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May 24, 2007

VIA ELECTRONIC FILING

Kimberly D. Bose Secretary Federal Energy Regulatory Commission 888 First Street, N.E. Washington, D.C. 20426

RE: South Carolina Public Service Authority; Submittal of Final Relicensing Settlement Agreement for the Santee Cooper Project No. 199

Dear Secretary Bose:

Enclosed for filing in this proceeding is a copy of the final Relicensing Settlement Agreement for the Santee Cooper Project – FERC No. 199 ("FSA"). The FSA, which has an effective date of May 21, 2007, and which was executed by the South Carolina Public Service Authority ("SCPSA"), the United States Fish and Wildlife Service, and the South Carolina Department of Natural Resources (collectively, "Parties"), resolves Federal Power Act ("FPA") § 4(e) and § 18 issues, and FPA § 10(a) and § 10(j) issues related to diadromous fish management and instream flow that have or could have been raised by the Parties thereto, in connection with the Commission's issuance of a new license to SCPSA for the Santee Cooper Project No. 199.

Pursuant to Section III F of the FSA, the Parties, no later than 45 days after the effective date of the FSA, will file the FSA with the Commission as an Offer of Settlement pursuant to Rule 602 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.602).

WINSTON & STRAWN LLP

Kimberly D. Bose May 24, 2007 Page 2

Respectfully submitted,

John A. Whittaker, IV

ATTORNEY FOR SOUTH CAROLINA PUBLIC SERVICE

a a. Whiteher I

AUTHORITY

(on behalf of the Parties)

cc: Service List for P-199

RELICENSING SETTLEMENT AGREEMENT for the SANTEE COOPER PROJECT - FERC No. 199

I. INTRODUCTION and RECITALS

The Parties to this Settlement Agreement (Agreement), dated this 21st day of May 2007, are the Fish & Wildlife Service, United States Department of the Interior ("FWS"), the South Carolina Public Service Authority ("SCPSA" or "Licensee") and the South Carolina Department of Natural Resources ("SCDNR"). The signatories to this Agreement may be referred to collectively as the "Parties".

SCPSA is the owner and operator of the Santee Cooper Hydroelectric Project, FERC No. 1992(Project), which includes Santee Dam and its impoundment Lake Marion on the Santee River, and the Pinopolis Dam and its impoundment Lake Moultrie on the Cooper River. The Project structures consist of the Santee Dam, Pinopolis Lock and Dam, the Diversion Canal, the Santee Spillway Hydroelectric Station, and the Jefferies Hydroelectric Station and Lock. Santee Cooper Project operations are conducted in conjunction with the United States' St. Stephen Hydroelectric Project, which is operated in accordance with the terms of Contract No. DACW60-77-C-005 between the United States and SCPSA. Portions of the Santee National Wildlife Refuge are located within the Project boundary on lands leased to the FWS by the Licensee.

II. AGREEMENT

A. <u>Purpose of the Agreement</u>. The Parties have entered into this Agreement for the purpose of resolving Federal Power Act (FPA) Sections 4(e) and 18 issues, and FPA Sections 10(a) and 10(j) issues related to diadromous fish management and instream flow, that have or could have been raised by the Parties in connection with the issuance of a Federal Energy

Regulatory Commission (FERC) order issuing a New License for the Project. This Agreement establishes the obligations of SCPSA with respect to the matters addressed therein under the above-referenced sections of the FPA under the New License as set out in the Revised § 18 Fishway Prescription and the Proposed Articles, all as set out in Appendices A, B, and C, attached hereto and incorporated herein.

- B. Fairness. The Parties agree that this Agreement is fair, reasonable and in the public interest in that it achieves a reasonable resolution of certain issues posed by the relicensing of the Project. The Parties also agree that the schedule set forth in the Revised § 18 Fishway Prescription, set out in Appendix A and implemented by this Agreement, is a reasonable time necessary to address project impacts to aquatic resources in a safe, appropriate, and effective manner.
- C. St. Stephen Hydroelectric Project. The Parties specifically agree that relicensing the Project in accordance with the terms of this Agreement will achieve a carefully considered balance between maintaining the energy production, ecological and recreational values of the Project while mitigating for the Project's impacts on the natural environment, and while enhancing and protecting impacted resources. SCPSA agrees that its obligations established in this Agreement are not in conflict with the requirements of its contract with the United States with regard to the St. Stephen Hydroelectric Project and that compliance with that contract will not affect SCPSA's compliance with this Agreement.
- D. <u>Effective Date</u>. This Agreement shall become effective on the date on which it has been signed by FWS, SCPSA and the SCDNR (the "Effective Date").

- Except where expressly noted to the contrary in this Agreement, by entering into this Agreement, the FWS, SCDNR and SCPSA represent that they believe: (i) the Revised § 18 Fishway Prescription as set out in Appendix A, attached hereto, and the conditions identified for inclusion in the new license in attached Appendices B and C, satisfy the requirements of the Parties with respect to the matters addressed therein relating to the jurisdiction of FERC for the relicensing and continued operation of the Project with respect to the protection, mitigation, and enhancement of natural resources affected by the Project, and (ii) their statutory and other legal obligations are, or can be, met through implementation of this Agreement and the provisions of Appendices A, B, and C.
- F. <u>Best Available Information and Section 4(e)</u>. This Agreement is based on the best information available to the Parties, including the data and information contained in the FERC record and available through the Section 241 Energy Policy Act process and the Parties agree that this Agreement is adequately supported by such data and information. The FWS believes that the License Articles identified in Appendices B and C of this Agreement for inclusion as conditions in the New License are consistent with Section 4(e) of the FPA and adequately provide for the protection and utilization of the Refuge lands affected by the Project. The FWS and SCPSA disagree as to whether section 4(e) applies in this case and the Parties agree that nothing in this Agreement is intended to resolve that issue.
- G. <u>FERC and Other Agency Filings</u>. Except as to the receipt of new information not actually known to the FWS or the SCDNR on the Effective Date of this Agreement, the following agreements are made: (a) FWS and SCDNR agree that any recommendations, conditions, and/or prescriptions that the FWS or the SCDNR may file with FERC pursuant to the

FPA, shall be consistent with Appendices A, B and C to this Agreement; (b) FWS and SCDNR agree that any supplemental information, comments or responses to comments filed by the FWS or the SCDNR with FERC in the context of this relicensing process will be consistent with this Agreement; (c) FWS and SCDNR agree to support SCPSA's efforts in obtaining a FERC order approving this Agreement and issuing a New License consistent with this Agreement in a timely manner; and (d) FWS and SCDNR agree that they will support, in all relevant regulatory proceedings in which they participate, regulatory actions consistent with the Agreement.

- H. Obligations Under Other Laws. Nothing in this Agreement is intended or shall be construed to affect or limit either the FWS or the SCDNR from complying with their respective obligations under applicable laws and regulations or from considering and responding to comments received in any environmental review or regulatory process related to the Project in accordance with the Agreement. This Agreement shall not predetermine the outcome of any environmental or administrative review or appeal process.
- I. FERC and Other Filings by SCPSA. Except as expressly noted to the contrary in this Agreement, SCPSA supports and endorses the inclusion and implementation of the requirements set out in Appendices A, B and C, attached to this Agreement, as terms to be included as the § 18 Fishway Prescription and as License Articles in the New License. SCPSA agrees (a) that any supplemental information, comments or responses to comments filed by SCPSA with FERC will, in the context of this relicensing process be consistent with this Agreement, (b) to use reasonable efforts to obtain a FERC order issuing the New License consistent with this Agreement in a timely manner; and (c) to support, in all relevant regulatory proceedings in which it participates, regulatory actions consistent with this Agreement.

- J. FWS' Authority under the Federal Power Act. Except as to the receipt of new information not known to it on the Effective Date, the FWS intends and agrees that any conditions, prescriptions, or recommendations submitted to FERC in connection with the issuance of the New License will be consistent with this Agreement. The FWS reserves its authority pursuant to Section 4(e) of the FPA, to the extent, if any, it may be applicable, but agrees that it will not exercise this authority unless this Agreement is not filed with FERC, the Licensee fails to implement any material provision of this Agreement, or if the New License, either initially or following conclusion of appeals, contains any material modification of the measures contained in this Agreement, or if the New License fails to include any of the measures identified in this Agreement for inclusion in the New License.
- K. Inclusion of Reservation of Authority. In the event that the FWS includes a reservation of authority under any statute in the final conditions, recommendations or prescriptions that it submits to FERC, and the reservation(s) of authority is included as a condition of the New License, the inclusion of such reservation(s) shall not be considered to be materially inconsistent with the Agreement, provided that SCPSA shall be deemed to have reserved the right to contest the exercise of such reserved authority at any time in the future.

III. SUBMISSION OF AGREEMENT TO FERC

A. Withdrawal of Prescription and Substitution of Appendix A. Within three (3) business days of the Effective Date of this Agreement, the Parties shall file this Agreement with the FERC. It is the intent and agreement of the FWS that the Preliminary Section 18 Prescriptions for Fishways portion of the Section 18 Preliminary Prescriptions for Fishways and Section 4(e) Terms and Conditions, filed by FWS on May 8, 2006, pages 21 - 30, shall be, and hereby are, withdrawn, and that Appendix A, Revised § 18 Fishway Prescription, attached hereto

and incorporated herein, is filed in replacement of the withdrawn pages. It is the intent of the Parties that Appendix A is to be included in the New License as the Section 18 fishway prescription and as Articles in the New License.

- B. Withdrawal of Section 4(e) Conditions. It is the intent and agreement of the FWS that the Preliminary 4(e) Conditions for the Refuge portion of the Section 18 Preliminary

 Prescriptions for Fishways and Section 4(e) Terms and Conditions, filed on May 8, 2006, pages:

 31-33, shall be, and hereby are, withdrawn.
- C. Appendices B and C. The Parties agree and request that, except where expressly noted to the contrary in this Agreement, the conditions identified for inclusion in the New License in Appendices B and C, attached hereto and incorporated herein, be included as Articles in the New License.
- D. Withdrawal of Alternative Conditions and SCPSA Support of Appendices. Within two (2) days of the filing of the Agreement with the FERC, SCPSA shall withdraw the proposed alternative prescriptions and conditions it submitted to FWS on June 7, 2006, and shall advise FERC, in writing, that it supports the inclusion in its New License of the Revised Section 18 Fishway Prescription and proposed New License conditions as set out in Appendices A, B, and C, attached hereto, and will request that the FERC approve and incorporate into the New License, without modification, all of those proposed New License conditions as set forth in the attached Appendices A, B, and C, except where expressly noted to the contrary in this Agreement.
- E. <u>License Term</u>. Provided that the Proposed License Articles set out in Appendix B are incorporated into the New License without material modification, the FWS and SCDNR support issuance of the New License for the Project for a term of fifty (50) years.

F. Offer of Settlement Filing. Within 45 days of the Effective Date of this Agreement the Parties will file it as an Offer of Settlement with the FERC pursuant to Rule 602 of its Regulations.

G. Withdrawal Prior to License Issuance.

- (1) In the event that the FWS, prior to the issuance of a New License, finds it necessary, pursuant to its statutory authorities, to submit to FERC mandatory conditions that are materially inconsistent with the conditions set forth in Appendices A, B and/or C of this Agreement, SCPSA or the SCDNR may withdraw from this Agreement after giving written notice to the other Parties together with a written explanation for its position that the conditions so submitted are materially inconsistent with the terms and conditions of this Agreement.
- (2) In the event that any other federal or state agency with mandatory conditioning authority, pursuant to its authorities under such statutes as the Clean Water Act or the Endangered Species Act, submits final mandatory conditions for instream flows that are materially higher than the instream flow conditions set forth in Paragraphs A and B of Appendix B of this Agreement, SCPSA may, after giving written notice to all the Parties together with an explanation for its position that the conditions so submitted are materially higher, withdraw from its commitment under Appendix B with respect to the establishment of the Santee Basin Fisheries Enhancement Fund. In all other respects the commitments of SCPSA and of the Parties under the remaining provisions of this Agreement shall not be affected. SCPSA agrees that it will pursue all reasonable administrative and judicial remedies to oppose such "materially higher" flows, including, but not limited to, requests for rehearing and petitions for judicial review and, in the event SCPSA is successful in restoring the agreed upon Appendix B flows as

conditions of the New License, it will promptly proceed with the establishment of the Santee Basin Fisheries Enhancement Fund pursuant to Paragraph D of Appendix B.

H. <u>Issuance of Inconsistent New License</u>. In the event that the FERC issues a New License for the Project containing license conditions that are materially inconsistent with this Agreement, then the Parties shall discuss whether the conditions of the New License are acceptable to the Parties. If the conditions of the New License are not acceptable to any of the Parties, that Party may seek administrative rehearing of the materially inconsistent license condition and may pursue all available judicial and administrative remedies or take any other action allowed by law concerning the inconsistent condition.

IV. MISCELLANEOUS

- A. Entire Agreement. This Agreement, with its attached and incorporated Appendices

 A, B, and C, sets forth the entire Agreement of the Parties concerning the matters enumerated within.
- B. Modifications. During the term of the New License, except as provided in this Agreement, a Party may not seek to modify or add to the obligations of a Party or seek to amend the New License pursuant to standard FERC reopener provisions, except in the event of materially changed factual circumstances (including, but not limited to, new listings of threatened or endangered species under the ESA) from facts not known or understood at the date of the New License, or as a result of statutes or regulations enacted or amended after the date of the final order issuing the New License, or new technology or studies which provide for more effective fishway passage or mitigation measures. The Party seeking to amend the New License shall provide the other Parties at least 90 days notice to consider the modifying Party's position. The modifying Party shall not be required to comply with this 90-day-notice provision if it

believes an emergency situation exists, or if required to meet its responsibilities under statutes or regulations enacted or amended after the date of the final order issuing the New License.

- C. <u>Limitations</u>. This Agreement establishes no principle or precedent with regard to any issue addressed in this Agreement or with regard to any Party's participation in any other pending or future licensing proceeding. By entering into this Agreement, no Party shall be deemed to have made any admission or waived any contention of fact or law that it did make or could have made in any FERC proceeding relating to the issuance of the New License. This Agreement shall not be offered in evidence or cited as precedent by a Party to this Agreement in any judicial litigation, arbitration, or other adjudicative proceeding, except in a proceeding to establish the existence of or to enforce or implement this Agreement.
- D. <u>Paragraph Titles for Convenience Only</u>. The titles to the paragraphs in this

 Agreement have been placed there only for the convenience of the reader and are not intended to reflect any agreement or commitment of any of the Parties.
- E. Settlement Negotiations Confidential. The Parties entered into the negotiations and discussions leading to this Agreement with the explicit understanding that, to the extent allowed by law, all discussions relating to the development to this Agreement were and would continue to be confidential. Positions advanced or discussed by the Parties during negotiation of the Agreement shall not be used by either Party in any manner, including admission into evidence, in connection with the Agreement, or in any other proceedings related to the subject matter of this Agreement, except to the extent disclosure may be required by law.
- F. <u>Successors, Transferees and Assigns</u>. This Agreement shall be binding on the successors, transferees and assigns of each of the Parties.

G. Notices. Notices in connection with matters under this Agreement shall be addressed,

to:

FWS

Sam D. Hamilton, Regional Director Southeast Region U.S. Fish and Wildlife Service 1875 Century Blvd., Suite 400 Atlanta, GA 30345

With a copy to:

Amanda Hill Fisheries Biologist U.S. Fish and Wildlife Service 176 Croghan Spur Road, Suite 200 Charleston, SC 29407

SCPSA

Lonnie N. Carter President & CEO Santee Cooper One Riverwood Drive Moncks Corner, SC 29461

With a copy to:

John C. Dulude Manager, FERC Relicensing Santee Cooper One Riverwood Drive Moncks Corner, SC 29461

SCDNR

John E. Frampton
Director
South Carolina Department of Natural Resources
1000 Assembly Street
P.O. Box 167
Columbia, SC 29202

With a copy to:

Robert E. Duncan
Environmental Program Director
South Carolina Department of Natural Resources
P.O. Box 12559
Charleston, SC 29422-2559

- H. Agency Appropriations. Nothing in this Agreement shall be construed as obligating any federal or state agency to expend in any fiscal year any sum in excess of appropriations made by Congress or a state legislature or administratively allocated for the purpose of this Agreement for the fiscal year or to involve any federal agency in any contract or obligation for the future expenditure of money in excess of such appropriations or allocations.
- I. <u>Severability</u>. This Agreement is intended to be severable. If any term, covenant, condition or provision hereof is found by a court of competent jurisdiction to be illegal, invalid or unenforceable for any reason whatsoever, such illegality, invalidity or unenforceability shall not affect the legality, validity or enforceability of the remaining parts of this Agreement.
- J. Water Rights Unaffected. This Agreement does not grant or affirm any property right, license, or privilege to SCPSA in any waters of the State of South Carolina or in right of use of waters of the State of South Carolina. This Agreement does not authorize SCPSA to interfere with the riparian rights, littoral rights or water use rights of any other person.
- K. Waiver. Failure by any Party to insist upon or otherwise call upon other Parties to account for the strict performance of any term or covenant of this Agreement, or of any right under this Agreement, shall not be a continuing waiver. To be effective, a waiver must be in writing.
- L. Remedies. If SCPSA fails to comply with a License Article set forth in Appendices A, B, and C, the FWS and/or SCDNR may petition or otherwise request FERC to enforce the

License Article with which SCPSA is alleged to have failed to comply. If FERC affirmatively declines to enforce a License Article set forth in Appendices A, B, and C, or fails to act within a reasonable time after a petition or request to enforce has been filed, then FWS and/or SCDNR may file with FERC a petition for rehearing regarding the alleged failure and/or pursue any further remedies, including judicial review. If any Party fails to comply with a term or covenant of this Agreement that is not incorporated into the New License, any Party so aggrieved by such failure may bring an action in a court of competent jurisdiction for such remedies as may be available; provided that SCDNR shall not be liable for any damages at law for any breach of this Agreement.

M. <u>Dispute Resolution</u>. Should any dispute arise concerning any term, covenant or right within this Agreement, the Parties agree to engage in good faith negotiations for a period of at least forty-five (45) working days in an effort to resolve the dispute. During this forty-five day period, any disputing Party may request the services of a mediator to assist in resolving the dispute. If mediation is acceptable to all of the disputing Parties, such mediator shall be jointly agreed upon by them. Subject to the provisions of Part IV H. hereof, the cost of a mediator's services shall be borne equally among the disputing Parties.

N. Execution. This Agreement may be executed in any number of counterparts and each executed counterpart shall have the same force and effect as an original instrument. Any signature page of this Agreement may be detached from any counterpart of this Agreement without impairing the legal effect of any signatures(s) thereon.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed, to be effective on the date (the "Effective Date") that each of the FWS, SCPSA and the SCDNR will have signed.

FISH AND WILDLIFE SERVICE, UNITED STATES DEPARTMENT OF THE INTERIOR

By: Some D. Ham How

Date: May/8, 2007

Sam D. Hamilton/ Regional Director Southeast Region

SOUTH CAROLINA PUBLIC SERVICE AUTHORITY

By: Jonnie Cartin

Date: May 21, 2007

Lonnie N. Carter President & CEO

SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES

Date: May 18, 2007

John E. Frampton Director

SECTION 18 PRESCRIPTIONS FOR FISHWAYS

I. GENERAL TERMS AND CONDITIONS FOR FISHWAYS

To ensure the immediate and timely contribution of the proposed fishways as mitigation for the continuing adverse Project effects on diadromous fisheries resources of the Santee River Basin, the following measures are included and shall be incorporated in the Project license to ensure the effectiveness of the fishways pursuant to Section 1701(b) of the 1992 National Energy Policy Act (P.L. 102-0486, Title XVII, 106 Stat. 3008).

- A. Fishways shall be constructed, operated, and maintained to provide safe, timely, and effective passage for American shad, blueback herring, and American eel ("target species") at the licensee's expense consistent with the detailed prescriptions for each dam in the following sections.
- B. Fishways shall be fully operational as consistent with the phased schedule set out in the detailed prescriptions for each dam in the following sections, so that continuing impacts of the Project may be mitigated and benefits of passage improvements realized as soon as practicable. Phased prescriptions for each dam consist of individual construction and implementation schedules unique to that facility. The FWS reserves the authority to defer the timing of construction and/or implementation of fishways based on new information that may warrant a change to prescription schedules such as any results from studies or monitoring, changes to the St. Stephen fish lift facility, or changes to recreational or

commercial fishing regulations, or petitions from the Licensee for an extension that are approved by the FWS. The licensee shall (1) notify, and (2) obtain approval from the FWS for any modifications to schedules or extensions of time to comply with the provisions included in the prescription for fishways. A detailed fishway design and construction schedule, including fishway attraction flows, shall be developed in consultation with the FWS.

C. Fishways shall be maintained and operated, at the Licensee's expense throughout the upstream and downstream migration periods for the target species. The migration periods for diadromous target species are as follows, subject to change based on annual monitoring of fish runs:

Target Species	Migration Season
I MI KOL DIPOCIOS	wing anon ocason

American shad February 15 – May 1
Blueback herring February 15 – May 15
American eel To be determined through monitoring

D. The Licensee shall keep all Santee Cooper fishways in proper order and shall keep fishway areas clear of trash, logs, and material that would hinder passage.
Anticipated maintenance shall be performed sufficiently before a migratory period such that the fishways can be tested and inspected, and will operate

effectively prior to and during the migratory periods. In consultation with the FWS and the South Carolina Department of Natural Resources (SCDNR), the Licensee shall develop an Operation and Maintenance Plan for each fishway describing the anticipated operational protocols, maintenance, a maintenance

schedule, and contingencies. The Plans shall be submitted to the FWS and

- SCDNR for final review and approval. Upon such approval, the Plans shall be submitted to the Commission.
- E. The Licensee shall provide personnel of the FWS and SCDNR access to the Project site and to pertinent Project records for the purpose of inspecting the fishway, as needed, to determine compliance with the fishway prescriptions and for general evaluation and overview observations.
- F. The Licensee shall develop in consultation with FWS and SCDNR, and submit for approval to the FWS all functional and final design plans, construction schedules, and any hydraulic model or other studies for the fishways described herein to ensure timely implementation of prescribed fishway facilities and operations.
- G. The Licensee shall develop plans and schedules, and conduct fishway effectiveness evaluations in consultation with FWS and SCDNR on both upstream and downstream facilities for three fish passage seasons consistent with the detailed prescriptions for each dam in the following sections. Additional seasonal sampling may be necessary depending on unforeseen circumstances such as weather conditions. The plans and results of effectiveness studies shall be submitted to FWS for approval in consultation with the SCDNR prior to being filed with the Commission. If the Licensee disagrees with SCDNR and/or FWS on the results of the effectiveness studies, it may provide an explanation in its filing with the Commission.

II. SANTEE DAM -- PHASE ONE - Prescription for Passage of Diadromous Fish A. Upstream Passage

- 1. The Licensee shall fund and implement in the first year after license issuance an annual Baseline Population Monitoring Study at its own expense in consultation with and approved by the FWS in coordination with SCDNR. The Baseline Population Monitoring Study shall include a scientifically sound assessment of the annual American shad and herring spawning run (population) size in the 37 mile bypass reach below the Santee Dam. The Monitoring Study will continue for a minimum of three years and up to five years, as determined by the FWS in coordination with SCDNR. Fish captured during the intensive monitoring shall be transported above the Santee Dam as directed by the FWS in coordination with the SCDNR and this shall constitute the first phase of upstream passage. The Licensee shall provide annual written reports of sampling results to the FWS and the SCDNR no later than six months after the close of each sampling season (generally May).
- 2. American Eel Study: The Licensee shall conduct an Experimental Eel Sampling Study at the Santee Dam for two years beginning with license issuance to aid in determining the best eel fishway location and operational period. A study plan shall be submitted to the FWS and SCDNR for review within 3 months of license issuance. Initial eel trapping will continue on a monthly basis for at least the first sampling year, as determined by FWS in coordination with SCDNR. The Licensee

shall submit a Study Completion Report, with appropriate scientific analysis of sampling data, to the FWS and SCDNR no later than six months after the close of the two year sampling period.

III. SANTEE DAM-PHASE TWO - Prescription for Passage of Diadromous Fish

- A. The Licensee, at its own expense, shall construct and operate a Trap and Sort Facility approved by the FWS and in coordination with the SCDNR at the Santee Dam. The Facility shall be operational no sooner than 6 years nor later than 8 years after the New License is issued. Fish sorted from the facility will be transported immediately upstream of the Santee Dam. The Licensee shall submit to FWS for approval the design capacity, the schedule for development of functional designs, and the timing of construction.
- B. The Licensee, at its own expense, shall install and operate an American eel fishway at the dam by year 3 of the license order at locations and consistent with designs as determined by the FWS in coordination with SCDNR after review of the Eel Sampling Study Completion Report.
- C. The Licensee shall conduct an Effectiveness Evaluation of the eel fishway for three years after construction and operation in consultation with and approval of the FWS and in coordination with SCDNR.

IV. SANTEE DAM -- PHASE THREE -- Prescription for Passage of Diadromous Fish

A. Upstream Passage

The Licensee, at its own expense, shall construct and operate a Fish Lift 1. Facility at Santee Dam no sooner than 3 years nor later than 5 years after the design capacity of the Trap & Sort Facility has been reached, as determined by FWS and SCDNR in accordance with Section III. A of this Appendix A. The fishway shall operate concurrently with the St. Stephen and Pinopolis Lock facilities to achieve optimum passage effectiveness under the full range of basin inflow conditions. A Monitoring and Effectiveness Evaluation Study shall be developed by the Licensee in consultation with SCDNR, approved by the FWS and shall be implemented subsequent to construction of the fish lift. Conceptual design drawings and plans for the Fish Lift Facility shall be completed in consultation with and approved by the FWS at the same time as design of the Trap and Sort Facility is finalized in order to ensure that an efficient and economical transition occurs to a safe and effective Fish Lift facility once the Trap and Sort Facility has reached its design capacity.

Table I. Upstream Passage Operational Phases for Target Species at Santee Dam (following license order)

Di in Diana	Description	Implementation
Planning Phase Phase I.	Initial Diadromous Fish Capture and Transport* Baseline Diadromous Fish Monitoring Program	Begin Year 1 3-5 year duration
	Eel Fishway Study	Year 1-3
Phase II.	Operation of Trap and Sort Facility/Operation.	Operation begins no sooner than 6 years nor later than 8 years after the new license is issued.
	Effectiveness Evaluations	3 years
	Eel Fishway fully operational	No later than Year 3
Phase III.	Construct and Operate Fish Lift Facility	Operational no sooner than 3 years nor later than 5 years after Phase II facility enpacity reached**

^{*} Initial capture, transport, passage monitoring program to be designed and approved by FWS, and SCDNR in coordination with SCPSA prior to January 1 of the first year after new license order.

B. Downstream Passage

1. The Licensee shall conduct a Downstream Passage Evaluation Study, beginning no later than six months following license order that includes consideration of survivability of out-migrating target species (American shad, blueback herring, American eel). The study will be performed for 3 passage seasons. Alternatives to be evaluated include: 1) installation of fish friendly turbines; 2) the use of behavioral devices, 3) the installation of bar racks or other protection devices; 4) the use of spill and/or the shut

^{**} To be determined by FWS based on capacity and effectiveness evaluation for the Phase II Trap and Sort operation.

down of operations during portions of the out-migration seasons; 5) the use of a multilevel bypass and discharge conduit with an operating flow to pass downstream migrants to the tailwater pool. The evaluation should include an analysis of the effectiveness of each alternative for moving out-migrating target species, the cost of each alternative, and the impacts of each alternative on installed capacity and energy generation. The evaluation shall include desk-top research and site-specific testing of alternatives. The evaluation shall be submitted to the FWS and SCDNR for review within six months of study completion.

- 2. The Licensee shall install and/or implement in year five of the issued license those measures and designs determined appropriate by the FWS to increase the survivability of the out-migrating target species after review of the Phase III Downstream Passage Evaluation Study results.
- 3. The Licensee shall develop and conduct an Effectiveness Evaluation, for three years after construction and operation, of the downstream passage facilities or measures required above in coordination with and approved by the FWS.

V. PINOPOLIS LOCK -- PHASE ONE -- Prescription for Passage of Diadromous Fish

A. Upstream Passage

 The Licensee, at its own expense and in consultation with SCDNR, shall install a hydro-acoustic fish monitoring system, or other equivalent technology approved by FWS, in the Lock to be operational no later than 1 year after license order.

- 2. The Licensee shall provide an attraction flow, approved by the FWS, at the navigation lock entrance with downstream lock gates in mitered position during the fish passage cycle. The efficacy of the attraction flow will be evaluated during the Upstream Passage Effectiveness Evaluation of the Lock, as described in number 4 below.
- 3. The Licensee shall develop a Passage Operations Plan in coordination with the agencies and submitted for FWS and SCDNR review within one year after the license issuance. The Plan shall optimize the combined purposes of upstream passage for target species (American shad, herring, American eel), power generation, safety and navigation, and shall include timing and daily number of lock operations, initial turbine operations needed for upstream passage for target species (shad, herring, and American eel), and alternative methods to facilitate fish locking operations during periods of high winds and waves on Lake Moultrie.
- 4. The Licensee shall, within six months of license issuance, in consultation with and subject to the approval of FWS, and in coordination with the SCDNR, develop a study plan to evaluate the effectiveness of upstream passage through the Lock for target species. The Licensee shall conduct

the Upstream Passage Effectiveness Evaluation of the Lock, beginning in the first full spawning season after the plan is approved by the agencies and continue during the first three years of operation under the Passage Operations Plan described in (3) above.

5. The Licensee shall conduct an Experimental Eel Sampling Study at the Pinopolis Lock and Dam for two years beginning with license issuance to aid in determining the best eel fishway location and operational period. A study plan shall be submitted to the FWS and SCDNR for review within three months of license issuance. Initial eel trapping will continue on a monthly basis for at least the first sampling year, as determined by FWS in coordination with SCDNR. The Licensee shall submit a Study Completion report, with appropriate scientific analysis of sampling data, to the Agencies no later than six months after the close of the two year sampling period.

B. Downstream Passage

1. The Licensee, at its own expense, shall conduct a site-specific

Confirmatory Survival Study for out-migrating target species at the

Pinopolis Lock and Jefferies Hydro Station to be completed by the end of
the second year after the license order. The Licensee shall provide the

FWS and SCDNR with a study report within six months after study
completion. The Confirmatory Survival Study shall include a mark-

recapture and/or a balloon test, and/or other method approved by the FWS in coordination with SCDNR. The study will be designed to evaluate the turbine passage survival percentages set forth in Appendix 54 of the Licensee's application for new license and provide for development of the best available and effective downstream passage design and operations.

VI. PINOPOLIS LOCK -- PHASE TWO -- Prescription for Passage of Diadromous Fish

A. Upstream Passage

- The Licensee, at its own expense, shall implement, within six months after submittal of the Phase I Evaluation, construction or operational changes at the Pinopolis Lock and Dam as determined by the FWS in coordination with the SCDNR after review of the Upstream Passage Effectiveness Evaluation conducted in Phase I. Those measures shall be consistent with preservation of the intended navigational purposes of the Lock.
- 2. The Licensee, at its own expense, shall install and operate an American eel fishway at the dam by year 3 of the license order as determined by the FWS in consultation with the SCDNR after agency review of the American Eel Sampling Study Completion Report.

Table II. Upstream Passage Operational Phases for Target Species at Pinopolis Lock (following license order).

Planning Phase	Description	Implementation*
Phase I.	a) Install effective fish counting system, approved by FWS, in coordination with SCDNR.	Within 1 year of license order
	b) Develop Passage Operations Plan and Lock Passage Effectiveness Evaluation for FWS approval, in coordination with SCDNR.	Begin Year 1 and complete 3 years evaluation
	c) Eel fishway siting study design for FWS approval in coordination with SCDNR.	Year 1 Continue – Year 2
	d) Fully operational eel fishway.	Year 3
Phase II.	Passage design and operational enhancements as determined in Phase I.	To be determined by FWS

B. Downstream Passage

1. The Licensee shall conduct a Downstream Passage Evaluation Study for target species that includes consideration of survivability of out-migrating target species (American shad, blueback herring, American ecl) and potential available alternatives to increase survivability at the Santee Dam. Alternatives to be evaluated include: 1) installation of fish friendly turbines; 2) the use of behavioral devices, 3) shut down of operations during portions of the out-migration seasons; 4) the use of the open turbine bay #5; and 6) a multilevel bypass facility and discharge conduit with

adequate operating flow to attract and pass downstream migrants to the tailwater pool. The evaluation shall include an analysis of the effectiveness of each alternative for moving out-migrating target species, the cost of each alternative and the impacts of each alternative on installed capacity and energy generation. The Study shall include desk-top research and site-specific testing of alternatives. A Downstream Passage Evaluation Study final report shall be submitted to FWS and SCDNR within six months of study completion.

- 2. The Licensee shall install and/or implement in year five of the issued license the measures and designs determined appropriate by the FWS in coordination with SCDNR to increase the survivability of the outmigrating target species after agency review of the Downstream Passage Evaluation Study final report.
- 3. The Licensee shall develop and conduct an Effectiveness Evaluation of the downstream passage facilities or measures required above in consultation with and approved by the FWS in coordination with SCDNR for 3 passage seasons.

INSTREAM FLOW REGIME for SANTEE DAM

A. Within 36 months of license issuance or within 30 days following the installation of a minimum flow unit at the Santee Dam which ever occurs first, the Licensee shall implement the following instantaneous minimum flows at the Santee Dam

February 1 through-April 30 ---- 2400 cfs May 1 through-January 31 --- 1200 cfs

Pending the implementation of this new minimum flow regime, the Licensee shall maintain the existing minimum flow of 600 cfs at the Santee Dam. The new flow regime may be modified during the occurrence of low inflow or system emergency conditions in accordance with and for the time periods established by the Low Inflow/Emergency Contingency Plan to be developed as provided below.

B. Within one year of license issuance the Licensee shall submit for Commission approval a Low Inflow/Emergency Contingency Plan. The purpose of this plan shall be to establish the low inflow and system emergency conditions under which the minimum flows set forth in Paragraph A above may be modified and the procedures for initiating and establishing the duration of such modifications to those flows. This plan shall be prepared in consultation with the FWS and the SCDNR. The Licensee shall allow those agencies at least 30 days to comment on the plan and shall include their comments with the submission of the plan to the Commission together with the reasons for not accepting any of the agency suggestions. The Commission may reserve the right to make reasonable modifications to the plan. The plan to be submitted to the Commission shall include detailed provisions for determining how modifications to the minimum Santee

Dam flows shall be determined consistent with the following guidelines and considerations:

- (1) Emergency Condition: For purposes of managing hydro generation at the Santee Cooper Project during system declared emergencies, Santee Cooper shall have the operational flexibility to alter the above-referenced normal flows for short periods of time (24 hours or less) or until such system emergency conditions have been abated. System emergencies shall include but are not limited to situations involving both Santee Cooper electrical generation system as well as those interconnected systems established by interconnection agreements with other utilities, customers, service providers, or as required by the North American Electric Reliability Council (NERC). Examples of emergencies that may require short term altering of flows include but are not limited to; sudden loss of system generation or transmission, loss of interconnected generation where Santee Cooper is obligated to provide emergency reserve capacity support, unexpected system load conditions created by seasonal temperature extremes, and other conditions to eventually be enumerated in the final Low Inflow/Emergency Contingency Plan.
- (2) Low Inflow Condition: It is anticipated by this agreement that certain extreme low inflow conditions will in due course occur and require periodic, albeit temporary reduction of outflows at the Santee Dam below those normal outflows identified in this settlement agreement and until the extreme low flow condition has returned to normal.

The operational specifics for identifying and managing low inflow conditions will be more precisely enumerated within the final Low Inflow/Emergency Contingency Plan to be developed in consultation with the FWS and SCDNR. The Parties anticipate that the Plan will generally follow a concept of evaluating the combined operational status of the United States' St. Stephen Hydro Facility and the Santee Cooper Project lake elevation. It is anticipated that such a plan would contain the evaluation both the minimum and spring habitat enhancement flows.

Based on criteria identified in the final Low Inflow/Emergency Contingency Plan, Santee Cooper could elect to temporarily reduce outflows at the Santee Dam from the normal minimum flow of 1,200 cfs to a minimum flow no lower than 600 cfs based on a prescribed combined evaluation of St. Stephen operations and lake elevations. It is anticipated that a combined operational threshold condition would consist of a moving daily average discharge from St. Stephen where St. Stephen essentially is not operating except for possible emergency conditions and an established margin between lake elevation and the lake operating rule curve guideline. A similar set of conditions would be established to return to normal minimum outflows at the Santee Dam.

It is anticipated that normal inflow conditions will allow for the additional spring habitat enhancement flow. During low inflow conditions, Santee Cooper shall attempt to provide as much of the additional flow as possible based on an evaluation of the operational condition of St. Stephen. Conceptually, the plan will evaluate the average daily flow of St. Stephen Hydro over a prescribed period and assure that the additional spring habitat enhancement flow does not exceed the flows from St. Stephen up to 2,400

- cfs. This will ensure that adequate attraction flows from St. Stephen will be provided for the St. Stephen fishlift and not be overwhelmed by flow at the Santee Dam.
- C. Within 6 months from the issuance date of the license the Licensee shall submit to the other Parties to this agreement a plan for the removal of the Granby dam on the Congaree River. The plan shall include preliminary design work describing the proposed material to be removed, the method of removal, a program for such supervision, and maintenance of any remaining structures as may be suitable and a schedule for obtaining all necessary regulatory permits necessary for undertaking the removal of the dam. The Licensee shall allow the Parties at least 60 days to comment on the plan. Within 60 days after resolving any issues that the Parties may have about the plan, the Licensee shall proceed with securing the necessary permits and promptly proceed with the implementation of the plan and removal of the dam following receipt of the necessary regulatory permits. The Parties agree that this provision shall not be made part of the New License.
- D. Within 90 days following the issuance date of the license the Licensee shall, in cooperation with the FWS and the SCDNR, establish the Santee Basin Fisherics Enhancement Fund for the purpose of mitigating for the continuing adverse impacts to aquatic resources and diadromous fish from Project operations. The Fund will provide monies to support habitat and other fisheries enhancement programs in the Santee River Basin as agreed upon by the FWS and the SCDNR. These programs shall include hatchery operations for the production of American shad fry to augment Santee Basin populations and to transport and reintroduce adult pre-spawners to spawning habitat

upstream of the Project. The Licensee shall contribute \$200,000 to this Fund annually for a period of five years. Amounts in the Fund may be spent in the year received or retained and spent over the term of the license in the discretion of the FWS and the SCDNR. In the event that these Parties are able to enter into the Santee Cooper Basin Diadromous Fish Accord or similar agreement with the upstream licensees in the Basin for the purpose of financing and coordinating enhancement and restoration activities, including hatchery operations for fry introductions and trap and transport of adult pre-spawners throughout the Basin, the Parties may coordinate expenditures from this Fund with the signatories to that Accord The Parties further agree that the requirements of this Paragraph D shall not be made part of the New License

E. Operational Flexibility: The Licensee shall chair a Technical Advisory

Committee for Instream Flows for the purpose of evaluating the previous years' instream
flows for the Santee River from the Santee Dam. The Committee shall meet no less than
annually as part of an on-going effort to equally evaluate and consider the nongenerational benefit as well as hydroelectric impact of on-going instream flows in the 37mile reach of the Santee River below the Santee Dam.

Standing members of the Committee shall consist of the signatories to this Agreement.

The purposes of the Technical Advisory Committee are to:

- (1) Review the previous year's instream flows, generation, fish passage, and spill occurrences for the bypassed reach of the Santee River (37-mile reach below Santee Dam).
- (2) Evaluate the on-going impact of the instream flow regime based upon the flow and generation records and upon biological monitoring studies.

The following issues shall be reviewed by the Committee:

- (1) Fish passage at St. Stephen and at the Santee Dam.
- (2) Habitat conditions for the 37-mile reach below the Santee Dam.
- (3) Frequency of implementation of the low inflow protocol for management of low inflow/emergency conditions (Section B (b), above).
- (4) Spilling occurrences over the previous year.
- (5) Opportunities for providing alternative flows in addition to normal spills within the constraints of the minimum flow budget provided under Paragraph A of this Appendix.

SANTEE NATIONAL WILDLIFE CONDITIONS

- A. Licensee shall within 180 days of license issuance develop in cooperation with the FWS and the SCDNR a plan to provide the following enhancements at the Santee Refuge for waterfowl management and restoration. The plan shall provide for an annual meeting of these Parties for the purpose of discussing the implementation of the items set forth below as well as reasonably related matters. The FWS and the Licensee may from time to time mutually agree to defer, modify or eliminate any of the items listed below.
 - The repair or replacement of the Timber Island Field pump motor #1 (Cuddo Unit).
 - The systematic servicing, repair, or replacement of the 7 pumping stations (motor/pumps).
 - The provision of 3000 gallons of off-road diesel fuel annually for pumping needs.
 - The removal of snags and stumps from Jack's Creek in order to clear a public marked navigational channel allowing safe access for boats from Jack's Creek to the existing navigational channel in the big water of Lake Marion. This channel would be located between Persanti Island and Line Island.
 - The provision of aquatic nuisance weed control throughout Refuge for habitat enhancements (in concert with Aquatic Nuisance Control agreement with SCDNR).
 - The removal of vegetation from exterior canal and interior dikes of Timber Island Field on the Cuddo Unit.
 - Assistance with placement of bio-engineering (live staking) and rip-rap to stop erosion of Lake shoreline along Shuler's Point and the southern tip of 100-acre Island.

- Placement of large woody debris in deep water portions of the Refuge, for fish habitat.
- 9 The investigation of and the support of moist soil impoundment irrigation options on the Bluff and Cuddo Units to optimize waterfowl, wading birds, shore birds, and reptile and amphibian habitat and foraging opportunities.
- The Provision of assistance to expand an elevated public use photo blind/bird observation structure on the Wrights Bluff nature trail overlooking Cantey Bay.
- The performance of mechanical stand density reduction on 40 acres of pine/hardwood habitat to promote the re-establishment/enhancement of forest bird and RCW habitat on Pine Island Unit.
- 12 Assistance in removal of invasive plant species on the Bluff Unit.