend a minimum of 200 horizontal feet from the high water mark. We are requiring Applicant to acquire in fee shoreline lands up to the 270-foot contour or up to 50 feet horizontal measure from the 266-foot contour, whichever is greater, on Parr

Reservoir and shoreline lands up to the 430-foot contour or up to 50 feet horizontal measure from the 425-foot contour, whichever is greater, on Monticello Reservoir. This license condition will provide a strip of land 50 to 200 feet in horizontal measure along these reservoirs.

We do not preclude the possibility of requiring Applicant to acquire additional land for recreational purposes in the future. At this time, however, with the exception of those areas of intensive recreational use heretofore considered, we believe the acquisition of a strip of land 50 to 200 feet in width around the Monticello and Parr Reservoirs adequately protects the public interest. Other comments submitted by Interior have been addressed in the Final Environmental Impact Statement and considered by this Commission.

The U.S. Department of Agriculture, Forest Service (Forest Service) transmitted with its letter dated December 20, 1973, a Memorandum of Agreement between the Forest Service and the Applicant providing, in part, for the interests of the Forest Service. The details of this agreement have been heretofore noted. The Forest Service also suggested that a detailed development plan for the 300-acre subimpoundment be drafted which would include a parking lot for a minimum of 40 cars. We have conditioned the license to require the filing of such a detailed plan within one year from the date of issuance of this license. Finally, the Department of Agriculture recommended that the entire area within the triangle bounded by State Route 215, relocated State Route 99, and County Road 347 be considered for dedicating to public recreation in connection with the Monticello Reservoir subimpoundment. We are requiring that the Applicant include such land in the feasibility study to be filed pursuant to Article 45.

By letter dated November 7, 1972, the U.S. Department of Health, Education, and Welfare commented on the health aspects of proposed recreational facilities and recommended that the plans for sanitary facilities be submitted to the South Carolina State Board of Health for approval. In Article 43 we have provided for the filing of a solid waste management plan approved by the appropriate State agency.

The U.S. Department of Transportation by letter dated November 9, 1972, noted that the enlargement of the Parr Project will have a minimal effect on the highway system but will require the relocation of portions of South Carolina Highway Route 99 and Route 215, both of which are included

## **Section 2**

Article 47. The Licensee shall, during the construction and operation of the project, continue to consult and cooperate with the Bureau of Sport Fisheries and Wildlife, the South Carolina Wildlife and Marine Resources Department, the South Carolina Pollution Control Authority, and other appropriate environmental agencies for the protection and development of the natural resources and values of the project area. The Commission reserves the right, after notice and opportunity for hearing, to require such reasonable changes in the project and its operation as may be found necessary or appropriate to preserve and promote the environment of the project area, as provided herein by Articles 11 and 14.

Article 48. Licensee shall purchase in fee and include within the project boundary all lands necessary or appropriate for project operations, including lands for recreational use and shoreline control. The lands encompassed by the project boundary shall include, but not be limited to:

(a) All islands formed by the 226-foot contour of the lower reservoir and by the 425-foot contour of the upper reservoir.

(b) Shoreline lands up to the 270-foot contour or up to 50-feet, horizontal measure, from the 266-foot contour of the lower reservoir, whichever is greater; and shoreline lands up to the 430-foot contour or up to 50-feet, horizontal measure, from the 425-foot contour of the upper reservoir, whichever is greater: Provided, That the project boundary except with respect to land necessary or appropriate for recreational purposes, shall not exceed 200 feet, horizontal measure, from the 266-foot or the 425-foot contour, unless satisfactory reasons to the contrary are given:

Provided further, That the project boundary in the area of the V. C. Summer Nuclear Station shall be the 425-foot contour, as shown on Sheet 8 (FPC No. 1894), Exhibit K. Licensee within one year after completion of land acquisition shall file an Exhibit F and, for Commission approval, a revised Exhibit K.

Article 49. Following consultation with the South Carolina Wildlife and Marine Resources Department, Licensee shall file for Commission approval within six months after the date of issuance of the license its plans for a study to determine suitable plant species which would be tolerant to

## **Section 3**

Article 43: Requirement for Licensee to consult and cooperate with the South Carolina Department of Health and Environmental Control, and comply with local regulations in planning and providing for the collection, storage, and disposal of solid wastes generated through public access and use of project lands and waters, and within one year after the commencement of operation of the Project, shall file with the Commission a solid waste management plan which has been approved by the Department of Health and Environmental Control. This plan shall provide (a) the location of solid waste receptacles to be provided at public areas including campgrounds, picnicking areas, and boat access areas; (b) schedules of collection for the above receptacles; (c) provisions for including in the subject plan any public use areas as they are developed; and (d) disposal sites and methods of disposal.

Article 44: Requirement for Licensee, following consultation and cooperation with the Bureau of Outdoor Recreation of the U.S. Department of the Interior; the South Carolina Wildlife and Marine Resources Department; the South Carolina Department of Parks, Recreation, and Tourism, shall study the feasibility of constructing recreation sub-impoundments (reservoirs with stable water surface elevations) with adjacent access or recreation areas at suitable locations on Cannon's and Heller's Creeks, or other arms of Parr Reservoir, in lieu of reserving and developing for recreational purposes the 180.5-acre parcel on Heller's Creek at County Road 28 and the 387-acre parcel opposite Fairfield Powerhouse, as shown on Exhibit R-3 (FPC No. 1894-45). Within one year following issuance of the license, Licensee shall file, for Commission approval, revisions of Exhibit R implementing findings of the study including, but not limited to, a schedule for development of (1) said 180.5-acre and 387-acre parcels for recreational purposes, or (2) said alternative recreation sub-impoundments and adjacent recreation areas for fishing, waterfowl hunting, sightseeing, and other uses. Such revisions of Exhibit R shall conform to the Commission's then existing Rules and Regulations, including the economic effect of such development on project operation.

Article 48: Licensee shall purchase in fee and include within the project boundary all lands necessary or appropriate for project operations, including lands for recreational use and shoreline control. The lands encompassed by the project boundary shall include, but not be limited to:

(a) All islands formed by the 266-foot contour<sup>2</sup> of the lower reservoir and by the 425-foot contour of the upper reservoir.

(b) Shoreline lands up to the 270-foot contour or up to 50-feet, horizontal measure, from the 266-foot contour of the lower reservoir, whichever is greater; and shoreline lands up to the 430-foot contour or up to 50-feet, horizontal measure, from the 425-foot contour of the upper reservoir, whichever is greater: Provided, that the project boundary except with respect to land necessary or appropriate for recreational purposes, shall not exceed 200 feet, horizontal measure, from the 266-foot or the 425-foot contour, unless satisfactory reasons to the contrary are given.

Provided further, that the project boundary in the area of V. C. Summer Nuclear Station shall be the 425-foot contour as shown on Sheet 8 (FPC No. 1894), Exhibit K. Licensee within one year after completion of land acquisition shall file an Exhibit F and, for Commission approval, a revised Exhibit K.

Article 50: Licensee, for the purpose of monitoring and determining the quality of the aquatic environment of Parr Reservoir and Monticello Reservoir, including the 300-acre sub-impoundment, so as to realize its full recreational potential, shall conduct a water quality monitoring program at selected locations for a period of five years from the date of commencement of project operation. Sampling shall be done at least monthly and include measurements of dissolved oxygen, pH, conductivity, temperature profiles, carbon dioxide, total dissolved solids, total alkalinity, total hardness, chloride sulfate, phosphate, nitrate, BOD, COD, heavy metals, silica, calcium, magnesium, sodium, and turbidity. Annual progress reports and, within one year following conclusion of the monitoring program, a final report shall be filed showing the findings of this program together with recommendations of any need for further sampling or for proposals for maintenance or improvement of the aquatic environment to such reservoirs as shown to be desirable by the studies.

Article 51: Requirement to monitor on a continuous basis dissolved oxygen, temperature, stream flow, conductivity and pH, and on a monthly basis, turbidity and heavy metals, at its water quality station in the Broad River downstream of Parr Reservoir. To assist the personnel of the Columbia, South Carolina, water treatment plant in the early detection of musty odors in Broad

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<sup>2</sup> The current license identifies elevation 226' as the contour of the lower reservoir, however this is incorrect, as the top of the crest gates are at elevation 266'.

## **Section 4**

### **3.0 HISTORY OF THE SHORELINE MANAGEMENT PLAN**

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Parr Reservoir is formed by the Parr Shoals Dam ("Dam"), which was originally constructed between 1912 and 1914. The Dam is situated across the Broad River and houses a 14.88 megawatt (MW) hydroelectric facility, located in an integral powerhouse. On August 28, 1974, the Federal Power Commission (FPC), predecessor to the FERC, issued SCE&G a new operating License for the Parr Shoals Development. In addition to relicensing the existing facilities, the new License authorized the construction of the 511.2 MW Fairfield Pumped Storage Development. This resulted in the creation of the Fairfield Development's upper pool, Monticello Reservoir. The new License also authorized the enlargement of the existing Parr Reservoir to serve as the lower pool to the Fairfield Development. This involved raising the height of the Dam approximately 9 feet, thereby nearly doubling Parr Reservoir's surface area. The construction of newly licensed facilities was completed in 1978, with the facilities beginning commercial operation that same year (F.P.C., 1974). The newly developed Project, including both Parr and Fairfield Developments, was subsequently referred to as the Parr Hydroelectric Project.

Article 48 of the Project License issued in 1974 required that SCE&G purchase in fee and include within the Project boundary: the islands in the Parr and Monticello Reservoirs formed by the 266-foot and 425-foot contour intervals, respectively; shoreline lands up to the 270-foot contour, or 50 feet (measured horizontally) from the Parr Reservoir's 266-foot contour, whichever is greater; and, shoreline lands up to the 430-foot contour interval, or 50 feet (measured horizontally) from Monticello Reservoir's 425-foot contour, whichever is greater. Provided that the Project boundary, except with respect to land necessary or appropriate for recreational purposes, shall not exceed 200 feet, horizontally measured, from the 266-foot or the 425-foot contour, unless satisfactory reasons to the contrary are given. This area is referred to as the "Buffer Zone". The FPC determined that acquiring these lands would provide SCE&G with adequate shoreline control around the reservoirs, in addition to serving the purposes of Project operation and recreation (F.P.C., 1974).

Furthermore, Article 20 of the Project License orders that SCE&G allow public access, to a reasonable extent to Project waters and adjacent Project lands (with the exception of lands necessary for the protection of life, health, and property) for navigation and outdoor recreational

# **Section 5**

Monticello Reservoir is included under separate cover), while adhering to the historical management goals agreed to and developed with agencies and stakeholders.

In addition to an updated SMP for each Project reservoir, a Permitting Handbook was developed in consultation with stakeholders and agencies to address activities requiring consultation with and/or permits from SCE&G. These activities include, but are not limited to the following: shoreline stabilization, access path development, and other shoreline activities. SCE&G will review the Permitting Handbook with interested stakeholders periodically to evaluate its effectiveness; however, SCE&G may make changes to the permitting process at any time as it determines in its sole judgment to be necessary and appropriate.

### **3.2 PROJECT BOUNDARY**

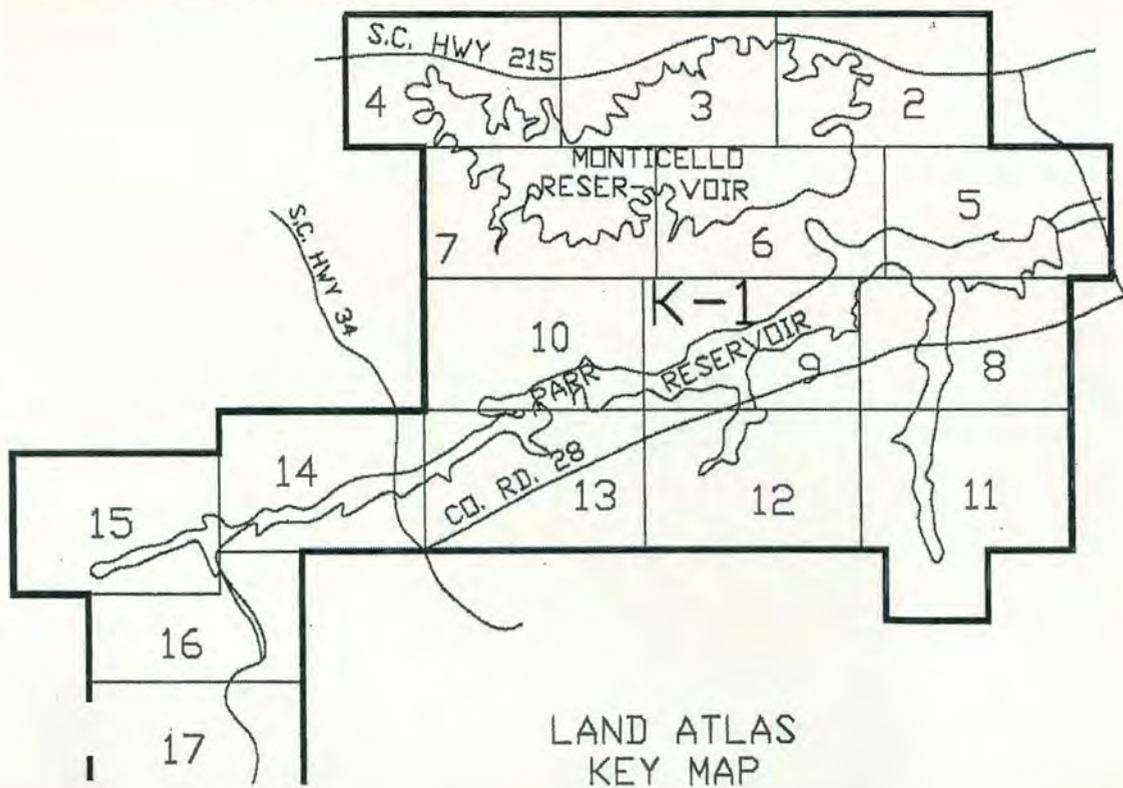
SCE&G owns all lands or obtained flowage rights within the Project boundary surrounding Parr Reservoir. As noted, this area is referred to as the "Buffer Zone" and may encompass an area up to the 270-foot contour or measuring up to 50 feet but no greater than 200 feet horizontally from the 266-foot contour on Parr Reservoir, whichever is greater.

### **3.3 ~~ACREAGE OF PROJECT LANDS~~ (SECTION TO BE MOVED TO TABLE UNDER SECTION 5.0)**

# **Section 6**

NOTES:

1. ON THE MONTICELLO RESERVOIR & SUB-IMPOUNDMENT THE PROJECT BOUNDARY LINE IS GENERALLY A MAXIMUM OFF 200' FROM THE 425' CONTOUR EXCEPT IN RECREATIONAL AREAS OR DEEMED NECESSARY BY FIELD INSPECTION. (SEE "K" SHEETS 2-20 FOR DETAILS)
2. THE P.B.L. AROUND PARR RESERVOIR IS GENERALLY ALONG THE FLOOD OF RECORD AS ADJUSTED FOR THE INFLUENCE OF PARR DAM, AS INDICATED ON TABLE THIS SHEET.
3. ALL LANDS WITHIN THE PROJECT BOUNDARY LINE ARE OWNED IN FEE SIMPLE BY SOUTH CAROLINA ELECTRIC AND GAS COMPANY, UNLESS OTHERWISE SHOWN ON K-2 THRU K-17.
4. PROJECT BOUNDARY LINE IS NOT SHOWN ON THIS SHEET, EXCEPT IN RECREATIONAL AREAS, BUT IS SHOWN IN DETAIL ON SHEETS K-2 THRU K-20.
5. ELEVATIONS SHOWN CORRECTED ACCORDING TO RECENT SURVEY BASED ON U.S.C.&G.S.(M.S.L.)
6. SOUTHERN R.R. R/W IS EXCLUDED FROM PROJECT, EXCEPT TO THE EXTENT OF FLOWAGE RIGHTS. (SEE EXHIBIT "F").
7. NO TREES ARE TO BE CUT ON AREAS INDICATED AS ISLANDS OR RECREATIONAL AREAS.
8. CO-ORDINATES SHOWN ARE BASED ON THE STATE GRID SYSTEM.



LAND ATLAS  
KEY MAP

N520,000

# **Section 7**

56 | 55 | 54 | 53 | 52 | 51 | 50 | 49 | 48 | 47 | 46 | 45 | 44 | 43

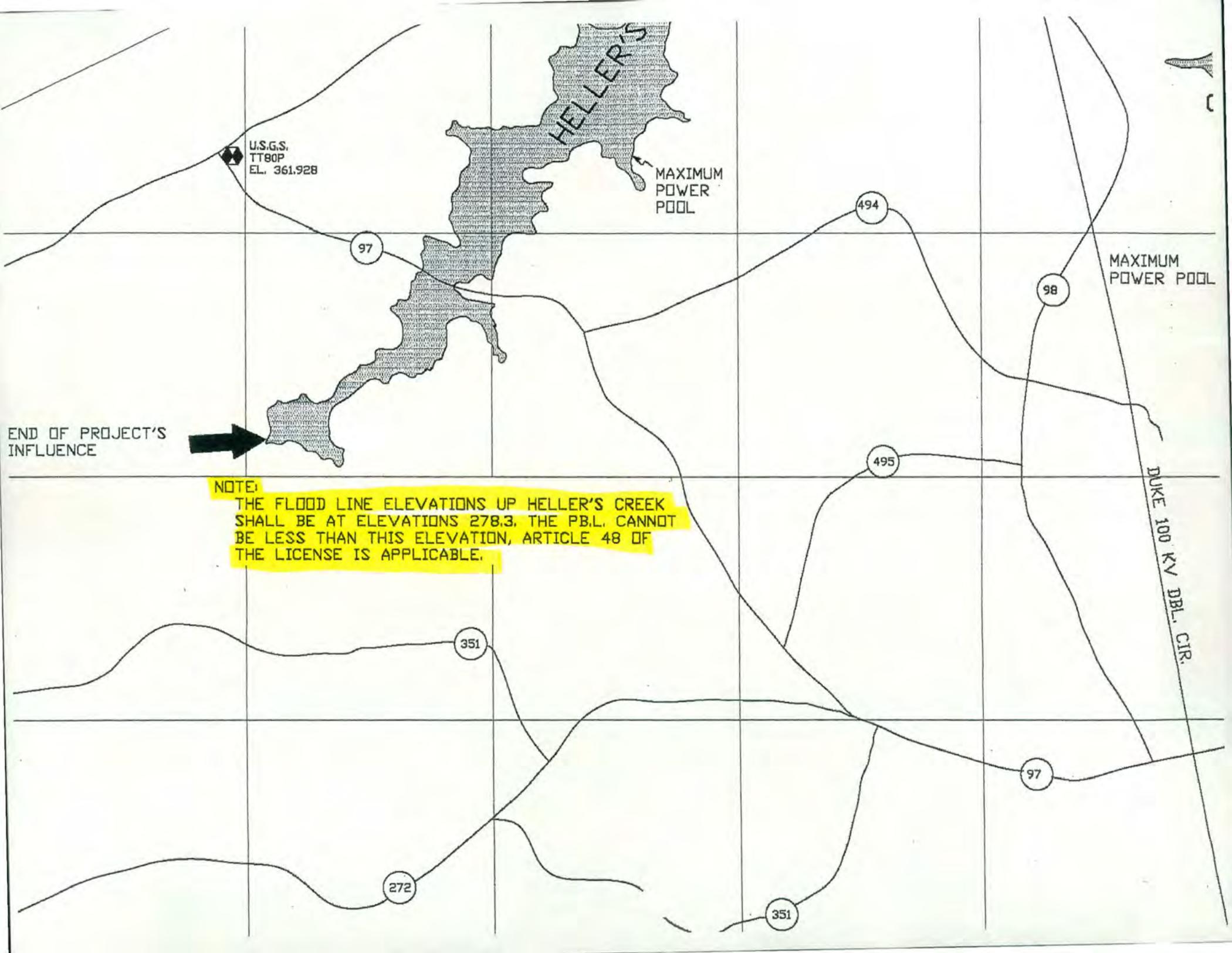
**PROJECT BOUNDARY LINE ELEVATIONS FOR PARR RESERVOIR  
(MINIMUM)**

USGS STATION NO:	DISTANCE FROM PARR DAM (FT.)	ELEVATION OF PROJECT BOUNDARY LINE (MINIMUM)	BASED ON
1	100	270.0	<p>Flood of record (224,000 CFS) in river with Fairfield built but not operating. All Spillway Gates fully down.</p>
2	1,000	270.0	
3	3,000	270.0	
4	6,000	270.8	
5	7,800	271.3	
6	9,850	272.1	
7	12,300	272.8	
8	14,600	274.1	
9	15,500	274.3	
10	17,700	275.3	
11	20,400	275.8	
12	22,700	276.7	
13	25,600	277.4	
14	30,600	279.2	
15	32,700	279.7	
16	35,300	270.0	<p>40,000 CFS in river and all Fairfield units operating; all Spillway Gates fully down. (Table 4-A)5-21-74.</p>
17	37,400	270.0	
18	40,100	270.0	
19	42,600	270.0	
20	45,300	270.0	
21	48,100	270.0	
22	49,800	0.0	
23	51,000	270.0	
24	52,000	270.0	

TO BE USED AS A GUIDE IN ESTABLISHING THE P.B.L., HOWEVER, IN NO CASE WILL THE P.B.L. BE LESS THAN THE REQUIREMENT IN ARTICLE 48.

not a rule

# **Section 8**



U.S.G.S.  
TT80P  
EL. 361.928

HELLER'S

MAXIMUM  
POWER  
POOL

97

494

98

MAXIMUM  
POWER POOL

END OF PROJECT'S  
INFLUENCE



NOTE:  
THE FLOOD LINE ELEVATIONS UP HELLER'S CREEK  
SHALL BE AT ELEVATIONS 278.3, THE P.B.L. CANNOT  
BE LESS THAN THIS ELEVATION, ARTICLE 48 OF  
THE LICENSE IS APPLICABLE.

DUKE 100 KV DBL. CIR.

495

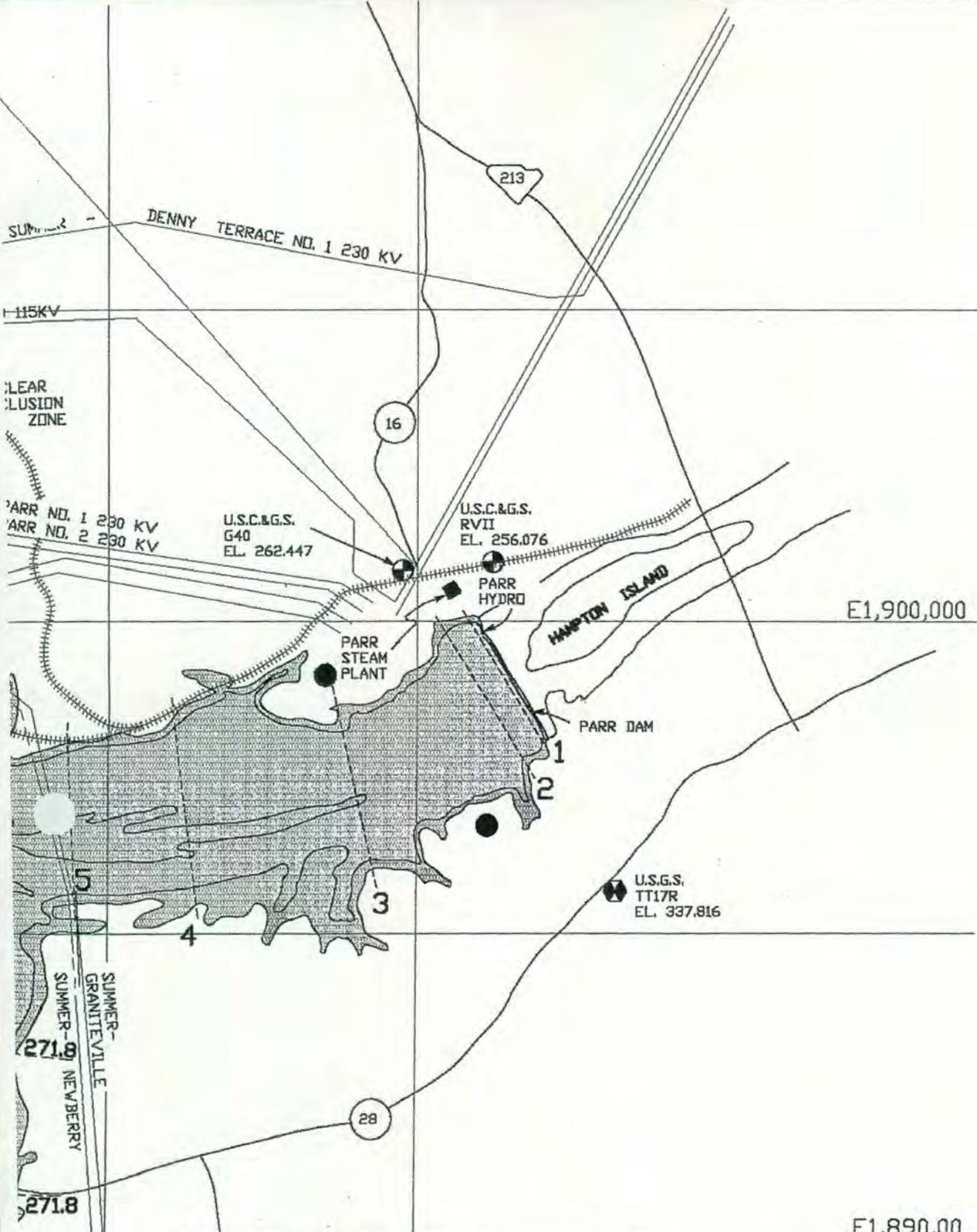
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**P.B.L. FOR CANNON'S CREEK**

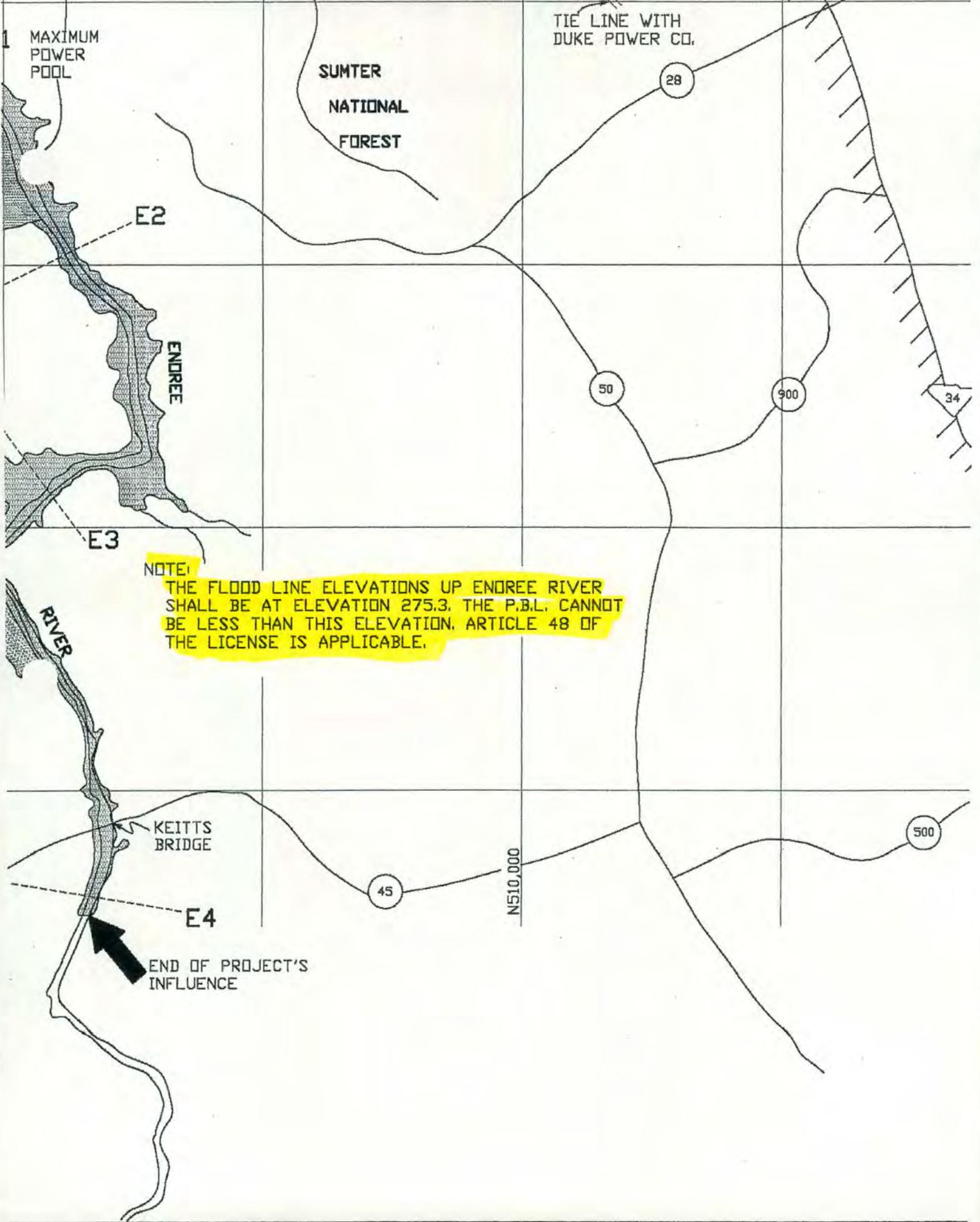
1)a. ELEVATIONS SHOWN ON LINES C1 THROUGH C8 ARE FLOWS FOR MEAN ANNUAL FLOOD ON CANNON'S CREEK DURING OCTOBER 1929 FLOOD ON BROAD RIVER.

b. ELEVATIONS SHOWN ON LINES C9 & C10 ARE FLOWS FOR 50 YEAR FLOOD ON CANNONS CREEK DURING MEAN ANNUAL FLOOD ON BROAD RIVER.

2)a. ELEVATIONS FOR FLOWS WERE OBTAINED FROM U.S.G.S. BACKWATER PROFILE STUDY (TABLE 4) DATED FEBRUARY 1974.

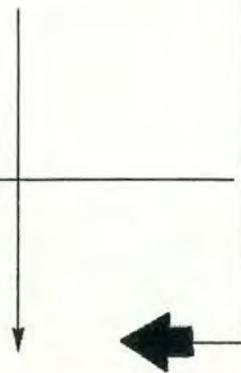
b. ARTICLE 48 OF LICENSE IS APPLICABLE, HOWEVER, WHEN FLOWS EXCEED THE 270' CONTOUR THEN THE FLOW ELEVATION SHOWN ON SECTION LINES WOULD APPLY.

1.8



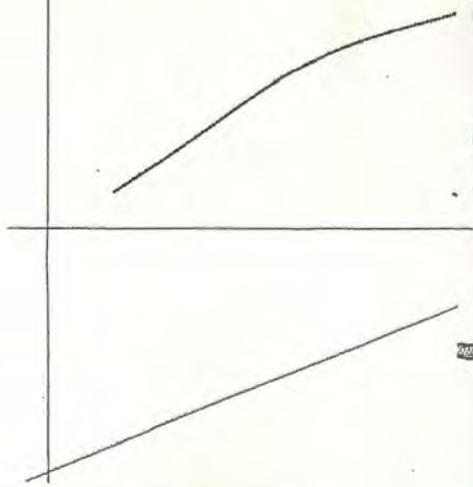
NOTE!  
THE FLOOD LINE ELEVATIONS UP ENDREE RIVER SHALL BE AT ELEVATION 275.3, THE P.B.L. CANNOT BE LESS THAN THIS ELEVATION, ARTICLE 48 OF THE LICENSE IS APPLICABLE.

28	58,000	271.3
29	61,000	272.2
30	64,100	273.1
31	66,800	274.1
32	69,000	274.7
33	71,600	275.3
34	74,800	276.0
35	76,600	276.5
36	79,200	278.0 P.B.L. CLOSERS HERE
37	82,500	280.3
38	87,400	282.1
39	91,100	283.6
40	94,800	285.6



ARTICLE 48 OF THE F.P.C. LICENCE STATES THAT ON THE PARR RESERVOIR, WE SHALL OWN IN FEE AND INCLUDE WITHIN THE P.B.L. ALL LANDS UP TO THE 270 FOOT CONTOUR OR UP TO 50 FEET, HORIZONTAL MEASURE, FROM THE 266 FOOT CONTOUR, WHICHEVER IS GREATER. ALL P.B.L. SHALL BE RUN IN STRAIGHT LINE SEGMENTS EQUAL TO OR SLIGHTLY GREATER THAN ELEVATIONS SHOWN. HOWEVER, THE P.B.L. SHALL NOT EXCEED 200' FEET, HORIZONTAL MEASURE, FROM THE 266 FOOT CONTOUR UNLESS IT CAN BE JUSTIFIED.

Federal Acreage Occupied by the Project Boundary			SCE&G Owned
Drawing No.	Tract No.	Federal Acreage (Flowage Easement)	Section 24 Lands (Fee Simple)
K-14	193	-	72.14
K-17	198	17.88	
K-15/16	200	120.55	25.35
K-14	211	-	26.13
K-13	213	-	28.26
K-10/13	214	-	390.65
K-17	226	3.09	-
K-16/17	227	12.52	-
K-17	232	3.14	-
K-17	248	0.33	-
K-17	264	0.93	-
...	...	...	...



# **Section 9**



May 27, 2015

Mr. William B. Hendrix, Jr.  
18662 Newberry Road  
Blair, South Carolina 29015

Re: South Carolina Electric & Gas Company  
Parr Hydroelectric Project  
FERC Project No.1894  
Response to letter dated May 4, 2015

Dear Mr. Hendrix:

I am responding to your letter dated May 4, 2015 requesting additional information concerning the Federal Energy Regulatory Commission's (FERC) establishment of the Project boundary line (PBL) of the Parr Reservoir. As noted in my previous letter dated March 18, 2015, the Company considers establishment of the PBL fully resolved. The Company has acquired all property rights along the shores of the Parr Reservoir and its tributaries which remain necessary for the operation and maintenance of FERC Project No. 1894. There is no reason to revisit the matter as the reservoir was established in conformity with the specific obligations set forth in the Project's license and has been approved by FERC. Moreover, even if the Company were to see a need in the future to reexamine the placement of the PBL, any property removed from the PBL with the FERC approval would then become non-Project lands and precluded from the jurisdiction of the FERC. In reference to your request for various documents, we must respectfully decline that request. We consider this matter closed and are unwilling to expend additional time and resources retrieving documents for you on this matter.

If you have any further questions, please contact me at (803) 217-9162 or [bargentieri@scana.com](mailto:bargentieri@scana.com).

Very truly yours,

A handwritten signature in blue ink that reads "William Argentieri".

William Argentieri, Manager Civil Engineering  
Fossil/Hydro Technical Services

c: H. E. Delk, Jr./PH File  
J. H. Hamilton/ J. Stuckey

# **Section 10**

**Hendrix, William B.**

---

**From:** ARGENTIERI, WILLIAM R <BARGENTIERI@scana.com>  
**Sent:** Thursday, October 30, 2014 4:47 PM  
**o:** Hendrix, William B.; Jeffrey Carter  
**Cc:** BOOZER, THOMAS C; COLLINS, SCOTT E  
**Subject:** Parr PBL

Billy and Jeff,

Good news, even though I cannot find the final report, the USGS backwater study drawings have enough information on them to help us understand the reasoning used to determine the location of the Parr Reservoir project boundary line. I know you will be unavailable next week, but would you like to get together again sometime during the weeks of November 10 or 17 to discuss what I found? If so, maybe you could give me a couple of dates and times you will be available and I will see what works for Tommy, Scott and I. If it is okay with you, we can meet at Tommy's office again.

Let me know what works for you.

Thanks,

*William R. Argentieri*  
South Carolina Electric & Gas Company  
Mail Code A221  
220 Operation Way  
Cayce, SC 29033-3701

(Physical Address)  
100 SCANA Pkwy  
Building A, Floor 2  
Cayce, SC 29033-3712

Phone - (803) 217-9162  
Fax - (803) 933-7849  
Cell - (803) 331-0179

# **Section 11**



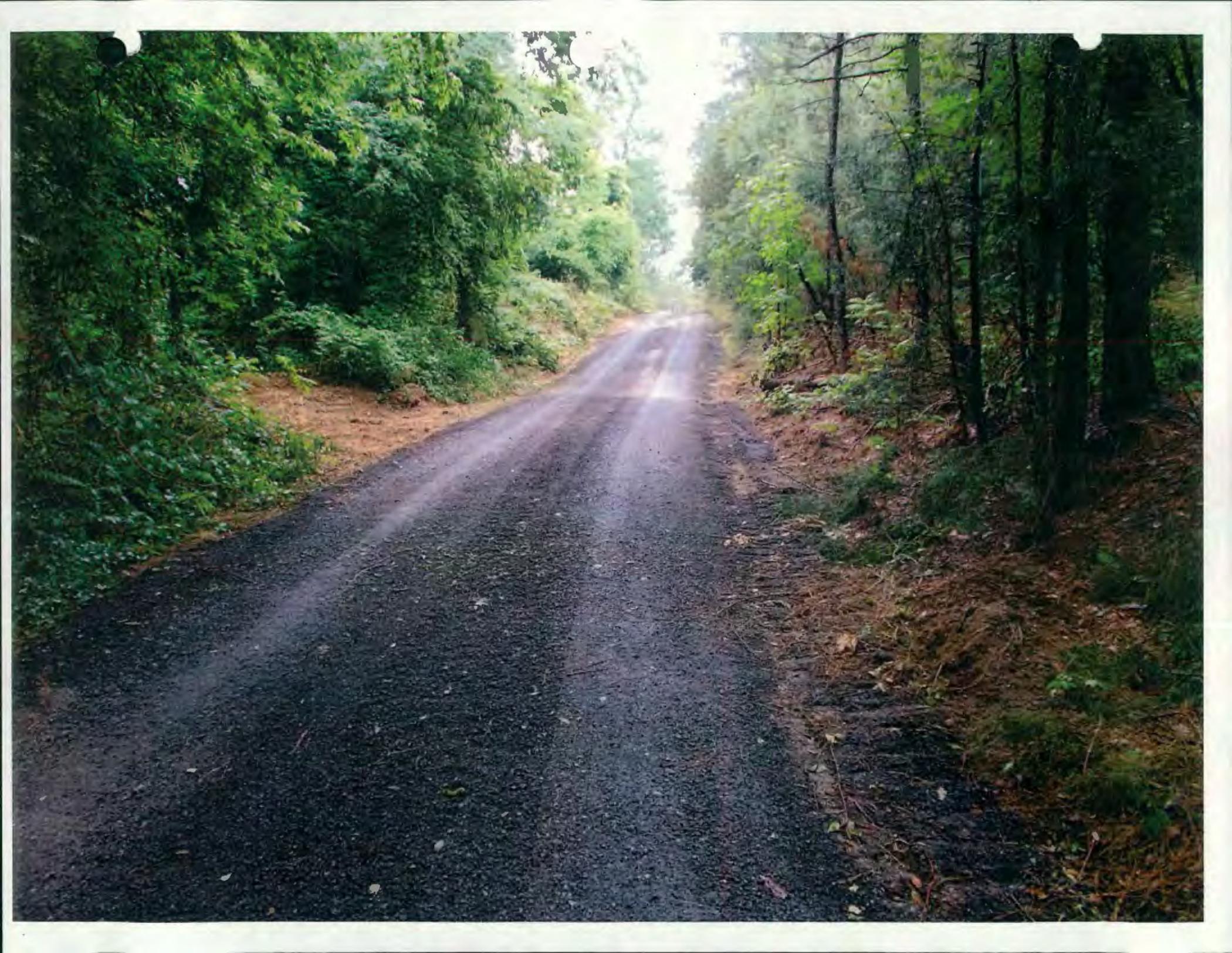




















# South Carolina Department of Natural Resources



1000 Assembly Street  
PO Box 167  
Columbia, SC 29202  
803-734-9096 - Office  
[marshallb@dnr.sc.gov](mailto:marshallb@dnr.sc.gov)

Alvin A. Taylor  
Director

Robert D. Perry  
Director, Office of  
Environmental Programs

June 15, 2015

Mr. James M. Landreth, Vice President  
Fossil & Hydro Operations  
South Carolina Electric & Gas Company  
220 Operations Way  
Mail Code A221  
Cayce, SC 29033-3701

REFERENCE: Comments on the Pre-Application Document and Study Requests for Parr Shoals Hydroelectric Project (P-1894)

Dear Mr. Landreth:

The South Carolina Department of Natural Resources (DNR) has reviewed the Pre-Application Document (PAD) prepared by South Carolina Electric and Gas (SCE&G) for the proposed relicensing of the Parr Shoals Hydroelectric Project, FERC Project No. 1894 (hereafter referred to as "Parr Shoals Project" or "Project"). The Federal Energy Regulatory Commission (FERC) approved SCE&G's request to use the Traditional Licensing Process (TLP), and that process requires DNR to submit comments and study requests to you within 60 days of the Joint Agency Meeting(s), which were conducted by SCE&G on April 14, 2015.

DNR understands the purpose of the PAD is to provide the FERC, federal and state agencies, and other interested stakeholders with background information related to Project facilities and engineering, operational, economic, and environmental aspects of the Project. The PAD is also intended to define pertinent Project issues and identify potential study/information needs.

The Parr Shoals Project is highly complex, and information in the PAD has been very helpful to DNR staff in providing a better understanding of Project operations and existing protection, mitigation and enhancement measures. The PAD has also been helpful in identifying potential Project effects on natural resources.

Our comments on the PAD and PAD Appendices are provided to identify areas for clarification, additional information and discussion as part of the ongoing relicensing process. We are not suggesting that SCE&G revise and/or re-file the PAD with the FERC or other stakeholders.

James M. Landreth, Vice President

COMMENTS on the PAD and Study Requests for Parr Shoals Hydroelectric Project (P-1894)

June 15, 2015

## **Project Description**

A description of the Project is provided in the PAD. According to the PAD, the Parr Shoals Project is located in Newberry and Fairfield counties, South Carolina, on the Broad River, approximately 26 river miles upstream from the City of Columbia. The Project includes the existing Parr Shoals Development with its 4,400 acre reservoir on the Broad River, and the adjacent Fairfield Pumped Storage Development with the 6,800 acre Monticello Reservoir on Frees Creek, a tributary to the Broad River.

The Parr Shoals Development consists of a powerhouse approximately 60 feet wide by 300 feet long and containing 6 generators, a 2,715 foot long concrete dam with a trash raking system mounted on the intake deck, ten bottom-hinged Bascule gates mounted on the crest of the dam, a 4,400 acre reservoir, and transmission and appurtenant facilities. The normal maximum water level of Parr Reservoir is at El. 266.0 feet. The Parr Shoals Development has an installed capacity of 14.88 MW and generates using available inflows up to the maximum station hydraulic capacity of 6,000 cfs.

The Fairfield Pumped Storage Development is comprised of a 6,800 acre reservoir, four earthen dams, an intake channel, a gated intake structure, four surface penstocks (each 26 feet in diameter and approximately 800 feet long) bifurcating into eight concrete-encased penstocks (each approximately 18.5 feet in diameter), a semi-outdoor generating station, approximately 520 feet long by 150 feet wide, housing eight vertical Francis reversible pump-turbine units and transmission and appurtenant facilities. The normal maximum water level in Monticello Reservoir is El. 425.0 feet. The Fairfield Pumped Storage Development has an installed capacity of 511.2 MW and generates with flows from Monticello Reservoir up to a maximum hydraulic capacity of approximately 50,400 cfs. Fairfield pumps water from Parr Reservoir back to Monticello Reservoir with a maximum hydraulic capacity of about 41,800 cfs. An active storage of up to 29,000 acre-feet may be transferred between the two reservoirs by the pumped storage operations.

The existing FERC license for the Project expires on June 30, 2020. SCE&G intends to file for a new license with FERC on or before May 31, 2018.

## **Responsibilities of DNR**

DNR is the state agency charged by state law with the management, protection, and enhancement of wildlife, fisheries, and marine resources in South Carolina. DNR is responsible for formulating comprehensive policies for water resources through a State Water Plan to address issues affecting water supply, water quality, navigation, hydroelectric power, outdoor recreation, fish and wildlife needs, and other water resource interests. DNR is also charged with the statewide responsibilities for regulating watercraft operation and associated recreation on state waters, conducting geological surveys and mapping, promoting soil and water conservation, management of invasive aquatic plants, flood mitigation, drought response planning and coordination, and the state scenic rivers program. DNR's mission is to serve as the principal advocate for and steward of South Carolina's natural resources. (DNR authorities and

responsibilities are described in Titles 48, 49 and 50, South Carolina Code of Laws (1976), as amended.)

### **Interests and Objectives of DNR**

DNR is actively involved in SCE&G's Parr Hydro Relicensing Project with eight staff of DNR participating among the three Resource Conservation Groups (RCGs) and associated Technical Working Committees (TWCs) formed by SCE&G in the summer of 2013. Consultations within these groups over the past two years have allowed DNR to provide input to SCE&G in their development of the PAD and related study proposals submitted to FERC in January, 2015. DNR interests and objectives related to the Project include the protection, enhancement and restoration of natural resources and their associated values. Specific interests include the following:

- Ensure the FERC license recognizes that Parr Reservoir, Monticello Reservoir, and the Broad River are important public trust resources, and that the Project is managed to achieve public benefits.
- Water Quality: Maintain and/or enhance water quality conditions to meet state standards and current use classifications that protect and provide for fish and wildlife habitat, contact recreation, and public water supply.
- Water Quantity: Ensure the implementation of appropriate water management and downstream flows to protect water quality, fish and wildlife resources, and navigation; and meet present and future water supply needs. Improve information, plans, and procedures for making equitable water management decisions. Balance water resource user needs to protect natural resources within the Project and downstream river reaches. Conserve reservoir levels and protect adequate downstream flows during periods of drought or low inflow.
- RTE Species: Protect and enhance rare, threatened, and endangered (RTE) species; and species of conservation concern.
- Aquatic Resources: Protect and enhance fishery resources and aquatic habitat. Minimize entrainment mortality for fish. Stabilize lake-levels during spawning seasons to promote reproduction of fish. Protect and enhance shoreline and littoral habitats for aquatic species. Implement long-term monitoring strategies to ensure protection of key aquatic species and to appraise restoration and enhancement efforts. Enhance habitat and flow conditions in the tailrace, bypass areas, and downstream river reaches. Reduce negative effects to stream fish populations caused by habitat fragmentation resulting from the dams and lakes; and monitor viability of key conservation species potentially impacted by fragmentation. Minimize spread of exotic, invasive species.
- Terrestrial Resources: Protect and enhance wildlife and botanical resources and related habitat. Protect and enhance environmentally sensitive areas and natural communities of concern. Protect and enhance riparian vegetation and habitat areas on shorelines. Minimize habitat losses from shoreline erosion and development. Increase the acreage of protected natural areas. Minimize spread of exotic, invasive species.
- Recreation: Protect and enhance public opportunities for fishing, hunting, wildlife viewing, boating, and other outdoor recreation. Expand and improve existing areas and facilities to meet user needs. Develop and locate new areas/facilities based on user needs

and carrying capacity. Increase land areas designated for outdoor recreation and wildlife conservation. Design and manage access facilities to minimize crowding and safety problems. Design facilities to be ADA accessible. Improve safety and law enforcement among recreational users. Protect aesthetic resources at the Project.

- Cultural Resources: Protect any significant archaeological and historic sites and resources from human and natural impacts.

## Comments

DNR's comments address the PAD and the supporting information provided in the PAD appendices, which includes presentations and meeting summaries of the RCGs or TWCs participating in SCE&G's relicensing process. Note: the page numbers referenced in our comments correspond to the hyphenated numbers (e.g. page 3-4) of the PAD sections; however, page numbers for the appendices are referenced to the PDF-page numbers of the 1,873-page PAD which was accessed from the website <http://parrfairfieldrelicense.com>.

### *Reservoir Fluctuations*

In our review of the PAD, we observed that some of the information in the PAD regarding the description of "daily" operations and associated reservoir elevations, appears to be inconsistent with data presented in the document. The following comments are offered for clarification.

In Section 3.4 (page 3-9), it states "The Fairfield Development generates and pumps using an active storage of 29,000 acre-feet. During the generation cycle, active storage in the upper Monticello Reservoir is released from the powerhouse into the lower Parr Reservoir. During the pumping cycle, the active storage is transferred from the Parr Reservoir back into the Monticello Reservoir. *This cycle occurs daily, and the transfer of the full active storage results in an upper reservoir maximum fluctuation of 4.5 feet, and a corresponding lower reservoir fluctuation of 10 feet*" (emphasis added).

Section 3.4, page 3-10 - A summary of maximum and minimum annual reservoir elevations observed over a five year period is presented in Tables 3-1 and 3-2.

Appendix C, page 191 – Meeting notes from December 4, 2012, are presented, and in those notes a statement was made on the bottom of page 1 that "the level of daily fluctuation at Parr reservoir is usually around 8 feet, with a maximum of 10 feet, and depends on what time of year it is".

DNR notes that the ranges of fluctuations presented in Section 3.4 and Appendix C, page 191, represent fluctuations between the maximum and minimum pool elevations which occur over the course of a year *and do not reflect normal daily fluctuations*. Actual reservoir fluctuations observed during the period of 1995-2013 for Parr Reservoir and 2005-2013 for Monticello Reservoir are presented in Appendix C on pages 622 through 629 (April 1, 2014 presentation for the Fisheries TWC). These data show that during the periods of record, daily operations have generally used only a portion of the available 29,000 acre/feet, and the resulting daily fluctuations are much less on average than described in Section 3.4. DNR recommends that

information describing the daily fluctuations in both Parr and Monticello reservoirs be included in the License Application.

#### *Downstream Flows*

As demonstrated in the PAD (Appendix C, pages 331- 354, Parr Project effects on flow regulation presented June 27, 2013), Project operations have been observed to alter downstream flows (compared to inflows) so as to increase the magnitude and frequency of high flow events. Project operations can alter the flows released at Parr Dam as measured at Alston all the way to the Congaree River (see Figures on pages 352, 353 and 354). DNR is concerned that these flow variations may be disrupting the spawning success of diadromous fish in the Broad and Congaree rivers.

Appendix C, page 917 – A discussion between Kleinschmidt and DNR involving sturgeon populations on April 24, 2014, is presented. In that consultation, DNR staff noted that DNR would have concerns if Project operations impact flows downstream in the Congaree River during the spring spawning season. Kleinschmidt responded that impacts on flows in the Congaree as a result of project operations would be unlikely for a number of reasons. “Acknowledging that flow impacts to the Upper Congaree are unlikely, Kleinschmidt staff noted that level-loggers are being deployed throughout the reach of the Broad below the project and that an operations model is being developed to determine the extent of the downstream peaking “wave.” It was determined that, if operations modeling efforts suggest that water level/flow effects extend downstream of the Columbia Hydro Project, then there may be a need to reinitiate consultation regarding potential sturgeon impacts; otherwise, there are no concerns”. DNR notes that data collected since that meeting, and presented in the PAD (Figure on pages 352-354) clearly show effects that Project operations can have on the frequency, duration, and magnitude of peak flows downstream to the Congaree River. Since these flows may disrupt spawning diadromous fish, we recommend that DNR, USFWS and NMFS personnel be consulted to determine what additional information may be needed to assess those impacts.

Section 3.7, page 3-11 – Article 39 requires that the project is operated such that releases from Parr Reservoir during flood flows shall be no greater than flows which would have occurred in the absence of the Project. The Article did not provide a definition for flood flows; however, in practice, SCE&G uses 40,000 cfs as the targeted flood flow to guide operational measures to comply with this Article. Assuming a similar article is incorporated in the new license, DNR sees a need for further discussion and evaluation of how Project operations effect downstream flows during high inflow events, and we think such evaluation should address inflows less than 40,000 cfs, and consider effects of flood flow alterations on diadromous fish.

Section 4.2.2, page 4-15 – The flow statistics presented in this section (Table 4-2) are limited to monthly flow data from the Alston gage. Annual and monthly flow duration curves are provided in Appendix A of the PAD (page 162). As the relicensing process proceeds, DNR suggests that it is essential to have an understanding of daily variability of flows to be able to evaluate Project effects on aquatic and related natural resources. As an example, we would note that the daily minimum and maximum flows from the Project in the selected period of record (1981-2013)

James M. Landreth, Vice President

COMMENTS on the PAD and Study Requests for Parr Shoals Hydroelectric Project (P-1894)

June 15, 2015

have ranged from a low of 48 cfs, on September 12, 2002, to a high of 106,000 cfs on October 14, 1990 (USGS summary statistics for Station 02161000, Broad River at Alston).

### *Other Items*

Appendix C, page 225 – On page 2 of the minutes from the May 14, 2013, Recreation TWC meeting, SCE&G determines that some property within the Project Boundary (Lyne Tract) needs to be reclassified from future recreation to project operations. DNR suggests that 1) it may not be necessary to reclassify the entire 350 acres to Project Operations and other options should be considered, and 2) any lands that are removed from present or future recreational status should be replaced.

Section 2.0, pages 2-1 and 2-2, describes SCE&G's request to use the Traditional Licensing Process, a request which the FERC approved on February 20, 2015. DNR notes that SCE&G also intends to pursue a Settlement Agreement as a component of relicensing (Appendix C, pages 194, 968, and 973, in December 4, 2012 meeting summary and August 14, 2014 email to stakeholders). DNR looks forward to participating in the development of a settlement agreement that addresses a number of natural resources issues.

### **Study Requests**

Proposed study plans are presented in Appendix H of the PAD. DNR has participated in the development of all of these study plans, and we concur with the plans as presented. These include :

- Water Quality in Downstream West Channel Study Plan
- Monticello Reservoir Freshwater Mussel reconnaissance Survey Study Plan
- Reservoir Fluctuation Study Plan
- Instream Flow Study Plan
- Desktop Fish Entrainment Study Plan
- American Eel Abundance Study Plan
- Monticello Reservoir and Parr Reservoir Waterfowl Survey Study Plan
- Rare, threatened and endangered Species Study Plan
- Rocky Shoals Spider Lily Study Plan
- Broad River Spiny Crayfish Study Plan
- Recreation Use and Needs Study Plan
- Downstream Recreational Flow Assessment Study Plan
- Downstream Navigational Flow Assessment Study Plan
- Parr Shoreline Management Plan Outline
- Monticello Shoreline Management Plan Outline
- Hydraulic & Project Operations Model Study Plan

### **Additional Information Needs**

James M. Landreth, Vice President

COMMENTS on the PAD and Study Requests for Parr Shoals Hydroelectric Project (P-1894)

June 15, 2015

With the comments provided in this letter, DNR is identifying needs for clarification, additional information, and discussion to be addressed as part of the continuing consultations of the current relicensing process. We recommend SCE&G address our comments and information needs within the respective RCG or TWC that is appropriate for addressing the issues.

To reiterate additional information needs, DNR requests development of additional hydrologic information describing Project inflows, outflows (Broad River at Alston), and Congaree River flows to better assess the potential effects of Project operations on spawning diadromous fish. We also recommend that SCE&G convene a meeting with the resource agencies and interested stakeholders to discuss the potential impacts of current project operations on the spawning of diadromous fish, to include American shad, striped bass and shortnose sturgeon.

We appreciate the opportunity to review and comment on the PAD for the Parr Shoals Hydroelectric Project. If you have questions or need additional information please do not hesitate to contact me by phone at 803-734-9096 or email at [marshallb@dnr.sc.gov](mailto:marshallb@dnr.sc.gov).

Sincerely,



Bill Marshall

Coordinator, FERC Hydro Projects Review

cc: Bill Argentieri, SCE&G  
Henry Mealing, Kleinschmidt Associates  
Byron Hamstead, USFWS  
Pace Wilbur, NMFS  
Bob Perry, DNR  
Dick Christie, DNR



**UNITED STATES DEPARTMENT OF COMMERCE**

National Oceanic and Atmospheric Administration

**NATIONAL MARINE FISHERIES SERVICE**

Southeast Regional Office

263 13th Avenue South

St. Petersburg, Florida 33701-5505

<http://sero.nmfs.noaa.gov>

June 15, 2015

F/SER47:FR/pw

(Sent via Electronic Mail)

Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, DC 20426

Re: Comments on the Pre-Application Document for the Parr Shoals  
Hydroelectric Project; Newberry and Fairfield Counties, South Carolina  
(FERC Project No. 1894)

Dear Secretary Bose:

NOAA's National Marine Fisheries Service (NMFS) has reviewed the Pre-Application Document (PAD) prepared by South Carolina Electric and Gas (SCE&G) for the proposed relicensing of the Parr Shoals Hydroelectric Project, FERC Project No. 1894 (hereafter referred to as "Parr Shoals Project" or "Project"). The Federal Energy Regulatory Commission (FERC) approved SCE&G's request to use the Traditional Licensing Process (TLP), and that process requires the NMFS to submit comments and study requests within 60 days of the Joint Agency Meeting, which SCE&G conducted on April 14, 2015. The following comments are submitted in accordance with the provisions of the Federal Power Act (16 U.S.C. 803(a); the Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661-667e); the Endangered Species Act (16 U.S.C. 1531-1543); the National Environmental Policy Act (NEPA, 42 U.S.C. 4321 et. seq.); and the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801 et. seq.).

*Project Description*

The Parr Shoals Project is located in Newberry and Fairfield Counties, South Carolina, on the Broad River, approximately 26 river miles upstream from the City of Columbia. The Project includes the existing Parr Shoals Development with its 4,400 acre reservoir on the Broad River and the adjacent Fairfield Pumped Storage Development with the 6,800 acre Monticello Reservoir on Frees Creek, a tributary to the Broad River.

The Parr Shoals Development consists of a powerhouse approximately 60 feet wide by 300 feet long and containing six generators; a 2,715-foot-long concrete dam with a trash raking system mounted on the intake deck; ten bottom-hinged Bascule gates mounted on the crest of the dam; a 4,400 acre reservoir; and transmission and appurtenant facilities. The normal maximum water level of Parr Reservoir is at Elevation 266.0 feet. The Parr Shoals Development has an installed capacity of 14.88 MW and generates using available inflows up to the maximum station hydraulic capacity of 6,000 cfs.

The Fairfield Pumped Storage Development is comprised of a 6,800 acre reservoir; four earthen



dams; an intake channel; a gated intake structure; four surface penstocks (each 26 feet in diameter and approximately 800 feet long) bifurcating into eight concrete-encased penstocks (each approximately 18.5 feet in diameter); a semi-outdoor generating station, approximately 520 feet long by 150 feet wide, housing eight vertical Francis reversible pump-turbine units; and transmission and appurtenant facilities. The normal maximum water level in Monticello Reservoir is Elevation 425.0 feet. The Fairfield Pumped Storage Development has an installed capacity of 511.2 MW and generates with flows from Monticello Reservoir up to a maximum hydraulic capacity of approximately 50,400 cfs. Fairfield pumps water from Parr Reservoir back to Monticello Reservoir with a maximum hydraulic capacity of about 41,800 cfs. An active storage of up to 29,000 acre-feet may be transferred between the two reservoirs by the pumped storage operations.

By letter dated January 5, 2015, SCE&G filed a PAD and Notice of Intent (NOI) for a new license for the Project. The current Project license was issued August 28, 1974, and expires on June 30, 2020.

#### *Comments on the PAD*

The purpose of the PAD is to provide the FERC, federal and state agencies, and other interested stakeholders with background information related to Project facilities and engineering, operational, economic, and environmental aspects of the Project. The PAD is also intended to define pertinent Project issues and identify potential study/information needs.

Project operations have been observed to alter downstream flows (compared to inflows) so as to increase the magnitude and frequency of high flow events (PAD, Appendix C, pages 331- 354). Project operations can alter the flows released at Parr Dam as measured at Alston all the way to the Congaree River (see Figures on pages 352, 353, and 354). The NMFS is concerned these flow variations may disrupt spawning by anadromous fish in the Broad and Congaree Rivers.

The NMFS also has concerns about potential impacts from fluctuating water levels from peaking activities to the area in the Congaree River known to be spawning habitat for Shortnose Sturgeon (*Acipenser brevirostrum*). A meeting on April 24, 2014, between Kleinschmidt and the South Carolina Department of Natural Resources (SCDNR) involving Shortnose Sturgeon populations is summarized in Appendix C, pages 917-918. In that consultation, SCDNR staff noted SCDNR would have concerns if Project operations impact flows downstream in the Congaree River during the spring spawning season. Data presented in the PAD (Figure on pages 352-354) clearly show the effects of Project operations on duration and magnitude of flows downstream to the Congaree River. Since these flows may disrupt spawning anadromous fish, including the federally-endangered Shortnose Sturgeon, the NMFS recommends that SCDNR, USFWS, and NMFS personnel be consulted to determine if additional information may be needed to assess those impacts.

#### *Additional Study Requests*

The NMFS supports the additional information needs requested by SCDNR and the U. S. Fish and Wildlife Service and makes these following additional requests:

1. SCE&G further evaluate hydrologic information on Project flows (inflow, outflow, and Congaree River flows) to better assess the impact on spawning anadromous fishes, especially the Shortnose Sturgeon.
2. SCE&G convene a meeting with the resource agencies and interested stakeholders to discuss the potential impacts of current project operations on the spawning of anadromous fish, to include American Shad, Striped Bass, and Shortnose Sturgeon.
3. SCE&G scope options for and evaluate the engineering feasibility of fishways at the Parr Shoals Development suitable for passing American Eel, American Shad, and Blueback Herring.

Thank you for the opportunity to provide these comments. Please directed related questions or comments to the attention of Mr. Fritz Rohde at our Beaufort Field Office, 101 Pivers Island Road, Beaufort, North Carolina 28516-9722, or at (252) 838-0828

Sincerely,



/ for

Virginia M. Fay  
Assistant Regional Administrator  
Habitat Conservation Division

cc: SCANA, bargentieri@scana.com  
Kleinschmidt, henry.mealing@kleinschmidtgroup.com  
FWS, bryon\_hamstead@fws.gov  
SCDNR, marshallb@dnr.sc.gov, christied@dnr.sc.gov, perryb@dnr.sc.gov



## United States Department of the Interior



### FISH AND WILDLIFE SERVICE

176 Croghan Spur Road, Suite 200  
Charleston, South Carolina 29407

June 15, 2015

Ms. Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, DC 20426

Re: COMMENTS on Notice of Intent to File License Application; Filing of Pre-Application Document; and Approval of Use of the Traditional Licensing Process; Parr Hydroelectric Project; Newberry and Fairfield Counties, South Carolina (FERC Project No.1894-207); FWS Log No. 2015-CPA-0053

Dear Ms. Bose:

The U.S. Fish and Wildlife Service (Service) has reviewed the Federal Energy Regulatory Commission's (Commission) February 20, 2015, "Notice of Intent (NOI) to File License Application, Filing of Pre-Application Document (PAD), and Approving Use of the Traditional Licensing Process (TLP)" for the above-referenced hydroelectric project located on the Broad River in South Carolina. The following comments are submitted in accordance with the provisions of the Fish and Wildlife Coordination Act, as amended (16U.S.C. 661-667e); section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543) (ESA); the Federal Power Act (16 U.S.C. 803(a) and (j)); the Migratory Bird Treaty Act (MBTA, 16 U.S.C. 1536, 1538); the National Environmental Policy Act (NEPA, 42 U.S.C. 4321 *et seq.*); the Clean Water Act (33 U.S.C. 1251 *et seq.*); and the Electric Consumers Protection Act of 1986 (100 Stat. 1243).

### PROJECT DESCRIPTION

The Parr Hydroelectric Project (Project) consists of two developments located on the Broad River basin in Newberry and Fairfield counties, South Carolina. The Project does not occupy any Federal lands. The 14.88-megawatt (MW) Parr Shoals development consists of the 4,400-acre Parr Reservoir on the Broad River formed by the Parr Shoals Dam and serves as the lower reservoir for the pumped storage development. The 511.2-MW Fairfield Pumped Storage development consists of the 6,800-acre Lake Monticello (formerly Frees Creek, a small tributary of the Broad River) now impounded) formed by four earthen dams and serves as the upper reservoir for the pumped storage development. Lake Monticello also provides cooling water for the V.C. Summer Nuclear Station. The Parr Shoals dam is approximately 24 river miles upstream from the Columbia Diversion Dam that is equipped with a vertical slot fishway facility.

## **RELICENSING PROCESS**

By letter dated January 05, 2015, South Carolina Electric & Gas Company (SCE&G) filed a PAD and NOI for a new license for the Project. The current Project license was issued August 28, 1974, and expires June 30, 2020.

In its PAD and accompanying NOI filed with the Commission, SCE&G declared its intent to apply for a new license of the existing Project (which expires June 30, 2020), and requested to use the TLP pursuant to FERC Regulations (18 CFR. §5.3). Public notice of this request was also provided on December 28, 2014, and January 14, 2015. Although not required by the Commission's regulations, SCE&G began early consultation (pre-PAD) with natural resource agencies and has made substantial effort in the relicensing process. During this early investment, SCE&G began conducting studies to address information needs and to assess impacts to natural resources. Due to the high level of communication and consideration of the Service's concerns thus far in the relicensing process, we foresee minimal controversy during relicensing and supported SCE&G's request to use the TLP for the Project. In a letter dated February 20, 2015, the Commission approved SCE&G's request to use the TLP.

## **ENDANGERED SPECIES**

By letter dated February 20, 2015, the Commission designated SCE&G as the non-federal representative for the purposes of informal consultation pursuant to section 7 of ESA. This designation authorizes SCE&G to conduct informal consultation, conduct studies, and develop a draft biological assessment.

Pursuant to 50 CFR section 402.12, Federal agencies are required to assess the effects of their actions and to consult with the Service on any action that may affect a listed species. These regulations require the preparation of a biological assessment for any "major activity." This consultation must include an assessment of direct impacts associated with the Project, as well as cumulative and secondary impacts to listed species associated with the actions of that are likely to result from the actions.

The endangered species list is dynamic. The Service published a notice (*Federal Register* 76:59836-59862) on September 27, 2011, stating that we will conduct an in-depth review of 374 rare Southeastern aquatic, riparian, and wetland animal and plant species to determine if any of all of them warrant Federal protection under the ESA. The species that the Service has been petitioned to list and for which a positive 90-day finding has been issued are collectively referred to as At-Risk Species (ARS).

Enclosed is a list of federally endangered, threatened, and ARS for Fairfield, Newberry, and Richland counties, South Carolina.

## **FISH AND WILDLIFE SERVICE GOALS**

The Service's goals for the Broad River system are to conserve, protect, enhance, and restore aquatic and riparian habitats and species as well as species diversity. Where applicable, we seek mitigation that directly benefits the affected ecosystems(s). Generally, the Service is interested in

enhancing quality stream flow for aquatic habitat; restoring bypassed or diverted reaches; protecting, restoring, or enhancing ecosystem function; and restoring populations of fish and wildlife.

**Mitigation Policy.** The U.S. Fish and Wildlife Service's Mitigation Policy, 46 *Federal Register*, 7656-7663, states: "*In the interest of serving the public, it is the policy of the U.S. Fish and Wildlife Service to seek to mitigate losses of fish and wildlife, their habitats, and use thereof from land and water developments.*" Consistent with this Policy<sup>1</sup> (501 FW 2), we recommend developing adequate measures to compensate for the ongoing impacts of this Project and its operation on the natural resources of the area. These measures should include mitigation for impacts from the continued operation of the Project on fish and wildlife populations and their habitats, including wetlands. The Service uses this Mitigation Policy to develop consistent and effective recommendations to protect and conserve valuable fish and wildlife resources. Moreover, we seek and recommend appropriate and timely mitigation activities to allow Federal and private developers to anticipate and incorporate measures early in the relicensing process.

In seeking mitigation, the Service will first recommend avoidance and minimization of losses of fish and wildlife and their habitats. If losses are likely to occur, we will recommend measures to reduce or eliminate them over time. If losses are likely to continue to occur, we will recommend those losses be compensated by replacement of the same kind of habitat value so that the total loss of such in-kind habitat value will be eliminated. In developing our recommendations for protection, mitigation, and enhancement measures for the continuing impacts of this Project, we seek to reduce adverse impacts to aquatic, riparian, and terrestrial resources and to enhance fish and wildlife resources where feasible. The Service recommends mitigation for inadequate in-stream flows, dewatered bypass river reaches, impaired water quality, and adverse effects to aquatic communities and high-quality forested wetlands within the floodplain. Sources of mitigation include, but are not limited to, enhanced in-stream flows; watering of bypass reaches; improvements to water quality; spawning flows for native fish; ecologically sound inundation of floodplains; protection and enhancement of rare, threatened, and endangered species; protection of shoreline through riparian buffers; and acquisition of land.

**Service Goals.** Specific Service interests and objectives for the Parr Hydroelectric Project include the following criteria:

1) Project Operations:

- Develop and implement Project operations criteria that provide reasonable operational flexibility with full consideration of the resulting environmental impacts;
- Restore natural stream flow regimes, (including flood spates) to provide natural habitat conditions for aquatic resources especially during spawning seasons; and
- Stabilize reservoir elevations to provide productive littoral zones and stable spawning habitats especially during spawning seasons.

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<sup>1</sup> The Service published its Mitigation Policy in the *Federal Register*, Vol. 46, No. 15, January 23, 1981 (*Federal Register* 46:7656-7663), with corrections in the *Federal Register* of February 4, 1981 in accordance with the Fish and Wildlife Act of 1956 (16 U.S.C. 742(a)-754), the Fish and Wildlife Coordination Act (16 U.S.C. 661-667(e)), the Watershed Protection and Flood Prevention Act (16 U.S.C. 1001-1009), and the National Environmental Policy Act (42 U.S.C. 4321-4347).

2) Water Resources:

- Monitor, maintain, and/or enhance water quality throughout the Project; and
- Provide accurate and accessible water quality monitoring throughout the Project's new license.

3) Fish and Aquatic Resources

- Enhance seasonal minimum flows to provide adequate habitat and zones of passage for native resident fish, diadromous fish, freshwater mussels, and navigation purposes;
- Prevent and/or mitigate ongoing aquatic fish and mussel habitat fragmentation caused by the Project;
- Protect and enhance stream flow for aquatic resources during low inflow conditions and future droughts;
- Protect and enhance shoreline and littoral zones in Parr Reservoir and Lake Monticello to ensure healthy productivity and stable fish spawning habitat;
- Prevent and/or adequately mitigate for entrainment mortality of fish caused by the Project;
- Prevent current and future threats from invasive species;
- Protect, mitigate, and/or enhance populations and habitats of freshwater mussels and crayfish; and
- Employ science-based adaptive management of focal species.

4) Wildlife and Botanical Resources

- Protect, enhance, and expand natural areas and vegetated shoreline.
- Prevent terrestrial habitat loss from erosion, silviculture, and other land disturbances;
- Prevent and/or mitigate for impacts to migratory birds, bald eagles, bats, and their habitats; and
- Prevent current and future threats from invasive species.

5) Rare, Threatened, and Endangered Species

- Protect, enhance, and/or mitigate for the harm or loss of habitats for rare, threatened, endangered, and other species of concern<sup>2</sup>.

6) Recreation and Land Use

- Protect, enhance, and expand areas designated for public outdoor recreation and provide adequate access and facilities (consistent the Americans with Disabilities Act) to recreational opportunities; and
- Develop and implement an enforceable shoreline management plan and permitting guidelines that protect conservation priority resources and aesthetics.

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<sup>2</sup> Enclosed is a list of federally endangered, threatened, and ARS for Fairfield, Newberry, and Richland Counties, South Carolina. In addition to these lists, two conservation priority species impacted by the Project were proposed by the Service and accepted by the Rare, Threatened, and Endangered Technical Working Committee for the Parr Shoals Hydroelectric Project. Those species are *Lampsilis cariosa* (yellow lampmussel) and *Elliptio roanokensis* (Roanoke slabshell).

## COMMENTS ON PAD

The Service reviewed and provided numerous comments on a draft PAD for the Project on August 29, 2014, and attended a meeting on October 9, 2014, to discuss comments from other natural resources agencies. We reviewed the PAD filed on January 5, 2015. We focused our review on sections with relevance to our interests and authority. In general, we are pleased to find the PAD to be a comprehensive and well composed document that meets or exceeds the purposes and content requirements set forth in 18 CFR section 5.6.

The applicant has committed time and resources in advance in early coordination with the Service and other stakeholders toward the relicensing of this Project. There may be some differences in perspective between the Service and those of SCE&G, but we believe that the applicant has set a high standard for cooperation and communication among stakeholders to address potential issues. For these reasons, we anticipate a corresponding high regard for our environmental interests and objectives during the relicensing process.

**Section 3.4:** This section outlines a typical pumping cycle where active storage is transferred to and from Parr and Monticello Reservoirs. While the annual maximum for daily reservoir elevation fluctuation is reported to be 4.5 feet for Monticello and 10 feet for Parr, the Service contends that it is also important for the Commission to be aware of typical reservoir elevation fluctuation. According to reservoir elevation observation data from 1995-2013, the monthly mean for daily fluctuation for Parr ranges from 2.87 feet in February to 7.03 feet in August. Similarly, the elevation fluctuation for Monticello ranges from 1.49-feet in February to 3.40 feet in August (see consultation record in PAD for data presented at the Fisheries Technical Working Committee (TWC) meeting on April 1, 2014). These data suggest that the current environmental condition of the Project (e.g., reservoir shoreline stability, fish and mussel assemblages, downstream hydrology, etc.) are expressions of only a portion of the allowable operating range for the Project.

**Section 3.4 and 4.2.2:** Section 3.4 does not describe any daily or seasonal ramping rates. While section 4.2.2 summarizes monthly flow statistics for water years 1981-2013 at the USGS gage (02161000) below the Project on the Broad River, these data do not show daily and hourly streamflow fluctuations that occur in the Broad River below the Project. The Service contends that daily and sub-daily streamflow fluctuations<sup>3</sup> in the Broad River affect many aquatic resources and their habitats. Measuring streamflow fluctuation across broad timescales may mask trends that drive a biological phenomenon or environmental impact. Data reported and presented by American Rivers and the University of South Carolina at the Operations Resource Conservation Group (RCG) meeting on June 27, 2013, (see consultation record) show that stream flow pulses occur more frequently during higher baseflow conditions. Baseflow conditions are typically highest in the spring months (see Appendix A of PAD) during the spawning season for many resident and diadromous fishes and freshwater mussels. The Service believes that SCE&G's Final

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<sup>3</sup> Streamflow fluctuation refers to the following phenomena: 1) the difference between inflow and outflow (magnitude); 2) the increasing or decreasing rate of streamflow (ramping rate); 3) the duration of that disequilibrium; and 4) the frequency of these events over time.

License Application and the Commission's environmental document<sup>4</sup> should assess streamflow fluctuations on sufficiently small timescale to fully evaluate potential ecological impacts to priority natural resources.

**Section 3.7:** License article 39 is the, "requirement to operate the Project reservoirs in such a manner that releases from the lower reservoir during flood flows shall be no greater than flows, which would have occurred in the absence of the Project." The Service agrees with SCDNR's assertion that there is a need to further discuss SCE&G's definition of a flood flow (40,000 cubic feet per second), and we support their request for additional information and/or consultation record regarding how this benchmark was established.

**Section 4.2.2:** Table 4-2: The water year for minimum recorded flow in May is incorrect.

**Section 4.2.6:** The South Carolina Department of Health and Environmental Control (SCDHEC) identifies several areas within both reservoirs and immediately downstream of the Project in which water quality conditions are impaired. Since these impairments impact use by aquatic life (Table 4-5), the Service is concerned and interested to know the measures being taken to recovery water quality.

**Sections 4.2.7 and 4.2.10:** The USGS gage (02160991) in the Project's tailrace has documented 13 hourly DO excursions below SCDHEC's standard (4.0 mg/l) from January 2011 to August 2014. Currently, SCE&G is assessing how the Project may be causing these conditions, and has coordinated with the Water Quality TWC. Additional studies are being conducted to monitor dissolved oxygen (DO) in Hampton Island's west channel which is opposite of the Project tailrace and USGS gage (02160991). The Service appreciates the initiative SCE&G's has taken to investigate this issue and to explore potential DO enhancement measures via turbine aeration (self-venting). Ensuring adequate DO is a priority for us and requires reliable, continuous monitoring and enhancement measures as necessary.

**Section 4.3.1.4:** The reference of (Post 2010) under the "American Shad" heading was not included in references section 4.3.8.

**Section 4.3.3:** SCE&G staff informed the Service of potential freshwater mussel harvesting in the reservoirs. While this activity is permissible, the taking of freshwater mussels is unlawful without a permit from SCDNR. The Service wants to ensure that mussel harvesting activities are responsible, sustainable and enforced according to South Carolina law.

**Sections 4.3.6 and 4.3.7:** Currently, no specific prevention, mitigation, or enhancement measures have been identified as a result of the Desktop Fish Entrainment Study Plan. However, the Service is open to a variety of outcomes consistent with our Mitigation Policy that aim to offset the ecological impact of fish and mussels entrained and killed by Project operations. Such measures may include, but are not limited to, modifying Project operations, fisheries stocking activities, and/or annual contributions to the Broad River Mitigation Trust Fund.

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<sup>4</sup> Either environmental impact statement or environmental assessment pursuant to the National Environmental Policy Act.

**Sections 4.4.2 and 4.6.1:** Table 4-15 and the text that precedes it describe the avian resources found in surveys of the adjacent V.C. Summer Nuclear Station. Section 4.6.1 identifies federally listed species in the project vicinity. The MBTA prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized to do so by the Department of the Interior. On March 30, 2011, the Service and the Commission entered into a Memorandum of Understanding that focuses on avoiding or minimizing adverse impacts on migratory birds and cooperative reinforcement for migratory bird conservation. The Service's division of Migratory Bird Management provides regional lists of Birds of Conservation Concern (BCC), which consist of migratory nongame conservation priority species. The BCC list is divided into Bird Conservation Regions (BCR). The Project occurs in the Piedmont region (BCR 27). We recommend that the Final License Application considers the Project's potential impact on BCC that occur in the Project vicinity including, but not limited to bald eagle<sup>5</sup>, prairie warbler, loggerhead shrike, and brown-headed nuthatch.

In the interest of avoiding impacts to migratory birds, the Service will continue to consult with SCE&G to develop protective or compensatory measures for Project related impacts to migratory birds. Additionally, we view the development of a new shoreline management plan and permitting guidelines as an opportunity to reinforce protections for migratory birds.

**Section 4.6.1:** The list of federally protected species is dynamic. Table 4-18 omits several species known to occur in Richland, Fairfield, and Newberry Counties, South Carolina<sup>2</sup>. It is important that the Final License Application and the Commission's environmental document<sup>4</sup> describe and fully consider potential impacts to these species resulting from the Project's new license.

**Sections 4.6.4 and 5.1.5:** Currently, no studies have been proposed to determine how the Project may be affecting the yellow lampmussel (*Lampsilis cariosa*) and Roanoke slabshell (*Elliptio roanokensis*). However, it is evident from data collected so far, that the Parr dam is a physical barrier that prevents these species from accessing upstream habitats, thereby limiting the distribution<sup>6</sup> and recovery of these priority species. The Service is committed to restoring populations of these species upstream of the Parr Reservoir and elsewhere in the Broad River basin.

**Section 4.6.5:** No proposed protection, mitigation, or enhancement measures for rare, threatened, or endangered species have been proposed at this time as we await study results. The Service looks forward to working with SCE&G and other stakeholders to develop measures to avoid impacts, enhance current habitats, and/or compensate for Project effects pursuant to our Mitigation Policy.

**Section 4.7.11:** The Service supports SCDNR's assertion that any lands reclassified from the future recreation designation should be replaced.

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<sup>5</sup> In a Rare, Threatened, and Endangered Species TWC meeting held October 22, 2013 (see consultation record), the Service shared with SCE&G locations of nine active bald eagle nests near the Project.

<sup>6</sup> Section 4.6.3 of the PAD indicates that the Project tailrace represents the upstream known occurrence for these species in the Broad River basin.

## ADDITIONAL INFORMATION REQUESTS

The Service echoes the additional information needs put forth by SCDNR and requests the following:

- 1) Presentation hydrologic data describing Project outflow in relation to inflow with sufficiently resolution (hourly timescale) so as to reveal potentially meaningful hydrologic trends and associated biological impacts;
- 2) A description of measures in place to continue monitoring and remediation of impaired water quality within and immediately downstream of the Project boundary;
- 3) Assess potential adverse impacts and issues for federally protected species omitted from the PAD including migratory birds<sup>7</sup>; and
- 4) Does SCE&G concur with the Service's assertion that the Project is a barrier limiting the distribution and recovery of yellow lampmussel and Roanoke slabshell? If not, additional surveys/studies may be needed to verify this fact.

The Service appreciates the opportunity to work with Commission staff, SCE&G, and stakeholders to ensure that impacts to fish and wildlife resources are minimized during this, and the next license. Additionally, we are interested in participating in the development of a settlement agreement that addresses our concerns for this Project. If you have any questions about these comments, please contact Mr. Byron Hamstead at (843) 727-4707, ext. 205, and reference FWS Log No. 2015-CPA-0053.

Sincerely,

  
Thomas D. McCoy  
Field Supervisor

TDM/BAH

cc: Dr. Wilson Laney, USFWS, Raleigh, NC  
Mr. Shawn Alam, USDOJ OEPC, Washington, DC

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<sup>7</sup> Service staff can provide technical assistance as needed.

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

South Carolina Electric & Gas Company

Project No. 1894-207 – South Carolina  
Parr Hydroelectric Project

NOTICE OF PROPOSED REVISED RESTRICTED SERVICE LIST  
FOR A PROGRAMMATIC AGREEMENT

(January 28, 2016)

Rule 2010 of the Federal Energy Regulatory Commission’s (Commission) Rules of Practice and Procedure, 18 CFR section 385.2010, provides that, to eliminate unnecessary expense or improve administrative efficiency, the Secretary may establish a restricted service list for a particular phase or issue in a proceeding concerning non-public information. The restricted service list should contain the names of persons on the service list who, in the judgment of the decisional authority establishing the list, are active participants with respect to the phase or issue in the proceeding for which the list is established.

The Commission staff is consulting with the Maine Historic Preservation Commission (Maine SHPO) and the Advisory Council on Historic Preservation (Advisory Council) pursuant to the Advisory Council’s regulations, 36 CFR Part 800, implementing section 106 of the National Historic Preservation Act, *as amended*, (54 U.S.C. § 306108), to prepare a Programmatic Agreement for managing properties included in, or eligible for inclusion in, the National Register of Historic Places at the existing Parr Hydroelectric Project.

On November 18, 2014, Commission staff established a restricted service list for the Parr Hydroelectric Project. Since that time, the U.S. Forest Service requested to supplement the restricted service list because of personnel changes. The restricted service list is supplemented as follows:

Replace “Mike Harmon, U.S. Forest Service” with “James F. Bates or Representative, U.S. Forest Service.”

Nathaniel J. Davis, Sr.,  
Deputy Secretary.

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Parr Hydroelectric Project

Project No. 1894-207

ERRATA NOTICE

(January 28, 2016)

On January 28, 2016, the Commission issued a “NOTICE OF PROPOSED REVISED RESTRICTED SERVICE LIST FOR A PROGRAMMATIC AGREEMENT” for the existing Parr Hydroelectric Project No. 1894-207.

In the Notice, the State Historic Preservation Office (SHPO) was incorrectly identified as the Maine Historic Preservation Commission (Maine SHPO). The SHPO for this project is the South Carolina Department of Archives & History (South Carolina SHPO).

Nathaniel J. Davis, Sr.,  
Deputy Secretary.

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

South Carolina Electric & Gas Company

Project No. 1894-207 - South  
Carolina  
Parr Hydroelectric Project

NOTICE OF REVISED RESTRICTED SERVICE LIST  
FOR A PROGRAMMATIC AGREEMENT

(February 9, 2016)

Rule 2010 of the Federal Energy Regulatory Commission's (Commission) Rules of Practice and Procedure, 18 CFR section 385.2010, provides that, to eliminate unnecessary expense or improve administrative efficiency, the Secretary may establish a restricted service list for a particular phase or issue in a proceeding concerning non-public information. The restricted service list should contain the names of persons on the service list who, in the judgment of the decisional authority establishing the list, are active participants with respect to the phase or issue in the proceeding for which the list is established.

The Commission staff is consulting with the South Carolina Department of Archives & History (South Carolina SHPO) and the Advisory Council on Historic Preservation (Advisory Council) pursuant to the Advisory Council's regulations, 36 CFR Part 800, implementing section 106 of the National Historic Preservation Act, *as amended*, (54 U.S.C. § 306108), to prepare a Programmatic Agreement for managing properties included in, or eligible for inclusion in, the National Register of Historic Places that could be affected by issuance of a new license for the Parr Hydroelectric Project No. 1894-207.

On November 18, 2014, Commission staff established a restricted service list for the Parr Hydroelectric Project. Since that time, the United Keetoowah Band of Cherokee Indians in Oklahoma requested a change in the restricted service list and therefore, the restricted service list is revised as follows:

Replace "Lisa C. Baker, Acting THPO, United Keetoowah Band of Cherokee Indians in Oklahoma" with "Assistant Chief Joe Bunch, or Representative, United Keetoowah Band of Cherokee Indians in Oklahoma."

Nathaniel J. Davis, Sr.,  
Deputy Secretary.

April 8, 2016

Mr. William R. Argentieri  
South Carolina Electric and Gas Company  
Mail Code A221  
220 Operations Way  
Cayce, SC 29033-3701

Subject: Comments and Recommendations: Downstream Navigational Flow Assessment  
Parr-Fairfield Hydroelectric Project (FERC No. 1894)

Dear Mr. Argentieri:

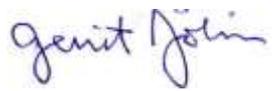
Ensuring downstream navigation and recreation needs are met through a new license for the Parr-Fairfield Hydroelectric Project is fundamental to American Rivers' interests in this relicensing and for the future of the Broad River which is directly affected by project operations. We are a member of the Recreation Technical Working Committee, and participated in numerous meetings and the development of the study plan for assessing downstream flows to meet the state's minimum standards for recreational navigation. American Rivers has reviewed the April 2016 Downstream Navigational Flow Assessment report and offer the following comments and recommendations.

The flow assessment report clearly indicates that a flow of 1,000 cfs is needed to satisfy the State of South Carolina's navigation requirements as a determined by state guidance (South Carolina Water Resources Commission 1988: Instream Flow Study Phase II: Determination of Minimum Flow Standards to Protect Instream Uses in Priority Stream Segments: A Report to the South Carolina General Assembly. The Water Resources Commission is now part of the South Carolina Department of Natural Resources which has adopted this method for determining navigation flow requirements.)

Despite the findings of the navigation assessment, the report recommends a flow of 500 cfs for navigation requirements. A flow of 500 cfs clearly does not meet the state's criteria for determining minimum navigation flows. We are baffled why the report recommends a flow which is clearly in conflict with the state's method and study results.

American Rivers recognizes that based on the findings of the Downstream Navigation Flow Assessment a flow of at least 1,000 cfs is needed to meet navigation requirements. We recommend that the report be changed to conclude that a 1,000 cfs flow, not a 500 cfs flow, is needed to meet navigation requirements.

Sincerely,



Gerrit Jöbsis  
Senior Director, Southeast Conservation

cc: SC Department of Health and Environmental Control  
SC Department of Natural Resources  
Recreation Technical Working Committee



April 15, 2016

Attn: Bill Argentieri  
South Carolina Electric & Gas Company

Re: Downstream Navigational Flow Assessment – Parr Hydroelectric Project

Mr. Argentieri,

The following comments are in response to the Downstream Navigational Flow Assessment that was prepared as part of the relicensing of the Parr/Fairfield hydroelectric projects and was sent to members of the Recreation Technical Working Committee on April 1<sup>st</sup>.

- The transects used to determine navigability of a shoal should not follow a straight line, but rather should follow the top of the shoal (the shallowest area) to better reflect the possible blockages to navigation. We suggest the committee make an effort to verify the results by attempting to actually navigate the shoals at the recommended flows.
- The assessment states that a flow of 1,000 cfs meets the established criteria for navigation at ledge two, but goes on to recommend a navigational minimum flow of 500 cfs which the assessment clearly states does not meet the criteria. The assessment should not include a recommendation the author feels “should be more than sufficient” when we have clearly defined criteria to determine navigability.
- Additionally, as there should be supplementary data available from the IFIM study we recommend navigational flows be assessed at other sites including the Bookman Shoals area suggested by the DNR.

As we continue to review the assessment and the stage-discharge rating curves used in the analysis we may have additional questions or comments.

Thank you.

Sincerely,

Bill Stangler  
Congaree Riverkeeper

**Post Office Box 5294 • Columbia, South Carolina 29250**  
**(803) 760-3357 • [www.congareeriverkeeper.org](http://www.congareeriverkeeper.org)**



April 22, 2016

Mr. William R. Argentieri  
South Carolina Electric and Gas Company  
Mail Code A221  
220 Operations Way  
Cayce, SC 29033-3701

Subject: Comments and Recommendations: Parr Shoals Dam Turbine Venting Report  
Parr-Fairfield Hydroelectric Project (FERC No. 1894)

Dear Mr. Argentieri:

Ensuring water quality meets or exceeds state standards at the Parr-Fairfield Hydroelectric Project is fundamental to American Rivers' interests in the relicensing of this project and for the future health of the Broad River. We are a member of the Water Quality Technical Working Committee, and have participated in numerous meetings and in the development of related studies. American Rivers has reviewed the April 2016 *Parr Shoals Dam Turbine Venting Report* transmitted April 19, 2016 and offer the following comments and recommendations.

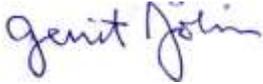
Water quality of the Broad River is directly affected by project operations. Impoundment of the river causes water quality changes. The Baseline Water Quality Report was reviewed at the February 4, 2014 Water Quality TWC meeting. Excursions of DO levels less than 4.0 mg/L in the Parr Shoals Dam tailrace resulting from project discharges were documented at the Jenkinsville gage (USGS station 02160991).

The turbine venting study report shows that DO improvements between 0.16 mg/l and 0.45 mg/l resulted from venting at Units 1–5. Turbine venting is not possible at Unit 6. As explained in the report, it is possible that higher levels of DO improvement are possible with venting at Units 1-5 during periods with lower DO saturation than when the study was conducted.

American Rivers recognizes that changes in project operations will be needed to improve water quality in the Broad River downstream of the Parr Shoals Dam. We believe that turbine venting has potential to improve DO. We recommend South Carolina Electric and Gas Company develop an operational sequencing plan that maximizes DO enhancement by prioritizing use of turbines where venting is most effective at improving DO levels. This sequencing plan should be implemented during an initial period of the new license to better evaluate how turbine venting can improve water quality during periods of low DO with a goal of meeting state standards at all times. Additional methods may be needed to meet state standards if turbine venting falls short of that goal.

Thank you for the opportunity to review and comment on this important report. We look forward to working collaboratively with South Carolina Electric and Gas and other stakeholders through the remainder of the relicensing process.

Sincerely,

A handwritten signature in blue ink that reads "Gerrit Jöbsis". The signature is written in a cursive style with a large initial 'G'.

Gerrit Jöbsis  
Senior Director, Southeast Conservation

cc: SC Department of Health and Environmental Control  
SC Department of Natural Resources  
Water Quality Technical Working Committee

April 22, 2016

Mr. William R. Argentieri  
South Carolina Electric and Gas Company  
Mail Code A221  
220 Operations Way  
Cayce, SC 29033-3701

Subject: Comments and Recommendations: Water Quality in Downstream West Channel  
Parr-Fairfield Hydroelectric Project (FERC No. 1894)

Dear Mr. Argentieri:

Ensuring water quality meets or exceeds state standards at the Parr-Fairfield Hydroelectric Project is fundamental to American Rivers' interests in the relicensing of this project and for the future health of the Broad River. We are a member of the Water Quality Technical Working Committee, have participated in numerous meetings and in the development of related studies. American Rivers has reviewed the April 2016 *Water Quality in Downstream West Channel Study Report* transmitted April 19, 2016 and offer the following comments and recommendations.

Water quality of the Broad River is directly affected by project operations. The Parr Shoals Dam blocks flows from the West Channel and no water is released directly into the West Channel except during spill events. Hydroelectric units of the project only release water into the East Channel.

The water quality study report clearly shows that dissolved oxygen levels (DO) in the West Channel do not meet state water quality standards. Monitoring results at all three West Channel stations document that DO frequently drops below the instantaneous standard of 4.0 mg/l and that the daily average standard of 5.0 mg/l is not met periodically. Results also demonstrate diurnal swings in dissolved oxygen concentrations between 0.0 mg/l and 20.0 mg/l which are consistent with effects of low flow conditions and water quality affected by periods dominated by photosynthesis and respiration. These study results are consistent with impairment due to hydrologic alteration and resulting stagnant or dewatered conditions in the West Channel.

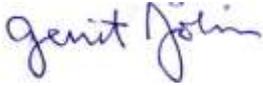
We also note that while the transmittal memo states that this is the final study report, the report itself is marked as "draft" on the first two pages.

American Rivers recognizes that changes in project operations will be needed to improve water quality in the West Channel. We recommend South Carolina Electric and Gas Company work with TWC members and other stakeholders to restore continuous flows to

the West Channel so that DO is improved and water quality standards are met at all times.

Thank you for the opportunity to review and comment on this important report. We look forward to working collaboratively with South Carolina Electric and Gas and other stakeholders through the remainder of the relicensing process.

Sincerely,

A handwritten signature in blue ink that reads "Gerrit Jöbsis". The signature is written in a cursive, flowing style.

Gerrit Jöbsis  
Senior Director, Southeast Conservation

cc: SC Department of Health and Environmental Control  
SC Department of Natural Resources  
Water Quality Technical Working Committee



August 8, 2016

Mr. William B. Hendrix, Jr.  
18662 Newberry Road  
Blair, South Carolina 29015

Re: South Carolina Electric & Gas Company  
Parr Hydroelectric Project  
FERC Project No.1894  
Response to letter dated July 22, 2016

Dear Mr. Hendrix:

In your letter dated July 22, 2016, you asked the status of our response to your June 9, 2015 comments to the Pre-Application Document (PAD). The following paragraph sets out our current thinking on that matter.

In your June 9, 2015 letter, you requested that there be a new study to determine the Project boundary of the Parr Hydroelectric Project. The current Project boundary was determined and lands were acquired in accordance with the FERC license Article 48 and approved by the FERC by letter dated August 19, 1981 (16 FERC ¶62,250). There is nothing apparently deficient in the proceedings associated with SCE&G's compliance with the Article 48 in regards either to the establishment of the Project Boundary or the acquisition of properties necessary and appropriate to meet the license requirements. Hence, there is no apparent need to conduct another study. Even were that not so, and were there to be the discovery of some basis for concluding that some of the properties acquired then for the Project are not now essential to the Project, there is no basis for requiring SCE&G to give up ownership and control of that property, through sale or otherwise. All lands acquired by SCE&G based on the original hydraulic study were done so by purchasing the land at negotiated, fair market prices from the property owners and not by condemnation. Nevertheless, to be absolutely sure that we give full and fair consideration of all comments received, we are still evaluating the following: 1) any technical deficiencies in the work supporting the Project Boundary establishment that might create a necessity to conduct another hydraulic flow study; 2) how any new study would further the resource goals and objectives; 3) how possible new restrictions due to environmental considerations such as reservoir fluctuations or downstream flows, which are being discussed during the current relicensing process, could require this land to be inundated more frequently than is currently the case; and 4) concerns raised by the resource agencies during recreation and shoreline management relicensing meetings relating to removal of lands from the Project boundary. Once we have thoroughly considered these factors, responses to your PAD comments will be composed and included in the license application along with responses to all other PAD comments received.

Mr. William B. Hendrix, Jr.  
Parr Hydroelectric Project, FERC Project No.1894  
Response to letter dated July 22, 2016  
Page 2

If you have any further questions, please contact me at (803) 217-9162 or [bargentieri@scana.com](mailto:bargentieri@scana.com).

Very truly yours,



William Argentieri, Civil Engineering Manager  
Fossil/Hydro Technical Services

c: H. E. Delk, Jr./PH File  
J. H. Hamilton/ J. Stuckey

William B. Hendrix, Jr.  
18662 Newberry Road  
Blair, South Carolina 29015

August 17, 2016

Mr. William R. Argentieri, P.E.  
Manager of Civil Engineering  
South Carolina Electric & Gas Company  
220 Operation Way Mail Code A221  
Cayce, South Carolina 29033-3701

Re: Relicensing FERC Project 1894

Dear Mr. Argentieri:

Thank you for your letter dated August 8, 2016. I do have one question that I would appreciate your help clarifying. In your letter you state, "All lands acquired by SCE&G based on the original hydraulic study were done so by purchasing the land at negotiated, fair market prices from the property owners and not by condemnation." Is this original hydraulic study you are referencing one in the same as the USGS backwater study that we have discussed before and is referenced throughout the Exhibit K documents for this project? Is this original hydraulic study the same document you reference in your E-mail to me of October 30, 2014 stating, "...even though I cannot find the final report, the USGS backwater study drawings have enough information on them to help us understand the reasoning used to determine the location of the Parr Reservoir project boundary line. " ?

I look forward to hearing back from you.

Sincerely,

A handwritten signature in black ink that reads "William B. Hendrix, Jr." in a cursive style.

William B. Hendrix, Jr.



August 30, 2016

Mr. William B. Hendrix, Jr.  
18662 Newberry Road  
Blair, South Carolina 29015

Re: South Carolina Electric & Gas Company  
Parr Hydroelectric Project  
FERC Project No. 1894  
Response to letter dated August 17, 2016

Dear Mr. Hendrix:

In your letter dated August 17, 2016, you asked for clarification of terminology used in previous letters and emails regarding a hydraulic study and USGS backwater study. The term hydraulic study is referring to the USGS backwater study document.

If you have any further questions, please contact me at (803) 217-9162 or [bargentieri@scana.com](mailto:bargentieri@scana.com).

Very truly yours,

A handwritten signature in blue ink that reads "William Argentieri". The signature is fluid and cursive.

William Argentieri, Civil Engineering Manager  
Fossil/Hydro Technical Services

c: H. E. Delk, Jr./PH File  
J. H. Hamilton/ J. Stuckey

**ORIGINAL**



**SOUTH CAROLINA DEPARTMENT OF  
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SECRETARY OF THE  
COMMISSION**

**2016 SEP 27 P 2: 16**

**FEDERAL ENERGY  
REGULATORY COMMISSION**

September 26, 2016

**Mr. William Green  
Group Manager, Natural and Cultural Resources  
Terracon Consultants, Inc.  
521 Clemson Road  
Columbia, SC 29229**

**Re: Historic Properties Management Plan for the Parr Hydroelectric Project  
Fairfield and Newberry Counties, South Carolina  
FERC Project No. 1894 - *207*  
SHPO Project Number 13RD0073**

Dear Mr. Green:

Thank you for your letter of August 26, 2016, which we received on August 29 along with two copies of the Historic Properties Management Plan (HPMP). The State Historic Preservation Office is providing comments pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR 800. Consultation with the SHPO is not a substitution for consultation with Tribal Historic Preservation Offices, other Native American tribes, local governments, or the public.

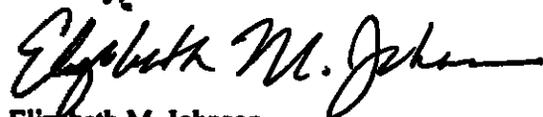
After reviewing the document and comparing to the 2002 "Guidelines for the Development of Historic Properties Management Plans for FERC Hydroelectric Projects", we offer the following comments and questions for consideration.

- **Section 4.0:** It would be helpful to add a site plan/drawing/aerial labeled with the structures and buildings mentioned in the text for both the Parr Shoals Development and Fairfield Pumped Storage. The text does a nice job of describing, but a labeled graphic and photographs would help the reader understand each of the properties.
- **Section 4.0:** Please add photographs of the eligible and potentially eligible archaeological sites to document existing site conditions.
- **Page 67:** Consider adding the photographic standards to the HPMP, as web links can change.
- **Page 67:** Is there a list or survey of the "original" vs. "non-original" elements?
- **Page 71:** Please clarify the type of activities that are covered by the second bullet under Reservoir Operation. What could these include?
- **Page 74:** Please specify the curation facility.

- **Page 74:** Under the public education section, should it specify how long these materials will be available? For the length of the license?
- **Section 9.0:** Add training, which is an item listed in the HPMP guidance.
- **Page 92:** How will SCE&G determine and document that a window or door cannot be repaired?
- **Page 93:** For in-kind replacements, the new component not only should be the same material, but also matching the existing in appearance (could reference page 66 for a description of in kind).

**Thanks for the opportunity to review the HPMP. If you have any questions, please contact me at (803) 896-6168 or [ejohnson@scdah.sc.gov](mailto:ejohnson@scdah.sc.gov).**

Sincerely,



**Elizabeth M. Johnson  
Director, Historical Services, D-SHPO  
State Historic Preservation Office**

**Copies delivered via email to:**

**Cc: Patricia Leppert, FERC  
Wenonah Haire, Catawba Indian National THPO  
Eric Oosawhwee-Voss, United Keetowah Band of Cherokee THPO  
Jim Bates, USFS  
Bill Argentieri, SCE&G  
Amy Bresnahan, SCE&G**

Document Content(s)

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September 29, 2016

Mr. William R. Argentieri  
South Carolina Electric and Gas Company  
Mail Code A221  
220 Operations Way  
Cayce, SC 29033-3701

Subject: Parr-Fairfield Hydroelectric Project (FERC No. 1894)  
Downstream Navigational Flow Assessment and Downstream Recreational Flow  
User Survey Memo-September 2016

Dear Mr. Argentieri:

American Rivers today received a copy of the September 2016 packet entitled “Downstream Navigational Flow Assessment and Downstream Recreational Flow User Survey Memo” which includes the final version of the downstream navigational flow assessment report (report) for the above project. The final report continues to assert that navigation requirements can be achieved at flows that do not meet the state of South Carolina’s navigation criteria. As explained in our April 8, 2016 comments and recommendations regarding a draft version of the report (attached below), the state’s criteria set a clear mark for what flow is needed to meet navigation needs. In this case, South Carolina Electric and Gas Company’s navigational flow study demonstrated that a flow of 1,000 cfs is needed to meet state navigation criteria. We disagree with the report’s conclusion that flows of 500 cfs or 700 cfs which *almost* meet the state’s criteria would be sufficient to meet navigation requirements.

American Rivers recommends that PM&E measures for the license application include a condition stating that a flow of at least 1,000 cfs will be provided by project operations to meet state navigation requirements. We recognize that there will be periods of low inflow which will limit the ability of the project to provide releases of 1,000 cfs for navigation, and look forward to working with South Carolina Electric and Gas Company and other stakeholders to develop alternative downstream flow scenarios for such periods.

Sincerely,

Gerrit Jöbbsis  
Senior Director

cc: SC Department of Health and Environmental Control  
SC Department of Natural Resources  
Recreation Technical Working Committee

April 8, 2016

Mr. William R. Argentieri  
South Carolina Electric and Gas Company  
Mail Code A221  
220 Operations Way  
Cayce, SC 29033-3701

Subject: Comments and Recommendations: Downstream Navigational Flow Assessment  
Parr-Fairfield Hydroelectric Project (FERC No. 1894)

Dear Mr. Argentieri:

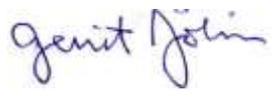
Ensuring downstream navigation and recreation needs are met through a new license for the Parr-Fairfield Hydroelectric Project is fundamental to American Rivers' interests in this relicensing and for the future of the Broad River which is directly affected by project operations. We are a member of the Recreation Technical Working Committee, and participated in numerous meetings and the development of the study plan for assessing downstream flows to meet the state's minimum standards for recreational navigation. American Rivers has reviewed the April 2016 Downstream Navigational Flow Assessment report and offer the following comments and recommendations.

The flow assessment report clearly indicates that a flow of 1,000 cfs is needed to satisfy the State of South Carolina's navigation requirements as a determined by state guidance (South Carolina Water Resources Commission 1988: Instream Flow Study Phase II: Determination of Minimum Flow Standards to Protect Instream Uses in Priority Stream Segments: A Report to the South Carolina General Assembly. The Water Resources Commission is now part of the South Carolina Department of Natural Resources which has adopted this method for determining navigation flow requirements.)

Despite the findings of the navigation assessment, the report recommends a flow of 500 cfs for navigation requirements. A flow of 500 cfs clearly does not meet the state's criteria for determining minimum navigation flows. We are baffled why the report recommends a flow which is clearly in conflict with the state's method and study results.

American Rivers recognizes that based on the findings of the Downstream Navigation Flow Assessment a flow of at least 1,000 cfs is needed to meet navigation requirements. We recommend that the report be changed to conclude that a 1,000 cfs flow, not a 500 cfs flow, is needed to meet navigation requirements.

Sincerely,



Gerrit Jöbsis  
Senior Director, Southeast Conservation

cc: SC Department of Health and Environmental Control  
SC Department of Natural Resources  
Recreation Technical Working Committee

FEDERAL ENERGY REGULATORY COMMISSION  
WASHINGTON, D. C. 20426  
October 11, 2016

OFFICE OF ENERGY PROJECTS

Project No. 1894-207- South Carolina  
Parr Hydroelectric Project  
South Carolina Electric & Gas Company

William Green, M.A., RPA  
Terracon Consultants, Inc.  
521 Clemson Road  
Columbia, SC 29229

**Subject: Comments on the Draft Historic Properties Management Plan,  
Dated August 26, 2016; SHPO Project No. 12-ED0073**

Dear Mr. Green:

On January 5, 2015, South Carolina Electric & Gas Company (SCE&G) filed with the Federal Energy Regulatory Commission (Commission) its notice to relicense the Parr Hydroelectric Project No. 1894 (Parr Project, or project), a Pre-Application Document, and a request to use the Traditional Licensing Process (TLP). The project is located on the Broad River, near the City of Columbia, in Newberry and Fairfield Counties, South Carolina. On February 20, 2015, the Commission authorized SCE&G to use the TLP. The license expires on June 30, 2020.

On behalf of SCE&G, you mailed a draft “Historic Properties Management Plan (HPMP), Parr Hydroelectric Project, Fairfield and Newberry Counties, South Carolina, FERC Project No. 1894,” dated August 2016, to the South Carolina State Historic Preservation Office (SHPO), Catawba Indian Nation, United Keetoowah Band of Cherokee Indians in Oklahoma, U.S. Forest Service, SCE&G, and Commission staff for review and comment. On September 26, 2016, Elizabeth M. Johnson, Director, Historical Services, Deputy SHPO, provided comments to you and the entities above, which Commission staff placed in the record for the project on September 27, 2016.

We appreciate the opportunity to provide comments and find the draft HPMP is comprehensive overall. We recommend, however, that the final HPMP address Ms. Johnson’s comments. Also, to provide clarity for the final HPMP, we offer the following detailed comments:

(1) Section 8.2, General Operations - Reservoir Operation:  
Second bullet - Activities taking place along the shoreline of the Parr Reservoir and the Monticello Reservoir related to previously developed properties or residential parcels.

Comment: Please revise the sentence to (1) refer only to those activities within the project boundary, and (2) identify the type of activities.

Additionally, if SCE&G proposes to modify the project boundary during the relicensing process, please revise the sentence accordingly to take into account those lands that may be added to, or removed from, the project boundary.

(2) Section 9.2, Public Education. The educational material/signage will be completed prior to issuance of the new license.

Comment: Please add to Section 9.2 that the public education material/signage will be available for the term of a new license.

(3) Section 9.4, Reporting. SCE&G will provide a biennial report to the SHPO, Advisory Council on Historic Preservation, FERC (Commission), Catawba Indian Nation, and United Keetoowah Band of Cherokee Indians in Oklahoma regarding cultural resource management activities for the project conducted during that two year period.

Comment: To reduce the administrative burden on the Commission, we no longer require the filing of biennial reports. Therefore, please remove notifying Commission staff from the section.

(4) Section 10.0, Definitions.

Comment: We suggest that this section be identified as Acronyms and Abbreviations because as is, not all terms are defined, nor is it necessary to do so. To this list, we suggest adding (1) Federal Energy Regulatory Commission (FERC or Commission), (2) South Carolina Electric & Gas Company (SCE&G), (3) South Carolina Institute of Archaeology and Anthropology (SCIAA), (4) Tribal Historic Preservation Officer (THPO); and (5) U.S. Forest Service (Forest Service or USFS).

If you have any questions, please contact Patti Leppert at (202) 502-6034 or at [patricia.leppert@ferc.gov](mailto:patricia.leppert@ferc.gov).

Sincerely,

Stephen Bowler, Chief  
South Branch  
Division of Hydropower Licensing

cc:

Elizabeth M. Johnson, Director,  
Historical Services  
Deputy SHPO  
South Carolina Department of  
Archives & History  
8301 Parklane Road  
Columbia, SC 29223

Emily Dale, Archaeologist  
South Carolina Department of  
Archives & History  
8301 Parklane Road  
Columbia, SC 29223

William R. Argentieri, P.E., Manager  
South Carolina Electric & Gas  
Company  
220 Operation Way, Mail Code A221  
Cayce, SC 29033-3701

Dr. Wenonah Haire, THPO  
Catawba Indian Nation  
1536 Tom Steven Road  
Rock Hill, SC 29730

Eric Oosahwee-Voss, THPO  
United Keetoowah Band of Cherokee  
Indians in Oklahoma  
P.O. Box 746  
Tahlequah, OK 74465

James Bates, Archaeologist  
U.S. Forest Service  
Sumter National Forest  
20 Work center Road  
Whitmire, SC 29178

Robert Morgan, Heritage Program  
Manager  
U.S. Forest Service  
Sumter National Forest  
2967 Steed Creek Road  
Huger, SC 29450

Public Files

William B. Hendrix, Jr.  
18662 Newberry Road  
Blair, South Carolina 29015

December 9, 2016

Federal Energy Regulatory Commission  
Kimberly D. Bose, Secretary  
888 First Street, NE  
Washington, District of Columbia 20426

Re: FERC Project No. 1894 – Parr Hydroelectric Project  
Request for Study and information Pursuant to 18 C.F.R. 4.38(B) (5)

Dear Secretary Bose:

On June 9, 2015, pursuant to the Code of Federal Regulation's section cited above, I filed a Request for Study and Information in regard to FERC Project No. 1894. This request was filed with South Carolina Electric & Gas (SCE&G -the owner of the Project,) Kleinschmidt Associates (the Consulting Firm assisting the owner with the re-licensing of the project) and Monte TerHaar (an employee within your organization.) I am enclosing a copy of this request with this correspondence. As I had no response from either of these entities, on July 22, 2016, I contacted SCE&G to inquire as to the status of my request. In a letter to me dated August 8, 2016, SCE&G's Civil Engineering Manager, William Argentieri, replied, "Hence, there is no apparent need to conduct another study." Accordingly, I am forwarding this request to your agency and ask that you forward it to your Director of the Office of Energy Projects, Ann F. Miles, according to C.F. R. 4.38 (b) (6), for resolution of my Request for further Information and Study in regard to FERC Project No. 1894.

While the request is self-explanatory, I will review what the issues are below.

Article 48 of the License issued for this project is quite specific and clear as to what property is to be purchased and included in the project boundary for the project, "*Shoreline lands up to the 270-foot contour or up to 50-feet, horizontal measure , from the 266-foot contour of the lower reservoir, whichever is greater;.....Provided , that the project boundary except with respect to land necessary or appropriate for recreational purposes, shall not exceed 200 feet, horizontal measure , from the 266-foot...*" While all of the documents and plans that SCE&G has filed with FERC and are developing as part of this re-licensing process reflect the

wording of Article 48 within the body of the documents, in reality the lands that were acquired for this project greatly exceed the requirements of the Article. Elevations of the lands within the project boundary range from 270' up to 285' – 19' above the crest level of the dam and the project's Maximum Reservoir Operating Level and 16.5' above the Maximum Rated Capacity of the Dam's Spillway (Table of Standard Project Numbers.)

As a result of various meetings and correspondence with SCE&G, I am informed that SCE&G contends that the acquisition of property within the Project Boundary Line was based on a study they commissioned from the United States Geological Survey (USGS) to study the backwater effect of the crest gates. SCE&G contends this was done in conjunction with their efforts to comply with Article 39 of the license which requires that *"releases from the lower reservoir during flood flows shall be no greater than flows which would have occurred in the absence of the project."* SCE & G further contends that based on this referenced study and its projected flood levels, they acquired lands along the shores of the Broad River that would be inundated at a river flow of 240,000 cubic feet per second for the first 6.19 miles of the project and 40,000 cubic feet per second for the remainder 8.81 miles of the project. There are two key problems with SCE&G's assertion: (1.) SCE&G has been unable to produce a copy of the USGS study and has admitted that neither they or the USGS has a copy. In a letter to me dated March 18, 2015, SCE&G's Manager of Civil Engineering writes, "With regard for copies of those studies the Company has explored its archives and has discussed the matter with the USGS. That effort failed to locate any copies of the reports upon which the maximum power level was established, as reflected on Sheets 1 and 15 of Exhibit K." (2.) Even if they were to produce a document that reflected the flood levels they are claiming, there would be no requirement or cause under Article 39 for them to acquire property upstream from the dam that would be inundated in times of natural flooding, having nothing whatsoever to do with the dam. Incredibly, the 240,000 cubic feet per second flow that was used for land acquisition is six (6) times the flow of water where SCE&G lowers the gates of the dam and lets water spill over the dam. This figure is also higher than the measured flows of the Broad River during the record flooding event South Carolina experienced in October of 2015.

The discrepancies between what was required by the License and what was actually acquired are reflected throughout the Exhibit K documents which reflect and describe the Project Boundary Line (PBL):

(1.) Notes on Sheet One of Exhibit K dated 6/26/1981 state, "2. THE P.B.L. AROUND PARR RESERVOIR IS GENERALLY ALONG THE FLOOD OF RECORD AS ADJUSTED FOR THE INFLUENCE OF PARR DAM, AS INDICATED ON TABLE THIS SHEET."

(2.) Notes on Sheet One of Exhibit K dated 6/26/1981 state "1)a. ELEVATIONS SHOWN ON LINES C1 THROUGH C8 ARE FLOWS FOR MEAN ANNUAL FLOOD ON CANNON'S CREEK DURING OCTOBER 1929 FLOOD ON BROAD RIVER."

(3.) Note on Sheet One of Exhibit K dated 6/26/1981 states, "THE FLOOD LINE ELEVATIONS UP HELLER'S CREEK SHALL BE AT ELEVATION 278.3. THE P.B.L. CANNOT BE LESS THAN THIS ELEVATION, ARTICLE 48 OF THE LICENSE IS APPLICABLE." – **there is nothing in Article 48 of license that mentions anything about this.**

(4.) Note on Sheet One of Exhibit K dated 6/26/1981 states, "2) b "ARTICLE 48 OF LICENSE IS APPLICABLE HOWEVER, WHEN FLOWS EXCEED THE 270" CONTOUR THEN THE FLOW ELEVATION SHOWN ON SECTION LINES WOULD APPLY." - **there is nothing in Article 48 of license that mentions anything about this.**

(5.) Note on Sheet One of Exhibit K dated 6/26/1981 states, "THE FLOOD LINE ELEVATIONS UP ENOREE RIVER SHALL BE AT ELEVATION 275.3. THE PBL CANNOT BE LESS THAN THIS ELEVATION. ARTICLE 48 OF THE LICENSE IS APPLICABLE." - **there is nothing in Article 48 of license that mentions anything about this.**

(6.) All of SCE&G's documents and presentations for this relicensing state the Parr Reservoir is 13 miles long. Additionally, on page three of the license for this project, FERC reflects that the reservoir is 13 miles long. Exhibit K – Sheet One shows a Table outlining Project Boundary Line Elevations for Parr Reservoir that establishes the reservoir as being 15 miles long.

(7.) All of the Exhibit K sheets delineate a 257-Minimum Power Pool, a 266 Normal Power Pool and a Maximum Power Pool. On all of the Exhibit K sheets the PBL virtually mirrors the Maximum Power Pool. In many cases, these sheets show a Maximum Power Pool level of 276' to 285' in elevation – 10' to 19' higher than the elevation of the top of the crest gates of the dam and the Maximum Reservoir Operating Level (Table of Standard Project Numbers.) During a Technical Working Meeting held on October 6, 2016, I was informed by Raymond Ammarell, a Senior Engineer and Hydrologist for SCE&G, that he had no idea what the term Maximum Power Pool was referencing on these Exhibit K sheets or how the levels could have been arrived at.

The second aspect of my Request for Study and Information involves the survey method used to establish the PBL. Throughout the license, all references to the establishment of the PBL call for a horizontal measurement from a specific elevation. This was not the method that SCE&G used on the Parr Reservoir or the Monticello Reservoir. SCE&G has previously confirmed that the method of surveying used did not reflect the requirements of the license and have done exactly what I am asking them to do now. In an Application for Amendment of License (Change of Project Boundary) on Monticello Reservoir, dated March 7, 1984, SCE&G states, "Apparently during the course of establishing the PBL along that portion of the shoreline affecting the property in question, the surveying crews took long shots to avoid a high number of traverse sides. While this did not cause a violation of the criteria established in the license, it was inconsistent with the surveying method used for property adjacent to this area of the

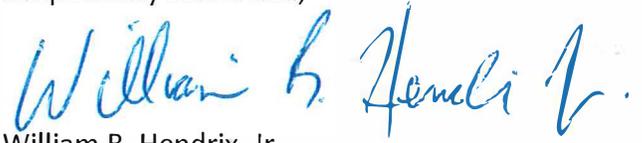
shoreline. The property owner and Licensee have become aware of this and the property owner has requested a resurvey, using shorter shots and adhering more closely to the minimum property acquisition requirements as contained in the license. In going back and resurveying the shoreline, and establishing a project boundary more in accordance with the minimum property requirements set forth in the license, there is acreage in excess of our minimum needs as set forth in the license. As referenced above, this amounts to approximately 7.04 acres. It is this acreage which Licensee is requesting permission to remove from the project. The object to be served is reconveyance of this property to the original property owner." The use of "long shots to avoid a high number of traverse sides" was also used on Parr Reservoir in direct violation of the Project's License requirements for a "horizontal measure from the 266 - foot contour." The use of these long survey shots is reflected on the Exhibit K documents. Exhibit K – Sheet 1 has a Table labeled "Project Boundary Line Elevations for Parr Reservoir (Minimum)." Under this table is a heading "USGS Station No." These station numbers are then reflected and plotted on Exhibit K. Sheets 5-17. As you can see the survey plotted these Station Numbers on either side of the Project and then ran survey lines along straight lines ignoring the requirements of the license.

It is apparent and quite clear that FERC never intended for the PBL of this project to be more than 200 feet horizontal measure from the 266 foot elevation which is the elevation of the crest gates that were added to the dam during the construction of the project. This requirement is consistent with the current requirements set forth by FERC which require a project boundary no more than 200 feet from the normal high water level and FERC's "Guidance for Shoreline Management Planning at Hydropower Projects" (July 2012) – Pg. 8 "Typically a license will own or have the necessary rights to all submerged lands and any lands that fall within the operating levels of the reservoir, as well as a shoreline buffer (the exact boundary will be specified in the license.)" As discussed earlier the Maximum Reservoir Operating Level of this project is at 266 feet of elevation (Table of Standard Project Numbers.) Accordingly the PBL could be no more than 200 feet horizontal measure from the 266 foot elevation. The PBL that SCE&G established and acquired land for goes to extreme elevations that they have no way of justifying. The PBL, as reflected on the Exhibit K documents, was established based on Maximum Power Pool elevations of 276 feet to 285 feet. It is impossible for a dam at 266' to influence water levels at these elevations. Accordingly, it would only be correct that during the relicensing process of such a project as this one, that any errors and or omissions be corrected.

I am serving a copy of this request on SCE&G as well as the resource agencies and Indian tribes shown on the attached sheet. I ask that you inform me in the event there are other entities or individuals on whom I should serve a copy of this letter and exhibits. Thank you and your agency for the service you perform for the citizens of this Country and for consideration of my request. I look forward to receiving a timely response.

THIS SPACE INTENTIONALLY LEFT BLANK

Respectfully submitted,

A handwritten signature in blue ink that reads "William B. Hendrix, Jr." with a stylized flourish at the end.

William B. Hendrix, Jr.

Cc: William Argentieri  
Civil Engineering Manager  
SCE&G

Distribution List:

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215 Pickens Street  
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Chairman  
Public Service Comm. Of SC  
101 Executive Center Drive #100  
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Dick Christie  
SCDNR  
1771-C Hwy. 521 By-pass S.  
Lancaster, SC 29720

Dr. Wenonah G. Haire  
Catawba Indian Nation  
Tribal Historic Preservation Office  
1536 Tom Steven Road  
Rock Hill, SC 29730

USFS  
3557 Whitmire Hwy.  
Union, SC 29379

Phil Gaines  
SCPRT  
1205 Pendelton St., Ste. 248  
Columbia, SC 29201

Honorable Mick Mulvaney  
U.S. House of Representatives  
1207 Longworth HOB  
Washington, DC 20515



December 19, 2016

**VIA E-FILING**

Kimberly Bose, Secretary  
**Attn: Ann F. Miles, Director – Office of Energy Projects**  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, DC 20426

Subject: South Carolina Electric & Gas Company  
Parr Hydroelectric Project  
FERC Project No. 1894-SC  
Response to Mr. Hendrix Request for Dispute Resolution for the Parr Hydroelectric  
Project (1894-207)

Dear Secretary Bose:

South Carolina Electric & Gas Company (“SCE&G” or “Applicant” or “Licensee”), Licensee for the Parr Hydroelectric Project (Project) (FERC No. 1894), in accordance with the requirements of 18 CFR §16.8(b)(6)(ii), herein electronically files with the Federal Energy Regulatory Commission (Commission), Director of the Office of Energy Projects (Director) a response to Mr. William B. Hendrix, Jr. letter dated December 9, 2016 regarding a request for dispute resolution for an additional study during the new license application process for this Project.

The study request discussed herein is neither based on the goals and objectives for the resource (§16.8(b)(5)(iii)), nor is the study useful to furthering resource goals or objectives (§16.8(b)(5)(vi)) beyond the personal goals of Mr. Hendrix. As such, SCE&G respectfully requests the Director to issue a dispute resolution order finding that the disputed study is not reasonable or necessary.

If you have any questions regarding this filing, please contact me at (803) 217-9162 or [bargentieri@scana.com](mailto:bargentieri@scana.com).

Sincerely,

William R. Argentieri, Manager of Civil Engineering  
Fossil/Hydro Technical Services

Kimberly Bose, Secretary

**Attn: Ann F. Miles, Director – Office of Energy Projects**

Parr Hydroelectric Project, Project No. 1894-SC

Response to Mr. Hendrix Request for Dispute Resolution for the Parr Hydroelectric Project  
(1894-207)

Page 2

WRA/wa

Enclosure

c: H. E. Delk, Jr. /PHFile  
J. K. Todd  
J. C. Knight, Jr.  
J. H. Hamilton, Jr.  
Corporate Records

PARR HYDROELECTRIC PROJECT  
FERC PROJECT No. 1894

RESPONSE TO WILLIAM B. HENDRIX, JR. LETTER DATED: DECEMBER 9, 2016,  
REGARDING REQUEST FOR DISPUTE RESOLUTION FOR AN ADDITIONAL STUDY

**South Carolina Electric & Gas Company (“SCE&G” or “Licensee”) Response:** Mr. Hendrix owns property adjacent to the Project. His December 9, 2016 letter to the Federal Energy Regulatory Commission (“Commission” or “FERC”) contains an information and study request that South Carolina Electric & Gas Company (“Licensee” or “SCE&G”) has previously discussed with him. As background to these previous discussions this response includes the following correspondence between the Licensee and Mr. Hendrix: Mr. Hendrix’s January 28, 2015 letter (Attachment 1), Licensee’s March 18, 2015 reply (Attachment 2), Mr. Hendrix’s May 4, 2015 letter (Attachment 3), and Licensee’s May 27, 2015 reply (Attachment 4), Mr. Hendrix’s July 22, 2016 letter (Attachment 5), and Licensee’s August 8, 2016 reply (Attachment 6), Mr. Hendrix’s August 17, 2016 letter (Attachment 7), and Licensee’s August 30, 2016 reply (Attachment 8).

Mr. Hendrix is the grandson of R. M. Blair from whom, records reveal, the Licensee acquired 234.45 acres of land on May 31, 1977. This purchase was a standard real estate sale/purchase transaction. No condemnation was involved. Of that land, 174.21 acres was inside the Project Boundary Line (PBL), and 60.24 acres were outside the PBL. Though contained in the FERC records, and therefore already publicly available, the Licensee encloses a copy of its June 26, 1981 letter of transmittal for its completed Exhibits F and K in accordance with License Articles Nos. 6 and 48, to which is attached, the Exhibit F accompanying the letter (Attachment 9). The Licensee directs the Commission’s attention to Exhibit F, Ref. Exhibit K-15, sheet 1 of 1, Exhibit K - 15 Index FF 46, acquired on May 31, 1977. The Licensee also attaches for the sake of convenience, the Commission’s August 19, 1981 “Order Approving Revised Exhibits F and K” (16 FERC ¶62,250) (Attachment 10). Mr. Hendrix has made it clear that he wants the property from that 1977 acquisition to be declared unnecessary for project purposes, so that it will be removed from within the PBL, as a first step in his effort to secure the deeding of the land to him.

Mr. Hendrix’s recent request to revisit the accuracy of the Parr PBL has resulted in a review of the United States Geological Survey (USGS) study water surface profiles (contained in Attachment 2), the current FERC license, and the current PBL. As part of the Licensee’s efforts to expand the Parr Hydroelectric Project in the 1970s to include the Fairfield Pump Storage Facility and the addition of 9 ft. of spillway gates at the Parr Shoals Dam, the USGS was contracted to perform a backwater study on the Parr Project to determine what lands would be necessary for project operations. The initial intended operation was to pass 40,000 CFS from upstream flows, all units at Fairfield operating, and all spillway gates in the down position. The USGS backwater study which evaluated this mode of operation was focused on determining the extent of upstream flooding due to the addition of the nine foot crest gates, and was discussed in several of the Licensee and FERC Board of Consultants meetings during the construction of the Fairfield Pumped Storage Facility.

In the area of Mr. Hendrix’s property, the Licensee purchased lands to accommodate the proposed mode of operation and in compliance with License Article 48 which identified the minimum amount of land that should be acquired. In addition, the Licensee purchased an additional one foot

of elevation as buffer which was added to the anticipated elevations to ensure that no flooding of private property would occur along the Parr Reservoir.

In order to comply with Article 39 of the current license, which provided requirements regarding downstream flows from the project and associated flooding of private property, the Licensee considered alternate operating regimes in order to address both upstream and downstream constraints. It was determined that the requirements of license Article 39 with limiting flood flows downstream of Parr Dam required a combination of reduction in Fairfield operations and lowering of spillway gates so that operations would not “add to” a flood flow of 40,000 CFS. It was finally determined that License Article 39 would be the governing condition for project operations. Therefore, during the current license term, the project has been operated with Fairfield being completely shut down and the crest gates in the down position when inflow, as measured as the sum of the three USGS gauges upstream of the Project, reached 40,000 CFS. Based on the USGS backwater profiles the difference in project operations elevations is negligible between the originally intended operation of 40,000 CFS inflow, all units at Fairfield operating and all spillway gates in the down position (providing 84,000 CFS total river flow downstream of Parr Dam) and the current operation of 40,000 CFS inflow, no generation at Fairfield and all spillway gates in the down position (providing 40,000 CFS downstream of Parr Dam). This is shown by the 40,000 CFS (Table 1 Dated 3-31-77, Gibbs & Hill 7-20-77 letter 280) graph line and the 84,000 CFS (Table 6 – Gates Down, Revised Section USGS Data of March 4, 1975) graph line at Cross Sections 33 and 34 on Sheet 2 of the USGS backwater profile (contained in Attachment 2). Based on this small difference of operations elevations, the purchase of Hendrix’s property complies with license Article 48 requirements. The FERC originally instructed Licensee to acquire lands for compliance with License Article 48 and the Licensee included an additional one foot buffer, which results in a difference between elevation 275 (USGS backwater profile limit) and elevation 276 (current PBL) of less than 2½ acres of land in the vicinity of Mr. Hendrix’s property.

The rationale for locating the PBL using the results of the USGS backwater study for the two cases described in the previous paragraph above was reviewed by the Fairfield Pumped Storage Project Board of Consultants during the construction of the Fairfield Development. In the report summarizing the 13<sup>th</sup> Board of Consultants Meeting held in June 1977 (excerpted in Attachment 11), the Board states that the “...criteria adopted for establishing the Project Boundary Line seems adequate and logical.” The Licensee has determined that nothing has occurred during the last 45 years that would change the USGS findings. The current PBL is adequate for project operation and conforms to the current FERC license requirement of “(t)he lands encompassed by the project boundary shall include, but not be limited to:” as stated in License Article 48.

The Licensee does not believe that a new hydraulic study is justified. The land was acquired in accordance with the FERC license article requirements, and the results of an independent study performed by the USGS. That study identified areas that would be flooded as a result of the FERC approved project modifications, and the results were reviewed and agreed to by an independent Board of Consultants intimately familiar with the proposed design and operation of the modified

Project. The Licensee does not believe that a new hydraulic study will further the resource goals or objectives (§16.8(b)(5)(vi)) beyond the personal goals of Mr. Hendrix.

If during the relicensing process lands are identified that should be removed from the PBL, the Licensee will share that information with the relicensing stakeholders and gather and document their recommendations for inclusion in the final license application.

In response to specific comments by Mr. Hendrix in his letter dated December 9, 2016 SCE&G provides the following point-by-point replies for your consideration.

On Page 1, Mr. Hendrix states: “Article 48 of the License issued for this project is quite specific and clear as to what property is to be purchased and included in the project boundary for the project, "Shoreline lands up to the 270-foot contour or up to 50-feet, horizontal measure, from the 266-foot contour of the lower reservoir, whichever is greater; ..... Provided , that the project boundary except with respect to land necessary or appropriate for recreational purposes, shall not exceed 200 feet, horizontal measure , from the 266-foot..."

**SCE&G Response:** As discussed with Mr. Hendrix in the past, he is leaving out one important phrase in License Article 48, “The lands encompassed by the project boundary shall include, **but not be limited to.**” (Emphasis added.) The words “but not be limited to” signifies that what follows is a minimum level of compliance and if more land is “necessary or appropriate for project operations” then the Commission expects the Licensee to obtain that land accordingly. This is illustrated by the Licensee’s acquisition of the additional one foot of elevation as buffer to ensure that no flooding of private property would occur along the Parr Reservoir, as discussed above, and as approved by Commission order (16 FERC ¶62,250).

On Page 2, Mr. Hendrix states: “SCE&G further contends that based on this referenced study and its projected flood levels, they acquired lands along the shores of the Broad River that would be inundated at a river flow of 240,000 cubic feet per second for the first 6.19 miles of the project and 40,000 cubic feet per second for the remainder 8.81 miles of the project.”

**SCE&G Response:** The license Exhibit K drawings reference the flood of record as 224,000 cubic feet per second and this was used as the basis for land acquisition along the first 6.19 miles of the reservoir.

On Page 2, Mr. Hendrix states: “This figure is also higher than the measured flows of the Broad River during the record flooding event South Carolina experienced in October of 2015.”

**SCE&G Response:** Even though there was record flooding in portions of South Carolina during the October 3 – 5, 2015 rain event, the flows in the Broad River Basin did not experience anywhere near the record flood flow of 224,000 CFS for the Broad River. The peak streamflow for the referenced event measured at the USGS Alston station one mile below Parr Dam is recorded at 73,200 CFS on October 4, 2015.

On Page 2, Mr. Hendrix states: “The discrepancies between what was required by the License and what was actually acquired are reflected throughout the Exhibit K documents...”

**SCE&G Response:** SCE&G takes exception to Mr. Hendrix’s assertion that there are discrepancies between what lands were required to be obtained by the license and what lands were acquired by the Licensee. SCE&G, as a steward of the Project, and of the lands and waters within the PBL, acquired in fee lands in accordance with the requirements of license Article 48, which specified a minimum amount of land that was to be acquired as “necessary and appropriate for project operations” due to the addition of crest gates on top of the existing dam, and the resulting higher upstream water surface elevations. Therefore, there are no “discrepancies” between license requirements and Commission-approved Exhibit K documents.

On Page 3, Mr. Hendrix states: “(6.) All of SCE&G's documents and presentations for this relicensing state the Parr Reservoir is 13 miles long. Additionally, on page three of the license for this project, FERC reflects that the reservoir is 13 miles long. Exhibit K- Sheet One shows a Table outlining Project Boundary Line Elevations for Parr Reservoir that establishes the reservoir as being 15 miles long.”

**SCE&G Response:** SCE&G has already discussed this issue with Mr. Hendrix during one of the relicensing Technical Working Committee meetings. This discrepancy will be addressed and corrected in the final license application. On the surface, it appears that the original reservoir was 13 miles long and when the crest gates were added the reservoir became 15 mile long. This would explain why the current license references 13 miles since it was issued prior to installation of the crest gates. This reference was merely carried over within the Project description included in the license study documents. Although there apparently has been an editorial mistake in the general description of the Parr Reservoir size, the Parr PBL has not changed since the current Exhibit K drawings were filed with and approved by the FERC in 1981.

On Page 4, Mr. Hendrix states: “It is apparent and quite clear that FERC never intended for the PBL of this project to be more than 200 feet horizontal measure from the 266 foot elevation which is the elevation of the crest gates that were added to the dam during the construction of the project.”

**SCE&G Response:** SCE&G once again refers to the statement at the beginning of license Article 48 which clearly identifies that “lands encompassed by the project boundary shall include, but not be limited to” the criteria of sub-paragraphs (a) and (b) of this license article. Therefore, it is apparent and clear that the Licensee was expected to “purchase in fee and include within the project boundary all lands necessary or appropriate for project operations,” which is what was done and has been approved by the FERC.

# **ATTACHMENT 1**

William B. Hendrix, Jr.  
18662 Newberry Road  
Blair, South Carolina 29015

January 28, 2015

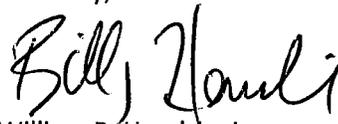
Mr. William R. Argentieri, P.E.  
Manager of Civil Engineering  
South Carolina Electric & Gas Company  
220 Operation Way  
Mail Code A221  
Cayce, South Carolina 29033-3701

Re: Relicensing FERC Project 1894

Dear Bill:

Pursuant to our last meeting, I have requested and received from FERC a copy of the Final Report of the Board of Consultant's for the above-referenced project. After reviewing the document, I still have some questions and would ask that you please help clarify them for me. The only report I see referenced is a report prepared by Gibbs and Hill entitled, "Lower Reservoir Operation Study," dated May 1978. Is this the same report as the "USGS Study" that you referenced in our last meeting as well as in the materials presented in your Companies meetings of September 19 and December 4, 2012? I would also ask that you confirm our conversations in our last meeting that the land acquisition for this project was based on an USGS Study. Finally, I would ask that you please provide me copies of these studies/plans.

Sincerely,

A handwritten signature in black ink that reads "Billy Hendrix". The signature is written in a cursive, slightly slanted style.

William B. Hendrix, Jr.

# **ATTACHMENT 2**



March 18, 2015

Mr. William B. Hendrix, Jr.  
18662 Newberry Road  
Blair, South Carolina 29015

Re: South Carolina Electric & Gas Company  
Parr Hydroelectric Project  
FERC Project No.1894  
Response to letter dated January 28, 2015

Dear Mr. Hendrix:

With this letter I am responding to your letter of January 28, 2015, in which you requested that South Carolina Electric & Gas Company (Company), as the licensee for the Parr Hydroelectric Project, FERC Project No. 1894 (Project), provide you with certain information and materials concerning the basis upon which the Federal Energy Regulatory Commission (FERC) established the Project boundary line (PBL) in the upper reaches of the Parr Reservoir in the vicinity of a tract of land which you own. From public meetings convened in 2012 as part of the ongoing FERC relicensing of the Project and from individual conversations with you in 2014, we understand that you consider that the PBL need not be set between the 275.3- and 276-foot contours in the upper reaches of the reservoir near your property.

As detailed below and consistent with our prior oral discussions, the PBL along the full length of the reservoir was established in conformity with the specific obligations set forth in the Project's license, and has been approved by FERC. For these reasons, there is no reason to revisit the matter.

The placement of the PBL was established in accordance with the requirements of the current license for the Project as issued by the Federal Power Commission (FPC), the predecessor agency to the FERC, in *South Carolina Electric & Gas Co.*, 52 FPC 537 (1974). The FPC's order authorized, among other things, the redevelopment of the Parr Dam and Reservoir and the development of the Fairfield pumped storage facility with its associated Monticello Reservoir. Included in the redevelopment of the Parr Dam was the installation of crest gates that raised the height of the dam. For your reference, a copy of the FPC's license order is enclosed.

For purposes of your inquiry regarding the PBL, Article 6 of the license directed that, within five years from the issuance of the license, the Company was to acquire title in fee or the right to use in perpetuity all lands, except those of the United States, necessary or appropriate for

the construction, maintenance, and operation of the Project. 52 FCP at 555. This is a standard obligation of all hydroelectric licenses issued under the Federal Power Act. Then, in Article 48(b) the FPC established specific minimal conditions concerning the level of the boundary for the Parr Reservoir by stating that the “lands encompassed by the project boundary shall include, but not be limited to . . . [s]horeline lands up to the 270 foot contour or up to 50-feet, horizontal measure, from the 266-contour of the [Parr] reservoir . . .” 52 FPC at 564.

In order to determine what properties would be affected by the operation of the Parr Dam with its new crest gates and be in compliance with Article 48, the Company obtained the assistance of the United States Geological Survey (USGS) to study the backwater effect of the crest gates. Related to this assessment is Article 39 of the license, which requires the Company to operate the Parr and Monticello Reservoirs in such a manner that the releases from the Parr Dam during flood flows are not to be greater than flows which would have occurred in the absence of the Project. Based on the requirements of Article 39, a flow in the Broad River of 40,000 cubic feet per second (cfs) was applied as the benchmark to determine a combination of backwater effects from natural river flows, the drawdowns from the pumped storage facilities, and the crest gates being lowered.

Using that stream flow, the USGS determined that the backflow up the Parr Reservoir would produce flood waters rising well beyond the minimum 270-foot contour level, set by license Article 48, to approximately the 278-foot contour. The backflow data was reflected on two sheets entitled “U.S.G.S. Backwater Profiles: Parr Hydroelectric Project No. 1894: South Carolina Electric & Gas Company.” Copies of those two sheets are enclosed with this letter.

With regard to the property that you have identified to the Company, please note on Sheet 2 of 2 and the rising graph lines between the line captioned “Enoree River” and the line marked “End of Project’s Influence.” You will note that at a flow of 40,000 cfs, the projected flood level rises from the 275.3-foot contour to approximately the 278-foot contour, at which point the backwater effect ceases.

Based on the flood levels projected by the USGS, the Company secured the necessary property rights to the lands along the shores of the Broad River that would be inundated at the 40,000 cfs river flow. By the autumn of 1977, the Company had purchased fee title to the lands lying on either side of the Broad River upstream from the confluence of the Broad and Enoree Rivers. The Company then prepared and filed with the FERC on June 26, 1981 a list of the property acquisitions, designated as Exhibit F, and the property maps depicting the PBL, designated as Exhibit K to the Project’s license. By order date August 19, 1981, the FERC approved both exhibits.

For your records, I am providing you with the FERC-approved Exhibit K, Sheet 1 of 20 (an overall map of the Project Area) and Sheet 15 of 20. Sheet 15 covers the area of your concern. On Sheet 15, you will observe the flood levels as transposed from the USGS

Mr. William B. Hendrix, Jr.  
Parr Hydroelectric Project, FERC Project No.1894  
Response to letter dated January 28, 2015  
Page 3

Backwater Profiles with the figures matching the USGS Station Numbers appearing on the upper left hand corner of Sheet 1 of Exhibit K.

In your letter of January 28, 2015, you inquired whether the Company could confirm that the report prepared by Gibbs and Hill, entitled "Lower Reservoir Operation Study," dated May 1978, is the same as the USGS study. While the Lower Reservoir Operation Study did include some consideration of possible flooding upstream of the Parr Dam, that study, undertaken in compliance with Article 39 of the license, was more concerned with the operation of the new crest gates and flooding downstream of the dam, all based on certain flooding scenarios. The study conducted by the USGS was concerned solely with the flooding above the dam. With regard for copies of those studies the Company has explored its archives and has discussed the matter with the USGS. That effort failed to locate any copies of the reports upon which the maximum power pool level was established, as reflected on Sheets 1 and 15 of Exhibit K.

As expressed at the beginning of this letter, the Company considers establishment of the PBL fully resolved. The Company has acquired all property rights along the shores of the Parr Reservoir and its tributaries which remain necessary for the operation and maintenance of Project No. 1894. The FERC has approved the placement of the PBL, and the Company does not see any need to revisit the issue at this time. Moreover, even if the Company were to see a need in the future to reexamine the placement of the PBL, any such change that might be approved by the FERC does not mean that the Company would necessarily convey such lands then outside of the PBL as excess property. Article 48 of the license, quoted above, does not preclude, but, in fact, recognizes the possibility of acquisition of lands beyond the minimal requirements of the license.

The Company appreciates your interest in the relicensing of the Project, and trusts that this letter has responded to the matters posed in your letter. If you have any further questions concerning the PBL, please contact me at (803) 217-9162 or [bargentieri@scana.com](mailto:bargentieri@scana.com).

Very truly yours,



William Argentieri, Manager Civil Engineering  
Fossil/Hydro Technical Services

Enclosures

c: H. E. Delk/PH File  
J. H. Hamilton/ J. Stuckey

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Before Commissioners: John N. Nassikas, Chairman; Albert B. Brooke, Jr., Rush Moody, Jr., William L. Springer and Don S. Smith.

SOUTH CAROLINA ELECTRIC & GAS COMPANY, PROJECT NO. 1894

ORDER ISSUING NEW LICENSE (MAJOR), AUTHORIZING PROJECT REDEVELOPMENT, PERMITTING USE OF PROJECT WATERS FOR CONDENSER COOLING PURPOSES, VACATING HEARING ORDER, AND PERMITTING WITHDRAWAL OF INTERVENTION

(Issued August 28, 1974)

On July 26, 1972, South Carolina Electric & Gas Company (Applicant) of Columbia, South Carolina, filed an amended application for new license requesting: (1) a new license under Section 15 of the Federal Power Act (Act) for the existing 14.9 megawatt (mW) Parr Hydroelectric Project No. 1894, (2) authorization to construct a 518.4 mW pumped storage development (Fairfield Pumped Storage Facility) which would utilize the enlarged Parr Reservoir as the lower pool, and (3) authorization to use the upper pool (Monticello Reservoir) of the Fairfield facility as a cooling impoundment for a proposed 900 mW nuclear steam-electric generating facility, known as Unit 1 of the V. C. Summer Nuclear Complex, for which a construction permit was issued by the Atomic Energy Commission in A.E.C. Docket No. 50-395 on March 21, 1973.

This amended application supersedes parts of the original new license application for the existing hydroelectric project filed June 19, 1969, and amended February 27 and November 16, 1970, as well as parts of a subsequent application filed September 30, 1971, and revised March 1, 1972, which embraces the concept of project redevelopment to include the Fairfield Facility and the use of water from the Monticello Reservoir for cooling purposes in connection with the V. C. Summer Nuclear Complex. Public notice of the June 19, 1969, new license application was issued January 14, 1971, with March 3, 1971, as the last day for filing protests or petitions to intervene. Notice was published in the *Federal Register* on January 23, 1971 (36 Fed. Reg. 1171). No protests or petitions to intervene were filed in response to such notice. Public notice of the amended application was issued November 1, 1972, with January 8, 1973, as the last day for filing protests or petitions to intervene. Notice of the amended application was published in the *Federal Register* on November 8, 1972 (37 Fed. Reg. 23750).

Petitions to intervene out-of-time were tendered for filing by Robert A. and Martha M. Westbrook on April 9, 1973, as amended August 3, 1973, and by W. R. Robinson on March 6, 1974. By orders issued October 4, 1973, and April 23, 1974, the respective petitions to intervene were accepted for filing and granted.

On September 7, 1973, W. R. Robinson and Robert A. and Martha M. Westbrook were served with a copy of the Draft Environmental Impact Statement and a copy of Commission Order No. 415-C, 18 CFR § 2.81 (1974), 48 FPC 1442. No comments were received in response to the Draft Environmental Impact Statement from the intervenors.

By our order issued in this proceeding on August 9, 1974, we set a hearing on the application and permitted the withdrawal of the petition to intervene filed by W. R. Robinson. Subsequent to our order of August 9, 1974, John D. McLeod, attorney for intervenors Robert A. and Martha M. Westbrook, by a telegram dated August 16, 1974, requested that the Westbrook's petition to intervene be withdrawn. On August 19, 1974, Applicant filed a motion for reconsideration of our order of August 9, 1974.

We believe that Robert A. and Martha M. Westbrook should be permitted to withdraw their petition to intervene. In so doing, we realize that the controversy which formed the basis of our previous order providing for hearing in this proceeding is no longer present. Therefore, we are also vacating those portions of our order of August 9, 1974, which provided for a hearing.

Notice of Availability of Commission Staff's Draft Environmental Impact Statement was issued on August 31, 1973, and published in the *Federal Register* on September 7, 1973 (38 Fed. Reg. 24418). Notice of Availability of Commission Staff's Final Environmental Impact Statement was issued on March 13, 1974, and published in the *Federal Register* on March 20, 1974 (39 Fed. Reg. 10486). On March 20, 1974, 10 copies of the Staff's Final Environmental Impact Statement were transmitted to the Council on Environmental Quality.

The redeveloped project will be located in Newberry and Fairfield Counties, South Carolina, on the Broad River a navigable water of the United States, approximately 26 river miles upstream from the City of Columbia, South Carolina. The project will affect lands of the United States within the Sumter National Forest. The project will include the existing and redeveloped works of the 14.9 mW Parr hydroelectric development which consists of a steel-frame brick powerhouse containing 6 generators rated at 2,480 kilowatts (kW) each, and provision for 2 additional units; a 2,715-foot-long dam composed of a 300-foot integrally constructed powerhouse section, a 300-foot earth dike, a 90-foot non-overflow section, and a 2,000-foot concrete overflow section, 35 feet high, with crest at elevation 257.0 feet mean sea level (m.s.l.), surmounted by Bascule gates; a 4,400-acre reservoir at maximum controlled surface elevation 266 feet, m.s.l., at the dam, extending upstream for 13 miles, having a useable storage capacity of 29,000 acre-feet in a drawdown of 10 feet, providing water for operation of the conventional hydroelectric development and serving as the lower reservoir of the Fairfield facility; and transmission and appurtenant facilities hereinafter described. The project further includes works of the Fairfield Pumped Storage Facility comprising the reservoir of the 14.9 mW Parr hydroelectric development heretofore described; the 6,800-acre Monticello Reservoir having a total capacity of 400,000 acre-feet at the 425-foot, m.s.l., maximum pool elevation, and a useable storage capacity of 29,000 acre-feet in an operating drawdown of 4.5 feet; four random-fill dams impounding Monticello Reservoir having lengths of 5,000, 3,400, 1,700, and 900 feet, each with crest at elevation 434 feet m.s.l.; a 400-foot-wide, 600-foot-long, intake channel in the south abutment of the 5,000-foot-long dam; a gated intake structure with invert at elevation 375 feet m.s.l. and four 800-foot-long, 26-foot-diameter, surface penstocks bifurcating into eight 18-foot-diameter concrete-encased penstocks; a semi-outdoor generating station (Fairfield Powerhouse) housing 8 reversible pump-turbine units, each having a minimum capacity of 83,000 horsepower at the minimum head of 150 feet, to be operated by remote-automatic, local-automatic, or local-manual control option, directly coupled to 8 motor-generators, each with a nameplate rating of 64,800 kW in the generating mode and 100,000 horsepower when operated as a motor; and transmission and appurtenant facilities hereinafter described. Recreational features of the project comprise a boat launching area adjacent to the crossing of Heller's Creek by County Road 28 in Parr Reservoir; a 300-acre subimpoundment to be created in the northern end of Monticello Reservoir having a public boat launching area with parking and sanitary facilities on land acquired for recreational purposes; a scenic overlook on the eastern shore of Monticello Reservoir with parking, picnic, and sanitary facilities; and appurtenant facilities.

The South Carolina Pollution Control Authority issued a Water Quality Certificate, pursuant to Section 401 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. §§ 1251-1376, 1341, by letter dated January 11, 1973, which stated that, assuming the operation of the 900 mW Unit 1 of the V. C. Summer Nuclear Complex, there is reasonable assurance that the construction and operation of the Monticello impoundment and the Fairfield Pumped Storage Facility will not violate applicable water quality standards. By letter dated February 13 1973, the South Carolina Pollution Control Authority issued a permit for the dredging of a tailrace canal for the Fairfield Pumped Storage Facility along Frees Creek. By letter dated June 26, 1974, the South Carolina Department of Health and Environmental Control stated that there is reasonable assurance that the redeveloped Parr Hydroelectric Development will not violate applicable water quality standards and stated its intent to certify this development.

Study of the existing and proposed structures indicates that the project, its structures and appurtenant facilities will be safe and adequate provided proper materials and accepted construction practice and procedure are used.

With respect to economic feasibility, even before the recent escalation of fuel costs<sup>1</sup> and lack of supplies, studies show that estimated annual project costs of the redeveloped project to include authorization to use Monticello Reservoir for cooling the proposed 900 mW Unit 1 of the V. C. Summer Nuclear Complex compare favorably to costs for a gas turbine alternative and are more feasible than either nuclear or other fossil fuel alternatives. Estimated annual project costs of the redeveloped project to include use of Monticello Reservoir for cooling a second potential 900 mW nuclear unit would make the project more economically feasible than any nuclear or fossil fuel alternative. Studies show that no other conventional and pumped storage hydroelectric sites located within the Applicant's service area are as economically feasible for development.

Pursuant to Section 2.81 of the Commission's Rules then in effect, 18 CFR § 2.81 (1972), Applicant submitted an Exhibit W or environmental report. Based upon an independent analysis of information contained in this report, the Final Environmental Statement, Virgil C. Summer Nuclear Station of the Atomic Energy Commission dated January 25, 1972, and independent investigations by Commission Staff, Commission Staff compiled a Draft Environmental Impact Statement on the proposed project and circulated it among the interested Federal, State, and local agencies as well as to individuals and organizations for comment pursuant to Commission Order No. 415-C, issued December 18, 1972, 48 FPC 1442 (1972). After consideration and review of these comments, a Final Environmental Impact Statement was prepared by Commission Staff. On the basis of the information contained in the Staff Final Environmental Impact Statement and other data on file with the Commission, we believe that the beneficial effects to be derived from redevelopment of the Parr Project No. 1894 to include the use of Monticello Reservoir for cooling the 900 mW Unit 1 of the V. C. Summer Nuclear Complex, subject to the conditions hereinafter imposed, outweigh the adverse effects upon the environment. We discuss hereinafter the relevant environmental impacts which we have considered pursuant to Section 102(2)(C) of the National Environmental Policy Act of 1969, 42 U.S.C. § 4432 (2)(C).

Construction of the redeveloped Parr Project No. 1894 and the V. C. Summer Nuclear Station will result in the influx of a construction force of 1,800 workers,

<sup>1</sup> FPC Form 423 reports pursuant to 18 CFR § 141.61 (1974) show that fuel costs for the gas turbine alternative are more than twice as high as those costs used in the economic feasibility studies referred to in the Staff Final Environmental Impact Statement.

600 of which would be employed in connection with the construction of the Parr project. It is estimated that approximately 30% of the anticipated 1,800 workers are now living within a 25-mile radius of the project area. Since the majority of the remaining labor force would relocate in Columbia, South Carolina, the number of workers relocating in the project area will probably be small. Local area service facilities should absorb these workers without any great difficulty. After construction a small permanent increase in local population would result in connection with operation and maintenance of the project and the nuclear station. For the above noted reasons we do not believe that the disruption of local services and local businesses will be significant.

Disruption of traffic, schools, and school busing could occur during construction of the proposed project. State Highway 215 will be the primary road used in connection with construction. The Applicant has consulted with the South Carolina Highway Department and arranged for necessary improvements at two places of concern, the intersection of State Highways 213 and 215 and the entrance to the proposed nuclear station, to insure maximum highway safety. Furthermore, the Applicant has discussed with the School Bus Division of the South Carolina Department of Education, the need to arrange construction shift times and related travel in order to minimize conflicts with school bus schedules.

The major adverse impact on the area's human resources would result from the relocation of up to 25 families, 5 small cemeteries, and portions of State Route 215 and County Route 99 due to the inundation of 6,800 acres of land by the upper reservoir.

In the license this day issued, we are requiring Applicant to establish a relocation advisory service and to provide reasonable financial assistance for relocation purposes. With respect to the 5 cemeteries in the project area, we note that the Applicant has relocated and marked these cemeteries as stated in the South Carolina Department of Archives and History's letter dated October 20, 1972. While the relocation of State Route 215 and County Route 99 is unavoidable if the project is built, we note that County Route 99 will be relocated at Applicant's expense. Furthermore, we are requiring Applicant to provide access roads for those individuals not displaced by the project but adversely affected by the road relocations.

The inundation of the area within the proposed upper reservoir will result in the loss of 700 acres of agricultural lands. Agriculture is neither a major land use nor major source of income and constitutes only 17 percent of total land use in Fairfield and Newberry Counties. Furthermore, agricultural use has declined 4.3 percent in the period 1958 to 1967. Low fertility and high soil erodibility makes the land unsuitable for intertilled crops. Agricultural land is now used for small scale crop production or for pastureland.

In addition, 3,000 acres of pine plantations and 3,000 acres of mixed pine and bottomland hardwood will be lost by creation of the reservoir. The pine stands have commercial value as timber and pulp. The mixed pine and bottomland hardwood stands support commercial timber operations and provide wildlife cover and food. Fairfield County is the most heavily forested county in the State of South Carolina. Five major paper and pulp companies own 76,200 acres of forested land in Fairfield County. The Sumter National Forest comprises another 12,100 acres in Fairfield County. The volume of softwood harvested has increased considerably since the year 1958 while the hardwood harvest has decreased. Forestry is a major commercial resource adversely affected by the proposed project.

The installation of Bescule gates on top of the existing Parr dam will result in the inundation of 2,550 acres of bottomland hardwoods in Parr Reservoir. Additionally, 300 acres of national forest land presently used as a waterfowl management area would be lost. However, an existing quarry operation 10 miles upstream from the existing Parr dam would not be affected.

The proposed project would affect the Davis Plantation, a registered National Historic Site. The shoreline of the Monticello Reservoir would be 1,000 feet from the plantation at the nearest point. Views from the Davis Plantation would be changed from a view of rolling wooded hills to a view of water, which would include periodic mud flats, as noted below.

Two sites listed on the South Carolina survey of historic places, Fonti Flora and Monticello Church, will be in the area of the Monticello Reservoir. The South Carolina Department of Archives and History by letter dated October 20, 1972, stated that there would be no adverse effect on these historic properties. Four archaeological sites located in the project area would not be inundated. However, in view of the fact that some unknown sites may be inundated, we are providing for archeological survey and salvage excavations before construction and inundation.

The 4.5 foot daily fluctuation of the Monticello Reservoir would create mud flats when drawn down. However, less fluctuation and high water levels would be present on weekend days when the greatest recreational use would occur. More extensive fluctuation of water levels (10 feet) would occur on the Parr Reservoir. Mud flats of an average width of 375 feet would be created with the reservoir fully drawn down. This adverse visual impact would occur during early morning hours on weekdays and, more significantly, during the weekend period of greatest recreational use. However, the only views of the reservoir from roads would be at points where a secondary road crosses Cannon's and Heller's Creek. We believe the planting of selected species of plants will minimize the adverse visual impacts at both reservoirs and are so conditioning this license.

None of the species considered endangered in South Carolina by the United States Fish and Wildlife Service (America alligator, eastern brown pelican, southern bald eagle, Eskimo curlew, American ivory-billed woodpecker, Backman's warbler) are known to nest or reside in the project area. Some wildlife species, however, would be affected by the inundation of 2,550 and 6,800 acres for the Parr and Monticello Reservoirs, respectively.

Loblolly pine-hardwood forest and longleaf pine forest generally support 1 deer per 30 to 50 acres and 1 deer per 73 acres, respectively. South Carolina bottomland hardwoods, however, support 1 deer per 13 acres. Thus, the beneficial habitat and food producing characteristics of a bottomland hardwood environment are normally significant for whitetailed deer populations. We do not believe, however, that these general carrying capacities of South Carolina forests are representative of carrying capacities in the project area for the following reasons.

As noted in the Final Environmental Impact Statement, pine plantations, mixed pine-hardwood plantations, and hardwood forests are the three forest communities in the areas proposed to be inundated. The pine plantations contained a sparse understory. No shelter, forage, or browse is significantly available. Limited amounts of Walter's smilax, honeysuckle, blackberry, and dogwood are found; but no deer have been observed or trapped. Thus, the carrying capacity of the 3,000 acres of pine plantations to be inundated by the Monticello Reservoir is low.

The carrying capacity of the mixed pine and bottomland hardwood forest, on the other hand, is fair. Walter's smilax and sedge constitute the most abundant

browse for wildlife. Understory vegetation is diverse although none of the vegetative types can be considered abundant. This forest type, primarily located along Frees Creek, represents the best quality wildlife habitat in the project area and produces deer at or near the 1 deer per 30 to 50 acres carrying capacity heretofore noted.

The bottomland hardwood stands along the Parr Reservoir do not produce significant understory vegetation because these stands are mature and dense, thus restricting light penetration. Understory vegetation is most significant near railroad and transmission line rights-of-way, abandoned farm fields, and abandoned roads. However, these openings do not constitute a substantial portion of this area. The carrying capacity of this area is substantially less than 1 deer per 13 acres. Thus, the total number of white-tailed deer adversely affected by the inundation of Monticello and Parr Reservoirs will not be as great as would be expected on the basis of representative South Carolina standards.

Other game species found within the project area include rabbit, squirrel, quail, and dove. Wild turkeys were reintroduced into the adjacent Sumter National Forest during the years 1953 to 1956. Turkeys, singly and in small flocks, have been occasionally sighted in the project area. Opossum and raccoon were also noted in the project area. Populations of these species were low in the pine plantations. Only songbirds and small mammals (cotton mouse, golden mouse, short-tail shrew, pine vole) were observed. The mixed pine and bottomland hardwood areas contained opossum and raccoon. Small mammals were more abundant here than in the pine plantations. Songbirds were less abundant than in the pine plantations. The mature trees of the bottomland hardwood forest near Parr Reservoir produce an annual mast crop (acorns, seeds) which is primarily utilized by squirrel and turkey. Populations of other wildlife species do not appear to be significant due to the restricted light penetration previously noted.

Waterfowl have historically used the Broad River as a migratory flyway and meeting area. Fluctuations in the Parr Reservoir will not preclude use of the reservoir for feeding purposes either for resident or migratory waterfowl species.

Some wood duck nesting areas along Parr Reservoir will be eliminated by the 2,500-acre inundation. Wood duck is the only resident waterfowl species. The 10-foot daily fluctuation of Parr Reservoir will curtail successful shoreline nesting and rearing of wood duck young. More importantly, the inundation of lands in connection with Parr Reservoir will destroy 300 acres of Sumter National Forest used as a waterfowl management area, resulting in further loss of wood duck nesting habitat. The absence of suitable nesting habitat is a major limiting factor at present. Additionally, fluctuation of Parr Reservoir will adversely affect a small existing population of fur bearers.

We note that a memorandum of understanding between the Applicant and the South Carolina Wildlife and Marine Resources Department has been negotiated which provides for the dedication of 90 acres of suitable Broad River bottomland by Applicant for development as a greentree reservoir site. Additionally, Applicant has entered into an agreement with the United States Forest Service which provides for land exchanges between the parties, the dedication of a minimum of 90 acres for greentree reservoirs,<sup>2</sup> and the payment of money by Applicant to revise the Broad River Waterfowl Management Plan, with \$4,000 specified as the initial advance deposit. These agreements should minimize the adverse environmental impacts on waterfowl and furbearers.

The inundation of 2,550 and 6,800 acres for Parr and Monticello Reservoirs, respectively, will adversely affect wildlife populations to the extent that species migrating from the inundated areas could not be absorbed in adjacent areas. This

<sup>2</sup> A greentree reservoir, as defined in the agreement, is a reservoir with controlled fall and winter water levels surrounded by mast bearing hardwood forest species.

will occur if these areas have species populations at or near the carrying capacity of the area. If all adjacent areas have species population at or near the carrying capacity, species populations will be reduced by disease, starvation, or hunting pressure until a new ecological balance is established. In this context, we note that construction of the 1-mile-long Fairfield-Summer transmission tieline and relocation of a Duke Power Company Transmission line will also displace wildlife during the construction period. However, after the construction period, edge habitat management along these lines will provide a greater variety of food and cover for wildlife in these areas and thus mitigate to some extent adverse effects on wildlife. Furthermore, we note that extensive timber cutting operations in Fairfield and Newberry Counties will increase forest openings and understory vegetation. These operations increase the carrying capacity of the area for wildlife and increase the possibility that wildlife migrating from the project area can be absorbed in adjacent areas.

In the interest of further mitigating any potential adverse effects on waterfowl and wildlife, we are, however, requiring Applicant to file for Commission approval a waterfowl habitat mitigation plan as part of a revised Exhibit S in cooperation with the South Carolina Wildlife and Marine Resources Department and the United States Department of the Interior's Bureau of Sport Fisheries and Wildlife. We have also provided for the filing of a revised Exhibit S within 5 years after issuance of this license which shall set out a schedule for protecting and enhancing the fish and wildlife affected by the project. Finally, we are requiring Applicant to study the feasibility of constructing subimpoundments on Heller's and Cannon's Creeks for the purpose of providing recreational benefits, including additional waterfowl and wildlife habitat and to submit such study and any plans for implementation as part of its revised Exhibit R within one year after issuance of the license. These subimpoundments, if found to best serve public recreational needs, would be constructed in lieu of developing the 180.5 acre parcel on Heller's Creek and the 387 acre parcel near Fairfield Powerhouse for recreational purposes as proposed in the application. We believe the implementation of these memoranda of understanding and license conditions should mitigate most, if not all, of the adverse effects on wildlife and waterfowl heretofore noted.

The effects of proposed project operation on the aquatic environment include the effects of construction and operation of the Fairfield and Parr project components (water level fluctuations in both reservoirs; pumping operations) as well as the effects of operation of the V. C. Summer Nuclear Station. These effects are considered below.

During construction of the proposed project works, turbidity in the Broad River will increase and result in the reduction of rooted algae necessary to support higher food chain aquatic organisms. We are requiring Applicant to take reasonable measures to prevent soil erosion and stream siltation during construction of the project in order to minimize this short-term adverse environmental impact.

Operation of the proposed project is not expected to substantially increase soil erosion so as to result in siltation of Parr Reservoir. Such adverse effects will be more pronounced during the construction period and for a short time thereafter. The Applicant will be required to take all reasonable measures to prevent soil erosion and stream siltation caused by the operation and mainte-

nance of the project. Soil erosion should also be minimized by the planting of selected species of plants, heretofore noted.

Pumping operations at the Fairfield facility will cause an exchange of fish and associated aquatic organisms between reservoirs. A review of the species and populations of fish involved and, more importantly, the particular design of and operational mode for the pump-turbines shows that fish mortalities will not be substantial.

Daily fluctuations in the Parr Reservoir of the magnitude heretofore noted will adversely affect benthic organisms which are relatively immobile. Consequently, an increase in biomass and carrying capacity of Parr Reservoir will not be realized even though such an increase would normally be expected where 2,550 surface acres of aquatic habitat are created. Water level fluctuations in Monticello Reservoir will have a minimal effect on the spawning of nest building centrarchids. Spawning of largemouth bass and bluegill would be adversely affected by the decreased surface area caused by the 10-foot fluctuation of Parr Reservoir.

Operation of the Summer station will have a significant impact on the biota of Monticello Reservoir in the intake structure, heat exchangers, effluent discharge canal, and mixing zones. Impingement of fish on the cooling water intake screens will not be significant since approach velocities of water to and water velocities through these screens are sufficiently low. Fish impinged on the screen will be suffocated. Plankton and small fish will also be drawn through the screen. Thermal and mechanical stresses will be imposed on these organisms as they travel through the condenser system.

Significant mortalities will occur when reservoir temperatures are 80°F or higher. Such mortalities pose a serious threat to the viability of the reservoir's ecosystem where the volume of cooling water pumped through the condenser system is a significant part of that reservoir's volume. However, only approximately 0.5 percent of the reservoir's volume will be pumped through the condenser system daily. Assuming the worst possible temperature conditions and complete planktonic kills, this planktonic loss will be small when compared to the size of the reservoir's standing crop. We note that a mechanical cleaning system, rather than biocides, will be used to prevent condenser tubing fouling. This cleaning system will mitigate adverse impacts on plankton.

Thermal discharges from the Summer Nuclear Station will raise water temperatures in the discharge canal to a maximum of 113°F. The discharge canal and pond will occupy 40 acre-feet of water out of the 440,000 acre-feet volume of Monticello Reservoir. Surface temperatures in the mixing zone between the pond and the rest of the reservoir would be lethal to fish life, through subsurface temperatures in the mixing zone will be acceptable. Furthermore, fish will be able to avoid areas in the mixing zone with unfavorable temperatures.

Under the worst conditions of low water and high withdrawal rates, waters released from Monticello to Parr will be no greater than 3°F warmer than Parr Reservoir water. This temperature increment could alter the species diversity of aquatic organisms in Parr Reservoir in the vicinity of Frees Creek but will have no discernible impact on fish in Parr Reservoir or the Broad River downstream.

We note, however, a more serious potential problem with respect to thermal discharges. Fish are attracted to warm areas in reservoirs during the winter. Sudden decreases in temperature in these areas during the winter as a result of nuclear station shutdown on the Monticello Reservoir can result in significant fish mortality. Furthermore, these zones may adversely affect fish populations through changes in maturation time, disease resistance, behavior and metabolic

rates. Although the commercial and sport fishing in Monticello Reservoir is expected to be slight, we are providing that the Applicant monitor this particular aspect of the project operation for inclusion in the revised Exhibit S.

The adverse effects on water quality of chemical discharges from the nuclear station to Monticello Reservoir have been discussed in the Atomic Energy Commission's Final Environmental Statement. These chemical discharges were separated into the following categories: start-up wastes, floor drain and oil-contaminated wastes, ion exchange regenerant wastes, sewage and other sanitary wastes, and steam generator blowdown. We believe that none of these discharges would significantly alter water quality and adversely affect aquatic biota.

In light of these potential adverse environmental impacts on the water quality of project waters, we are requiring Applicant to monitor the water quality of Parr and Monticello Reservoirs at selected locations as set out in the Final Environmental Impact Statement. This monitoring program will be for a period of five years from the date of commencement of project operation. At the end of this period Applicant will be required to file a final report on the monitoring program, including recommendations for further monitoring and proposals for the maintenance and improvement of the aquatic environment.

Enlargement of Parr Reservoir will create conditions conducive to actinomycete growth and odor production by increasing the amount of organic nutrients. Odor problems in the Columbia municipal water supply were found by the U.S. Environmental Protection Agency to be caused by nutrients in the Broad River upstream from the Parr Reservoir. The maximum increase in temperature of water discharged through the Fairfield Facility will not greatly increase actinomycete development. As previously noted, this water temperature increase will be greatest in the vicinity of Frees Creek. This water will be diluted by waters of the Parr Reservoir so that no increase in water temperature and conditions conducive to actinomycete development would be apparent below Parr Dam. In any event, we are requiring Applicant to monitor odors in its water quality station downstream of Parr Dam and promptly alert the Columbia municipal water treatment plant personnel should musty odors be detected.

In addition, we are requiring Applicant to monitor dissolved oxygen, temperature, stream flow, conductivity, and pH at its water quality station downstream of Parr Reservoir on a continuous basis. We are also requiring Applicant to monitor turbidity and heavy metals on a monthly basis, or more often if found necessary.

Turning to recreational development, we are approving a 300-acre subimpoundment planned for the north corner of Monticello Reservoir. This subimpoundment will be only slightly affected by thermal discharges from the nuclear station and the periodic intermixing with turbid waters from the Monticello Reservoir. We note that the existing fishery in Parr Reservoir and the Broad River is classified as very poor due to turbidity. We are requiring Applicant to study and develop fish management plans to maximize the sport fishing potential of Parr Reservoir, particularly Heller's and Cannon's Creeks, and of the Monticello Reservoir subimpoundment. Development and implementation of satisfactory plans should offset any losses to the existing fishery.

We note that the 300-acre subimpoundment recreational facilities will be the first in Fairfield County. Problems may arise due to maximum use of the picnic area, and possible overuse of the fishing impoundment could occur within a short period of time. We are requiring the filing of revisions to the Exhibit R within one year from the date of the issuance of this license which will show

additional proposed recreational facilities. We believe recreational use of Frees Creek as proposed by Applicant will be inhibited by the combined effects of drawdown and rapid stream flow due to the operation of the Fairfield facility. However, as previously noted, we are further requiring Applicant to study the feasibility of constructing recreational subimpoundments on Heller's and Cannon's Creeks in lieu of developing the 180.5-acre recreational parcel on Heller's Creek and the 387-acre recreational parcel on Frees Creek near Fairfield Powerhouse. Required minimum flow releases averaging 800 cfs daily should adequately protect downstream public recreational use and development.

Construction and operation of the proposed project by Applicant will result in certain adverse effects which are considered unavoidable. The displacement of 25 families, the loss of 700 acres of agricultural and 8,550 acres of forest land, the influx of construction workers, and scenic and aesthetic changes are the primary unavoidable adverse impacts on the human environment. Approximately 9,400 acres of wildlife habitat will be lost. The extent and severity of the resulting displacement of wildlife to adjacent areas is presently unknown. As heretofore noted, we do not believe this adverse effect upon wildlife will be substantial.

Some unavoidable fish mortality will occur as a result of the operation of the Fairfield pump-turbines. Many aquatic organisms in the condenser cooling water for the V. C. Summer nuclear plant will be killed, especially in the warmer months of the year. However, as heretofore noted, we do not believe that the adverse impacts on aquatic organisms will be significant.

We have considered alternatives to the proposed project. The alternatives were: licensing of the redeveloped Parr project without allowing the use of Monticello Reservoir for condenser cooling purposes; licensing of the project with a smaller upper reservoir; denial of the application; Federal takeover of the project; power purchases from other systems; coal-fired and nuclear steamelectric plants; oil-fueled gas turbines; other conventional and pumped-storage hydroelectric projects; and conservation of energy.

Our review of the alternative sources of power production convinces us that they are less attractive than the proposed project. The adverse environmental impacts of such alternatives would include noise, visual impacts, emissions, and increased heat rejection. In addition, the operation of alternative thermal power sources would deplete even further the Nation's critically short fossil fuel supplies.

At the same time that we attempt to make the most efficient use of our non-depleting hydroelectric resources consistent with environmental protection, it is our opinion that electrical energy conservation practices are desirable and should be promoted vigorously. Though conservation cannot eliminate growth in energy demand and the need to expand electric generating capacity, such a program could effect a significant reduction in the need for new generating capacity over the next decade.

We believe that relicensing the redeveloped Parr Project best meets the standard of Section 10(a) of the Act. 16 U.S.C. § 803(a). That section requires that a project approved shall "be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of water power development, and for other beneficial public uses, including recreational purposes \* \* \*."

We have examined the question of comprehensive development in terms of resource conservation, water quality control, fish and wildlife protection, navi-

gation, coordination of project capacity with facilities in the region, and the economic consequence of takeover. With respect to water quality control, fish and wildlife protection, and navigation, we believe that relicensing with appropriate license conditions will adequately protect such resource values. The redevelopment of the Parr Project will also provide needed public recreation facilities.

We do not believe that Federal takeover of the existing project pursuant to Section 14 of the Act (16 U.S.C. § 807) would be in the public interest. Project No. 1894 subject to Federal takeover has an installed capacity of 14.9 mW. The substantial reconstruction proposed by Applicant includes a 518.4 mW pumped-storage facility and a 900 mW nuclear plant. The proposed redevelopment would not be subject to takeover. Applicant's redevelopment will maximize the energy-producing capacity of the region. For example, the installed capacity of the existing Parr Project amounts to approximately .49 percent of the Applicant's total system capacity for 1974, while the redeveloped Parr Project and associated V. C. Summer Nuclear Unit #1 would represent approximately 32 percent of the Applicant's system capacity for 1978.<sup>3</sup>

The Applicant is a member of Southeastern Electric Reliability Council (SERC). Elimination of the Parr Project from the Applicant's system would decrease member reserves, and consequently, system reliability. Without the Parr redevelopment, it is estimated that Applicant's system reserve for 1978 would be about 6.9 percent versus 19.8 percent with redevelopment which compares favorably with the planned reserve capacity for SERC.

There are no existing Federal projects within the Santee River Basin. The only Federal facilities within reasonable transmission distance are the Hartwell (264 mW) and Clark Hill (280 mW) hydroelectric projects, which are not available to fulfill the necessary pumping requirements. Thus, were the Federal Government to take over the existing plant and develop on its own an associated project with a similar capacity of 518.4 mW as proposed by the Applicant without the nuclear plant, there is no generation available from Federal projects to support its operation.

The Applicant estimates the fair value of the existing project to be \$15,000,000. As of June 30, 1971, it estimates its net investment at \$1,533,000 and reasonable severance damages in excess of \$190,000. The Applicant further estimates that the total amount due it upon Federal takeover would be approximately \$1,743,000.

Even assuming that takeover of this project would result in some additional income to the Federal treasury in excess of direct expenses, it would appear that any such amounts would be to some extent offset by the corresponding losses in Federal income taxes. In addition, the impacts upon local governments by reason of takeover would be substantial. Approximately 7 percent of Fairfield County's and 3 percent of Newberry County's annual tax revenues are attributable to the existing Parr Project. The estimated annual taxes contributed by the project to local, State, and Federal governments is \$214,000. It is estimated that the potential tax revenues and fees to local, State, and Federal governments after development and expansion would be \$1,000,000 annually.

The short-term use of the local environment as represented by a license period of up to 50 years would provide benefits in power generation, recreational use and economic growth. These benefits contrast, however, with the effects of the ecological alterations, heretofore noted, caused by the construction and operation of the project. For instance, the inundation of 2,550 additional acres of land by enlargement of the existing Parr Reservoir and construction of the

<sup>3</sup> Table 1-1, Final Environmental Impact Statement for South Carolina Electric & Gas Company, Project No. 1894, pages 1-5.

6,800-acre Monticello Reservoir would result in the relocation of as many as 25 families and loss of forest and agricultural resources and wildlife habitat. Notwithstanding these short-term local impacts, we believe the maintenance and enhancement of long-term productivity will best be achieved by devoting the land and water resources of the area to the highest use they are capable of supporting *i.e.*, the production of electric power.

The Parr Project will result in the irreversible and irretrievable commitment of those construction materials and supplies which will not be salvaged after their use, as well as water lost through evaporation from both Parr and Monticello Reservoirs. It will be possible to remove structures, drain the impoundment, and replant trees at the end of the license period. To the extent that the project area were not restored to its natural state, the elimination of forest land would also be an irretrievable commitment of resources.

By letter dated September 15, 1972, the Secretary of the Commission requested comments pursuant to Section 4(e) of the Act from appropriate Federal, State and local agencies on the amended application. Federal agencies were also requested to submit comments and recommendations on takeover of the project pursuant to Section 14 of the Act and Section 16.8 of the Commission's Regulations under the Federal Power Act. No recommendation for Federal takeover of the project has been received.

The U.S. Department of the Army, Corps of Engineers (Corps), by letter dated December 14, 1972, stated it had no objection to issuance of a license. The Corps discussed the possible effect which the proposed 9-foot increase in the elevation of Parr Reservoir would have on a potential upstream Federal development, known as the Blairs Project. The Blairs Project was recommended in a plan for development of the Santee River. S. Doc. No. 189, 78th Cong., 2d Sess. (1944). The Corps stated that construction of this facility in the near future was unlikely. Furthermore, the redeveloped Parr Project would not significantly affect plans for redevelopment of the Santee River Basin. Therefore, the Corps stated that it had no objection to issuance of the license containing the usual conditions for the protection of the public interest. The Corps has approved the plan of the Parr Dam as it affects navigation by letter dated May 1, 1974.

The U.S. Atomic Energy Commission by letter dated December 13, 1973, which transmitted a copy of its Draft Environmental Impact Statement and a copy of its Safety Evaluation Report for A.E.C. Docket No. 50-395, stated that no license conditions to protect the interests of the Atomic Energy Commission were recommended.

The U.S. Department of the Interior (Interior) by letter dated June 15, 1973, stated that the proposed project will not directly affect any existing or proposed units of the National Park System or any sites that are eligible or recommended for registration as National, Historical, Natural, or Environmental Education Landmarks. Interior did recommend against issuance of a license until an acceptable Exhibit S is filed. We believe the public interest will be better served by issuance of the license with provision for the filing of a revised Exhibit S pursuant to Article 54 of the license. Such a revised Exhibit S will be based on the results of the comprehensive long-term post operational monitoring programs which will determine the effects on fish and wildlife. The availability of this information will enable us to further protect and enhance fish and wildlife in the area as may be necessary or appropriate.

Interior also discussed the impact of the redeveloped Parr project on a potential downstream Federal development, known as the Frost Shoals Project.

S. Doc. No. 189, *supra*. We note that there is no present plan or schedule for construction of this facility.

Interior further objected to the inclusion of the 55 acres of islands in the Monticello Reservoir for future recreational use since 20 of these acres are within a proposed nuclear exclusion zone. Atomic Energy Commission regulations state that "activities unrelated to operation of the reactor may be permitted in an exclusion area under appropriate limitations, provided that no significant hazards to the public health and safety will result." 10 CFR § 100.3(a) (1973). With appropriate safeguards we believe these islands may serve public recreational needs and are requiring their inclusion within the project boundary.

Interior stated that the 387-acre recreational parcel adjacent to Fairfield Powerhouse is inappropriate for recreational development due to the limited recreation capability of Monticello and Parr Reservoirs, lack of public access, proposed restricted public use of the Fairfield tailrace, transmission lines, railroad right-of-way, and steep and hilly topography. We are reserving decision on the suitability of the 387-acre recreational parcel pending the completion of a study which will compare the recreational advantages and disadvantages of this site and the 187-acre recreational parcel heretofore noted with possible subimpoundments on Cannon's and Heller's Creeks.

Finally, Interior requested that recreational lands extend a minimum of 200 horizontal feet from the high water mark. We are requiring Applicant to acquire in fee shoreline lands up to the 270-foot contour or up to 50 feet horizontal measure from the 266-foot contour, whichever is greater, on Parr Reservoir and shoreline lands up to the 430-foot contour or up to 50 feet horizontal measure from the 425-foot contour, whichever is greater, on Monticello Reservoir. This license condition will provide a strip of land 50 to 200 feet in horizontal measure along these reservoirs.

We do not preclude the possibility of requiring Applicant to acquire additional land for recreational purposes in the future. At this time, however, with the exception of those areas of intensive recreational use heretofore considered, we believe the acquisition of a strip of land 50 to 200 feet in width around the Monticello and Parr Reservoirs adequately protects the public interest. Other comments submitted by Interior have been addressed in the Final Environmental Impact Statement and considered by this Commission.

The U.S. Department of Agriculture, Forest Service (Forest Service) transmitted with its letter dated December 20, 1973, a Memorandum of Agreement between the Forest Service and the Applicant providing, in part, for the interests of the Forest Service. The details of this agreement have been heretofore noted. The Forest Service also suggested that a detailed development plan for the 300-acre subimpoundment be drafted which would include a parking lot for a minimum of 40 cars. We have conditioned the license to require the filing of such a detailed plan within one year from the date of issuance of this license. Finally, the Department of Agriculture recommended that the entire area within the triangle bounded by State Route 215, relocated State Route 99, and County Road 347 be considered for dedicating to public recreation in connection with the Monticello Reservoir subimpoundment. We are requiring that the Applicant include such land in the feasibility study to be filed pursuant to Article 45.

By letter dated November 7, 1972, the U.S. Department of Health, Education, and Welfare commented on the health aspects of proposed recreational facilities and recommended that the plans for sanitary facilities be submitted to the South Carolina State Board of Health for approval. In Article 43 we have

provided for the filing of a solid waste management plan approved by the appropriate State agency.

The U.S. Department of Transportation by letter dated November 9, 1972, noted that the enlargement of the Parr Project will have a minimal effect on the highway system but will require the relocation of portions of South Carolina Highway Route 99 and Route 215, both of which are included in the Federal Aid Secondary System of highways. The Department expressed concern regarding the cost of these road relocations. We note that legislation has been passed by the South Carolina General Assembly and approved by the Governor which provides for relocation of State Route 99 at Applicant's expense.

The South Carolina Water Resources Commission by letter dated December 12, 1972, stated that approval of the application would have less adverse environmental effects than its alternatives and urged the issuance of a license.

The South Carolina Recreation Commission by letter dated October 27, 1972, stated that they supported the project, primarily in light of the recreational benefits of the Monticello subimpoundment.

The South Carolina Department of Agriculture (Department) by letter dated November 3, 1972, stated that the benefits to be derived from the project far outweigh the adverse effects. The Department also stated that the adverse impact of the project on agriculture is not substantial.

The South Carolina Public Service Commission, the State Development Board, the South Carolina State Commission of Forestry, the Town of Winnsboro, the County of Newberry, and the City of Columbia by letters dated October 18, 1972, October 16, 1972, November 6, 1972, December 18, 1972, November 14, 1972, and November 16 1972, respectively, offered no objection to issuance of a license.

The South Carolina Department of Archives and History by letter dated October 20, 1972, commented on the project's effect on historical places and five small cemeteries. These comments have been addressed in this order heretofore.

The South Carolina Wildlife and Marine Resources Department (Department) by letter dated February 16, 1973, stated that a memorandum of understanding had been signed by the Department and the Applicant concerning water flow and land management. We have provided for minimum flow releases in Article 14 of the license.

The South Carolina Land Resources Conservation Commission (Commission) by letter dated December 22, 1972, offered no objection to the project. The Commission did recommend that an erosion control plan be developed to control erosion arising during and after construction. We have provided for these concerns in Articles 21, 40, and 47 of the license.

Applicant indicates that it plans at some future date to construct a second, and perhaps a third, 900 mW nuclear steam-electric generating unit. We note that the application for this project only includes a request for the use of the Monticello Reservoir "as a cooling impoundment for the proposed V. C. Summer Nuclear Complex (A.E.C. Docket No. 50-395)," and the only unit which was the subject of licensing before the Atomic Energy Commission was the 900 mW Unit 1 of the V. C. Summer Nuclear Complex. Although the Staff's Draft and Final Environmental Impact Statement considered the impacts of future nuclear units, we are approving in this license order only the use of Monticello Reservoir waters to cool the 900-mW Unit 1 of the V. C. Summer Nuclear Complex. If, in the future, Applicant desires to construct any steam electric generating plants on project lands or wishes to construct any plants which would utilize project waters for cooling purposes, then prior to construction it must file an appropriate application for Commission approval.

We believe that the subject matter of the instant application has been fully developed and considered by this Commission. These facts have been fully developed in the Draft Environmental Impact Statement and comments thereon, as set out in the Final Environmental Impact Statement, and other data on file with the Commission. Therefore, we do not believe that a public hearing will contribute any new and relevant information and conclude that it is not in the public interest to hold a hearing in this proceeding.

Turning to the transmission facilities connected with this project, we conclude that the generator leads and 2.3-kV lines for six units, the three 2.3/13-kV transformers at the hydro station, the 13-kV tie from the hydro station to the 72.5 mW Parr Steam Plant, the 2.3-kV tie from the hydro station to the nearby 2.3/23-kV Parr distribution substation, the 2.3/23-kV, 5,000 kVA transformer bank at the Parr distribution substation, and appurtenant facilities at the existing Parr Hydroelectric Project are primary lines within the meaning of Section 3(11) of the Act. At the Fairfield Pumped-Storage Facility, the generator leads, the step-up facilities, the two 230-kV lines from Fairfield Powerhouse to the V. C. Summer Nuclear Station switchyard, and appurtenant facilities are "primary lines". All other lines connected to the V. C. Summer Nuclear Station switchyard are part of Applicant's interconnected system.

We have previously noted that no recommendation for Federal takeover of the existing Parr Hydroelectric Project has been received. We believe, also, that a recommendation to Congress for Federal takeover of the project on our own motion, pursuant to Section 16.9 of the Regulations, would be inappropriate for the reasons discussed hereinbefore. For many of the same reasons we believe it would also be inappropriate to issue a non-power license on our own motion.

No conflicting applications for a license pursuant to Section 15 of the Act are pending before this Commission. We conclude on the basis of the facts before us that a new power license should be issued to the Applicant effective on the first day of the month in which this order is issued and terminating June 30, 2020. We believe that such a term is appropriate because of the substantial amount of new construction which will occur in connection with this redeveloped project. This also takes into consideration the operation of the project under annual licenses since July 1, 1970.

*The Commission finds:*

(1) The Parr Project No. 1894 affects lands of the United States and is located on a navigable waterway of the United States.

(2) The Applicant, South Carolina Electric & Gas Company, is a corporation incorporated under the laws of the State of South Carolina and has submitted satisfactory evidence of compliance with the requirements of all applicable State laws insofar as necessary to effectuate the purposes of a license for the project.

(3) Public notice of the filing of the application was given on November 1, 1972. Robert A. and Martha M. Westbrook and W. R. Robinson filed petitions to intervene out-of-time.

(4) The petition of Robert A. and Martha M. Westbrook and the petition of W. R. Robinson have been granted.

(5) Intervenors Robert A. and Martha M. Westbrook should be permitted to withdraw their petition to intervene. Therefore, a public hearing is neither warranted nor in the public interest.

(6) No conflicting application is before the Commission.

(7) The project does not affect a government dam, nor will the issuance of a license therefor, as hereinafter provided, affect the development of any water resources for public purposes which should be undertaken by the United States.

(8) Subject to the terms and conditions hereinafter imposed, the project is best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of water-power development, and for other beneficial public uses, including recreational purposes.

(9) The installed horsepower capacity of the project hereinafter authorized for the purpose of computing the capacity component of the administrative annual charge based on such capacity to be paid under the license for the project for the cost of administration of Part I of the Act is reasonable as hereinafter fixed and specified.

(10) It is desirable to reserve for a later date a determination as to the amount of annual charges for the use, occupancy and enjoyment of lands of the United States.

(11) The plans of the structures affecting navigation have been approved by the Corps of Engineers.

(12) The term of the license hereinafter authorized is reasonable.

(13) The following described transmission facilities which are included in the application for license, are parts of the project within the meaning of Section 3(11) of the Act and should be included in the license for the project: at the existing Parr Hydroelectric Project, the generator leads and 2.3-kV lines for six units, the three 2.2/13-kV transformers at the hydro station, the 13-kV tie from the hydro station to the 72.5 mW Parr Steam Plant, the 2.3-kV tie from the hydro station to the nearby 2.3/23-kV Parr distribution substation, the 2.3/23-kV, 5,000 kVA transformer bank at the Parr distribution substation, and appurtenant facilities; and at the proposed Fairfield Pumped Storage Facility, the generator leads, the step-up facilities, the two 230-kV lines from Fairfield Powerhouse to the V. C. Summer Nuclear Station, and appurtenant facilities.

(14) The Exhibits designated and described in paragraph (B) below conform to the Commission's Rules and Regulations and should be approved as part of the license for the project.

(15) The estimated cost of the redeveloped project compared to the estimated cost of suitable alternatives is reasonable.

(16) The Applicant has demonstrated satisfactory evidence that it has the necessary financial capabilities to undertake the redevelopment and operation of the project.

(17) No recommendation for Federal takeover has been received.

(18) Takeover of the existing Parr Hydroelectric Project No. 1894 is unwarranted at this time and it is appropriate and in the public interest to issue a new power license to Applicant subject to the terms and conditions hereinafter imposed.

*The Commission orders:*

(A) This license is hereby issued to South Carolina Electric & Gas Company (hereinafter Licensee) under the Act for a period commencing the first day of the month in which this order is issued and terminating June 30, 2020, for the redevelopment, operation and maintenance of the Parr Project No. 1894, located on the Broad River, in Fairfield and Newberry Counties, South Carolina, and which occupies lands of the United States within the Sumter National Forest, and further would affect navigable waters of the United States, subject to the terms and conditions of the Federal Power Act which is incorporated herein by reference as part of this license, and subject to such rules and regulations as the Commission has issued or prescribed under the provisions of the Act.

(B) The Parr Project No. 1894 consists of :

(i) all lands constituting the project area and enclosed by the project boundary, the limits of which are otherwise defined and/or interests in such lands necessary or appropriate for the purposes of the project, whether such lands or interests therein are owned or held by the Licensee or by the United States; such project area, project boundary, and other facilities being generally shown and described by certain exhibits which form part of the application for license and which are designated and described as follows :

*Exhibit J*: Sheet 1 (FPC No. 1894-25) filed September 30, 1971, revised March 18, 1974, and entitled: "General Area Map"

Sheets 2 and 3 (FPC Nos. 1894-26 and 27) filed September 30, 1971, revised March 18, 1974, and entitled "Operating Territory", showing Licensee's transmission system, power plant locations, and interconnections; and

*Exhibit K*: Sheet 8 (FPC No. 1894-44) filed March 1, 1972, revised July 26, 1972 and March 18, 1974, and entitled: "General Map of Project Area"

(ii) project works consisting of :

(a) Existing and redeveloped works of the Parr Hydroelectric Development consisting of : (1) a steel-frame brick powerhouse containing 6 generators rated at 2480 kW, each, and provisions for 2 additional units; (2) a 2715 foot long dam composed of a 300-foot integrally constructed powerhouse section, a 300-foot earth dike, a 90-foot non-overflow section, and a 2000-foot concrete overflow section, 35 feet high, with crest at elevation 257.0 feet, m.s.l., surmounted by Bascule gates; (3) a 4400 acre reservoir at maximum controlled surface elevation 266 feet, m.s.l., at the dam, extending upstream for 13 miles, having a useable storage capacity of 29,000 acre-feet in a drawdown of 10 feet, providing water for operation of the conventional hydroelectric development and serving as the lower reservoir of the pumped storage facility; and (4) transmission facilities composed of generator leads and 2.3-kV lines for six units, three 2.3/13-kV transformers at the hydro station, the 13-kV tie from the hydro station to the 72.5 mW Parr steam-electric plant, the 2.3-kV tie from the hydro station to the nearby 2.3/23-kV Parr distribution substation, and the 2.3/23-kV, 5,000 kVA transformer bank at the Parr distribution substation;

(b) The Fairfield Pumped Storage Facility, consisting of : (1) the Parr Reservoir which serves as the lower pool; (2) a 6800-acre upper pool (Monticello Reservoir having lengths of 5000, 3400, 1700, and 900 feet, each with crest at elevation pool elevation, and a useable storage capacity of 29,000 acre-feet in an operating drawdown of 4.5 feet; (3) four random-fill dams impounding Monticello Reservoir having lengths of 5000, 3400, 1700, and 900 feet, each with crest at elevation 434 feet, m.s.l.; (4) a 400-foot-wide, 600-foot-long, intake channel in the south abutment of the 5,000-foot-long dam; a gated intake structure with invert at elevation 375 feet, m.s.l.; and four 800-foot-long, 26-foot diameter, surface penstocks bifurcating into eight 18-foot-diameter concrete-encased penstocks; (5) a semi-outdoor type generating station (Fairfield Powerhouse) housing 8 reversible pump-turbine units, each having a minimum capacity of 83,000 horsepower at the minimum head of 150 feet, to be operated by remote-automatic, local-automatic, or local-manual control option, directly coupled to 8 motor-generators, each with a nameplate rating of 64,800 kilowatts in the generating mode and 100,000 horsepower when operating as a motor; and (6) associated transmission facilities including generator leads, the step-up facilities, and the two 230-kv transmission lines from Fairfield Powerhouse to the V. C. Summer Nuclear Station;

(c) Recreational features consisting of : (1) a boat launching area adjacent to the crossing of Heller's Creek by County Road 28 in Parr Reservoir; (2) a 300-

acre subimpoundment in the northern end of Monticello Reservoir having a public boat launching area with parking and sanitary facilities; and (3) a scenic overlook on the eastern shore of Monticello Reservoir with parking, picnic, and sanitary facilities; and

(d) Appurtenant facilities:

\* \* \* the location, nature, and character of which are shown and described by exhibits hereinbefore cited and by certain other exhibits which also form part of the amended application for license and which are designated and described as follows:

Exhibit L	FPC No. 1894-	Date filed	Showing
Sheet 2.....	36	Sept. 30, 1971	Fairfield Powerhouse and Switchyard Plans.
Sheet 3.....	46	Mar. 18, 1974	Section through Units, Fairfield Powerhouse.
Sheet 4.....	47	Mar. 18, 1974	Intake and Penstocks, Fairfield Powerhouse.
Sheet 5.....	39	Sept. 30, 1971	Frees Creek Dam.
Sheet 6.....	40	Sept. 30, 1971	One Line Electrical Schematic Diagram, Fairfield Powerhouse.
Sheet 7.....	41	Mar. 1, 1972	Parr Dam and General Layout.
Sheet 8.....	42	Mar. 1, 1972	Parr Powerhouse and Section through Units.
Sheet 9.....	43	Sept. 30, 1971	Sectional Plan of Parr Power Structure and One Line Electrical Schematic Diagram.

*Exhibit M:* Three typewritten pages entitled "Fairfield Pumped Storage Facility—Major Equipment", pages 1, 2, and 3 of 4 pages of Exhibit M filed July 26, 1972. One typewritten page entitled "Part Hydroelectric Facility—Major Equipment", page 4 of 4 pages of Exhibit M filed July 26, 1972.

*Exhibit R:* Eleven typewritten pages and two sketches (Typical Boat Launching Facility and Typical Overlook and Picnic Area—Exhibits R-1 and R-2, respectively) entitled "Recreation Use Plan" filed July 26, 1972; and one tracing, Exhibit R, Sheet 3 (FPC No. 1894-45) filed March 1, 1972, revised July 26, 1972, entitled "Proposed Recreational Development".

*Exhibit V:* Twenty-four typewritten pages of text entitled "Natural, Historic, and Scenic Values and Resources" filed July 26, 1972, and above listed Exhibit K, Sheet 8 (FPC No. 1894-44).

(iii) All of the structures, fixtures, equipment, or facilities used or useful in the maintenance and operation of the project and located within the project area, and such other property as may be used or useful in connection with the project or any part thereof, whether located on or off the project area, if and to the extent that the inclusion of such property as part of the project is approved or acquiesced in by the Commission; together with all riparian or other rights, the use or possession of which is necessary or appropriate in the maintenance or operation of the project.

(C) This license is also subject to the following terms and conditions:

*Article 1.* The entire project, as described in the order of the Commission, shall be subject to all the provisions, terms and conditions of the license.

*Article 2.* No substantial change shall be made in the maps, plans, specifications, and statements described and designated as exhibits and approved by the Commission in its order as a part of the license until such change shall have been approved by the Commission: *Provided, however,* That if the Licensee or the Commission deems it necessary or desirable that said approved exhibits, or any of them, be changed, there shall be submitted to the Commission for approval revised, or additional exhibit or exhibits covering the proposed changes which, upon approval by the Commission, shall become a part of the license and shall supersede, in whole or part, such exhibit or exhibits theretofore made a part of the license as may be specified by the Commission.

*Article 3.* The project works shall be constructed in substantial conformity with the approved exhibits referred to in Article 2 herein or as changed in accordance with the provisions of said article. Except when emergency shall require for the protection of navigation, life, health, or property, there shall not be made without prior approval of the Commission any substantial alteration or addition not in conformity with the approved plans to any dam or other project works under the license or any substantial use of project property; and any emergency alteration, addition, or use so made shall thereafter be subject to such modification and change as the Commission may direct. Minor changes in uses of project property or the project works or divergence from such approved exhibits may be made if such changes will not result in decrease in efficiency, in material increase in cost, in an adverse environmental impact, or in impairment of the general scheme of development; but any such minor changes made without the prior approval of the Commission, which in its judgment have produced or will produce any of such results, shall be subject to such alteration as the Commission may direct.

*Article 4.* Upon the completion of the project, or at such other time as the Commission may direct, the Licensee shall submit to the Commission for approval revised exhibits insofar as necessary to show any divergence from or variations in the project area and project boundary as finally located or in the project works as actually constructed when compared with the area and boundary shown and the works described in the license or in the exhibits approved by the Commission, together with a statement in writing setting forth the reasons which in the opinion of the Licensee necessitated or justified variations in or divergence from the approved exhibits. Such revised exhibits shall, if and when approved by the Commission, be made a part of the license under the provisions of Article 2 hereof.

*Article 5.* The construction, operation, and maintenance of the project and any work incidental to additions or alterations shall be subject to the inspection and supervision of the Regional Engineer, Federal Power Commission, in the region wherein the project is located, or of such other officer or agent as the Commission may designate, who shall be the authorized representative of the Commission for such purposes. The Licensee shall cooperate fully with said representative and shall furnish him a detailed program of inspection by the Licensee that will provide for an adequate and qualified inspection force for construction of the project. Construction of the project works or any feature thereof shall not be initiated until the program of inspection for the project works or any such feature thereof has been approved by said representative. The Licensee shall also furnish to said representative such further information as he may require concerning the construction, operation, and maintenance of the project, and of any alteration thereof, and shall notify him of the date upon which work will begin, as far in advance thereof as said representative may reasonably specify, and shall notify him promptly in writing of any suspension of work for a period of more than one week, and of its resumption and completion. The Licensee shall allow him and other officers or employees of the United States, showing proper credentials, free and unrestricted access to, through and across the project lands and project works in the performance of their official duties. The Licensee shall comply with such rules and regulations of general or special applicability as the Commission may from time to time prescribe for the protection of life, health, or property.

*Article 6.* The Licensee within five years from date of issuance of the license shall acquire title in fee or the right to use in perpetuity all lands, other than lands of the United States, necessary or appropriate for the construction, maintenance and operation of the project. The Licensee, its successors and assigns shall,

during the period of the license, retain the possession of all project property covered by the license as issued or as later amended, including the project area, the project works, and all franchises, easements, water rights, and rights of occupancy and use; and none of such properties shall be voluntarily sold, leased, transferred, abandoned, or otherwise disposed of without the prior written approval of the Commission, except that the Licensee may lease or otherwise dispose of interests in project lands or property without specific written approval of the Commission pursuant to the then current regulations of the Commission. The provisions of this article are not intended to prevent the abandonment or the retirement from service of structures, equipment, or other project works in connection with replacements thereof when they become obsolete, inadequate, or inefficient for further service due to wear and tear; and mortgage or trust deeds or judicial sales made thereunder, or tax sales, shall not be deemed voluntary transfers within the meaning of this article.

*Article 7.* In event the project is taken over by the United States upon the termination of the license, as provided in Section 14 of the Act, or is transferred to a new licensee or to a non-power licensee under the provisions of Section 15 of the Act, the Licensee, its successors and assigns will be responsible for and will make good any defect of title to or of right of occupancy and use in any of such project property which is necessary or appropriate or valuable and serviceable in the maintenance and operation of the project, and will pay and discharge, or will assume responsibility for payment and discharge, of all liens or incumbrances upon the the project property created by the Licensee or created or incurred after the issuance of the license: *Provided*, That the provisions of this article are not intended to require the Licensee, for the purpose of transferring the project to the United States or to a new Licensee, to acquire any different title to or right of occupancy and use in any of such project property than was necessary to acquire for its own purposes as Licensee.

*Article 8.* The actual legitimate original cost of the project, and of any addition thereto or betterment thereof, shall be determined by the Commission in accordance with the Act and the Commission's Rules and Regulations thereunder.

*Article 9.* After the commencement of operation of the project under the license, six percent per annum shall be the specified rate of return on the net investment in the project for determining surplus earnings of the project for the establishment and maintenance of amortization reserves, pursuant to Section 10(d) of the Act; one-half of the project surplus earnings, if any, accumulated under the license, in excess of six percent per annum on the net investment, shall be set aside in a project amortization reserve account as of the end of each fiscal year: *Provided*, That, if and to the extent that there is a deficiency of project earnings below six percent per annum for any fiscal year or years under the license, the amount of such deficiency shall be deducted from the amount of any surplus earnings accumulated thereafter until absorbed, and one-half of the remaining surplus earnings, if any thus cumulatively computed, shall be set aside in the project amortization reserve account; and the amounts thus established in the project amortization reserve account, including such amounts established under previous license or licenses, shall be maintained therein until further order of the Commission.

*Article 10.* For the purpose of determining the stage and flow of the stream or streams on which the project is located the amount of water held in and withdrawn from storage, and the effective head on the turbines, the Licensee shall install and thereafter maintain such gages and stream-gaging stations as the Commission may deem necessary and best adapted to the requirements; and shall

provide for the required readings of such gages and for the adequate rating of such stations. The Licensee shall also install and maintain standard meters adequate for the determination of the amount of electric energy generated by said project works. The number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, shall at all times be satisfactory to the Commission and may be altered from time to time if necessary to secure adequate determinations, but such alteration shall not be made except with the approval of the Commission or upon the specific direction of the Commission. The installation of gages, the ratings of said stream or streams, and the determination of the flow thereof, shall be under the supervision of, or in cooperation with, the District Engineer of the United States Geological Survey having charge of stream-gaging operations in the region of said project, and the Licensee shall advance to the United States Geological Survey the amount of funds estimated to be necessary for such supervision or cooperation for such periods as may be mutually agreed upon. The Licensee shall keep accurate and sufficient record of the foregoing determinations to the satisfaction of the Commission, and shall make return of such records annually at such times and in such forms as the Commission may prescribe.

*Article 11.* The Licensee shall install additional capacity or make other changes in the project as directed by the Commission to the extent that it is economically sound and in the public interest to do so, after notice and opportunity for hearing.

*Article 12.* The Licensee shall, after notice and opportunity for hearing, coordinate the operation of the project, electrically and hydraulically, with such other projects or power systems and in such manner as the Commission may direct in the interest of power and other beneficial public uses of water resources, and on such conditions concerning the equitable sharing of benefits by the Licensee as the Commission may order.

*Article 13.* Whenever the Licensee is directly benefited by the construction work of another licensee, a permittee, or the United States of a storage reservoir or other headwater improvement, the Licensee shall reimburse the owner of the headwater improvement for such part of the annual charges for interest, maintenance, and depreciation thereof as the Commission shall determine to be equitable, and shall pay to the United States the cost of making such determination as fixed by the Commission. For benefits provided by a storage reservoir or other headwater improvements of the United States the Licensee shall pay to the Commission the amounts for which it is billed from time to time for such headwater benefits and for the costs of making the determinations pursuant to the then current Commission Regulations under the Federal Power Act.

*Article 14.* The United States specifically retains and safeguards the right to use water in such amount, to be determined by the Secretary of the Army, as may be necessary for the purposes of navigation on the navigable waterway affected; and the operations of the Licensee, so far as they affect the use, storage and discharge from storage of waters affected by the license, shall at all times be controlled by such reasonable rules and regulations as the Secretary of the Army may prescribe in the interest of navigation, and as the Commission may prescribe for the protection of life, health, and property, and in the interest of the fullest practicable conservation and utilization of such waters for power purposes and for other beneficial public uses, including recreational purposes, and the Licensee shall release water from the project reservoirs at such rate in cubic feet per second, or such volume in acre-feet per specified period of time as the Secretary of the Army may prescribe in the interest of navigation, or as the

Commission may prescribe for the other purposes hereinbefore mentioned. Pending further order by the Commission on its own motion or at the request of others, including the State of South Carolina Wildlife and Marine Resources Department and the Fish and Wildlife Service of the U.S. Department of the Interior, after notice and opportunity for hearing, the Licensee shall :

(a) discharge from the Parr powerhouse during initial filling of the project reservoirs and during all months of the year, except March, April, and May, a minimum flow of 150 cfs and a minimum daily average flow of 800 cfs, or the daily natural inflow to the Parr Reservoir (less evaporative losses from the Parr and Monticello Reservoirs), whichever is the lesser amount; and

(b) discharge from the Parr powerhouse during the striped bass spawning season in the months of March, April, and May a minimum flow of 1,000 cfs or the average daily natural inflow into the Parr Reservoir (less evaporative losses from the Parr and Monticello Reservoirs), whichever is the lesser amount :

*Provided*, That Licensee shall take reasonable measures to determine the daily natural inflow to the Parr Reservoir : *Provided further*, That, whenever it is foreseeable that the daily natural inflow into the Parr Reservoir (less evaporative losses from Parr and Monticello Reservoirs) will be released, the Licensee shall promptly notify the State of South Carolina Wildlife and Marine Resources Department : *And provided further*, That such flows may be modified temporarily if required by operating emergencies beyond the control of the Licensee and for short periods for fishery management purposes upon mutual agreement between the Licensee and the State of South Carolina Wildlife and Marine Resources Department.

*Article 15.* On the application of any person, association, corporation, Federal agency, State or municipality, the Licensee shall, after notice and opportunity for hearing, permit such reasonable use of its reservoir or other project properties, including works, lands and water rights, or parts thereof, as may be ordered by the Commission in the interest of comprehensive development of the waterway or waterways involved and the conservation and utilization of water resources of the region, for water supply, or for the purpose of steam-electric, irrigation, industrial, municipal or similar uses. The Licensee shall receive reasonable compensation, at least full reimbursement for any damages or expenses which the joint use causes him to incur, for use of its reservoir or other project properties or parts thereof for such purposes, any such compensation to be fixed by the Commission either by approval of an agreement between the Licensee and the party or parties benefiting or after notice and opportunity for hearing. Applications shall contain information in sufficient detail to afford a full understanding of the proposed use, including satisfactory evidence that the applicant possesses necessary water rights pursuant to applicable State law, or a showing of cause why such evidence cannot be concurrently submitted, and a statement as to the relationship of the proposed use to any State or municipal plans or orders which may have been adopted with respect to the use of such waters.

*Article 16.* In the construction or maintenance of the project works, the Licensee shall place and maintain suitable structures and devices to reduce to a reasonable degree the liability of contact between its transmission lines and telegraph, telephone and other signal wires or power transmission lines constructed prior to its transmission lines and not owned by the Licensee, and shall also place and maintain suitable structures and devices to reduce to a reasonable degree the liability of any structures or wires falling or obstructing traffic or en-

dangering life. None of the provisions of this article are intended to relieve the Licensee from any responsibility or requirement which may be imposed by other lawful authority for avoiding or eliminating inductive interference.

*Article 17.* The Licensee shall, for the conservation and development of fish and wildlife resources, construct, maintain, and operate, or arrange for the construction, maintenance and operation of such reasonable facilities and comply with such reasonable modifications of the project structures and operation as may be ordered by the Commission upon its own motion or upon the recommendation of the Secretary of the Interior or the fish and wildlife agency or agencies of any State in which the project or a part thereof is located, after notice and opportunity for hearing.

*Article 18.* Whenever the United States shall desire, in connection with the project, to construct fish and wildlife facilities or to improve the existing fish and wildlife facilities at its own expense, the Licensee shall permit the United States or its designated agency to use, free of cost, such of Licensee's lands and interest in lands, reservoirs, waterways and project works as may be reasonably required to complete such facilities or such improvements thereof. In addition, after notice and opportunity for hearing, the Licensee shall modify the project operation as may be reasonably prescribed by the Commission in order to permit the maintenance and operation of the fish and wildlife facilities constructed or improved by the United States under the provisions of this article. This article shall not be interpreted to place any obligation on the United States to construct or improve fish and wildlife facilities or to relieve the Licensee of any obligation under this license.

*Article 19.* The Licensee shall construct, maintain and operate or shall arrange for the construction, maintenance and operation of such reasonable recreational facilities including modifications thereto, such as access roads, wharves, launching ramps, beaches, picnic and camping areas, sanitary facilities and utilities, and shall comply with such reasonable modifications of the project structures and operations as may be prescribed hereafter by the Commission during the term of this license upon its own motion or upon the recommendation of the Secretary of the Interior or other interested Federal and State agencies, after notice and opportunity for hearing.

*Article 20.* So far as is consistent with proper operation of the project, the Licensee shall allow the public free access, to a reasonable extent, to project waters and adjacent project lands owned by the Licensee for the purpose of full public utilization of such lands and waters for navigation and for outdoor recreational purposes, including fishing and hunting; *Provided*, That the Licensee may reserve from public access, such portions of the project waters, adjacent lands, and project facilities as may be necessary for the protection of life, health, and property. Licensee, in the interests of promoting optimum recreational use and protecting the scenic values of project lands and waters, may to a reasonable extent grant permits to individuals or groups of individuals for landscape planting on project lands, or for the construction of access roads, wharves, landings, and other similar facilities, the occupancy of which may, under appropriate circumstances, be subject to the payment of rent in a reasonable amount: *Provided*, That Licensee in granting such permits, shall require that permittees provide for multiple occupancy and use of such facilities, where feasible, and shall ensure that such facilities are constructed and maintained in such a manner so as to be consistent with shoreline aesthetic values: *Provided further*, That the Licensee, prior to the granting of said permits and construction of such facilities, shall file for Commission approval as part of its Exhibit R a master plan for the entire proj-

ect showing the location and typical design of such facilities and the use of project lands adjacent thereto. The master plan shall be prepared in conformance with the requirements of the then existing Rules and Regulations of the Commission.

*Article 21.* The Licensee shall be responsible for and shall take reasonable measures to prevent soil erosion on lands adjacent to any stream(s) or body of water, natural or artificial, and to prevent siltation of waters within the project or downstream or other forms of water or air pollution resulting from construction, operation or maintenance of the project. The Commission, upon request or upon its own motion, may order the Licensee to take such measures as the Commission may find to be necessary or appropriate for these purposes, after notice and opportunity for hearing.

*Article 22.* The Licensee shall install appropriate instrumentation and other devices to monitor seepage, uplift, and performance of the project structures and reservoir slopes. A plan of instrumentation and a schedule of recording instrument readings shall be filed with the Commission prior to initial filling of the upper reservoir. The Licensee shall furnish periodically to the Commission, as may be requested by the Commission or its authorized representative, a report and analysis of the instrument readings.

*Article 23.* Insofar as any material is dredged or excavated in the prosecution of any work authorized under the license, or in the maintenance of the project, such material shall be removed and deposited in such a manner that said removal and deposit will reasonably preserve the project environmental values and will not interfere with traffic, both land and water. Dredging and filling in a navigable water of the United States will be done to the satisfaction of the District Engineer, Department of the Army, in charge of the locality.

*Article 24.* Whenever the United States shall desire to construct complete, or improve navigation facilities in connection with the project, the Licensee shall convey to the United States, free of cost, such of its lands and its rights-of-way and such right of passage through its dams or other structures, and permit such control of pools as may be required to complete and maintain such navigation facilities.

*Article 25.* The operation of any navigation facilities which may be constructed as a part of or in connection with any dam or diversion structure constituting a part of the project works shall at all times be controlled by such reasonable rules and regulations in the interest of navigation, including the control of the level of the pool caused by such dam or diversion structure, as may be made from time to time by the Secretary of the Army.

*Article 26.* The Licensee shall furnish free of cost to the United States power for the operation and maintenance of navigation facilities at the voltage and frequency required by such facilities and at a point adjacent thereto whether said facilities are constructed by the Licensee or by the United States.

*Article 27.* The Licensee shall for the protection of navigation, construct, maintain and operate at its own expense such lights and other signals on fixed structures in or over navigable waters of the United States as may be directed by the Secretary of the Department in which the Coast Guard is operating.

*Article 28.* Timber on lands of the United States cut, used, or destroyed in the construction and maintenance of the project works, or in the clearing of said lands, shall be paid for and the resulting slash and debris disposed of in accordance with the requirement of the agency of the United States having jurisdiction over said lands. Payment for merchantable timber will be at current stumpage rates, and payment for young growth timber below merchantable size will

be at current damage appraisal value. However, the agency of the United States having jurisdiction may sell or dispose of the merchantable timber to others than the Licensee, with the provision that timber so sold or disposed of will be cut and removed from the area prior to or without undue interference with clearing operations of the Licensee and in coordination with his project construction schedules. Such sale or disposal to others will not relieve the Licensee of the responsibility for the clearing and disposing of all slash and debris from project lands.

*Article 29.* The Licensee shall do everything reasonably within its power and shall require its employees, contractors, and employees of contractors to do everything reasonably within their power, both independently and upon the request of officers of the agency concerned to prevent, make advance preparations for suppression, and suppress fires on the lands to be occupied or used under the license. The Licensee shall be liable for and pay the costs incurred by the United States in suppressing fires caused from the construction, operation, or maintenance of the project works or of the work appurtenant or accessory thereto under the license.

*Article 30.* The Licensee shall interpose no objection to, and shall in no way prevent, the use by the department or agency of the United States having jurisdiction over the lands of the United States affected, or by persons or corporations occupying lands of the United States under permit, of water for fire suppression from any stream, conduit or body of water, natural or artificial, used by the Licensee in the operation of the project works covered by the license, or to the intake by said parties of water for sanitary and domestic purposes from any stream, conduit, or body of water, natural or artificial, used by the Licensee in the operation of the project works covered by the license.

*Article 31.* The Licensee shall be liable for injury to, or destruction of, any buildings, bridges, roads, trails, lands, or other property of the United States, occasioned by the construction, maintenance, or operation of the project works or of the works appurtenant or accessory thereto under the license. Arrangements to meet such liability, either by compensation for such injury or destruction, or by reconstruction or repair of damaged property, or otherwise, shall be made with the appropriate department or agency of the United States.

*Article 32.* The Licensee shall allow any agency of the United States, without charge, to construct or permit to be constructed on, through, and across those project lands which are lands of the United States such conduits, chutes, ditches, railroads, roads, trails, telephone and power lines, and other means of transportation and communication not inconsistent with the enjoyment of said lands by the Licensee for the purposes of the license. This license shall not be construed as conferring upon the Licensee any right of use, occupancy, or enjoyment of the lands of the United States other than for the construction, operation, and maintenance of the project as stated in the license.

*Article 33.* In the construction and maintenance of the project, the location and standards of roads and trails on lands of the United States and other uses of lands of the United States, including the location and condition of quarries, borrow pits, and spoil disposal areas, shall be subject to the approval of the department or agency of the United States having supervision over the lands involved.

*Article 34.* The Licensee shall make provision, or shall bear the reasonable cost, as determined by the agency of the United States affected, of making provision for avoiding inductive interference between any project transmission line or other project facility constructed, operated, or maintained under the license,

and any radio installation, telephone line, or other communication facility installed or constructed before or after construction of such project transmission line or other project facility and owned, operated, or used by such agency of the United States in administering the lands under its jurisdiction.

*Article 35.* The Licensee shall cooperate with the United States in the disposal by the United States of mineral and vegetative materials, under the Act of July 31, 1947, 61 Stat. 681, *as amended* (30 U.S.C. § 601, *et seq.*) from lands of the United States occupied by the project or any part thereof: *Provided*, That such disposal has been authorized by the Commission and that it does not unreasonably interfere with the occupancy of such lands by the Licensee for the purposes of the license: *Provided further*, That in the event of disagreement, any question of unreasonable interference shall be determined by the Commission, after notice and opportunity for hearing.

*Article 36.* If the Licensee shall cause or suffer essential project property to be removed or destroyed or to become unfit for use, without adequate replacement, or shall abandon or discontinue good faith operation of the project or refuse or neglect to comply with the terms of the license and the lawful orders of the Commission mailed to the record address of the Licensee or its agent, the Commission will deem it to be the intent of the Licensee to surrender the license. The Commission, after notice and opportunity for hearing, may require the Licensee to remove any or all structures, equipment and power lines within the project boundary and take any such other action necessary to restore the project stream(s), lands, and facilities remaining within the project boundary to a condition satisfactory to the United States agency having jurisdiction over its lands or the Commission's authorized representative, as appropriate, or provide for the continued operation and maintenance of non-power facilities and fulfill such other obligations under the license as the Commission may prescribe. The Commission, in its discretion, may also terminate the license.

*Article 37.* The right of the Licensee and of its transferees and successors to use or occupy waters, over which the United States has jurisdiction, or lands of the United States under the license, for the purpose of maintaining the project works or otherwise, shall absolutely cease at the end of the license period, unless Licensee has obtained a new license pursuant to the then existing laws and regulations, or an annual license under the terms and conditions of this license.

*Article 38.* The Licensee shall, to the satisfaction of the Commission's authorized representative install and operate such signs, lights, sirens or other devices below the powerhouses to warn the public of fluctuations in flow from the project, and shall install such signs, lights and other safety devices above the spillway and powerhouse intakes, as may be reasonably needed to protect the public in its recreational use of project lands and waters.

*Article 39.* The Licensee shall operate the project reservoirs in such a manner that releases from the lower reservoir during flood flows shall be no greater than flows which would have occurred in the absence of the project.

*Article 40.* Licensee shall clear the project area in accordance with the Land Clearing Plan consisting of seven typewritten pages filed as Exhibit R-4 in the amended application filed July 26, 1972. Further, the Licensee shall avoid or minimize any disturbance caused by construction and maintenance of the project works to the natural, scenic, historical and recreational values of the area, blending project works with the natural view, and revegetating, stabilizing and landscaping any construction areas located outside the area of the project reservoir. Licensee shall clear and keep clear to an adequate width lands along

open conduits and shall dispose of all temporary structures, unused timber, brush, refuse, or other unneeded material resulting from the clearing of lands or from the maintenance or alteration of the project works. In addition, all trees along the periphery of reservoirs which may die during operations of the projects shall be removed. All clearing of the lands and disposal of the material shall be done with due diligence and to the satisfaction of the authorized representative of the Commission and in accordance with appropriate Federal, State and local statutes and regulations.

*Article 41.* The Licensee shall, prior to commencement of construction, consult with the University of South Carolina to determine the extent of any archaeological survey and salvage excavations that may be necessary prior to any construction activities and provide funds in a reasonable amount for any needed surveys or salvage excavations to be conducted and completed prior to construction and/or flooding, whichever is applicable.

*Article 42.* Licensee shall take such measures as may be necessary for control of vectors at the project and shall seek, in this regard, the recommendations of the South Carolina Department of Health and Environmental Control. In the event of Licensee's failure to undertake effective control measures, the Commission reserves the right to order, after notice and opportunity for hearing, Licensee to take appropriate measures for the control of vectors at the project.

*Article 43.* Licensee shall consult and cooperate with the South Carolina Department of Health and Environmental Control, and comply with local regulations in planning and providing for the collection, storage, and disposal of solid wastes generated through public access and use of project lands and waters and, within one year after the commencement of operation of the project, shall file with the Commission a solid waste management plan which has been approved by the Department of Health and Environmental Control. This plan shall provide: (a) the location of solid waste receptacles to be provided at public areas including campgrounds, picnicking areas, and boat access areas; (b) schedules of collection for the above receptacles; (c) provisions for including in the subject plan any public use areas as they are developed; and (d) disposal sites and methods of disposal.

*Article 44.* Licensee, following consultation and cooperation with the Bureau of Outdoor Recreation of the U.S. Department of the Interior; the South Carolina Wildlife and Marine Resources Department; and the South Carolina Department of Parks, Recreation, and Tourism, shall study the feasibility of constructing recreation subimpoundments (reservoirs with stable water surface elevations) with adjacent access or recreation areas at suitable locations on Cannon's and Heller's Creeks, or other arms of Parr Reservoir, in lieu of reserving and developing for recreational purposes the 180.5-acre parcel on Heller's Creek at County Road 28 and the 387-acre parcel opposite Fairfield Powerhouse, as shown on Exhibit R-3 (FPC No. 1894-45). Within one year following issuance of the license, Licensee shall file, for Commission approval, revisions of Exhibit R implementing findings of the study including, but not limited to, a schedule for development of (1) said 180.5-acre and 387-acre parcels for recreational purposes, or (2) said alternative recreation subimpoundments and adjacent recreation areas for fishing, waterfowl hunting, sightseeing, and other uses. Such revisions of Exhibit R shall conform to the Commission's then existing Rules and Regulations, including the economic effect of such development on project operation.

*Article 45.* Licensee, following consultation with the Bureau of Outdoor Recreation of the U.S. Department of the Interior and the South Carolina Department

of Parks, Recreation, and Tourism, shall within one year following the date of issuance of the license file, for Commission approval, revisions of Exhibit R showing: (1) appropriate site development plans, construction costs, and development schedules for the scenic overlook generally as shown on Exhibit R-2 approved herein, and (2) recreation facilities additional to those proposed for the Monticello subimpoundment boat launch area, to include water supply, picnicking, and additional parking facilities, following feasibility studies.

*Article 46.* The Licensee shall retain a Board of three or more qualified independent consultants who have not participated substantially in the design of the proposed project works, to review the design, specifications and construction of the project for safety and adequacy. Among other things, the Board shall assess the geology of the project site and surroundings; the proposed design, specifications, and construction of the dam, powerhouse, electrical and mechanical equipment involved in water control and emergency power supply; the construction inspection program; construction procedures and progress; instrumentation; the filling schedule for the upper reservoir and plans for surveillance during the initial filling. The Licensee shall submit to the Commission copies of the Board's report on each meeting. The Licensee shall also submit a final report of the Board upon completion of the project.

*Article 47.* The Licensee shall, during the construction and operation of the project, continue to consult and cooperate with the Bureau of Sport Fisheries and Wildlife, the South Carolina Wildlife and Marine Resources Department, the South Carolina Pollution Control Authority, and other appropriate environmental agencies for the protection and development of the natural resources and values of the project area. The Commission reserves the right, after notice and opportunity for hearing, to require such reasonable changes in the project and its operation as may be found necessary or appropriate to preserve and promote the environment of the project area, as provided herein by Articles 11 and 14.

*Article 48.* Licensee shall purchase in fee and include within the project boundary all lands necessary or appropriate for project operations, including lands for recreational use and shoreline control. The lands encompassed by the project boundary shall include, but not be limited to:

(a) All islands formed by the 226-foot contour of the lower reservoir and by the 425-foot contour of the upper reservoir.

(b) Shoreline lands up to the 270-foot contour or up to 50-feet, horizontal measure, from the 266-foot contour of the lower reservoir, whichever is greater; and shoreline lands up to the 430-foot contour or up to 50-feet, horizontal measure, from the 425-foot contour of the upper reservoir, whichever is greater: *Provided*, That the project boundary except with respect to land necessary or appropriate for recreational purposes, shall not exceed 200 feet, horizontal measure, from the 266-foot or the 425-foot contour, unless satisfactory reasons to the contrary are given:

*Provided further*, That the project boundary in the area of the V. C. Summer Nuclear Station shall be the 425-foot contour, as shown on Sheet 8 (FPC No. 1894), Exhibit K. Licensee within one year after completion of land acquisition shall file an Exhibit F and, for Commission approval, a revised Exhibit K.

*Article 49.* Following consultation with the South Carolina Wildlife and Marine Resources Department, Licensee shall file for Commission approval within six months after the date of issuance of the license its plans for a study to determine suitable plant species which would be tolerant to living in the alternately flooded and dewatered shoreline zones on Parr and Monticello reservoirs caused

by pumped storage operation of the project, for the purpose of preventing erosion and shoreline sedimentation, improving the scenic values, and improving the fish and wildlife habitat. Following completion of such study, Licensee shall file for Commission approval its proposals for implementing the findings of the study. The study report and implementation proposals shall be filed as revision to Exhibit V and shall include test plot plantings, follow-up evaluations, costs, and schedules.

*Article 50.* Licensee, for the purpose of monitoring and determining the quality of the aquatic environment of Parr Reservoir and Monticello Reservoir, including the 300-acre subimpoundment, so as to realize its full recreational potential, shall conduct a water quality monitoring program at selected locations for a period of five years from the date of commencement of project operation. Sampling shall be done at least monthly and include measurements of dissolved oxygen, pH, conductivity, temperature profiles, carbon dioxide, total dissolved solids, total alkalinity, total hardness, chloride, sulfate, phosphate, nitrate, BOD, COD, heavy metals, silica, calcium, magnesium, sodium, and turbidity. Annual progress reports and, within one year following conclusion of the monitoring program, a final report shall be filed showing the findings of this program together with recommendations of any need for further sampling or for proposals for maintenance or improvement of the aquatic environment to such reservoirs as shown to be desirable by the studies. The Commission reserves the right, after notice and opportunity for hearing, to require such reasonable changes in the project and its operation as may be found necessary or appropriate to maintain or improve the aquatic environment of such reservoirs, as provided herein by Articles 11 and 14.

*Article 51.* Licensee, at its water quality station in the Broad River downstream of Parr Reservoir, shall monitor on a continuous basis dissolved oxygen, temperature, stream flow, conductivity, and pH; and on a monthly basis, or more often if found necessary, turbidity and heavy metals. To assist the personnel of the Columbia, South Carolina, water treatment plant in the early detection of musty odors in Broad River waters, the Licensee shall include odor samples in its water quality monitoring program and, should musty odors be detected, promptly alert the Columbia water treatment plant personnel.

*Article 52.* The use of Monticello Reservoir as a source and repository of condenser cooling water for the 900-mW Unit 1 of the V. C. Summer Nuclear Station is hereby approved and authorized. If Licensee desires to use project lands or project waters for any other planned fossil fuel or nuclear steam-electric generating units, Licensee shall file for Commission approval an application for amendment of license, conforming to the then existing Rules and Regulations of the Commission, requesting authorization for such use or uses.

*Article 53.* The Licensee shall, in cooperation with the South Carolina Wildlife and Marine Resources Department and the U.S. Bureau of Sport Fisheries and Wildlife, conduct studies to determine the sport fishing potential of Parr reservoir and the 300-acre subimpoundment within Monticello reservoir, and shall develop appropriate fish management plans from these studies. Results of studies, proposals for any programs, and copies of any cooperative agreements shall be filed for Commission approval as parts of the revised Exhibit S.

*Article 54.* Following consultation and cooperation with the South Carolina Wildlife and Marine Resources Department and the Fish and Wildlife Service of the U.S. Department of the Interior, Licensee, within five years after issuance of the license, shall file for Commission approval a revised Exhibit S, prepared in accordance with the then existing Rules and Regulations of the Commission.

The revised Exhibit S shall include, *inter alia*, specific management plans with costs and implementation schedules, for the protection and enhancement of fish and wildlife resources affected by the project and shall be based on results of biological studies and post operational monitoring conducted to help determine such effect, as outlined in Licensee's Exhibit W. The plan shall also include plans for mitigation of waterfowl habitat loss and disruption of the Broad River Waterfowl Management Plan caused by the redevelopment of the project and shall consider the development of bottomland hardwood areas which can be shallowly flooded during hardwood dormant growth periods for the purpose of attracting waterfowl.

*Article 55.* Licensee shall, within one year following issuance of a license, file for Commission information an amendment to the Exhibit V, showing estimated costs of measures for preserving and enhancing the natural, historic, and scenic values and resources during the construction and operation of the project, as proposed in the Exhibit V.

*Article 56.* The Licensee shall make use of the Commission guidelines as issued in Order No. 414\* and other recognized guidelines for treatment of transmission line rights-of-way and shall clear such portions of transmission line rights-of-way across lands of the United States as are designated by the officer of the United States in charge of the lands; shall keep the areas so designated clear of new growth, all refuse, and inflammable material to the satisfaction of such officer; shall trim all branches of trees in contact with or liable to contact the transmission lines; shall cut and remove all dead or leaning trees which might fall in contact with the transmission lines; and shall take such other precautions against fire as may be required by such officer. No fires for the burning of waste material shall be set except with the prior written consent of the officer of the United States in charge of the lands as to time and place.

*Article 57.* The Licensee shall establish a relocation advisory service and give reasonable financial assistance to assist in the relocation of persons now located in the project area and to minimize any hardship to such persons arising from such relocation, and within six months of the date of issuance of the license and annually thereafter during the construction of the project, shall report to the Commission on the success of its efforts. The provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, 42 U.S.C. § 4601, *et seq.* shall be used as a guide to implement this article.

*Article 58.* The Licensee shall provide, or arrange for the provision of, an access road to the nearest existing or relocated highway for those persons not displaced by the project but who have lost any access to the highways relocated as a consequence of this project. The location of such access roads shall be determined after consultation with said persons. Each access road shall be of a type and construction equivalent to existing access roads used by said person and shall be constructed without expense to said person.

*Article 59.* The Licensee shall commence construction of the project within one year from the effective date of the license and shall thereafter in good faith and with due diligence prosecute such construction and shall complete construction of such project works within five years from the effective date of the license.

*Article 60.* The Licensee shall pay the United States the following annual charge effective the first day of the month in which the order issued:

(i) For the purpose of reimbursing the United States for the cost of administration of Part I of the Act, a reasonable annual charge as determined by the

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\* [Editor's note: Reported, 44 FPC 1491].

Commission in accordance with the provisions of its regulations, in effect from time to time. The authorized installed capacity for such purposes is 711,040 horsepower.

(ii) For the purpose of recompensing the United States for the use, occupancy, and enjoyment of Sumter National Forest lands an amount to be established at a future date, upon Commission approval of revised Exhibit K filed pursuant to Article 48.

*Article 61.* The terms and conditions expressly set forth in the license shall not be construed as impairing any terms and conditions of the Federal Power Act which are not expressly set forth herein.

(D) The exhibits designated and described in Paragraph (B) above are hereby approved and made a part of this license to the extent heretofore noted.

(E) Intervenors Robert A. and Martha M. Westbrook are hereby permitted to withdraw their petition to intervene.

(F) The hearing provided in our order of August 9, 1974, in this proceeding is hereby vacated.

(G) This order shall become final 30 days from the date of its issuance unless application for rehearing shall be filed as provided in Section 313(a) of the Act, and failure to file such an application shall constitute acceptance of this license. In acknowledgment of the acceptance of this license it shall be signed for the Licensee and returned to the Commission within 60 days from the date of issuance of this order.

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Before Commissioners: John N. Nassikas, Chairman; Albert B. Brooke, Jr., Rush Moody, Jr., William L. Springer and Don S. Smith.

TEXAS GAS TRANSMISSION CORPORATION, DOCKET NO. CP74-297

FINDINGS AND ORDER AFTER STATUTORY HEARING PERMITTING AND APPROVING  
ABANDONMENT OF FACILITIES

(Issued August 28, 1974)

On May 17, 1974, Texas Gas Transmission Corporation (Applicant) filed in Docket No. CP74-297 an application pursuant to Section 7(b) of the Natural Gas Act for permission and approval to abandon approximately 10.22 miles of its Scottsville 3-inch pipeline, together with certain measuring and regulating equipment associated therewith which were constructed in 1931, all as more fully set forth in the application in this proceeding.

Applicant proposes to abandon in place a 10.22-mile portion of its Scottsville 3-inch pipeline located in Warren and Allen Counties, Kentucky, and to salvage, at a value of \$258, associated measuring and regulating equipment. The facilities to be abandoned have deteriorated to the point where they cannot be operated and meet the requirements of the Natural Gas Pipeline Safety Act of 1968 (49 U.S.C. 1671, *et seq.*) and the regulations promulgated thereunder.

The subject facilities are currently used to supply 16 farm tap or rural customers of Western Kentucky Gas Company (Western Kentucky) in Applicant's Zone 3. Western Kentucky and all the farm tap customers have agreed to the proposed abandonment and the latter have made arrangements for alternate fuels. Applicant states that there will be no change in the contract demand or the quantity entitlements of Western Kentucky in Zone 3.





56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

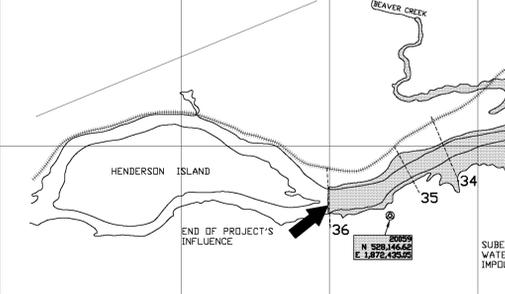
**PROJECT BOUNDARY LINE ELEVATIONS FOR PARR RESERVOIR (MINIMUM)**

USGS STATION NO.	DISTANCE FROM PARR DAM (FT.)	ELEVATION OF PROJECT BOUNDARY LINE (MINIMUM)	BASED ON
1	100	270.0	Flood of record (224,000 CFS) in river with Fairfield built but not operating. All Spillway Gates fully down.
2	1,000	270.0	
3	3,000	270.0	
4	6,000	270.8	
5	7,800	271.3	
6	9,850	272.1	
7	12,300	272.8	
8	14,600	274.1	
9	15,500	274.3	
10	17,700	275.3	
11	20,400	275.8	
12	25,700	276.7	
13	25,600	277.4	
14	30,600	279.2	
15	32,700	279.7	
16	35,300	270.0	40,000 CFS in river and all Fairfield units operating. All Spillway Gates fully down. (Table 4-AIS-21-74).
17	37,400	270.0	
18	40,100	270.0	
19	42,600	270.0	
20	45,300	270.0	
21	48,100	270.0	
22	49,800	270.0	
23	51,000	270.0	
24	53,600	270.2	
25	54,900	270.4	
26	55,100	270.5	
27	58,000	271.3	
28	61,000	272.2	
29	64,100	273.1	
30	66,800	274.1	
31	69,000	274.7	
32	71,600	275.3	
33	74,800	276.0	
34	76,600	276.5	
35	79,200	278.0 P.B.L. CLOSES HERE	
36	82,500	280.3	
37	87,400	282.1	
38	91,100	283.6	
39	94,800	285.6	

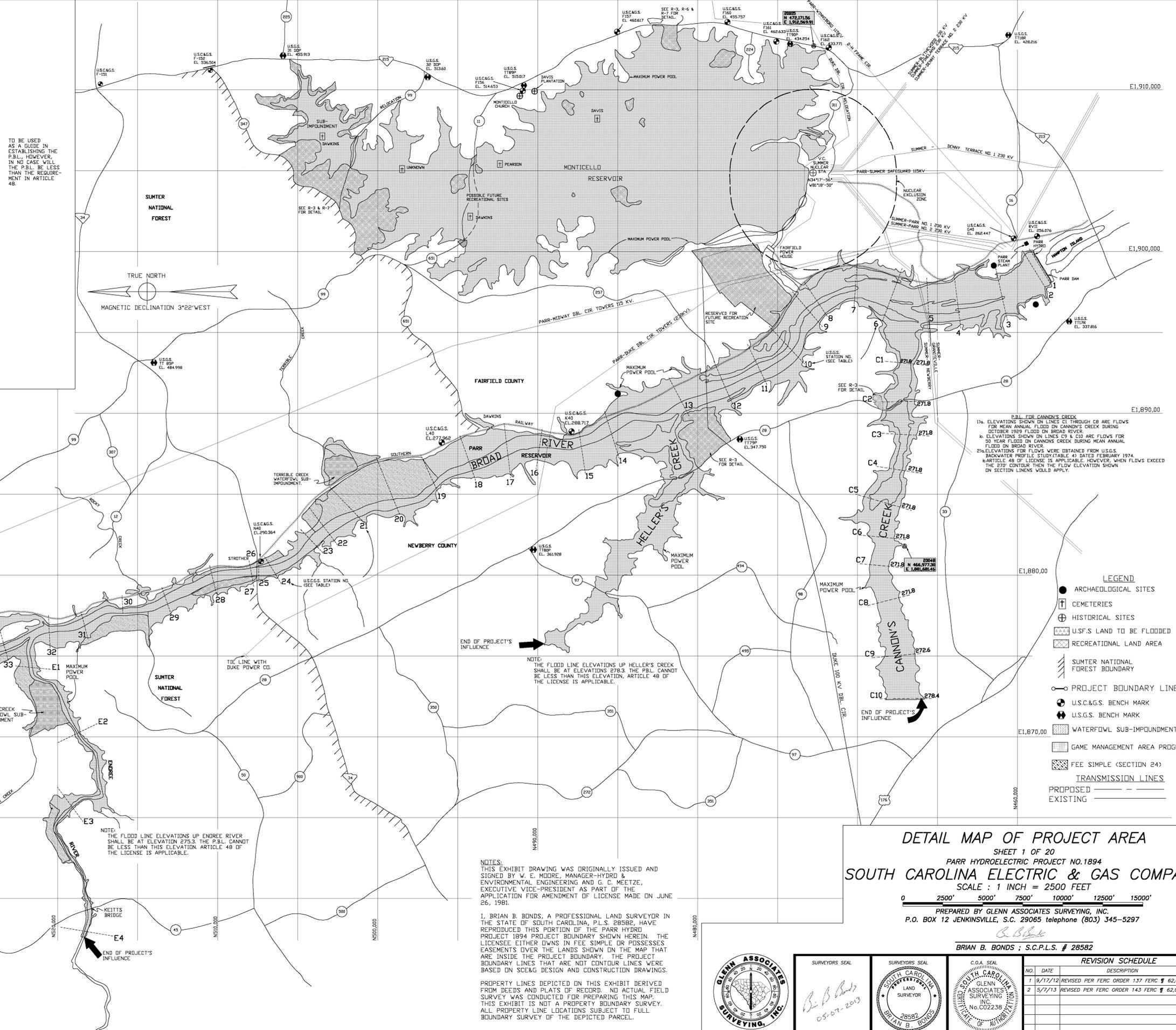
ARTICLE 48 OF THE F.P.C. LICENSE STATES THAT ON THE PARR RESERVOIR, WE SHALL DOWN IN FEE AND INCLUDE WITHIN THE P.B.L. ALL LANDS UP TO THE 270 FOOT CONTOUR OR UP TO 50 FEET, HORIZONTAL MEASURE, FROM THE 266 FOOT CONTOUR, WHICHEVER IS GREATER. ALL P.B.L. SHALL BE RUN IN STRAIGHT LINE SEGMENTS EQUAL TO OR SLIGHTLY GREATER THAN ELEVATIONS SHOWN. HOWEVER, THE P.B.L. SHALL NOT EXCEED 200 FEET, HORIZONTAL MEASURE, FROM THE 266 FOOT CONTOUR UNLESS IT CAN BE JUSTIFIED.

**Federal Acreage Occupied by the Project Boundary**

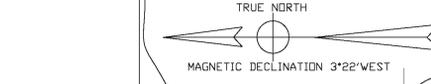
Drawing No.	Tract No.	Federal Acreage (Flowage Easement)	SCE&G Owned Section 24 Lands (Fee Simple)
K-14	193	-	72.14
K-17	198	17.88	-
K-15/16	200	120.55	25.35
K-14	211	-	26.13
K-13	213	-	28.26
K-10/13	214	-	390.65
K-17	226	3.09	-
K-16/17	227	12.52	-
K-17	232	3.14	-
K-17	248	0.33	-
K-17	264	0.93	-
K-15	266	0.05	-
K-10	271	4.12	-
Total		162.61	542.53



- NOTES:**
- ON THE MONTICELLO RESERVOIR & SUB-IMPONDMENT THE PROJECT BOUNDARY LINE IS GENERALLY A MAXIMUM 800 FEET FROM THE 450' CONTOUR EXCEPT IN RECREATIONAL AREAS OR DEEMED NECESSARY BY FIELD INSPECTION (SEE "K" SHEETS 2-20 FOR DETAILS).
  - THE P.B.L. AROUND PARR RESERVOIR IS GENERALLY ALONG THE FLOOD OF RECORD AS ADJUSTED FOR THE INFLUENCE OF PARR DAM, AS INDICATED ON TABLE THIS SHEET.
  - ALL LANDS WITHIN THE PROJECT BOUNDARY LINE ARE OWNED IN FEE SIMPLE BY SOUTH CAROLINA ELECTRIC AND GAS COMPANY, UNLESS OTHERWISE SHOWN ON K-2 THRU K-17.
  - PROJECT BOUNDARY LINE IS NOT SHOWN ON THIS SHEET, EXCEPT IN RECREATIONAL AREAS, BUT IS SHOWN IN DETAIL ON SHEETS K-2 THRU K-20.
  - ELEVATIONS SHOWN CORRECTED ACCORDING TO RECENT SURVEY BASED ON U.S.C&G.S.M.S.L.
  - SOUTHERN RR. R/W IS EXCLUDED FROM PROJECT, EXCEPT TO THE EXTENT OF FLOWAGE RIGHTS (SEE EXHIBIT "F").
  - NO TREES ARE TO BE CUT ON AREAS INDICATED AS ISLANDS OR RECREATIONAL AREAS.
  - CO-ORDINATES SHOWN ARE BASED ON THE STATE GRID SYSTEM.

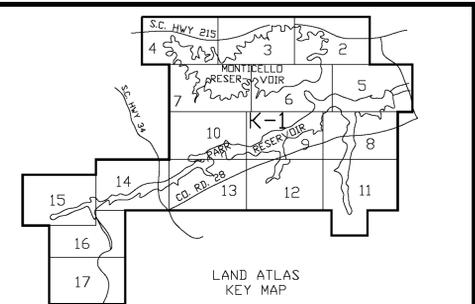


TO BE USED AS A GUIDE IN ESTABLISHING THE P.B.L., HOWEVER, IN NO CASE WILL THE P.B.L. BE LESS THAN THE REQUIREMENT IN ARTICLE 48.



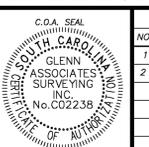
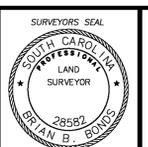
P.B.L. FOR CANNON'S CREEK  
 1. ELEVATIONS SHOWN ON LINES C1 THROUGH C8 ARE FLOWS FOR MEAN ANNUAL FLOOD ON CANNON'S CREEK DURING OCTOBER 1999 FLOOD ON BROAD RIVER.  
 2. ELEVATIONS SHOWN ON LINES C9 & C10 ARE FLOWS FOR 50 YEAR FLOOD ON CANNON'S CREEK DURING MEAN ANNUAL FLOOD ON BROAD RIVER.  
 3. ELEVATIONS FOR FLOWS WERE OBTAINED FROM U.S.G.S. BACKWATER PROFILE STUDY (TABLE 4) DATED FEBRUARY 1974. ARTICLE 48 OF LICENSE IS APPLICABLE. HOWEVER, WHEN FLOWS EXCEED THE 270' CONTOUR THEN THE FLOW ELEVATION SHOWN ON SECTION LINES WOULD APPLY.

- LEGEND**
- ARCHAEOLOGICAL SITES
  - CEMETERIES
  - HISTORICAL SITES
  - U.S.F.S. LAND TO BE FLOODED
  - RECREATIONAL LAND AREA
  - SUMTER NATIONAL FOREST BOUNDARY
  - PROJECT BOUNDARY LINE
  - U.S.C.&G.S. BENCH MARK
  - U.S.G.S. BENCH MARK
  - WATERFOWL SUB-IMPONMENTS
  - GAME MANAGEMENT AREA PROGRAM
  - FEE SIMPLE (SECTION 24)
  - TRANSMISSION LINES
  - PROPOSED
  - EXISTING



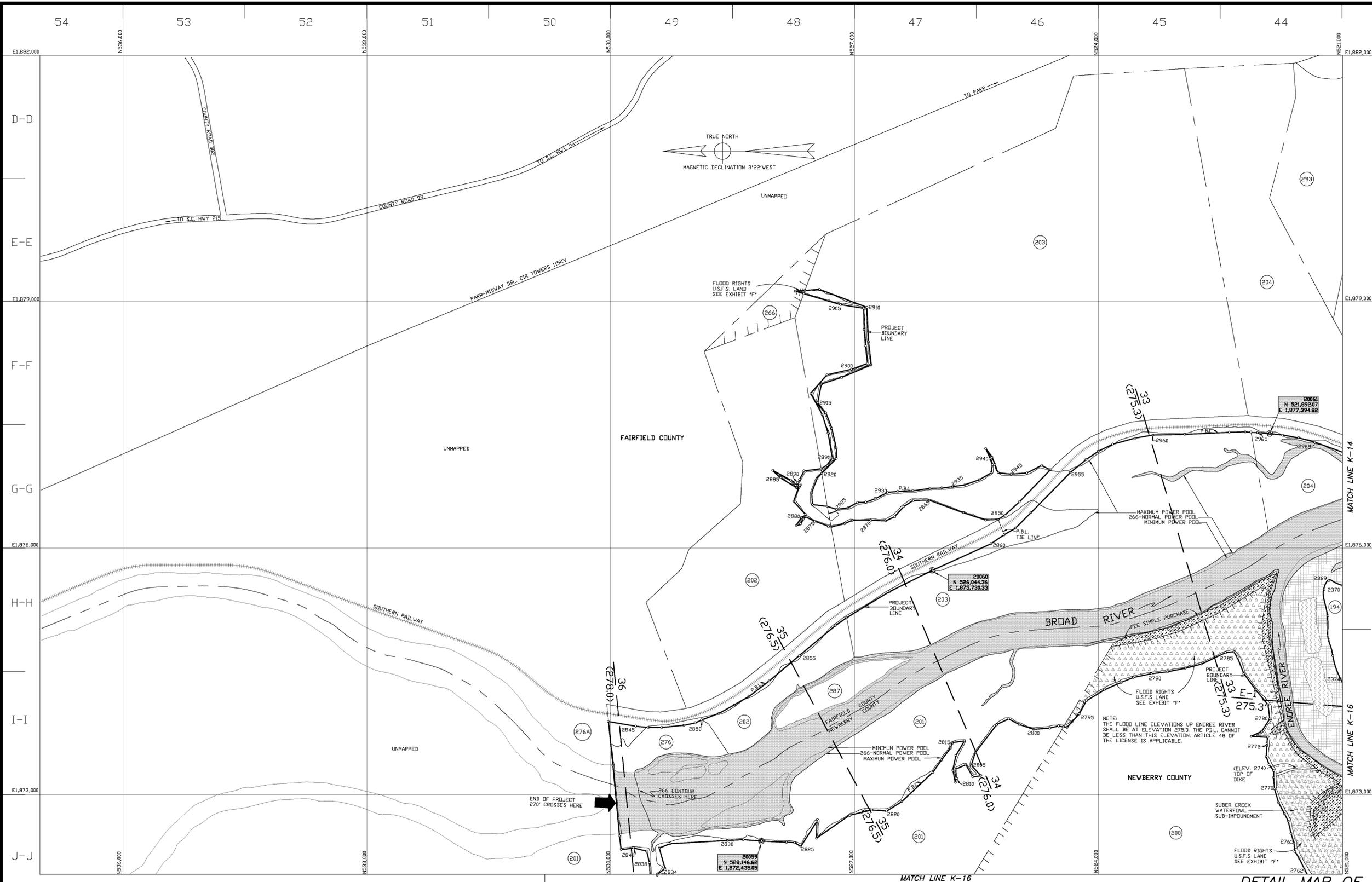
**NOTES:**  
 THIS EXHIBIT DRAWING WAS ORIGINALLY ISSUED AND SIGNED BY W. E. MOORE, MANAGER-HYDRO & ENVIRONMENTAL ENGINEERING AND G. C. MEETZE, EXECUTIVE VICE-PRESIDENT AS PART OF THE APPLICATION FOR AMENDMENT OF LICENSE MADE ON JUNE 26, 1981.  
 I, BRIAN B. BONDS, A PROFESSIONAL LAND SURVEYOR IN THE STATE OF SOUTH CAROLINA, P.L.S. 28582, HAVE REPRODUCED THIS PORTION OF THE PARR HYDRO PROJECT 1894 PROJECT BOUNDARY SHOWN HEREIN. THE LICENSEE EITHER OWNS IN FEE SIMPLE OR POSSESSES EASEMENTS OVER THE LANDS SHOWN ON THE MAP THAT ARE INSIDE THE PROJECT BOUNDARY. THE PROJECT BOUNDARY LINES THAT ARE NOT CONTOUR LINES WERE BASED ON SCE&G DESIGN AND CONSTRUCTION DRAWINGS.  
 PROPERTY LINES DEPICTED ON THIS EXHIBIT DERIVED FROM DEEDS AND PLATS OF RECORD. NO ACTUAL FIELD SURVEY WAS CONDUCTED FOR PREPARING THIS MAP. THIS EXHIBIT IS NOT A PROPERTY BOUNDARY SURVEY. ALL PROPERTY LINE LOCATIONS SUBJECT TO FULL BOUNDARY SURVEY OF THE DEPICTED PARCEL.

**DETAIL MAP OF PROJECT AREA**  
 SHEET 1 OF 20  
 PARR HYDROELECTRIC PROJECT NO. 1894  
**SOUTH CAROLINA ELECTRIC & GAS COMPANY**  
 SCALE: 1 INCH = 2500 FEET  
 0 2500' 5000' 7500' 10000' 12500' 15000'  
 PREPARED BY GLENN ASSOCIATES SURVEYING, INC.  
 P.O. BOX 12 JENKINSVILLE, S.C. 29065 telephone (803) 345-5297



**REVISION SCHEDULE**

NO.	DATE	DESCRIPTION	CHECKED
1	9/17/12	REVISED PER FERC ORDER 137 FERC # 62,033	BBB
2	5/7/13	REVISED PER FERC ORDER 143 FERC # 62,095	BBB



**ORIGINAL NOTES:**  
 1. ALL PROPERTY WITHIN THE PROJECT BOUNDARY LINE IS OWNED IN FEE SIMPLE BY S.C.E.&G. CO. UNLESS OTHERWISE SHOWN ON EXHIBIT 'F'.  
 2. ALL PROPERTIES & PROPERTY LINES WERE SHOWN OUTSIDE P.B.L. AS A CONVENIENCE FOR HISTORICAL PURPOSES FOR S.C.E.&G. CO.  
 3. DETAILED DESCRIPTION FOR PROJECT BOUNDARY LINE IS SHOWN ON SHEETS K-18 THRU K-20.  
 4. LAND PARCELS ARE KEPT FOR EXHIBIT 'F' BY ENCIRCLED NUMBERS. EX (3)  
 5. LANDS ABUTTING P.B.L. ON THE EXTERIOR ARE IN PRIVATE OWNERSHIP UNLESS SHOWN OTHERWISE ON EXHIBIT 'F'.  
 6. CO-ORDINATES SHOWN ARE BASED ON THE STATE GRID SYSTEM (NAD27)  
 7. ELEVATIONS SHOWN ARE BASED ON THE U.S.C.&G.S. DATA (M.S.L.)  
 8. THE P.B.L. AROUND PARR RESERVOIR IS GENERALLY ALONG THE CONTOUR OF THE FLOOD OF RECORD AS ADJUSTED TO ACCOUNT FOR THE INFLUENCE OF PARR DAM, AS INDICATED ON EXHIBIT K-1.  
 9. ALL ISLANDS ARE TO REMAIN IN THEIR NATURAL STATE.  
 10. SOUTHERN R.R. R/W IS EXCLUDED FROM PROJECT, EXCEPT TO THE EXTENT OF FLOWAGE RIGHTS. SEE EXHIBIT 'F'

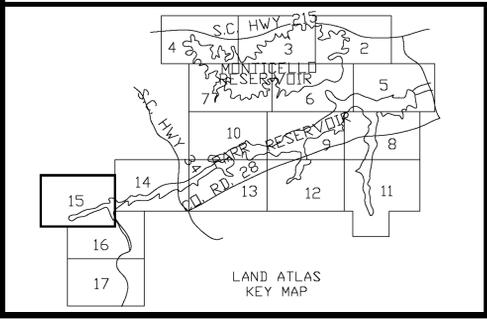
**NOTES:**  
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 I, BRIAN B. BONDS, A PROFESSIONAL LAND SURVEYOR IN THE STATE OF SOUTH CAROLINA, P.L.S. 28582, HAVE REPRODUCED THIS PORTION OF THE PARR HYDRO PROJECT 1894 PROJECT BOUNDARY SHOWN HEREIN. THE LICENSEE EITHER OWNS IN FEE SIMPLE OR POSSESSES EASEMENTS OVER THE LANDS SHOWN ON THE MAP THAT ARE INSIDE THE PROJECT BOUNDARY. THE PROJECT BOUNDARY LINES THAT ARE NOT CONTOUR LINES WERE BASED ON SCE&G DESIGN AND CONSTRUCTION DRAWINGS.  
 PROPERTY LINES DEPICTED ON THIS EXHIBIT DERIVED FROM DEEDS AND PLATS OF RECORD. NO ACTUAL FIELD SURVEY WAS CONDUCTED FOR PREPARING THIS MAP. THIS EXHIBIT IS NOT A PROPERTY BOUNDARY SURVEY. ALL PROPERTY LINE LOCATIONS SUBJECT TO FULL BOUNDARY SURVEY OF THE DEPICTED PARCEL.

- LEGEND**
- ARCHAEOLOGICAL SITES
  - ⊕ CEMETERIES
  - ⊕ HISTORICAL SITES
  - ⊕ U.S.F.S. LAND TO BE FLOODED
  - ⊕ RECREATIONAL LAND AREA
  - ▨ SUMTER NATIONAL FOREST BOUNDARY
  - PROJECT BOUNDARY LINE
  - ⊕ U.S.C.&G.S. BENCH MARK
  - ⊕ U.S.G.S. BENCH MARK
  - ▨ WATERFOWL SUB-IMPOUNDMENTS

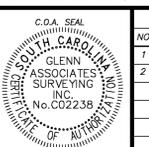
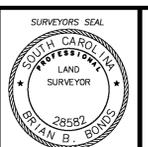
- TRANSMISSION LINES**
- ▨ GAME MANAGEMENT AREA PROGRAM
  - ▨ FEE SIMPLE (SECTION 24)
  - PROPOSED
  - - - EXISTING

**DETAIL MAP OF PROJECT AREA**

SHEET 15 OF 20  
 PARR HYDROELECTRIC PROJECT NO. 1894  
**SOUTH CAROLINA ELECTRIC & GAS COMPANY**  
 SCALE : 1 INCH = 500 FEET  
 0 500' 1000' 1500' 2000' 2500' 3000'  
 PREPARED BY GLENN ASSOCIATES SURVEYING, INC.  
 P.O. BOX 12 JENKINSVILLE, S.C. 29065 telephone (803) 345-5297



SURVEYORS SEAL  
 Brian B. Bonds  
 05-07-2013



REVISION SCHEDULE			
NO.	DATE	DESCRIPTION	CHECKED
1	9/17/12	REVISED PER FERC ORDER 137 FERC # 62,033	BBB
2	5/7/13	REVISED PER FERC ORDER 143 FERC # 62,095	BBB

# **ATTACHMENT 3**

William B. Hendrix, Jr.  
18662 Newberry Road  
Blair, South Carolina 29015

May 4, 2015

Mr. William R. Argentieri, P.E.  
Manager of Civil Engineering  
South Carolina Electric & Gas Company  
220 Operation Way Mail Code A221  
Cayce, South Carolina 29033-3701

Re: Relicensing FERC Project 1894

Dear Bill:

Thank you for your letter dated March 18, 2015. Could you please provide me with copies of the list of the property acquisitions, designated as Exhibit F, and the property maps depicting the PBL, designated as Exhibit K to the Project's license that were filed with FERC on June 26, 1981 as well as FERC's order dated August 19, 1981 approving both exhibits, as referenced in the second page of said letter?

Sincerely,

A handwritten signature in black ink, appearing to read "William B. Hendrix, Jr.", written in a cursive style.

William B. Hendrix, Jr.

# **ATTACHMENT 4**



May 27, 2015

Mr. William B. Hendrix, Jr.  
18662 Newberry Road  
Blair, South Carolina 29015

Re: South Carolina Electric & Gas Company  
Parr Hydroelectric Project  
FERC Project No.1894  
Response to letter dated May 4, 2015

Dear Mr. Hendrix:

I am responding to your letter dated May 4, 2015 requesting additional information concerning the Federal Energy Regulatory Commission's (FERC) establishment of the Project boundary line (PBL) of the Parr Reservoir. As noted in my previous letter dated March 18, 2015, the Company considers establishment of the PBL fully resolved. The Company has acquired all property rights along the shores of the Parr Reservoir and its tributaries which remain necessary for the operation and maintenance of FERC Project No. 1894. There is no reason to revisit the matter as the reservoir was established in conformity with the specific obligations set forth in the Project's license and has been approved by FERC. Moreover, even if the Company were to see a need in the future to reexamine the placement of the PBL, any property removed from the PBL with the FERC approval would then become non-Project lands and precluded from the jurisdiction of the FERC. In reference to your request for various documents, we must respectfully decline that request. We consider this matter closed and are unwilling to expend additional time and resources retrieving documents for you on this matter.

If you have any further questions, please contact me at (803) 217-9162 or [bargentieri@scana.com](mailto:bargentieri@scana.com).

Very truly yours,

A handwritten signature in blue ink that reads "William Argentieri". The signature is fluid and cursive.

William Argentieri, Manager Civil Engineering  
Fossil/Hydro Technical Services

c: H. E. Delk, Jr./PH File  
J. H. Hamilton/ J. Stuckey

# **ATTACHMENT 5**

William B. Hendrix, Jr.  
18662 Newberry Road  
Blair, South Carolina 29015

July 22, 2016

Mr. William R. Argentieri, P.E.  
Manager of Civil Engineering  
South Carolina Electric & Gas Company  
220 Operation Way Mail Code A221  
Cayce, South Carolina 29033-3701

Re: Relicensing FERC Project 1894  
Request for Study Request

Dear Mr. Argentieri:

Could you please provide me with the status of the Request for Information and Study Request, in regard to the above-referenced Project, which I submitted to your office in June of 2015?

Sincerely,

  
William B. Hendrix, Jr.

# **ATTACHMENT 6**



August 8, 2016

Mr. William B. Hendrix, Jr.  
18662 Newberry Road  
Blair, South Carolina 29015

Re: South Carolina Electric & Gas Company  
Parr Hydroelectric Project  
FERC Project No.1894  
Response to letter dated July 22, 2016

Dear Mr. Hendrix:

In your letter dated July 22, 2016, you asked the status of our response to your June 9, 2015 comments to the Pre-Application Document (PAD). The following paragraph sets out our current thinking on that matter.

In your June 9, 2015 letter, you requested that there be a new study to determine the Project boundary of the Parr Hydroelectric Project. The current Project boundary was determined and lands were acquired in accordance with the FERC license Article 48 and approved by the FERC by letter dated August 19, 1981 (16 FERC ¶62,250). There is nothing apparently deficient in the proceedings associated with SCE&G's compliance with the Article 48 in regards either to the establishment of the Project Boundary or the acquisition of properties necessary and appropriate to meet the license requirements. Hence, there is no apparent need to conduct another study. Even were that not so, and were there to be the discovery of some basis for concluding that some of the properties acquired then for the Project are not now essential to the Project, there is no basis for requiring SCE&G to give up ownership and control of that property, through sale or otherwise. All lands acquired by SCE&G based on the original hydraulic study were done so by purchasing the land at negotiated, fair market prices from the property owners and not by condemnation. Nevertheless, to be absolutely sure that we give full and fair consideration of all comments received, we are still evaluating the following: 1) any technical deficiencies in the work supporting the Project Boundary establishment that might create a necessity to conduct another hydraulic flow study; 2) how any new study would further the resource goals and objectives; 3) how possible new restrictions due to environmental considerations such as reservoir fluctuations or downstream flows, which are being discussed during the current relicensing process, could require this land to be inundated more frequently than is currently the case; and 4) concerns raised by the resource agencies during recreation and shoreline management relicensing meetings relating to removal of lands from the Project boundary. Once we have thoroughly considered these factors, responses to your PAD comments will be composed and included in the license application along with responses to all other PAD comments received.

Mr. William B. Hendrix, Jr.  
Parr Hydroelectric Project, FERC Project No.1894  
Response to letter dated July 22, 2016  
Page 2

If you have any further questions, please contact me at (803) 217-9162 or [bargentieri@scana.com](mailto:bargentieri@scana.com).

Very truly yours,



William Argentieri, Civil Engineering Manager  
Fossil/Hydro Technical Services

c: H. E. Delk, Jr./PH File  
J. H. Hamilton/ J. Stuckey

# **ATTACHMENT 7**

William B. Hendrix, Jr.  
18662 Newberry Road  
Blair, South Carolina 29015

August 17, 2016

Mr. William R. Argentieri, P.E.  
Manager of Civil Engineering  
South Carolina Electric & Gas Company  
220 Operation Way Mail Code A221  
Cayce, South Carolina 29033-3701

Re: Relicensing FERC Project 1894

Dear Mr. Argentieri:

Thank you for your letter dated August 8, 2016. I do have one question that I would appreciate your help clarifying. In your letter you state, "All lands acquired by SCE&G based on the original hydraulic study were done so by purchasing the land at negotiated, fair market prices from the property owners and not by condemnation." Is this original hydraulic study you are referencing one in the same as the USGS backwater study that we have discussed before and is referenced throughout the Exhibit K documents for this project? Is this original hydraulic study the same document you reference in your E-mail to me of October 30, 2014 stating, "...even though I cannot find the final report, the USGS backwater study drawings have enough information on them to help us understand the reasoning used to determine the location of the Parr Reservoir project boundary line. " ?

I look forward to hearing back from you.

Sincerely,

A handwritten signature in black ink that reads "William B. Hendrix, Jr." in a cursive style.

William B. Hendrix, Jr.

# **ATTACHMENT 8**



August 30, 2016

Mr. William B. Hendrix, Jr.  
18662 Newberry Road  
Blair, South Carolina 29015

Re: South Carolina Electric & Gas Company  
Parr Hydroelectric Project  
FERC Project No.1894  
Response to letter dated August 17, 2016

Dear Mr. Hendrix:

In your letter dated August 17, 2016, you asked for clarification of terminology used in previous letters and emails regarding a hydraulic study and USGS backwater study. The term hydraulic study is referring to the USGS backwater study document.

If you have any further questions, please contact me at (803) 217-9162 or [bargentieri@scana.com](mailto:bargentieri@scana.com).

Very truly yours,

A handwritten signature in blue ink that reads "William Argentieri". The signature is fluid and cursive.

William Argentieri, Civil Engineering Manager  
Fossil/Hydro Technical Services

c: H. E. Delk, Jr./PH File  
J. H. Hamilton/ J. Stuckey

# **ATTACHMENT 9**

1.155

SOUTH CAROLINA ELECTRIC & GAS COMPANY

POST OFFICE BOX 764  
COLUMBIA, SOUTH CAROLINA 29218

GRAYSON C. MEETZE  
EXECUTIVE VICE PRESIDENT  
OPERATIONS

June 26, 1981

The Honorable Kenneth F. Plumb  
The Secretary  
Federal Energy Regulatory Commission  
825 N. Capitol Street, N. E.  
Washington, DC 20426

Dear Secretary Plumb:

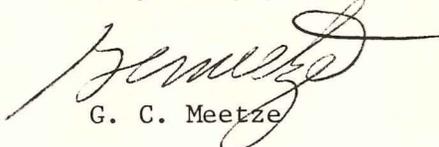
Subject: PWR-LP  
Project 1894  
South Carolina Electric & Gas Company  
License Articles Nos. 6 and 48

The South Carolina Electric and Gas Company herewith files 14 complete sets of its completed Exhibits F and K in accordance with License Articles Nos. 6 and 48.

My Company's understanding concerning the processing of these exhibits is that after any deficiencies identified by your staff are satisfied, the Commission will notify me that the exhibits are acceptable and will request microfilm copies for the Commission's files. This is in lieu of the past practice of the licensee filing the original mylar.

Should you or others of the Commission staff have any questions for my Company concerning these exhibits, please contact Mr. W. E. Moore.

Very truly yours,

  
G. C. Meetze

WEM:rm

Enclosures

CC: Messrs. A. O. Kauranen (FERC Regional Engineer, Atlanta) - w/attachment  
H. M. Bryant - w/attachment

Exh. K-2 Index	Tract No.	SCE&G Drawing No.	From Whom Acquired	Acreage Acquired in Fee		Date Acquired	Recorded in Plat Book		County
				Inside PBL	Outside PBL		Book	Page	
R-14	1	B-14877	Ruby Martin		Non-Project				Fairfield
R-14	2	B-14872	F. L. Baten		Non-Project				Fairfield
R-14	3	B-14874	W. M. Baten		Non-Project				Fairfield
R-14	4	B-14875	James Baten	6.32		1/18/73	9	2	Fairfield
R-14	5	B-14730	Alphonse Baten	17.21		1/18/73	9	3	Fairfield
S-15	6	B-14727	Alean Baten	0.71		1/17/77	9	148	Fairfield
R-15	7	B-14728	Celese Cook	38.47		2/1/73	FH	237	Fairfield
R-16	8	B-14731	Delilah Baten	37.73		1/24/74	9	30	Fairfield
Q-14	17	B-14878	J. H. Guignard	1.37		11/5/76	9	134	Fairfield
Q-15	20	B-14897	Anna Bell Willingham	6.31		3/8/73	9	8	Fairfield
P-15	21	B-14908	E. L. Ginyard	0.15		12/12/72	FH	221	Fairfield
Q-16	22	B-14906	Catawba Timber Co.	62.21		3/13/73	9	15	Fairfield
P-15	23	B-14905	Elmer Pearson	18.32		4/23/73	FH	226	Fairfield
P-15	24	B-14909	H. B. Lyles	0.23		12/26/78	FI	316	Fairfield
P-16	25	B-14913	Frank Willingham	71.69		5/1/73	9	9	Fairfield
O-16	26	B-14912	Ella C. Wilburn	121.30		5/30/73	FH	220	Fairfield
N-9	33	B-14953	Catawba Timber Co.	120.27	1.80	1/22/73	FH	230	Fairfield
L-15	35	B-14968	Geddings H. Crawford, Est.	773.78		2/17/77	9	236	Fairfield
O-13	36	B-14970	Patsie McLeod	75.06		8/13/73	FH	217	Fairfield
N-10	37	B-14967	Champion Paper Co.	294.90		12/17/75	9	40	Fairfield
O-12	38	B-14972	Mose White	61.94		4/19/73	9	13	Fairfield
O-14	39	B-14973	J. B. Martin, Est.	135.45		7/22/74	9	130	Fairfield
P-13	40	B-14975	Francis Carter	44.86		2/24/76	9	131	Fairfield
Q-13	41	B-14974	David "Tom" Martin	37.18		6/26/72	FH	185	Fairfield
P-10	42	B-14979	Eloise Thompson		Non-Project				Fairfield
P-10	43	B-14980	John Henry Martin	1.25		8/26/72	7	296	Fairfield
P-10	44	B-14981	Julia Mae Curtis	8.98		8/26/72	7	298	Fairfield
P-11	45	B-14982	Sarah Hollins	8.42		8/10/72	FH	224	Fairfield
P-11	46	B-14983	Ernestine Rabb	8.67		7/7/72	FH	223	Fairfield
P-11	47	B-14984	Walker Martin, Jr.	0.47		11/30/76	FH	216	Fairfield
L-11	48	B-15395	S.C.E. & G. Co.	831.32	16.64	5/27/77	9	179	Fairfield
M-7	56	B-14990	Booker T. Martin	76.70	201.51	5/4/73	9	99	Fairfield
O-10	57	B-14995	Abraham Martin	55.98	0.04	12/22/72	FH	222	Fairfield
P-12	60	B-15220	Arthur Kennedy Tract 2	160.31		12/28/73	9	25	Fairfield
P-11	62	B-14999	Minnie White	1.03		10/31/74	FH	229	Fairfield
P-11	63	B-14997	O'Dell Cook	1.00		8/6/73	FH	228	Fairfield
P-11	64	B-15001	Irvin Rikard	1.00		8/31/73	FH	227	Fairfield
O-11	65	B-15000	Charley Lyles	1.00		8/17/73	9	20	Fairfield

Exh. K-2 Index	Tract No.	SCE&G Drawing No.	From Whom Acquired	Acreage Acquired in Fee		Date Acquired	Recorded in Plat Book		County
				Inside PBL	Outside PBL		Book	Page	
O-11	66	B-14998	Roosevelt Stark	0.81		11/28/72	FH	215	Fairfield
Q-10	72	B-15009	Booker T. Martin	21.54		4/19/76	9	111	Fairfield
R-12	90	B-15139	Booker T. Martin	0.44		8/21/78	GS	296	Fairfield
R-12	91	B-15115	White Hall Church (A.M.E.)	Non-Project					Fairfield
R-12	92	B-15138	Plumie Martin	10.98		10/25/77	9	211	Fairfield
R-13	94	B-15096	Masonic Lodge	Non-Project					Fairfield
R-14	95	B-15097	Hattie Young (Tract No. 11)	Non-Project					Fairfield
R-14	96	B-15134	S. W. & Douglas Martin	18.01	21.72	7/5/75	9	225	Fairfield
R-14	97	B-15098	Mario Hollins, Jr.	Non-Project					Fairfield
R-14	98	B-15099	Elizabeth Hollins	Non-Project					Fairfield
R-14	99	B-15127	Maceo Hollins (Liquor St.)	0.79		12/28/73	9	228	Fairfield
R-14	100	B-15100	James Burns	Non-Project					Fairfield
R-14	101	B-15215	Hezakiah Burns	1.73		12/28/77	GS	295	Fairfield
R-14	102	B-15101	Maceo Hollins, Jr.	Non-Project					Fairfield
R-13	103	B-15102	Maceo Hollins (Home Pl.)	0.24		12/30/77	9	227	Fairfield
R-14	104	B-15103	Sam Mills	Non-Project					Fairfield
R-14	105	B-15104	Laura Burns	Non-Project					Fairfield
R-13	106	B-15244	Hattie Young (Tract No. 2)	3.12		11/24/76	9	136	Fairfield
O-9	114	B-15136	Alec Harper (Thomas)	13.85	9.66	5/6/74	9	100	Fairfield
R-13	115	B-15216	R. A. Hollins (Tract "A")	3.91		2/21/77	9	168	Fairfield
Q-13	116	B-15180	Arthur Kennedy (Tract 1)	36.65		12/28/73	9	26	Fairfield
R-13	117	B-15783	Hattie Young (Tract 3)	17.66		11/24/76	9	137	Fairfield
R-13	119	B-15185	Eugene & Wendell Martin	Non-Project					Fairfield
R-12	122	B-15217	S. W. Martin	17.92	3.20	7/9/75	FH	188	Fairfield
R-13	125	B-15186	Marion & Wilhemena Hollins	0.56		6/24/77	FH	187	Fairfield
R-13	126	B-15184	Geneva Feaster	Non-Project					Fairfield
R-13	127	B-15187	R. A. Hollins (Tract "B")	0.69		2/21/77	FH	186	Fairfield
Q-14	129	B-15265	Silas Crumpton	0.46		9/8/75	FH	184	Fairfield
Q-15	130	B-15262	John Willingham	2.72		8/31/73	FH	189	Fairfield
P-10	144	B-15996	Viola Spencer	8.86	14.68	7/1/74	9	59	Fairfield
P-10	145	B-15997	John Alexander Martin	0.20	0.46	8/24/76	FH	183	Fairfield
R-13	147	B-18450	R. A. Hollins (Tract "C")	Non-Project					Fairfield
R-14	148	B-18976	Maceo Hollins	Non-Project					Fairfield
P-10	F	B-17616	Family Reloc. Lot-Walker Martin	Non-Project					Fairfield
P-10	G	B-17617	Family Reloc. Lot-	Non-Project					Fairfield
P-10	H	B-17618	Family Reloc. Lot-	Non-Project					Fairfield
P-10	I	B-17619	Family Reloc. Lot-	Non-Project					Fairfield
Q-14	S	B-19023	Family Reloc. Lot-Ed.L. Keller	Non-Project					Fairfield



Exh. K-3 Index	Tract No.	SCE&G Drawing No.	From Whom Acquired	Acreage Acquired in Fee		Date Acquired	Recorded in Plat Book		County
				Inside PBL	Outside PBL		Book	Page	
R-16	8		See Exh.F-Ref.Exh.K-2 Sht. 1						Fairfield
S-16	9	B-14720	Jule Thompson	Non-Project					Fairfield
Q-18	10	B-14876	Geddings H. Crawford, Est.	580.87	58.43	2/17/77	FH	233	Fairfield
Q-20	11	B-14695	C. T. McGill	46.31		2/9/73	FH	235	Fairfield
R-21	12	B-14702	Mrs. Roberta R. Abrahamson	1.43		3/25/75	FH	225	Fairfield
P-21	13	B-14699	J. L. Robinson	45.28		6/8/74	FH	234	Fairfield
O-21	14	B-14697	Irvan Robinson	169.37		6/7/74	9	42	Fairfield
O-22	15	B-14700	W. R. Robinson	309.93		12/9/74	9	99-61	Fairfield
P-20	18	B-14889	Wade Herndon Estate	197.83		3/7/73	FH	232	Fairfield
Q-16	22		See Exh.F-Ref.Exh.K-2 Sht. 1						Fairfield
P-16	25		See Exh.F-Ref.Exh.K-2 Sht. 1						Fairfield
O-16	26		See Exh.F-Ref.Exh.K-2 Sht. 1						Fairfield
N-18	34	B-14936	J. B. Frazier, III	373.51		12/7/73	9	23	Fairfield
L-15	35		See Exh.F-Ref.Exh.K-2 Sht. 1						Fairfield
O-14	39		See Exh.F-Ref.Exh.K-2 Sht. 1						Fairfield
K-19	49	B-15284	Champion Paper Co.	1289.63	339.98	12/17/75	8-23 8-150	11	Fairfield
M-27	53	B-15133	Monticello Farms	58.70		2/24/75	FH	196	Fairfield
S-18	59	B-15023	Ravenel Keller, Sr.	10.74		8/8/77	FH-215		Fairfield
N-24	61	B-15109	C. H. Burley	57.66		4/15/76	9	110	Fairfield
M-24	67	B-15149	Josie McMeekin	217.98		8/26/75	9	86	Fairfield
S-16	68	B-19113	Westvaco Tract	Non-Project					Fairfield
S-17	75	B-15029	Russell White	0.48		12/8/76	9	159	Fairfield
S-18	76	B-15024	Edward Lee Keller	0.85		11/24/77	FH	236	Fairfield
S-18	77	B-15025	Lark Keller	0.85		8/8/77	9	201	Fairfield
S-18	78	B-15026	David Stone	0.41		1/14/77	FH	214	Fairfield
S-18	79	B-15027	Robert Anthony	0.57		12/20/76	FH	213	Fairfield
S-18	80	B-15028	James White	0.16		12/8/76	9	158	Fairfield
S-17	86	B-15041	Salley Ruth Thompson	0.98		8/8/77	9	202	Fairfield
S-17	87	B-15042	Ravenell Keller, Jr.	Non-Project					Fairfield
S-18	88	B-15043	Clementine Bowman	Non-Project					Fairfield
P-25	107	B-15107	Joe C. Burley	Non-Project					Fairfield
O-25	108	B-15111	M. H. Burley (Tract No. 1)	Non-Project					Fairfield
P-24	109	B-15110	M. H. Burley (Tract No. 2)	Non-Project					Fairfield
N-26	113	B-15398	Monticello Farms	90.51		2/24/75	GS	290	Fairfield
N-25	118	B-15165	C. L. Fuller	3.79		10/6/76	9	139	Fairfield
P-24	121	B-15160	Marie B. Burley	0.77		9/13/77	9	207	Fairfield
P-28	132	B-15287	E. K. Rabb (Tract 1)	2.23		2/24/75	FH	194	Fairfield
M-23	143	B-15732	Ida B. Long Tract 2	27.81		1/6/76	FH	206	Fairfield











Exh. K-8 Index	Tract No.	SCE&G Drawing No.	From Whom Acquired	Acreage Acquired in Fee		Date Acquired	Recorded in Plat Book		County
				Inside PBL	Outside PBL		Book	Page	
F-1	151A	B-15845	James M. Miller	Non-Project					Newberry
G-2	152		See Exh.F-Ref.Exh.K-5 Sht. 1						Newberry
E-4	153		See Exh.F-Ref.Exh.K-5 Sht. 1						Newberry
E-4	154		See Exh.F-Ref.Exh.K-5 Sht. 1						Newberry
E-5	155		See Exh.F-Ref.Exh.K-5 Sht. 1						Newberry
E-6	156		See Exh.F-Ref.Exh.K-5 Sht. 1						Newberry
F-7	157		See Exh.F-Ref.Exh.K-5 Sht. 1						Newberry
E-7	158	B-15934	Stuart C. Hope; James H. Hope, Jr.; Martha H. Tennant; J. Julian Hope; Francis M. Hope; Dorothy Edwards & Ruth Hope Ogden	4.07		1/30/78	AS	88	Newberry
E-7	159	B-15935	Stewart C. Hope, James H. Hope & Martha H. Tennant	2.26		1/30/78	AS	89	Newberry
D-7	161	B-15937	W. D. Summers	12.26		1/29/77	AS	90	Newberry
C-6	162	B-15966	Stuart C. Hope; James H. Hope, Jr.; Martha H. Tennant; J. Julian Hope; Francis M. Hope; Dorothy Edwards & Ruth Hope Ogden	0.04		1/23/78	AS	91	Newberry
B-7	163	B-15938	Willie Mae Eargle, Mary F. Mathis, Leola S. Johnson & W. D. Summers, Jr.	27.99		1/29/77	AS	92	Newberry
C-6	163A	B-15939	Mattie B. Summers	1.49		1/29/77	AS	93	Newberry
A-6	164	B-15940	William S. Hentz	8.97		4/13/76	AS	94	Newberry
BB-7	165	B-16010	David Sims	6.27		8/3/76	AS	95	Newberry
BB-10	172	B-18396	H. M. Hentz	235.68	9/2/76	4/13/76	AY	11	Newberry
B-10	173	B-15944	M. O. Mayer	37.272		9/23/77	AS	101	Newberry
E-9	174		See Exh.F-Ref.Exh.K-5 Sht. 1						Newberry
D-9	174A	B-15946	Hobbs Cemetery	Non-Project					Newberry
E-10	175		See Exh.F-Ref.Exh.K-5 Sht. 1						Newberry
D-11	176	B-15948	T. D. Jacobs	12.63		9/1/76	AS	103	Newberry
D-5	221	B-15963	David	Non-Project					Newberry
E-11	245		See Exh.F-Ref.Exh.K-6 Sht. 1						Newberry
E-11	246		See Exh.F-Ref.Exh.K-6 Sht. 1						Newberry

Exh. K-9 Index	Tract No.	SCE&G Drawing No.	From Whom Acquired	Acreage Acquired in Fee		Date Acquired	Recorded in Plat Book		County
				Inside PBL	Outside PBL		Book	Page	
K-19	49		See Exh.F-Ref.Exh.K-3 Sht. 1						Fairfield
I-14	54		See Exh.F-Ref.Exh.K-6 Sht. 1						Fairfield
D-11	176		See Exh.F-Ref.Exh.K-8 Sht. 1						Newberry
C-12	177	B-15949	M. O. Mayer & Adam R. Mayer	60.96		9/23/77	AS	104	Newberry
C-14	178	B-15962	Minnie H. Wicker	13.13	106.73	2/27/76	AN	75	Newberry
B-16	179	B-16006	S. Downs Wright	183.80	33.48	5/10/73	AS	105	Newberry
BB-16	180	B-16295	Champion Paper Co.	164.48		10/31/77	AS	106	Newberry
AA-18	182	B-16297	Ray E. Wiedeman	34.35		1/4/80	AV	25	Newberry
A-19	183	B-16298	Continental Can Co.	128.68		11/5/76	AS	107	Newberry
AA-20	184	B-16299	W. B. Hentz	39.21		3/30/77	AP	109	Newberry
AA-22	185	B-15874	Hugh W. Hentz	127.71	123.51	3/8/73	AP	108	Newberry
B-23	217	B-16332	J. B. Frazier	16.25		12/22/76	9	153	Fairfield
C-21	218	B-16333	D. R. Cole	16.98		10/14/76	9	166	Fairfield
C-19	219	B-16334	Ed Burley	1.83		unknown	FH	200	Fairfield
D-18	220	B-16335	John Green	65.75	132.86	9/30/75	9	218	Fairfield
D-16	222	B-16928	S.C.E. & G. Co.	150.03		unknown	FH	199	Fairfield
AA-17	223	B-16930	Champion Paper Co.	2.90		10/31/77	AS	117	Newberry
B-18	229	B-17100	S. Downs Wright	22.06		5/10/73	AS	118	Newberry
AA-20	230	B-17101	W. B. Hentz	Non-Project					Newberry
D-14	234	B-17967	Joe Palmer	0.51		5/5/76	AS	120	Newberry
D-14	235	B-17968	Gav & Virginia Rhymer	0.41		5/5/76	AS	121	Newberry
D-14	236	B-17969	Luther M. Burch	0.37		5/5/76	AS	122	Newberry
D-13	237	B-17970	Ernest Knox	0.48		5/5/76	AS	123	Newberry
C-14	244	B-18405	J. D. Inman	Non-Project					Newberry
E-11	246		See Exh.F-Ref.Exh.K-6 Sht. 1						Newberry
BB-15	250	B-18470	Thomas L. Crooks, Jr. & Carolyn C. Bishop	0.56		12/14/78	AT	21	Newberry
C-19	267	B-18574	J. B. Frazier	32.61		11/17/77	9	215	Fairfield
D-20	268	B-18575	A. J. Wilson	14.59		11/18/76	FH	190	Fairfield
B-22	269	B-18576	Albert Barnado	0.28		1/20/77	9	150	Fairfield
E-21	279	B-18661	D. R. Cole	Non-Project					Fairfield
F-17	290		See Exh.F-Ref.Exh.K-6 Sht. 1						Fairfield









Exh. K-14 Index	Tract No.	SCE&G Drawing No.	From Whom Acquired	Acreage Acquired in Fee		Date Acquired	Recorded in Plat Book		County
				Inside PBL	Outside PBL		Book	Page	
EE-32	190		See Exh.F-Ref.Exh.K-13 Sht. 1						Newberry
FF-35	191	B-16305	Bess Bursinger	25.69		9/12/78	AS	68	Newberry
GG-38	192	B-16306	Helen H. Counts	53.70		10/21/76	AS	112	Newberry
GG-41	193	B-16307	U. S. Forestry Service	72.14		1/8/81	AY	20	Newberry
II-42	194	B-16308	W. N. Henderson	117.41		11/28/77	AS	113	Newberry
FF-44	204	B-16319	Francis Frazier	31.03		12/22/76	9	156	Fairfield
EE-42	205	B-16320	Ruby C. Blair	5.93		5/23/80	GI	229	Fairfield
FF-41	206	B-16321	Blair No. 2		Non-Project				Fairfield
EE-41	207	B-16322	Blair		Non-Project				Fairfield
FF-44	208	B-16323	Blair		Non-Project				Fairfield
FF-40	209	B-16324	C. H. Ragsdale	19.35	1.02	3/28/77	FH	191	Fairfield
EE-39	210	B-16325	J. B. Frazier	17.98		12/22/76	9	155	Fairfield
CC-36	211	B-16326	U. S. Forestry Service	26.13	8.23	1/8/81	10	221	Fairfield
DD-33	212		See Exh.F-Ref.Exh.K-13 Sht. 1						Fairfield
EE-40	254	B-18480	Lone Star Industries, Inc.	2.35		12/13/76	FH	205	Fairfield
EE-34	256	B-18531	M. O. Mayer	0.85	0.91	12/14/78	AT	19	Newberry
HH-39	270	B-18622	George Baxter	1.49		2/8/77	AS	142	Newberry
EE-41	277	B-18634	Champion Paper Co.	0.92		10/31/77	9	221	Fairfield
EE-38	281	B-18685	Peoples (J. B. Frazier)	2.39		12/22/76	9	151	Fairfield
DD-38	282	B-18692	Peoples (J. B. Frazier)	4.72		12/22/76	9	152	Fairfield
DD-40	283	B-18693	S. C. Granite Co.		Non-Project				Fairfield
DD-39	284	B-18694	J. B. Frazier		Non-Project				Fairfield
DD-35	285	B-18697	S. Downs Wright	4.78		6/16/77	9	187	Fairfield
FF-41	286	B-18732	T. J. Fogley	0.40		4/21/77	FH	198	Fairfield
FF-43	288	B-18772	C. L. Ligon	11.82		6/12/80	GJ	199	Fairfield
EE-41	291	B-18903	Lula Blair	5.47		5/23/80	GI	228	Fairfield
FF-43	292	B-18904	Larry Blair	1.05		5/23/80	GJ	48	Fairfield
DD-41	294	B-18906	Blair No. 1		Non-Project				Fairfield
DD-42	295	B-18907	Blair No. 2		Non-Project				Fairfield
FF-41	297	B-19212	Nancy B. Hendrix	0.49		9/29/77	9	224	Fairfield







# **ATTACHMENT 10**

UNITED STATES OF AMERICA  
 FEDERAL ENERGY REGULATORY COMMISSION

South Carolina Electric and Gas Company ) Project No. 1894-008

ORDER APPROVING REVISED EXHIBITS F AND K

( Issued August 19, 1981 )

South Carolina Electric and Gas Company, Licensee for the Parr Hydroelectric Project No. 1894, filed on July 6, 1981, an application for approval of revised Exhibits F and K. 1/

Article 48 of the license for Project No. 1894 required the Licensee to file within one year after completion of land acquisition, revised Exhibit F and, for Commission approval, revised Exhibit K to show all lands purchased in fee, or the right to use in perpetuity, lands that are necessary or appropriate for project operations, including lands for recreational use and shoreline control.

The revised exhibits have been examined and found to conform with the Commission's regulations.

It is ordered that:

(A) The following revised Exhibit K is approved and made a part of the license:

<u>Exhibit K-</u>	<u>FERC No. 1894-</u>	<u>Superseding Exhibit K, FERC No. 1894-</u>
1	76	54
2	77	55
3	78	56
4	79	57

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1/ Authority to act on this matter is delegated to the Director, Office of Electric Power Regulation under 18 C.F.R. §375.308 (1980), as amended by 46 Fed. Reg. 14119 (1981).

<u>Exhibit K-</u>	<u>FERC No. 1894-</u>	<u>Superseding Exhibit K, FERC No. 1894-</u>
5	80	58
6	81	59
7	82	60
8	83	61
9	84	62
10	85	63
11	86	64
12	87	65
13	88	66
14	89	67
15	90	68
16	91	69
17	92	70
18	93	71
19	94	72
20	95	73

(B) This order is final unless a petition appealing it to the the Commission is filed within 30 days from the date of its issuance, as provided in Section 1.7(d) of the Commission's regulations, 18 C.F.R. 1.7(d), as amended, 44 Fed. Reg. 46449 (1979).

  
William W. Lindsay  
Director, Office of Electric  
Power Regulation

# **ATTACHMENT 11**

## V SPILLWAY AND LOWER RESERVOIR

### D. Gate Operational Studies

As requested by the Board of Consultants, additional backwater profile studies for the flows of 6000 cfs to 40,000 cfs in the multiple of 5000 cfs have been prepared by the USGS. The two conditions are:

1. When all the gates are fully down
2. When the water level at Parr is at El. 266.00.

The respective storage between these two conditions have been computed by SCE&G Co. and have been tabulated in the Attachment #1.

From the review of these water surface profiles, it is seen that the Project Boundary Line which was delineated, seems adequate for flows up to 40,000 with the water level at Parr at 266.00, except perhaps in a small stretch beyond the USGS Section #35. But even this small stretch will be adequate if we consider the water surface profile run by the USGS previously for 40,000 cfs and full generation. This study reveals that for both the conditions,

1. When all the gates are fully down
2. When the water level at Parr is maintained at 266.00,

the water surface profiles for flows up to 40,000 cfs coincide beyond the Section #35. Hence, the holding back of water at El. 266.00 at Parr will not cause rise of water surface profile beyond Section #35. In this regard, the Attachment #3 may be seen and therefore, the criteria adopted for establishing the Project Boundary Line seems adequate and logical.

ATTACHMENT # 1

Date 5.31.77  
 Calc By JN  
 Chk'd/Apprd. By  
 Subject

**Gibbs & Hill, Inc.**  
 ENGINEERS, DESIGNERS, CONSTRUCTORS  
 NEW YORK

Filing Code  
 Sheet No. 1 of 4  
 G & H Job No.

Ref. Dwg./Spec. No.

STORAGE AVAILABLE IN THE  
 PARR RESERVOIR FOR THE  
 TWO CONDITIONS

FLOW CFS (1)	BROAD RIVER AF (2)	TRC AF (3)	CANNONS CREEK AF (4)	HELLERS CREEK AF (5)	TOTAL STORAGE AF (6)	DURATION OF FLOW IN A YEAR DAYS (7)	FROM FLOW DURATION CURVE
6000	22,204	543	3,464	2,309	28,520		
10,000	20,420	493	3,223	2,149	26,285	48	
15,000	18,347	443	2,865	1,910	23,565	28	
20,000	16,062	394	2,621	1,747	20,824	19	
25,000	14,521	345	2,511	1,674	19,051	13	
30,000	13,055	308	2,333	1,555	17,251	11	
35,000	11,423	278	2,137	1,425	15,263	5	
40,000	10,223	242	1,865	1,243	13,573	4	

NOTE: THE ACTUAL CAP. WILL BE  
 SLIGHTLY BE MORE THAN TABULATED  
 IN THE COL. (6) IF WE ADD FOR THE  
 SPACES NOT REPRESENTED BY THE  
 CROSS SECTIONS & ADDING FOR ENOREE  
 & OTHER SMALL TRIBUTARIES.

Date .....

# Gibbs & Hill, Inc.

Filing Code .....

Calc By .....

ENGINEERS, DESIGNERS, CONSTRUCTORS

Sheet No. 1 Of .....

NEW YORK

Chk'd/Aprd. By .....

## ATTACHMENT # 3

G & H Job No. ....

Subject ..... Ref. Dwg./Spec. No. ....

USGS SEC. #	PBL EL	PREVIOUS STUDY		PRESENT		STUDY	
		WL FOR 40000 + 40,000 CF'S GATES FULLY DOWN	WL FOR 35000 CF'S GATES FULLY ON	WL AT 266.00 AT PARR	WL FOR 40000 CF'S GATES FULLY ON.	WL AT 266.00 AT PARR.	
35	276.5	276.5	275.4	275.5	276.4	276.5	
36	278	278	277.4	277.5	278.3	278.4	
37	280.3	280.3	280.4	280.4	281.0	281.1	
38	282.1	282.1	282.5	282.5	283.3	283.4	
39	283.6	283.6	284.2	284.2	285.0	285.1	
40	285.6	285.6	285.9	285.9	286.9	286.9	



December 19, 2016

Mr. William B. Hendrix, Jr.  
18662 Newberry Road  
Blair, SC 29015

Subject: South Carolina Electric & Gas Company  
Parr Hydroelectric Project, FERC Project No. 1894-207  
Response to Mr. Hendrix Request for Dispute Resolution for the Parr  
Hydroelectric Project

Dear Mr. Hendrix:

South Carolina Electric & Gas Company, Licensee of the Parr Hydroelectric Project (FERC No. 1894) submitted electronically its response to your December 9, 2016 letter regarding a request to the Federal Energy Regulatory Commission Director of the Office of Energy Projects for dispute resolution for an additional study during the new license application process for this Project.

The electronic files associated with this filing may be accessed on the FERC website at this location: [http://elibrary.FERC.gov/idmws/file\\_list.asp?accession\\_num=20161219-5132](http://elibrary.FERC.gov/idmws/file_list.asp?accession_num=20161219-5132)

If you have any questions regarding this filing, please contact me at (803) 217-9162 or [bargentieri@scana.com](mailto:bargentieri@scana.com).

Sincerely,

A handwritten signature in blue ink that reads "William R. Argentieri". The signature is fluid and cursive.

William R. Argentieri, Manager of Civil Engineering  
Fossil Hydro Technical Services

WRA/wa

FEDERAL ENERGY REGULATORY COMMISSION  
WASHINGTON, D.C. 20426  
February 1, 2017

OFFICE OF ENERGY PROJECTS

Project No. 1894-207 - South Carolina  
Parr Hydroelectric Project  
South Carolina Electric & Gas Company

**REFERENCE: DRAFT PROGRAMMATIC AGREEMENT FOR THE PARR HYDROELECTRIC  
PROJECT NO. 1894-207; SHPO PROJECT NO. 12-ED0073**

TO THE PARTIES ADDRESSED:

On January 5, 2015, South Carolina Electric & Gas Company (SCE&G) filed with the Federal Energy Regulatory Commission (Commission) a Notice of Intent, Pre-Application Document, and request to use the Traditional Licensing Process<sup>1</sup> for continued operation and maintenance of the Parr Hydroelectric Project No. 1894.<sup>2</sup> The existing project consists of two developments, from upstream to downstream: (1) the 511.2-megawatts (MW) Fairfield Pumped Storage Development; and (2) the 14.88-MW Parr Shoals Development. The project is located on the Broad River near the City of Columbia, in Newberry and Fairfield Counties, South Carolina, and occupies 162.61 acres of federal land administered by the U.S. Forest Service. The license expires on June 30, 2020.

We propose to execute a Programmatic Agreement with the South Carolina Department of Archives and History, but without the participation of the Advisory Council on Historic Preservation (Advisory Council), in accordance with the Advisory Council's regulations at 36 C.F.R. Part 800. Although the Advisory Council may, at its discretion, participate in the execution of this Programmatic Agreement, we conclude that the issues as they pertain to historic properties do not warrant the Advisory Council's participation. We request that the Advisory Council concur that their participation is not needed simply by not objecting to this procedure.

The purposes of this letter, therefore, are to: (1) convey the draft Programmatic Agreement for comment; (2) provide notice of our intention to execute the Programmatic Agreement without the Advisory Council's participation; and (3) invite the Advisory Council's participation in the event it wishes to participate.

---

<sup>1</sup> On February 20, 2015, the Director, Division of Hydropower Licensing approved SCE&G's request to use the Traditional Licensing Process.

<sup>2</sup> See *South Carolina Electric & Gas Company*, 52 F.P.C. ¶ 537 (1974).

Please review and comment on the draft Programmatic Agreement **within 30 days of the date of this letter**. When you provide us your comments, please reference “Project No. 1894-207” on the front page of your correspondence. Comments may be filed electronically via the Internet. See 18 C.F.R. section 385.2001(a)(1)(iii) and the instructions on the Commission’s website at <http://www.ferc.gov/docs-filing/efiling.asp>. For assistance, please contact FERC Online Support at [FERCOnlineSupport@ferc.gov](mailto:FERCOnlineSupport@ferc.gov); call toll-free at (866) 208-3676; or, for TTY, contact (202) 502-8659. Although the Commission strongly encourages electronic filing, comments may also be paper-filed. To paper-file, mail an original to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, D.C. 20426.

If you cannot comment by the requested deadline, please let us know the date on which you can provide us your comments. We will review your comments, revise the draft Programmatic Agreement accordingly, and reissue it for signature. If you have questions, please contact Dustin Wilson at (202) 502-6528, or at [dustin.wilson@ferc.gov](mailto:dustin.wilson@ferc.gov).

Sincerely,

Stephen Bowler, Chief  
South Branch  
Division of Hydropower Licensing

Enclosure: Draft Programmatic Agreement

Addresses:

Dr. John Eddins  
Advisory Council on Historic  
Preservation  
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Washington, D.C. 20001-2637

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Jim Bates, Archaeologist  
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Manager  
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Sumter National Forest  
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Huger, SC 29450-8609

William Green, M.A., RPA  
Terracon Consultants, Inc.  
521 Clemson Road  
Columbia, SC 29229

cc: Public Files

**DRAFT PROGRAMMATIC AGREEMENT  
BETWEEN  
THE FEDERAL ENERGY REGULATORY COMMISSION AND  
THE SOUTH CAROLINA STATE HISTORIC PRESERVATION OFFICER  
FOR MANAGING HISTORIC PROPERTIES  
THAT MAY BE AFFECTED BY ISSUING A NEW LICENSE TO  
SOUTH CAROLINA ELECTRIC & GAS COMPANY  
FOR THE CONTINUED OPERATION AND MAINTENANCE  
OF THE PARR HYDROELECTRIC PROJECT  
LOCATED IN FAIRFIELD AND NEWBERRY COUNTIES, SOUTH CAROLINA**

**WHEREAS**, the Federal Energy Regulatory Commission or its staff (hereinafter, “Commission”) is proposing to act on an application for a new license filed by South Carolina Electric & Gas Company (hereinafter, “Licensee”) for the continued operation and maintenance of the Parr Hydroelectric Project No. 1894 (hereinafter, “Project”) as authorized by Part I of the Federal Power Act, 16 U.S.C. sections 791(a) through 825(r), *as amended*; and

**WHEREAS**, the Commission has determined that issuing such a license may affect properties included in or eligible for inclusion in the National Register of Historic Places (hereinafter, “historic properties”); and

**WHEREAS**, the associated *Final Historic Properties Management Plan, Parr Hydroelectric Project, Fairfield and Newberry Counties, South Carolina, FERC No. 1894*, dated December 2016 (hereinafter, “HPMP”) and filed January 10, 2017, provides a description of the Project, the Project’s area of potential effects (hereinafter, “APE”), historic properties, and anticipated effects identified as of the date of this Programmatic Agreement; and

**WHEREAS**, the following documents support the findings in the HPMP: (1) *Initial Historic and Archaeological Resources (HAR) Study, Parr Hydroelectric Project, FERC Project No. 1894 Application for New License, Fairfield and Newberry Counties, South Carolina* (William Green and Jennifer Betsworth, S&ME, Inc., Columbia, South Carolina, May 2013); (2) *Phase I Cultural Resource Investigations for the Parr Hydroelectric Project (FERC Project No. 1894), Fairfield and Newberry Counties, South Carolina, Final Report* (Kimberly Nagle and Heather Carpini, S&ME, Inc., Columbia, South Carolina, August 2014); and (3) *Phase II Testing of Archaeological Sites 38NE8 and 38NE10 at the Parr Hydroelectric Project, Fairfield and Newberry Counties, South Carolina, Final Report* (C. Scott Smallwood, William Green, and Margaret Tillman, Terracon Consultants, Inc., Columbia, South Carolina, June 2016); and

**WHEREAS**, the APE for the Project includes those areas falling within the Project boundary of the Project’s two developments: the 511.2-megawatt (MW) Fairfield Pumped Storage Development, which impounds the 6,800-acre Monticello

Reservoir (upper reservoir); and the 14.88-MW Parr Shoals Development, which impounds the 4,400-acre Parr Reservoir (lower reservoir) on the Broad River and its tributaries between Henderson Island to the north and Hampton Island to the south; and, land around the powerhouses, dams, appurtenant facilities, and Project recreation sites, including a 300-acre recreation sub-impoundment (Recreation Lake) north of Monticello Reservoir. In total, approximately 15,637 acres are within the Project boundary; and

**WHEREAS**, the Commission has consulted with the South Carolina Department of Archives and History (hereinafter, “South Carolina SHPO”), pursuant to 36 C.F.R. section 800.14(b) of the Advisory Council on Historic Preservation’s (hereinafter, “Advisory Council”) regulations (36 C.F.R. Part 800) implementing section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) (hereinafter, “section 106”); and

**WHEREAS**, the Licensee has participated in the consultation and has been invited to concur in this Programmatic Agreement; and

**WHEREAS**, the U.S. Forest Service (hereinafter, “Forest Service”) manages lands within the Project boundary and has responsibilities for issuance of permits under the Archeological Resources Protection Act (16 U.S.C. 470aa to 470ll) (hereinafter, “ARPA”) to the Licensee for archaeological work on its lands; and

**WHEREAS**, the Forest Service has participated in the consultation and has been invited to concur in this Programmatic Agreement; and

**WHEREAS**, the Project may affect lands important to the Catawba Indian Nation and the United Keetoowah Band of Cherokee Indians in Oklahoma (hereinafter, “Tribes”) and the Tribes have participated in the consultation and have been invited to concur in this Programmatic Agreement; and

**WHEREAS**, the Commission will require the Licensee to implement the provisions of this Programmatic Agreement as a condition of issuing a new license for the Project; and

**NOW THEREFORE**, the Commission and the South Carolina SHPO agree that the Project will be administered in accordance with the following stipulations in order to satisfy the Commission’s section 106 responsibilities during the term of the Project’s license.

## **STIPULATIONS**

The Commission will ensure that, upon issuing a license for this Project, the Licensee implements the following stipulations. All stipulations that apply to the Licensee will similarly apply to any and all of the Licensee's successors. Compliance with any of the following stipulations does not relieve the Licensee of any other obligations it has under the Federal Power Act, the Commission's regulations, or its license.

### **I. HISTORIC PROPERTIES MANAGEMENT PLAN**

- A. Upon issuing a license for this Project, the Licensee will implement the HPMP.

### **II. DISPUTE RESOLUTION**

- A. If at any time during implementation of this Programmatic Agreement and the resulting HPMP, the Licensee, the South Carolina SHPO, the Tribes, the Forest Service, or the Advisory Council objects to any action or any failure to act pursuant to this Programmatic Agreement or the HPMP, they may file written objections with the Commission. In the event a written objection is filed with the Commission, the Commission will follow the steps listed below.
  - 1. The Commission will consult with the objecting party, and with other parties as appropriate, to resolve the objection.
  - 2. The Commission may initiate, on its own, such consultation to remove any of its objections.
- B. If the Commission determines that the objection cannot be resolved, the Commission will forward all documentation relevant to the dispute to the Advisory Council and request that the Advisory Council comment. Within 30 days after receiving all pertinent documentation, the Advisory Council will either:
  - 1. provide the Commission with recommendations, which the Commission will take into account in reaching a final decision regarding the dispute; or
  - 2. notify the Commission that it will comment pursuant to 36 C.F.R. sections 800.7(c)(1) through (c)(3) of the National Historic Preservation Act, and proceed to comment.

- C. The Commission will take into account any Advisory Council comment provided in response to such a request, with reference to the subject of the dispute, and will issue a decision on the matter. The Commission's responsibility to carry out all actions under this Programmatic Agreement that are not the subject of dispute will remain unchanged.

### **III. AMENDMENT AND TERMINATION OF THIS PROGRAMMATIC AGREEMENT**

- A. The Commission, the Licensee, the South Carolina SHPO, the Tribes, or the Forest Service may request that this Programmatic Agreement be amended, whereupon these parties will consult in accordance with 36 C.F.R. section 800.14(b) to consider such amendment.
- B. The Commission or the South Carolina SHPO may terminate this Programmatic Agreement by providing 30 days written notice to the other parties, provided that the Commission, the Licensee, the South Carolina SHPO, the Tribes, and the Forest Service consult during the 30-day notice period in order to seek agreement on amendments or other actions that would avoid termination. In the event of termination, the Commission will comply with 36 C.F.R. sections 800.3 through 800.7(c)(3), with regard to individual actions covered by this Programmatic Agreement.

Execution of this Programmatic Agreement, and its subsequent implementation, is evidence that the Commission has satisfied its responsibilities pursuant to section 106 of the National Historic Preservation Act, *as amended*, for all individual actions carried out under the license. Provided, however, that unless and until the Commission issues a license for the Project and this Programmatic Agreement is incorporated by reference therein, this Programmatic Agreement has no independent legal effect for any specific license applicant or Project.

**FEDERAL ENERGY REGULATORY COMMISSION**

By: \_\_\_\_\_

Vince Yearick, Director  
Division of Hydropower  
Licensing

Date: \_\_\_\_\_

**SOUTH CAROLINA DEPARTMENT OF ARCHIVES AND HISTORY**

By: \_\_\_\_\_

Date: \_\_\_\_\_

Elizabeth M. Johnson  
Deputy State Historic Preservation Officer

**CONCUR: SOUTH CAROLINA ELECTRIC & GAS COMPANY**

By: \_\_\_\_\_  
James Landreth, Vice President  
Fossil & Hydro Operations

Date: \_\_\_\_\_

**CONCUR: U.S. FOREST SERVICE**

By: \_\_\_\_\_  
John Richard Lint, Forest Supervisor

Date: \_\_\_\_\_

**CONCUR: CATAWBA INDIAN NATION**

By: \_\_\_\_\_  
Chief Bill Harris

Date: \_\_\_\_\_

By: \_\_\_\_\_  
Dr. Wenonah G. Haire, THPO

Date: \_\_\_\_\_

**CONCUR: UNITED KEETOOWAH BAND OF CHEROKEE INDIANS IN  
OKLAHOMA**

By: \_\_\_\_\_  
Chief Joe Bunch

Date: \_\_\_\_\_

By: \_\_\_\_\_  
Eric Oosahwee-Voss, THPO

Date: \_\_\_\_\_



February 21, 2017

Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street, N. E.  
Washington, D. C. 20426

Subject: South Carolina Electric & Gas Company  
Parr Hydroelectric Project  
FERC Project No. 1894 - 207  
RE: Draft Programmatic Agreement for the Parr Hydroelectric Project

Dear Secretary Bose:

South Carolina Electric & Gas Company (SCE&G), Licensee of the Parr Hydroelectric Project (FERC Project No. 1894 - 207), hereby files an electronic copy of its comments on the Federal Energy Regulatory Commission's Draft Programmatic Agreement dated February 1, 2017.

SCE&G appreciates the opportunity to review and provide comments on the draft Programmatic Agreement dated February 1, 2017 which was prepared by the Federal Energy Regulatory Commission. SCE&G does not have any suggested changes or comments regarding this document.

If you have any questions about this filing, please call Amy Bresnahan at (803) 217-9965.

Yours very truly,

A handwritten signature in blue ink that reads "William Argentieri". The signature is written in a cursive, flowing style.

William R. Argentieri, Manager of Civil Engineering  
Fossil Hydro Technical Services

Kimberly D. Bose  
Parr Hydroelectric Project, Project No. 1894 - 207  
RE: Draft Programmatic Agreement for the Parr Hydroelectric Project  
Page 2

AIB/ab

c: W. R. Argentieri/J. Landreth/J.H. Hamilton/File  
E. M. Johnson – SC SHPO  
J. F. Bates/R. Morgan – USFS  
J. Eddins – Advisory Council on Historic Preservation  
Chief J. Bunch – United Keetoowah Band of Cherokee Indians in Oklahoma  
E. Oosahwee-Voss, THPO - United Keetoowah Band of Cherokee Indians in  
Oklahoma  
Chief B. Harris – Catawba Indian Nation  
Dr. W. G. Haire, THPO – Catawba Indian Nation  
B. Green – Terracon Consultants, Inc.

**Dustin Wilson**

---

**From:** Johnson, Elizabeth <EJohnson@scdah.sc.gov>  
**Sent:** Monday, March 06, 2017 11:00 AM  
**To:** Dustin Wilson  
**Subject:** Project 1894-207 SC Parr Hydroelectric Project

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

FILED  
SECRETARY OF THE  
2017 MAR -7 A 9 22  
RECEIVED

Mr. Wilson:

We have received the draft programmatic agreement for the Parr Hydroelectric Project No. 1894-207.

We have reviewed the draft agreement and do not have any comments or requested changes.

Thanks for the opportunity to review the draft. Please let me know if you have any questions.

Elizabeth M. Johnson  
State Historic Preservation Office  
SC Department of Archives and History  
8301 Parklane Road  
Columbia, SC 29223  
ph: 803-896-6168 fax: 803-896-6167 <http://shpo.sc.gov>

Please note NEW email address: [ejohnson@scdah.sc.gov](mailto:ejohnson@scdah.sc.gov)

FEDERAL ENERGY REGULATORY COMMISSION  
WASHINGTON, D.C. 20426  
March 8, 2017

OFFICE OF ENERGY PROJECTS

Project No. 1894-207 – South Carolina  
Parr Hydroelectric Project  
South Carolina Electric & Gas Company

William Hendrix, Jr.  
18662 Newberry Road  
Blair, South Carolina 29015

**Reference: Request for Dispute Resolution**

Dear Mr. Hendrix:

In a letter filed on December 13, 2016, you requested that, pursuant to 18 C.F.R. section 4.38(b)(6), the Director, Office of Energy Projects resolve your dispute with South Carolina Electric & Gas (SCE&G) on a study you requested for the Parr Hydroelectric Project No. 1894-207 (project). SCE&G is developing an application to re-license the project using the Traditional Licensing Process. A license application is currently scheduled to be filed by May 31, 2018.

In your letter, you state that on June 9, 2015 you filed a Request for Study and Information regarding the establishment of the project boundary and that SCE&G has informed you that it does not intend to conduct the requested study. You allege that SCE&G acquired more land than was necessary to comply with the current license and that SCE&G carried the alleged error over to the Pre-Application Document (PAD) filed on January 5, 2015, by including land in its proposed project boundary that is not needed for the project. Therefore, you request that SCE&G conduct a study to determine the appropriate project boundary for the project.

As an initial matter, section 4.38(b)(6) provides an opportunity, before an application is filed, for resource agencies or Indian Tribes to request resolution of disputes regarding studies or information needs. There is no provision for a non-agency/tribe to make such a request.

As to your allegation that SCE&G purchased more land than was necessary to comply with the current license, the Commission has no authority to prohibit a licensee from obtaining the rights to land located outside of the licensed project

boundary. Instead, disputes between licensees and landowners concerning the acquisition of rights to land are state law matters for resolution in the appropriate forum.

Regarding project boundaries, the Commission's regulations at section 4.41(h)(2) stipulate the requirements for project boundary maps to be included in license applications. When the final license application is filed with the Commission for this project, staff will review the application, including the project boundary map(s) for adequacy and to assure that there is adequate information to evaluate what lands are necessary to be included within the project boundary for project purposes. This staff review will be based on the specific characteristics of the project, as described in the final license application, including its proposed operation, project facilities, and any proposed protection, mitigation, or enhancement measures.

If you have any questions, please contact Monte TerHaar at (202) 502-6035 or [monte.terhaar@ferc.gov](mailto:monte.terhaar@ferc.gov).

Sincerely,

Terry L. Turpin  
Director  
Office of Energy Projects

cc: Mailing List  
Public Files



March 9, 2017

Mr. Curtis Joyner, Manager, Coastal Zone Consistency Certification Section  
South Carolina Department of Health and Environmental Control  
Office of Ocean and Coastal Resource Management  
1362 McMillan Ave., Suite 400  
Charleston, SC 29405

Subject: South Carolina Electric & Gas Company  
Parr Hydroelectric Project (FERC No. 1894)  
Request for Determination of Consistency or Non-Applicability with South  
Carolina Coastal Zone Consistency Division, Pursuant to Coastal Zone  
Management Act

Dear Mr. Joyner:

South Carolina Electric & Gas Company (SCE&G) is the holder of the current license for the 526.08 MW Parr Hydroelectric Project (FERC No. 1894) (Project). The Project, which consists of the Parr Shoals Development and the Fairfield Pumped Storage Development, is located in Fairfield and Newberry counties, South Carolina, on the Broad River. SCE&G is currently relicensing the Project in accordance with the Federal Energy Regulatory Commission's (FERC) regulations under 18 CFR Part 5.0. The existing license for the Project is due to expire on June 30, 2020.

As you are aware, Section 307(c) (3) of the Coastal Zone Management Act (CZMA) requires that all federally licensed and permitted activities be consistent with approved state Coastal Zone Management Programs. The Office of Ocean and Coastal Resource Management (OCRM) has direct permitting authority over the "critical areas" of the coast, defined as coastal waters, tidelands, and beach/dune system. The OCRM also has indirect management authority of coastal resources throughout the eight coastal counties, defined as the "coastal zone." It is our understanding that South Carolina's coastal zone consists of coastal waters and submerged bottom seaward to the State's jurisdictional limits, as well as the lands and waters of the eight coastal counties, including Horry, Georgetown, Berkeley, Charleston, Dorchester, Colleton, Beaufort, and Jasper (Policies and Procedures of the South Carolina Coastal Management Program, updated July 1995).

Given this description, it appears that the Project is well outside of the South Carolina coastal zone, and that continued Project operations would subsequently not affect South Carolina's coastal zone. As such, SCE&G is herein requesting the Department's concurrence on this matter.

Curtis Joyner

Request for Determination of Consistency or Non-Applicability with South Carolina Coastal  
Zone Consistency Division, Pursuant to Coastal Zone Management Act

Page 2

We would appreciate your review and written determination on the Project at your earliest convenience via hardcopy mail and/or electronic mail. For all correspondence, please contact:

William R. Argentieri  
South Carolina Electric & Gas Company  
220 Operation Way, MC A221  
Cayce, SC 29033 – 3701  
(803)217-9162  
[bargentieri@scana.com](mailto:bargentieri@scana.com)

To assist you with this determination I have included a map of the Project location in relation to the State CZMA. Should you have any questions concerning this request, please call me at your convenience at (803)217-9162.

Yours very truly,

A handwritten signature in blue ink that reads "William Argentieri". The signature is fluid and cursive, with the first name "William" and last name "Argentieri" clearly legible.

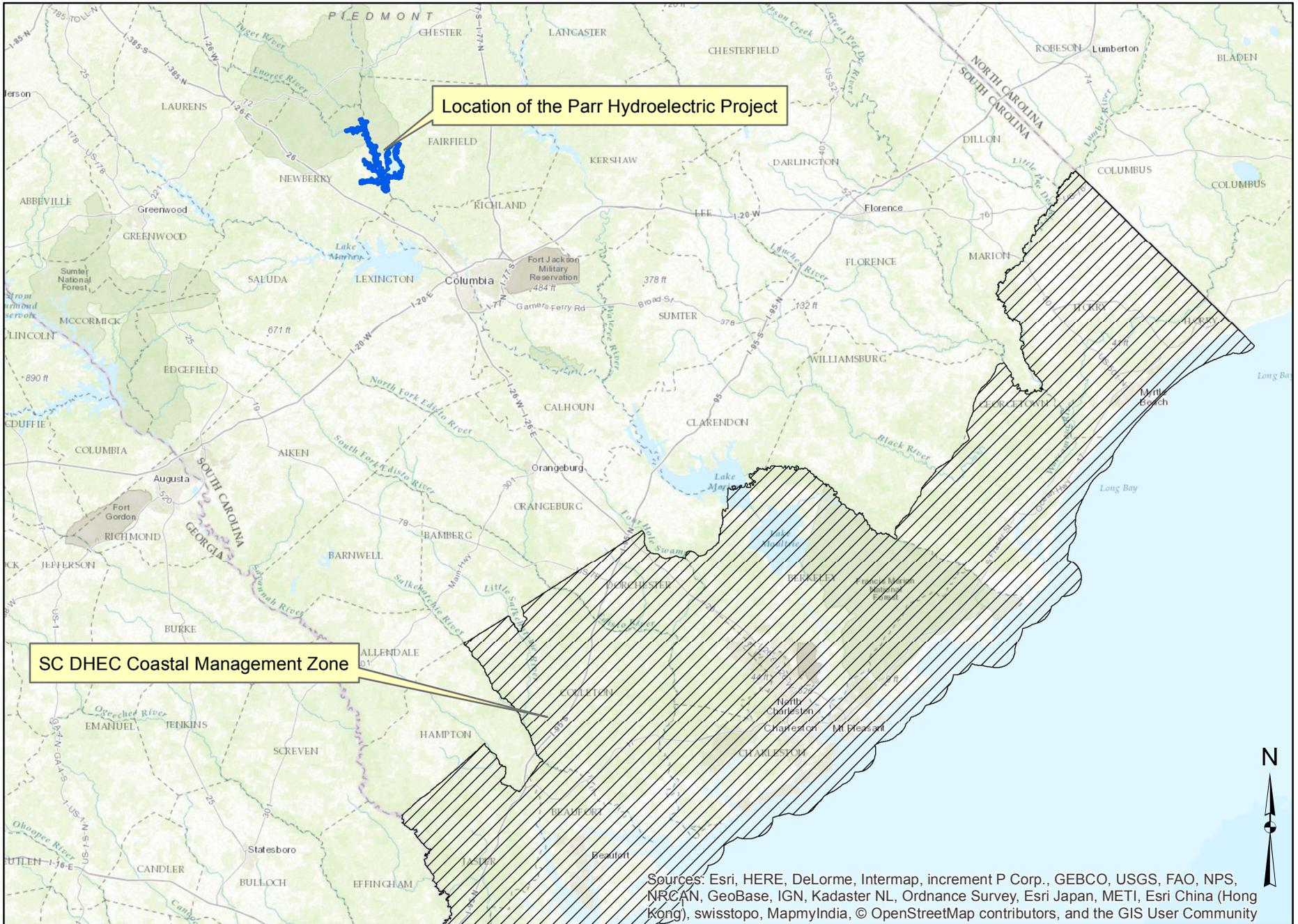
William R. Argentieri, Manager of Civil Engineering  
Fossil Hydro Technical Services

AIB/ab

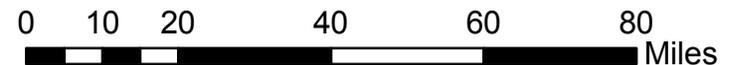
Enclosure

c: H. E. Delk/W. R. Argentieri/PH File

# Parr Hydroelectric Project, FERC Project No. 1894



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community





March 16, 2017

Mr. William R. Argentieri  
South Carolina Electric & Gas Company  
220 Operation Way, MC A22 1  
Cayce, SC 29033 - 3701

Re: South Carolina Electric & Gas Company, Parr Hydroelectric Project (FERC No. 1894), Request for Determination of Consistency or Non-Applicability with South, Carolina Coastal Zone Consistency Division, Pursuant to Coastal Zone Management Act

Dear Mr. Argentieri:

This is in response to your letter dated March 9, 2017, in which notification was provided to the South Carolina Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management (SCDHEC OCRM) that South Carolina Electric & Gas Company (SCE&G) as the holder of the current license for the 526.08 MW Parr Hydroelectric Project (FERC No. 1894) (Project) and is seeking consistency with the S. C. Coastal Zone Management Act. The Project, which consists of the relicensing of the Parr Shoals and the Fairfield Pumped Storage Developments, are located along the Broad River in Fairfield and Newberry Counties, South Carolina. The existing license for the Project is due to expire on June 30, 2020.

This is to inform you that Coastal Zone Consistency staff has determined the required FERC relicensing will not cause spillover effects to coastal resources given the sites are located well outside of South Carolina's Coastal Zone (consisting of the eight coastal counties). In addition, the review of the enforceable policies contained within the SC Coastal Zone Management Program also furthers the determination of non-applicability in that there will be no spillover effects to coastal resources.

This letter will serve as the Agency's consistency determination and does not alleviate the SCE&G from the responsibility of obtaining other required local, state or federal approvals for the relicensing. Please do not hesitate to contact me should you have any questions.

Sincerely,

Curtis M. Joyner  
Manager, Coastal Zone Consistency Section, SCDHEC OCRM  
1362 McMillan Avenue, Suite 400  
Charleston, SC 29405  
843-953-0205  
[joynercm@dhec.sc.gov](mailto:joynercm@dhec.sc.gov)

cc: Rheta DiNovo, SCDHEC OCRM