### ORIGINAL

Project No. 459-128
Osage Project
Union Electric Company,
d/b/a AmerenUE

May 18, 2005

Ms. Magalie R. Salas, Secretary Federal Energy Regulatory Commission 888 First Street, N.E. Washington, D.C. 20426 OFFICE OF THE SECRETARY

SECRETARY

FEDERAL ENERGY
FEDERAL ENERGY

Re: Offer of Settlement with Respect to Application for New License for the Osage Project, FERC No. 459; and Request for Extension of Time to Submit Explanatory Statement

Pursuant to Rule 602 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission (Commission), 18 C.F.R. § 385.602 (2004), AmerenUE is pleased to file the enclosed original and eight (8) copies of an Offer of Comprehensive Settlement Agreement (Settlement Offer) in the relicensing proceeding for the Osage Project, FERC No. 459. The Settlement Offer is filed in settlement of all issues among the parties thereto relating to the relicensing of the project.

An Offer of Settlement is to include a separate explanatory statement, together with copies of, or record references to, those documents and exhibits that are relevant to the offer; i.e., that help demonstrate that the offer is fair, reasonable, in the public interest, and supported by substantial evidence. AmerenUE respectfully asks the Commission to grant it an extension of 45 days to file the explanatory statement, in order that all the parties to the Settlement may prepare and present a joint explanatory statement.

AmerenUE is filing the Offer of Settlement now, before the explanatory statement has been written, in light of the fact that the Commission's staff has announced its intention to issue a draft Environmental Assessment (draft EA) by May 31, 2005.<sup>2</sup> AmerenUE wishes to make Commission staff aware of the terms of the Offer of Settlement as soon as possible, in order that

<sup>&</sup>lt;sup>1</sup> See Rule 602(c).

<sup>&</sup>lt;sup>2</sup> See letter Acknowledging and Granting Request for Extension of Time to File Comments, issued by Ann Miles, Director of the Division of Hydropower Licensing, on March 30, 2005.

the Settlement alternative can be analyzed in the draft and final EA without the need for an amended or supplemental EA.

Enclosed is one additional copy of the complete filing. Please time-stamp and return it to me in the enclosed stamped, self-addressed envelope. If you have any questions, please contact me at the number indicated below.

Respectfully submitted,

Susan B. Knowles

Associate General Counsel

AmerenUE

Tel: 314-554-3183

**Enclosure** 

cc: Service List

#### **CERTIFICATE OF SERVICE**

I hereby certify that I have this day served a copy of this submittal upon each person designated on the official service list compiled by the Commission Secretary in this proceeding.

Dated at St. Louis, Missouri, this 18th Day of May, 2005

Susan B. Knowles

Associate General Counsel

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# SETTLEMENT AGREEMENT CONCERNING THE RELICENSING OF THE OSAGE HYDROELECTRIC PROJECT FERC PROJECT NO. 459

#### **AMONG**

UNION ELECTRIC COMPANY, d/b/a AMERENUE

U.S. DEPARTMENT OF THE INTERIOR, FISH AND WILDLIFE SERVICE

U.S. DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE

MISSOURI DEPARTMENT OF CONSERVATION

MISSOURI DEPARTMENT OF NATURAL RESOURCES

May 16, 2005

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#### SETTLEMENT AGREEMENT

## CONCERNING THE RELICENSING OF THE OSAGE HYDROELECTRIC PROJECT FERC PROJECT NO. 459

#### 1. Introduction

1.1 Parties. This Settlement Agreement ("Settlement") is made and entered into pursuant to Rule 602 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission ("Commission"), 18 C.F.R § 385.602 (2004), by and among Union Electric Company, d/b/a AmerenUE ("AmerenUE" or "Licensee"); Missouri Department of Conservation ("MDC"); Missouri Department of Natural Resources ("MDNR"); and the U.S. Department of the Interior (DOI), through its Fish and Wildlife Service ("FWS") and National Park Service ("NPS"); all of the above referred to individually as "Party" or collectively as "Parties."

#### 1.2 Recitals.

- 1.2.1 On February 25, 1926, the Federal Power Commission, predecessor to the Commission, issued an original license under the Federal Waterpower Act of 1920 for the construction and operation of the Osage Hydroelectric Project ("Project"). The Licensee acquired the Project and original license in 1929. The dam was completed in 1931. On September 15, 1931, the original license was amended to authorize an increase in the installed capacity from 93.75 megawatts (MW) to 150 MW initially and 201 MW ultimately.
- 1.2.2 The original license was amended in 1947 to provide for flood control operation, and again in 1952 to allow for the installation of generating Unit Nos. 7 and 8 (installed in 1953). In addition to the eight main units, the Project was equipped with two smaller house units, which provide station service. The configuration of eight original main turbines and two original house turbines is referred to as the "8-2 Configuration."
- 1.2.3 On April 9, 1981, the Commission issued a new license ("Existing License") under Part I of the Federal Power Act (FPA) for the continued operation and maintenance of the Project. 15 FERC ¶ 62,038 (1981).
- 1.2.4 On November 13, 2000, the Commission approved the Licensee's non-capacity license amendment application to upgrade two of the eight original main turbines for higher hydraulic discharge and greater efficiency. The order included the following operational protocol: "At any level of head, a combination of gate settings will be established such that the project's total hydraulic discharge does not exceed the current discharge at that level of head and a 92 percent gate setting." The two upgraded turbines were placed in commercial service in April 2002. The configuration of six original main turbines, two upgraded main turbines, and two original house turbines is referred to as the "6-2-2 Configuration."

- 1.2.5 On August 2, 2001, the Licensee filed with the Commission a non-capacity license amendment application to replace two more of the original main turbines with upgraded turbines. On December 21, 2001, the Commission dismissed this license amendment application without prejudice, stating that the second two-unit upgrade would be more appropriately addressed in the relicensing proceeding. This proposed configuration is the "4-4-2 Configuration." In its application for a new license to operate and maintain the Osage Project (New License"), filed February 24, 2004, the Licensee proposed that the 4-4-2 Configuration be implemented, the flow limitation contained in the November 13, 2000 Commission order be lifted, and the Project be allowed the maximum hydraulic discharge at any given head.
- 1.2.6 In preparing its relicense application, the Licensee consulted with the Parties and other entities and individuals in developing the studies, data, and other information presented in the application. Both before and after filing its relicense application, the Licensee and the Parties engaged in settlement discussions that culminated in this Settlement.
  - 1.3 Structure of Settlement. This Settlement has five parts.
    - 1.3.1 Sections 1 through 6 state the Parties' obligations under this Settlement.
- 1.3.2 Appendices A and B set forth the terms that the Parties agree should be required of the Licensee in a new license, for the mitigation, protection, and enhancement of natural resources affected by the Project. The Parties request that the Commission incorporate the terms of Appendix A, without material modification, as requirements of the new license for the Project (see section 3.1, below). Also, a number of the agreed-upon terms may be included as conditions of the FWS' Incidental Take Statement in its Biological Opinion on the Project pursuant to the Endangered Species Act (ESA'),16 U.S.C. § 1531 et seq.
- 1.3.3 Appendix B, dated June 3, 2005, sets forth the conditions to be included in the Water Quality Certification to be issued by MDNR, pursuant to Section 401 of the Clean Water Act, 33 U.S.C. § 1341, shortly after the Settlement has been executed. The Parties agree that Appendix B will be replaced by the issued Water Quality Certification, which shall make no material changes to the conditions set forth in Appendix B.
- 1.3.4 Appendix C states the names, addresses, telephone and fax numbers, and email addresses of the designated representatives of the Parties as of the Effective Date.
- 1.4 <u>Effective Date of Settlement</u>. This Settlement is effective upon execution of this Settlement by all the Parties. The proposed terms for license articles (**Appendix A**) and the conditions of the water quality certification (**Appendix B**) become effective only upon their inclusion in a New License issued by the Commission for the Project and are enforceable by the Commission or the appropriate state agency to the extent authorized by law.

#### 2. Purpose of Settlement and General Provisions

2.1 <u>Purpose</u>. The purpose of this Settlement is to resolve among the Parties all issues that have been or could have been raised in the relicensing proceeding, in support of the issuance of a New License. The Parties agree that a New License containing the terms set forth in

Appendix A and Appendix B of this Settlement will meet the requirement of FPA Section 10(a)(1) that the Project be best adapted to a comprehensive plan for public interest purposes, and balances in the public interest the various developmental and non-developmental uses of the affected lands and waters.

- 2.2 <u>Compliance with Legal Responsibilities</u>. Nothing in this Settlement is intended or shall be construed to affect or limit the authority of any Party to fulfill its existing contractual responsibilities or existing and future statutory and regulatory responsibilities under applicable law. However, by entering into this Settlement the Parties with such responsibilities represent that they believe their responsibilities with respect to matters agreed to in and as of the date of the Settlement have been, are, or can be met for the purpose stated in section 2.1 consistent with this Settlement.
- 2.2.1 <u>Modification of Recommendations</u>. The Parties agree that following the execution and filing of the Settlement with the Commission, the recommendations submitted by the State and Federal Agency Parties pursuant to FPA Sections 10(a) and 10(j), shall be deemed to have been modified and superseded by the terms of this Settlement, including Appendix A and Appendix B.
- 2.2.2 Fish Passage. The Settlement does not include a prescription for a fish passage facility at Bagnell Dam pursuant to Section 18 of the FPA, 16 U.S.C. § 811. The Parties agree that the New License will reserve the authority of the Secretary of the Interior ("DOI") to prescribe the construction, operation, and maintenance of fishways, and will also reserve the Commission's authority to amend the New License to incorporate any such future prescription Following execution and filing of this Settlement with the Commission, the DOI shall modify the prescription filed pursuant to Section 18 of the FPA consistent with the terms of this Settlement, including Appendix A. The Parties agree that the DOI may appeal the New License, submit a modified prescription pursuant to Section 18 of the FPA, and take any other legal action consistent with this Settlement if (1) the Commission does not approve and adopt, without material modification, the requirements of this Settlement, including Appendices A and B, or (2) the Commission approves and adopts a Fish Protection Plan to which the DOI objects.

#### 3. Use of Settlement as Basis for New License

- 3.1 New License. The Parties respectfully request that the Commission approve and incorporate into the New License, without material modification, all of the proposed license terms set forth in Appendices A and B. The Parties further request that the New License not include any articles inconsistent with Appendices A or B. The Parties acknowledge that the New License will include, and will not consider inconsistent with the Settlement: (A) Standard Articles pursuant to 18 C.F.R. § 2.9 (2004) ("L-Forms"); and (B) such articles as the Commission needs to carry out its responsibilities for administering and enforcing the New License.
  - 3.1.1 New License Term. Based on the totality of the Settlement reached by the Parties, the Parties agree that the appropriate term for the New License is forty (40) years, and respectfully request that the Commission approve a forty-year term, <u>Provided</u>, that the

Commission approves and incorporates into the New License, without material modification, all of the proposed license terms set forth in Appendices A and B

3.2 Endangered Species Act (ESA). The Parties agree that the Licensee and the FWS have worked collaboratively to develop measures in this Settlement, including Appendices A and B, to address the needs of ESA listed species. If the Commission initiates formal consultation with the FWS on a proposed action consistent with this Settlement, including Appendices A and B, the FWS agrees that it will not impose, through its Biological Opinion in this proceeding, any conditions that are inconsistent with the Settlement or impose operating restrictions or financial commitments beyond those contained in the Settlement; Provided, the Parties acknowledge that:

(A) the Biological Opinion may include any standard conditions pursuant to applicable law, and (B) this Settlement is not intended and shall not be construed to limit the FWS' authority to determine the conditions necessary for ESA compliance. In the event the Biological Opinion imposes conditions materially inconsistent with the Settlement, any Party may withdraw from the Settlement, following Dispute Resolution as set forth in section 4.6. Provided further, that nothing in this Settlement is intended to preempt or restrict the FWS from taking future actions, consistent with federal law, as it deems necessary to meet future ESA obligations.

#### 4. <u>Implementation of Settlement</u>

- 4.1 <u>Submittal of Settlement Offer.</u> The Licensee shall submit the Settlement Offer to the Commission within seven (7) days of all the Parties' execution of the Settlement.
- 4.2 <u>Support for Settlement.</u> By signing this Settlement, the Parties signify that they support the issuance of a New License consistent with the terms of this Settlement, including Appendices A and B. This support shall include reasonable efforts to expedite completion of any remaining statutory functions and regulatory processes that must precede issuance of the New License. To the extent permitted by law, the Parties shall make reasonable efforts to express their support of the Licensee's application, as amended by the Settlement, in written communications to the Commission, MDNR, and FWS in these agencies' proceedings related to the New License. The Parties shall not, with respect to the New License for the Osage Project, propose or otherwise communicate to the Commission, MDNR, or FWS any comments or provisions inconsistent with this Settlement.
- 4.2.1 <u>Technical Conference</u>. The Parties request that, if necessary to resolve any questions or concerns of the Commission or Commission staff with regard to this Settlement, including Appendices A and B, and final license conditions, the Commission convene a technical conference to discuss such questions and concerns with the Parties prior to issuance of a New License. The Parties further agree to make reasonable efforts to participate in any such technical conference.
- 4.3 Procedures at License Issuance. If the Commission issues a New License, whether before or after issuance of the water quality certification and Biological Opinion for this relicensing, that is consistent with this Settlement, including Appendices A and B, the Parties agree that they will not seek rehearing of the New License or support a third party's request for rehearing of the New License. If a Party determines that the New License is inconsistent with this Settlement, including Appendices A and B, the Settlement will be deemed to be modified to

be consistent with the New License, unless a Party provides Notice to the other Parties of the inconsistency, and (A) initiates dispute resolution in accordance with section 4.6.1 of this Settlement, or (B) files an Appeal in accordance with section 4.3.1 and section 4.3.2 of this Settlement.

- 4.3.1 Appeals, Rehearing Requests, and Court Appeals. A Party shall not file a request for rehearing, appeal, or judicial appeal as appropriate ("Appeal"), of the New License, the water quality certification, or the Biological Opinion, unless it determines in its sole discretion that the New License, as conditioned by the requirements of the water quality certification or Biological Opinion, is materially inconsistent with the Settlement or applicable legal standards. A Party shall provide written notice to the other Parties before filing an Appeal. Other Parties will not oppose any such filing with respect to an inconsistency, and any Party which makes such filing may so represent.
- 4.3.2 <u>Dispute Resolution Pending Appeal</u>. If a Party files an Appeal in accordance with section 4.3.1 of this Settlement, that Party shall, while its Appeal is pending, attempt to resolve the dispute or asserted inconsistency pursuant to the terms of section 4.6.1 of this Settlement, to the extent reasonably practicable.
- 4.3.3 <u>Withdrawal Due to Inconsistent License</u>. If a Party files an Appeal in accordance with section 4.3.1 of this Settlement, and the dispute or asserted inconsistency is not resolved by the Appeal or through dispute resolution, that Party may withdraw from the Settlement upon written Notice to the other Parties. Withdrawal will be effective ten (10) calendar days following Notice.
- Reopener. Nothing in this Settlement is intended or shall be construed to limit a Party's right, following exhaustion of any rehearing or judicial appeal of the New License, to petition the Commission to exercise its reserved authority to amend the New License, after notice and opportunity for a hearing (i.e., 'reopen" the New License'), on an issue that is addressed in the Settlement: Provided, subject to the DOI's authority to prescribe fishways in accordance with section 2.2.2 of this Settlement, that if the Licensee files with the Commission and implements a Commission-approved Fish Protection Plan, and is proceeding in good faith to take reasonable and prudent measures to improve the performance of the barrier net or other agreed-to fish protection measure in light of agency recommendations, the Parties agree that they will not petition the Commission to reopen the New License with respect to the Fish Protection Plan until at least five (5) years after the fish protection barrier net described therein has been installed. A Party may thereafter petition to reopen the New License with respect to fish protection, but only: (A) if it has substantial evidence that a material change in circumstances provides good cause for the filing of the petition; (B) if it determines that the fish protection measures implemented by the Licensee are not effective and that alternative measures are necessary; or (C) as necessary to fulfill statutory or regulatory responsibilities. Before any Party files such a pleading before the Commission, MDNR, or FWS, it shall provide at least sixty days notice to the other Parties and, promptly thereafter, shall undertake Dispute Resolution with any other Party that requests it. In the event such a petition is filed, the filing Party shall include documentation of its consultation with the other Parties and a summary of their recommendations and of its response to those recommendations. The filing Party shall also

serve a copy of its petition on all other Parties. Nothing in this Settlement is intended to modify the legal and policy standards the Commission applies in acting on petitions to reopen a license.

- 4.5 <u>Notice</u>. Any notice required by this Agreement shall be in writing. Notice shall be delivered by hand, certified mail, facsimile, or other reliable method subject to confirmation. Notice shall be deemed effective upon the delivery of such notice to the representatives of the Parties as set forth in Appendix C.
- Appendices A and B, any dispute among the Parties regarding any Party's performance under the Settlement shall be the subject of a non-binding dispute resolution procedure. The Parties participating in a dispute resolution procedure ("Disputing Parties") shall cooperate in good faith to promptly schedule, attend, and participate in the process. The Disputing Parties shall devote such time, resources, and attention to the procedure as are necessary to resolve the dispute at the earliest time possible. Each Disputing Party shall implement promptly all final agreements reached, consistent with its applicable statutory and regulatory responsibilities. Nothing in this section is intended or shall be construed to affect or limit the authority of the Commission, or other agenc ies with jurisdiction over a matter in dispute, to resolve a dispute brought before it in accordance with its own procedures and applicable law.
- 4.6.1 Procedure. Unless otherwise provided in this Settlement, including Appendices A and B, a Disputing Party shall give notice within thirty days of the Party's actual knowledge of the act, event, or omission that gives rise to the dispute, unless this Settlement provides otherwise. At a minimum and in any dispute subject to this procedure, the Disputing Parties shall hold two informal meetings within 30 days after Notice, to attempt to resolve the disputed issue. If the informal meetings do not resolve the dispute, the Disputing Parties shall select a mediator from the sources described in Rule 604(c)(3) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.604(c)(3) (2004). The mediator shall mediate the dispute during the next sixty days after his or her selection. Any of these time periods may be reasonably extended or shortened by agreement of the Disputing Parties, or as necessary to conform to the procedure of an agency or court with jurisdiction over the dispute. Unless otherwise agreed among the Disputing Parties, each Disputing Party shall bear its costs for its own participation in the procedure.
- Appendices A and B to this Settlement that have been included as requirements in a New License, any Party may petition the Commission to obtain enforcement of such terms pursuant to FPA Section 31, 16 U.S.C. § 823b. With respect to the sections of this Settlement that set forth the undertakings and obligations of the Parties, any Party may, after attempting but failing to obtain another Party's compliance through the dispute resolution procedure of this Settlement, seek to enforce that Party's compliance with this Settlement in a forum or court of competent jurisdiction. No Party shall be liable in damages for any breach of this Settlement, any performance or failure to perform a mandatory or discretionary obligation imposed by this Settlement, or any other cause of action arising from this Settlement; Provided, that this provision does not affect the availability of remedy for regulatory enforcement of the New License under the Federal Power Act or other applicable statute. The time used to comply with the dispute resolution procedures shall be excluded from computing any applicable statute of

limitations, except where applicable law precludes such exclusion when computing time. Nothing in this section is intended or shall be construed to affect or limit the jurisdiction of any agency or court as established under applicable law.

- 4.8 <u>Modification of Settlement</u>. This Settlement may only be modified upon unanimous, written consent of the Parties or as provided in section 4.3, "<u>Procedures at License Issuance</u>." Any amendment, to the extent such amendment would render the Settlement inconsistent with the terms of the New License, shall be subject to Commission approval.
- 4.9 Termination of Settlement. This Settlement shall terminate: (a) in the event that the Licensee withdraws from the Settlement; (b) on the expiration of the term of the New License; and/or (c) as to AmerenUE, (i) upon the sale of the Osage Project and transfer of the License to a new owner that is unaffiliated with AmerenUE or its parent company, Ameren Corporation or (ii) in the event AmerenUE surrenders or otherwise terminates the New License pursuant to the requirements of the FPA. On termination, all documents related to negotiation of this Settlement shall remain confidential and shall not be disclosed or discoverable or admissible in any forum or proceeding for any purpose to the fullest extent allowed by applicable law, including 18 C.F.R. § 385.606 (2004) (Confidentiality in Dispute Resolution Proceedings).

#### 5. <u>Miscellaneous Provisions</u>

- 5.1 <u>Limitations</u>. This Settlement establishes no principle or precedent with regard to any issue addressed in this Settlement or with regard to any Party's participation in any other pending or future relicensing proceeding. Further, no Party to this Settlement shall be deemed to have approved, accepted, agreed to, or otherwise consented to any operation, management, valuation, or other principle underlying any of the matters covered by this Settlement, except as expressly provided in this Settlement. By entering into this Settlement, 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 Settlement shall not be offered in evidence or cited as precedent by any Party to this Settlement in any judicial litigation, arbitration, or other adjudicative proceeding, except in a proceeding to establish the existence of or to enforce or implement this Settlement.
- 5.2 Settlement Negotiations Confidential. The Parties entered into the negotiations and discussions leading to this Settlement with the understanding that, to the extent allowed by law, all discussions and documents relating to the development of this Settlement were and shall remain confidential. Positions advanced or discussed and documents prepared by the Parties during negotiation of this Settlement shall not be used by any Party in any manner, including admission into evidence, in connection with this Settlement, or in any other proceedings related to the subject matter of this Agreement, except to the extent disclosure may be required by law. This section 5.2 shall survive any termination of this Settlement or transfer of the Project License pursuant to Section 8 of the FPA, 16 U.S.C. § 801, and shall apply to any Party that withdraws from or becomes no longer subject to this Settlement.
- 5.3 <u>Non-Severable Terms of Settlement</u>. The provisions of this Settlement are not severable. This Settlement is made on the understanding that each provision is in consideration

and support of every other provision, and each provision is a necessary part of the entire Settlement.

- 5.4 No Third Party Beneficiaries. Without limiting the applicability of rights granted to the public pursuant to applicable law, this Settlement is not intended and shall not be construed to create any right or interest in any non-Party as a third-party beneficiary hereof. It is not intended and shall not be construed to authorize any non-Party to maintain a suit at law or equity. The rights, obligations, and responsibilities of the Parties with respect to third parties shall remain as imposed under applicable law.
- 5.5 <u>Successors and Assigns</u>. This Settlement shall apply to, and be binding on, the Parties and their successors and assigns, including license transferees under Section 8 of the FPA, 16 U.S.C. § 801. Upon Notice of such succession, assignment, or transfer, the initial Party shall no longer be a Party to this Settlement.
- other Party for breach of this Settlement as a result of a failure to perform or delay in performance of any obligation under this Settlement due to any cause reasonably beyond its control. This may include, but is not limited to, natural events, labor or civil disruption, breakdown or failure of Project works, or events and circumstances beyond the reasonable control of the Licensee. The Party whose performance is affected by a *force majeure* event shall provide notice within seven days of actual knowledge of the event that such affected Party contends constitutes *force majeure*. Such notice shall: (A) identify the event causing the delay or anticipated delay; (B) estimate the anticipated length of delay; (C) state the measures taken or to be taken to minimize the delay; and (D) estimate the timetable for implementation of the measures. The affected Party shall make all reasonable efforts to promptly resume performance of this Settlement; and when able to resume performance of its obligations, give further notice to that effect.
- 5.7 Governing Law. This Settlement shall otherwise be governed, construed, and enforced under the laws of the State of Missouri except to the extent preempted by federal law. By executing this Settlement, no Party is consenting to the jurisdiction of a court unless such jurisdiction otherwise exists. All activities undertaken pursuant to this Settlement shall be in compliance with all applicable law.
- 5.8 <u>Reference to Statutes or Regulations</u>. Any reference in this Settlement to any statute or regulation shall be deemed to be a reference to such statute or regulation in existence as of the date of the execution of this Settlement.
- 5.9 <u>Paragraph Titles for Convenience Only.</u> The titles of the sections of the Settlement are used only for convenience of reference and organization, and shall not be used to modify any of the provisions of this Settlement.

#### 6. Execution of Settlement

6.1 Signatory Authority. Each signatory to this Settlement represents that he or she is authorized to execute this Settlement and to legally bind the Party he or she represents, and that such Party shall be fully bound by the terms hereof upon such signature without any further act,

approval, or authorization by such Party. This Agreement may be executed and delivered by facsimile. Any facsimile signatures shall have the same legal effect as manual signatures.

- 6.2 <u>Status of Supporting Participants</u>. Each Supporting Participant which signs this Settlement does so for the purpose and effect of expressing support for the Settlement as the basis for a New License. Such signature does not create Party status under this Settlement.
- 6.3 Signing in Counterparts. This Settlement may be executed in any number of counterparts. Each executed counterpart shall have the same force and effect as an original instrument as if all the signatory Parties to all of the counterparts had signed the same instrument.

WHEREFORE, for valuable consideration, which is hereby acknowledged, and by authorized representatives, the Parties execute this Settlement as of the date of the last signature thereto.

MISSOURI DEPARTMENT OF NATURAL RESOURCES	OF CONSERVATION
By: Donle Child	Ву:
Name: Doyle Childen	Name: John D. Hoskins
Title: Director, MONR	Title: Director
Date: May 17, 2005	Date:
UNION ELECTRIC COMPANY D/B/A AMERENUE	U.S. NATIONAL PARK SERVICE
Ву:	Ву:
Name: Mark C. Birk	Name:
Title: Vice President	Title: Regional Director
Date:	Date:
U.S. FISH AND WILDLIFE SERVICE	
Ву:	
Name:	
Title: Regional Director	
Date:	

-9-

May 16, 2005

WHEREFORE, for valuable consideration, which is hereby acknowledged, and by authorized representatives, the Parties execute this Settlement as of the date of the last signature thereto.

MISSOURI DEPARTMENT OF NATURESOURCES	URAL	THE MISSOURI DEPARTMENT OF CONSERVATION
Ву:		By: John D. Hoskins
Name:		Name: John D. Hoskins
Title:		Title: Director
Date:		Date: May 17, 2005
UNION ELECTRIC COMPANY D/B/A AMERENUE		U.S. NATIONAL PARK SERVICE
Ву:	Ву:	
Name: Steven R. Sullivan		Name:
Title: Senior Vice President		Title: Regional Director
Date:	Date:	
U.S. FISH AND WILDLIFE SERVICE	;	
Ву:		
Name:		
Title: Regional Director		
Date:		
AmerenUE 5/9/2005	- 10 -	

WHEREFORE, for valuable consideration, which is hereby acknowledged, and by authorized representatives, the Parties execute this Settlement as of the date of the last signature thereto.

MISSOURI DEPARTMENT OF NATURAL RESOURCES	THE MISSOURI DEPARTMENT OF CONSERVATION	
By:	Ву:	
Name:	Name: John D. Hoskins	
Title:	Title: Director	
Date:	Date:	
UNION ELECTRIC COMPANY D/B/A AMERENUE	U.S. NATIONAL PARK SERVICE	
By: Mark C Sont	Ву:	
Name: Mark C. Birk	Name:	
Title: Vice President	Title: Regional Director	
Date: 5/16/05	Date:	
U.S. FISH AND WILDLIFE SERVICE		
By:		
Name:		
Title: Regional Director		
Date:		

WHEREFORE, for valuable consideration, which is hereby acknowledged, and by authorized representatives, the Parties execute this Settlement as of the date of the last signature thereto.

RESOURCES	OF CONSERVATION
Ву:	Ву:
Name:	Name: John D. Hoskins
Title:	Title: Director
Date:	Date:
UNION ELECTRIC COMPANY D/B/A AMERENUE	U.S. NATIONAL PARK SERVICE
Ву:	By: James Catalogue
Name: Steven R. Sullivan	Name: Ernest Quintana
Title: Senior Vice President	Title: Regional Director, Milwest Resim
Date:	Date: 5-18-05
U.S. FISH AND WILDLIFE SERVICE	
Ву:	
Name:	
Title: Regional Director	
Date:	

**Ameren UE** 5/9/2005

Unofficial FERC-Generated PDF of 20050520-0106 Received by FERC OSEC 05/20/2005 in Docket#: P-459 -000

WHEREFORE, for valuable consideration, which is hereby acknowledged, and by authorized representatives, the Parties execute this Settlement as of the date of the last signature thereto.

RESOURCES	OF CONSERVATION	
Ву:	Ву:	
Name:	Name: John D. Hoskins	
Title:	Title: Director	
Date:	Date:	
UNION ELECTRIC COMPANY D/B/A AMERENUE	u.s. national park service	
Ву:	Ву:	
Name: Steven R. Sullivan	Name:	
Title: Senior Vice President	Title: Regional Director	
Date:	Date:	
U.S. FISH AND WILDLIFE SERVICE		
By: Roun Thorson		
Name: ROBYN THORSON		
Title: Regional Director		
Date: 05/17/2005		

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# APPENDIXA

#### APPENDIX A

#### PROPOSED CONTENT OF LICENSE CONDITIONS

Appendix A states the Licensee's obligations to undertake measures to protect, mitigate, and enhance the natural resources affected by the Project. The Parties request that the Commission incorporate these obligations into the New License without material modification.

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#### 1. <u>Definitions Applicable to Appendix A</u>

The following definitions apply to Appendix A and are integral to the interpretation of the obligations and requirements set forth herein. The Parties request that the Commission adopt the following definitions, as appropriate, into articles of the New License.

- (a) <u>Cubic Foot per Second (cfs)</u>. Flow rate as measured by the volume of water (cubic feet) passing an observation point per second.
- (b) <u>Daily Lake Inflow.</u> Daily inflow, measured in second foot days (sfd), calculated as *Outflow + Change in Lake Storage*. Outflow is the total volume (sfd) of the previous day's Project Discharge and Leakage. *Change in Lake Storage* is the positive or negative change in Lake volume (sfd) calculated from the change in Lake Elevation between 0000 hours and 2400 hours the previous day; and it includes rainfall on the Lake, all inflow, and evaporation.
- (c) <u>Elevation</u> Vertical distance, measured in feet, above mean sea level using 1931 AmerenUE datum.

- (d) <u>Emergency Low-Level Limit</u>. The minimum Lake Elevation permitted under the New License.
- (e) Guide Curve. Is defined as a series of target elevations for each day over the course of a given year for Lake of the Ozarks with the intent that Lake levels be maintained in accordance with the guide curve during normal operation. The parties concur that the guide curve is not to be used or interpreted as a rule curve.
- (f) Hourly Equivalent Minimum Flow. A variance to the Prescribed Minimum Flow such that the volume of water released in response to system demand during a one-hour period is equivalent to or greater than the volume of water that would have been released in that same one-hour period as a result of continuous release of the Prescribed Minimum Flow.
- (g) <u>Instantaneous Minimum Flow.</u> The lowest instantaneous flow, measured in cubic feet per second, which occurs during a specified period of time.
- (h) <u>Lake Elevation</u> The elevation of the Lake as measured at Bagnell Dam.
- (i) Low-Level Limit. Minimum Lake level for Normal Operations.
- (j) Minimum Flow Cap. Upper limit of a Prescribed Minimum Flow.
- (k) Project Discharge. Flow discharged from the Project powerhouse or spillway.
- (I) Prescribed Minimum Flow. An Instantaneous Minimum Flow as derived from the Percent Minimum Flow Schedule. If the Prescribed Minimum Flow is determined as a percentage of 7DA Lake Inflow, the result percentage is converted from second foot days to cubic feet per second.
- (m) Second Foot Day (sfd). The volume of water that results from release of one cfs every second of the day.
- (n) <u>Seven-Day Rolling Average (7DA) Lake Inflow.</u> Rolling average of Daily Lake Inflow for the previous seven days, with each day being defined as 0000 hours to 2400 hours.

#### 2. Ramp Rates and Guide Curve

#### 2.1 Ramp Rates

The Licensee is afforded the full capability of the plants' equipment to change power output and flow as necessary to meet system demand and to comply with flood protection articles. No restrictions are required on either the up-ramp or down-ramp of plant output, except as provided in Article 3.3.4 and Article 3.3.5 regarding floods.

#### 2.2 <u>Lake Levels</u>

## FIGURE 1 GUIDE CURVE, FLOOD POOL AND ELEVATION LIMITS OF NORMAL OPERATION

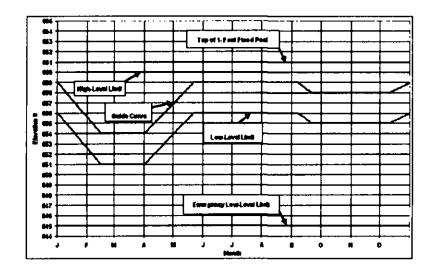


TABLE 1
GUIDE CURVE

Period	Lake Elevation
January 1	659 feet
January 2 – February 14	Incremental decrease from 659 to 654 feet
February 15 – April 1	654 feet
April 2 – May 21	Incremental increase from 654 to 659 feet
May 22 – September 9	659 feet
September 10 – September 20	Incremental decrease from 659 to 658 feet
September 21 – December 10	658 feet
December 11 – December 31	Incremental increase from 658 to 659 feet

2.2.1 The Licensee shall operate the Osage Project in accordance with the guide curve and other elevation curves shown in Figure 1. The parties recognize and concur that the guide curve shown in Figure 1 is an appropriate representation of operation which the parties find acceptable and desirable. As such the licensee shall, to the extent possible, strive to replicate Lake level management practices that result in Lake levels consistent with historical operation represented by the guide curve. The Licensee will continually review hydrologic conditions and will lower the Lake to 659.0 or lower in anticipation of higher inflow events. Lake levels may be above or below the guide curve but may not fall below the designated low-level limit or emergency low-level limit.

#### 3. Minimum Flow Schedule

The Licensee shall operate the Project in compliance with the minimum flow schedule stated herein.

3.1 <u>Schedule</u>. The Licensee shall discharge the Prescribed Minimum Flow for a given day, lasting for a twenty-four hour period beginning at approximately 0900 hours, in accordance with the following schedule.

February 15 – April 30. The Prescribed Minimum Flow shall be 40% of the 7DA Lake Inflow or 3,500 cfs, whichever is greater. It shall be 900 cfs if the 7DA Lake Inflow is less than 3.500 sfd.

- May 1 June 30. The Prescribed Minimum Flow shall be 35% of the 7DA Lake Inflow, when 7DA Lake Inflow equals or exceeds 22,000 sfd. The minimum flow shall be 25% of the 7DA Lake Inflow or 900 cfs, whichever is greater, when the 7DA Lake Inflow is less than 22,000 sfd.
- July 1 February 14. The Prescribed Minimum Flow shall be 20% of the 7DA Lake Inflow or 900 cfs, whichever is greater.
- 3.2 <u>Hourly Equivalent Minimum Flow.</u> Project Discharge shall not be less than the Prescribed Minimum Flow on an instantaneous basis, unless: (A) the Licensee discharges the Hourly Equivalent Minimum Flow as provided in Article 3.2.1 below or (B) an Exception stated in Article 3.3 is in effect.
- 3.2.1 Prescribed Minimum Flows less than 3,500 cfs shall be a continuous discharge. When Prescribed Minimum Flow is provided as an Hourly Equivalent Minimum Flow, such flow shall be provided for each hour of the day between 0000 hours and 2400 hours. Discharge during an Hourly Equivalent Minimum Flow shall not fall below 900 cfs.
- 3.2.1.1 Any Hourly Equivalent Minimum Flow must be equal to or exceed the Prescribed Minimum Flow.
- 3.2.1.2 The Licensee will develop computer programs to control Hourly Equivalent Minimum Flow and will demonstrate their functionality to the MDNR, MDC, and USFWS.

- 3.2.1.3 The Highway 54 Gage will be used to track compliance. During each hour of a given day, the Instantaneous Minimum Flow at the Highway 54 gage shall not be less than the Prescribed Minimum Flow minus a designated percentage of that prescribed flow. This percentage will be calculated based on a linear slope from 10% at 3,500 cfs to 20% at 20,000 cfs. For flows greater than 20,000 cfs, the percentage will be 20% of the Prescribed Minimum Flow.
- 3.2.2 The Licensee may not release an Hourly Equivalent Minimum Flow when the Prescribed Minimum Flow is less than 3,500 cfs.

#### 3.3 Exceptions to the Prescribed Minimum Flow

- 3.3.1 <u>Minimum Flow Cap</u>. Notwithstanding Articles 3.1 3.2, the licensee shall not be required to discharge minimum flow in excess of 3,500 cfs from July 1 July 15, or 2,500 cfs from July 16 February 14.
- 3.3.2 The minimum flow schedule may be adjusted downward to a flow equaling the maximum hydraulic discharge if the Prescribed Minimum Flow value exceeds maximum hydraulic discharge.
- 3.3.3 In the event electrical or mechanical equipment used to provide minimum flow malfunctions or fails, the Licensee may deviate from the minimum flow schedule for a period of time not to exceed two (2) hours.
- 3.3.4 Flood Ramp Down. An Exception to the Prescribed Minimum Flow shall be initiated (Day 1) when all of the following criteria are met: (A) HST elevation is below 710 and falling; (B) HST's pool has been above 710 feet; (C) 7DA Lake Inflow exceeds 25,000 sfd; (D) projected Lake Inflow for the current day is less than 30,000 sfd; and (E) projected Project Discharge for the current day is less than 30,000 sfd. In that circumstance, the Licensee shall discharge a minimum flow calculated as a percent of Lake of the Ozarks 7DA Lake Inflow, as follows:

Day 1 = 70%

Day 2 = 60%

Day 3 = 50%

Day 4 = 30% (July 1- Feb 14 only).

After the above 3- or 4-day period, the Prescribed Minimum Flow shall be implemented.

3.3.5 Suspension and Resumption of Flood Ramp Down. A Flood Ramp Down shall be suspended and Project Discharges will be in accordance with other provisions as contained in this Appendix A, if significant flooding occurs as shown by: (a) Harry S. Truman (HST) pool elevation rising above 710 feet; or (b) projected Project Discharge for the current day being equal to or greater than 30,000 sfd. The Flood Ramp Down cycle will resume at Day I when the Flood Ramp Down criteria are once again met.

The Flood Ramp Down cycle shall be suspended if the U.S. Army Corps of Engineers requests that the Licensee reduce Project Discharge to prevent downstream flooding, and will resume at Day 1 when the Flood Ramp Down criteria are once again met.

- 3.3.6 Accommodation of Island Farming. The Licensee may deviate from the Prescribed Minimum Flow for brief periods as necessary to accommodate access to islands in the Lower Osage River for the purpose of farming including ground preparation, planting, cultivation, spraying, and harvesting crops. Any such deviation shall be based upon agreement with the MDNR, MDC, FWS, and the impacted property owners. Property owners will be required to coordinate together and provide specific times for needed access. This consultation shall provide the basis for a report as to duration of the deviation, taking into consideration the hydrologic and other relevant circumstances of the given year. Such report shall be filed annually with the Commission for informational purposes.
- 3.3.7 Other Temporary Deviations. The Licensee may modify the Prescribed Minimum Flow in response to emergencies beyond the control of the Licensee. Triggering events may include, but are not limited to, the following: a Lake level below the Low-Level Limit as a result of drought; downstream flooding, including potential flood impacts related to the Missouri River and Osage tributaries; any emergency situation related to dam safety, human life and property, or rescue; any natural disaster such as earthquakes, tornadoes, ice storms; or electrical system emergencies such as rolling brown outs or black outs. The Licensee shall restore the Prescribed Minimum Flow as soon as practicable. The Licensee shall notify the Commission, FWS, MDC, and MDNR of such deviation, in advance if practicable and otherwise not later than 10 days after the triggering event. Such report shall include an explanation of the basis and duration of the deviation, and the corrective action if any. In addition, the Licensee may modify the Prescribed Minimum Flow for a one-month period upon written agreement with the FWS, MDC, and MDNR. Any such agreement shall report the basis and duration of the deviation, taking into consideration the hydrologic and other relevant circumstances of the given year. Such agreement shall be filed with the Commission for informational purposes.
- 3.4 <u>Monitoring</u>. On a daily basis the Licensee shall collect and publish the information used to determine the Prescribed Minimum Flow. The information will be published on the Licensee's website in a current, downloadable format.
- 3.4.1 The Licensee shall cooperate with the USGS to ensure that USGS gage no. 06926000 (Osage River near Bagnell, MO) at Highway 54 is maintained and upgraded to collect data in fifteen-minute collection intervals, then transmit those data on hourly intervals for real-time availability on the USGS or Licensee website.
- 3.4.2 In addition, the Licensee shall calculate and publish the following data on a daily basis on its web-site: (A) Daily HST level recorded at 2400 hours; (B) HST outflow (sfd) for the previous day, (C) Lake Ozark Daily Lake Inflow (sfd) from the previous day, (D) 7DA Lake Inflow (sfd), (E) Prescribed Minimum Flow (cfs) to be initiated at approximately 0900 hours, (F) Project Discharge as an hourly average (cfs) for each hour of the previous day, (G) Project Discharge volume (sfd) for the previous day, and (H) anticipated Project Discharge volume for current day. This information will be published in a current, downloadable format.

3.4.3 The Licensee shall publish, in a current downloadable format on the USGS or Licensee's website, real-time Lake Elevation data which have been collected on an hourly basis.

#### 4. Fish Protection

#### 4.1 Fish Protection Working Group

4.1.1 The Licensee shall establish a Fish Protection Working Group (Group), which is composed of personnel from the Licensee, the U. S. Fish and Wildlife Service ("FWS"), the Missouri Department of Conservation ("MDC"), and the Missouri Department of Natural Resources ("MDNR"), to work out key fish protection issues, including the elements listed in Section 4.2.1, and to assist the Licensee in developing a Fish Protection Plan (the "Plan").

#### 4.2 Fish Protection Plan

- 4.2.1 The Licensee shall develop, in consultation with the FWS, MDC, and MDNR, a Fish Protection Plan. The Plan will address design/construction, implementation, and operational issues, and include: (1) goals and objectives; (2) a final design; (3) operations and maintenance plan; (4) monitoring plan; (5) reporting provisions; and (6) a schedule for installing and testing the barrier net or other measure.
- 4.2.2 The Licensee shall complete and file the Plan with the Commission within six (6) months of license issuance. Prior to filing the Plan with the Commission, the Licensee shall submit the Plan to the FWS, MDC, and MDNR.
- 4.2.3 If all agencies (FWS, MDC, MDNR) concur with the Plan, the Licensee shall file the Plan with the Commission.
- 4.2.4 If any agency (FWS, MDC, MDNR) objects to the Plan, the Licensee shall attempt to resolve the disagreement through consultation and amend the Plan as necessary. If the disagreement cannot be resolved, the Licensee may, following dispute resolution in accordance with section 4.6 of the Settlement, file the proposed Plan with the Commission, along with documentation of consultation and the disagreement, including any comments from the agencies. If the Commission then approves and adopts a Fish Protection Plan to which the DOI objects, the DOI may in its discretion exercise its reserved authority to prescribe a fishway pursuant to Section 18 of the FPA.

#### 4.3 Fish Protection Measures

- 4.3.1 The Licensee shall install (1) a barrier net in front of the intakes at Bagnell Dam or (2) other measure, if the Fish Protection Working Group determines that such other measure is more appropriate and cost-effective than a net.
- 4.3.2 The Licensee shall modify its off-normal operational procedures to spread high flows in excess of turbine capacity equally across 11 of the spill gates, or as many spillgates as possible without impacting operation of the barrier net. The

Licensee shall use the 12<sup>th</sup> gate, normally used to store stop logs, to discharge flows as appropriate, as part of large flood operations (under higher flood flows). This operational measure may be modified after its effectiveness is evaluated by the Fish Protection Group.

#### 4.4 Implementation and Operations

- 4.4.1 The Licensee shall operate and monitor the Project in accordance with the New License, including the Commission-approved Fish Protection Plan. The Licensee shall prepare and submit annual reports to the FWS, MDC, and MDNR that assess the effectiveness of fish protection at the Project. The annual reports are to be based on data collected through monitoring of the Project and barrier net or other agreed-upon protection measure. The Licensee shall meet and consult annually with the FWS, MDC, and MDNR to assess the effectiveness of fish protection.
- 4.4.2 If the FWS, MDC, and MDNR determine that fish protection is effective, then the Licensee shall continue to operate the project in accordance with the New License and the Plan. If the FWS, MDC, or MDNR determine that fish protection is not effective, then the Licensee shall take reasonable actions to improve the performance and/or effectiveness of fish protection and shall in good faith consider recommendations of the FWS, MDC, and DNR to improve fish protection.
- 4.4.3 The Licensee shall file the annual reports with the Commission, following consultation with the FWS, MDC, and MDNR, along with documentation of consultation and any dispute.

#### 5. Fish Propagation

- 5.1 For purposes of supporting the State of Missouri's stocking of fish in Lake of the Ozarks and the lower Osage River, the Licensee shall, on each July 15 following the date of issuance of the New License through the term of the New License, including any annual licenses issued after expiration of the New License, pay to the amount of \$134,000, adjusted pursuant to the methodology set forth in Appendix A, Article 7, for meeting costs of capital improvements, operations, maintenance, and personnel associated with the construction and operation of hatchery ponds.
- 5.2 The Licensee will transmit the funds referenced in Appendix A, Article 5.1 by check or by wire. Checks will be made payable to "Conservation, Missouri Department of" and mailed to Attn: Lake Ozark Fish Propagation Payment, P.O. Box 180, Jefferson City, MO 65102-0180. Payments by wire will be sent to Account vendor Missouri Department of Conservation, payee Financial Institution- Missouri State Treasurer's Office processing through Central Bank Depository Account #- 4000030 Routing Transit #- 086507174.

#### 6. Lower Osage River Protection and Enhancement

- 6.1 On each July 15 following license issuance, for the term of the license, the Licensee shall provide funds in the amount of \$175,000 annually, adjusted pursuant to the methodology set forth in Appendix A, Article 7, to the FWS (Missouri Ecological Services), to be used to implement enhancement projects that include, but are not limited to, the following categories:
  - (a) Measures to prevent/reduce island and bank erosion (e.g., vegetation buffer zones, hard points);
  - (b) Restore/create main-channel fish and mussel habitat in select areas;
  - (c) Restoration of side channel habitat;
  - (d) Monitoring to determine effectiveness of measures listed above, including with regard to federally listed species;
  - (e) Develop and implement a freshwater mussel propagation program;
  - (f) Administrative costs associated with the management and implementation of this fund including development of an implementation plan, coordination with other partners, ensuring that projects are carried out according to schedule, and accomplishment reporting;
  - (g) Other measures that benefit aquatic fishery resources in the Lower Osage River.

#### 7. Adjustment of Certain Annual Payments to Reflect Inflation

7.1 Initial payments for Fish Propogation and Lower Osage River Protection and Enhancement shall be paid on July 15, 2006. Subsequent payments shall be made annually on July 15 of each year during the term in which Licensee or Transferee under FPA Section 8 continues to hold the New License. The amount of each subsequent annual payment shall be determined by escalating the initial payment amount (i.e., \$134,000 for Fish Propogation and \$175,000 for Lower Osage Enhancement) by an inflation factor. The inflation factor shall be the average of the percent changes in the monthly Producer Price Index: All Commodities – Not Seasonally Adjusted (PPI) and the monthly Consumer Price Index for All Urban Consumers: All Items – Not Seasonally Adjusted (CPI). The percent change in the PPI and CPI shall be determined by dividing the value of each index as of January 1st of the subsequent payment year by the respective index value as of January 1st, 2006 (the initial payment year). The first payments to be escalated shall be the ones payable on July 15, 2007.

#### 8. Recreation and Public Use

8.1 <u>Project Recreation</u> Within three years of New License issuance, the Licensee shall establish and maintain a scenic viewing area at Willmore Point that will be open to the

<sup>&</sup>lt;sup>1</sup> As calculated by the U. S. Department of Labor, Bureau of Labor Statistics.

public. The Licensee shall continue support of the museum in Willmore Lodge, the operation and maintenance of the publicly accessible Bagnell Dam Scenic Overview facility, the public viewing area at Bagnell Dam, and the lease with the MDC to provide public access to the lower Osage River via a public boat ramp and parking area.

8.2 Funding to Enhance and/or Mitigate Territorial Habitat, Erosion Control, Safety Projects and Recreational Demand. The Licensee shall remit the sum of Two Million One Hundred Thousand Dollars (\$2,100,000.00) payable in six (6) equal annual installations of Three Hundred Fifty Thousand Dollars (\$350,000.00) to the State Parks Earnings Fund (ABA Routing No. 086500634; Account No. 148660; Account Name: STO Master Account; Reference: DNR/DSP; Central Trust Bank, 238 Madison Street, Jefferson City, Missouri 65102; Bank Contact: Jennifer Schroeder (573-634-1154)). In consideration for the Licensee's undertakings in 8.1 and 8.2 of this Article, and with respect to the Osage Hydroelectric Project, the MDNR shall not seek during the first twenty-year term of the New License, either directly or through filings with the Commission, any additional contributions in funds or in kind, for any State parks or other Project or Non-Project public recreational improvements.

Such monies may be used, but not be limited to, the following projects at the Lake of the Ozarks State Parks, as the MDNR deems necessary and appropriate:

- (a) Improvements at Pa He Tsi area:
  - Utility constructions
  - Breakwaters for safety and erosion control
  - Construct satellite law enforcement processing center
  - Develop additional moorings and docks
  - Improve restroom
  - Retaining walls and drainage improvements
- (b) Improvements at Grand Glaize:
  - Construct new restroom
- (c) Improvements for general shoreline protection of state park areas:
  - Breakwaters, gabions Anderson's Cove, Pin Oaks Cove and McCubbins Point.
  - Additional moorings, piers and buoys in Anderson Cove to better manage impact.
- 8.3 Future Studies. No earlier than the fifteenth year of the license term, the Licensee, in consultation with the MDNR, shall perform a recreational assessment, including water safety. The Licensee shall also perform a shoreline erosion assessment for the Missouri State Park lands near the licensed project. The Licensee shall submit the results of the foregoing planning efforts and recommended proposals to the Commission within 60 days of completion, for proposed implementation during the second half of the New License.

#### 9. Shoreline Management Plan

The License will develop and file with the Commission a Shoreline Management Plan (SMP) for Lake of the Ozarks within one year of license issuance. The SMP will incorporate the numerous existing programs the Licensee already has in place that address a wide array of items, including the following items:

- An updated permitting program that addresses shoreline vegetation, shoreline condition and stabilization, archaeological and historic resource protection, recreation use density, recreational facilities, natural heritage areas and rare, threatened and endangered species;
- Vegetative Buffer Policy;
- Enhanced SMP Enforcement;
- Vector Control Program;
- Certified Dock Builders Program;
- Adopt the Shoreline Cleanup Program;
- Derelict Dock Removal Program; and
- Shoreline Protection Hotline.

The SMP will also include provisions for potential revision and update five years after issuance of the New License and every 10 years thereafter, to keep up with the changing conditions that will likely exist at Lake of the Ozarks.

#### 10. Project Access

The Licensee shall permit all reasonable requests for access to the Project by representatives of MDC, MDNR and USFWS to monitor operations and collect information related to investigations within the authority granted to the MDC, MDNR and USFWS pursuant to law.

#### 11. <u>Unit Upgrades</u>

The Licensee will upgrade two additional main units and the two house units such that the licensed project will consist of four original main units, four upgraded main units and two upgraded house units (4-4-2 configuration). The Parties agree not to oppose the Licensee's request to the Commission for removal of the flow limitation imposed by the Commission with the November 13, 2000 Order Amending License, so that the Project will be afforded the maximum hydraulic discharge of the 4-4-2 configuration (approximately 37,500 cfs at 90' head). The Licensee will continue to operate the Osage Project as a peaking and load regulation facility.

## APPENDIX B

#### **APPENDIX B**

### THE MISSOURI CLEAN WATER COMMISSION

- 1.0 Appendix B sets forth the conditions to be included in the water quality certification to be issued by the Clean Water Commission shortly after the Settlement has been executed. The Parties agree that Appendix B will be replaced by the issued water quality certification, which shall make no material changes to the conditions set forth in Appendix B.
- 1.1 Operational Measures to Attain Water Quality Standards. AmerenUE shall undertake the following operational measures to attain Dissolved Oxygen (DO) level of 5.0 parts per million (ppm), as may be hereafter revised by MDNR pursuant to Clean Water Act section 303(c), § 33 U.S.C. 1313(c), for the Lower Osage River. These measures shall include appropriate physical measures as a result of the Alternative Technologies Assessment and Plan as provided herein.
- 1.1.1 Upon issuance of a final, non-appealable New License, AmerenUE shall release the Prescribed Minimum Flow pursuant to Article 3. The prescribed minimum flow established in Article 3 of the New License is hereby incorporated into this certification by reference. Upon issuance of the Water Quality Certification, AmerenUE shall also implement the re-aeration plan and procedures as established in the following certification conditions.
- 1.1.1.1 When the DO levels as measured at both a penstock intake of a main plant turbine and the Highway 54 bridge are below 5 mg/l following a period of sustained generation in excess of one hour, the Licensee shall release a re-aeration flow as follows:
  - (A) When the tailwater elevation is above 556 feet MSL, the Licensee shall release the required minimum flow.
  - (B) If the required minimum flow is less than 6,000 cfs when the tailwater elevation is at or below 556 feet MSL the Licensee shall release a flow of 6,000 cfs with a DO level greater that 5mg/l for two hours, or the length of the generation run, whichever is shorter in length. If the required minimum flow is greater than 6,000 cfs when the tailwater is at or below 556 feet MSL the Licensee shall continue to release the required minimum flow.
- 1.1.1.2 In 2005 and each subsequent year, and on the basis of evaluation of monitoring data, AmerenUE or MDNR may propose modifications to these

operational requirements, in the form of a Memorandum of Agreement (MOA as agreed to by both parties.

- 1.2 Alternative Technology Assessment and Dissolved Oxygen Enhancement Plan By June 1, 2005, AmerenUE shall undertake a preliminary economic and feasibility assessment of alternative technologies designed to enhance the DO level in the lower Osage River. Such assessment shall include, at a minimum, the following technologies: 1) enhanced venting using forced air blowers, 2) hub baffles, 3) raising the power plant intakes, 4) use of a downstream weir, and 5) upstream oxygenation methods. Within six (6) months following completion of the assessment, and not later than December 31, 2005, Ameren shall propose a Dissolved Oxygen Enhancement Plan based on the results of the technology assessment for approval by MDNR. Through the measures in the approved plan, or as provided elsewhere in this Certification or the Settlement Agreement, AmerenUE shall attain the DO level of 5 ppm, or as otherwise provided by law, in the lower Osage River by June 1st, 2009 and thereafter. Failure to meet this standard by June 1, 2009 may result in MDNR's suspension, modification, or revocation or the Water Quality Certification and that any such amendment may include the development of alternative conditions, standards or payment for each day of noncompliance.
- 1.3 Other Measures to Attain DO Level. In addition to the operational measures required by herein, AmerenUE shall undertake the following measures to modify the project facilities. These measures may be amended in the Dissolved Oxygen Enhancement Plan.
- 1.3.1 By June 1, 2005, AmerenUE shall install a draft tube door vent on Unit 6 and operate the unit using this vent through the end of October, 2005, as a pilot test. The results of this pilot test and the potential use of draft tube door vents on Units 2, 4 and 8 will be included in the DOEP.
- 1.3.2 By June 1, 2005, AmerenUE shall assess the technical and economic feasibility of modifying the intake structure to increase DO in the turbine discharge on the main and house intakes, based on modeling work performed in 2004. If the assessment demonstrates such feasibility, by June 1, 2006, it shall install an intake structure on one main or house unit on a pilot basis. If monitoring results during this pilot phase demonstrate positive water quality impacts as determined by MDNR and AmerenUE, AmerenUE shall install such intake structures on the appropriate remaining units by June 1, 2008.
- 1.3.3 AmerenUE has developed a conceptual design for a control system to optimize the use of vents to enhance DO and unit efficiency. AmerenUE shall implement this system by December 31, 2006. By December 31, 2005, the Licensee shall investigate aeration capacity and other relevant characteristics of alternative turbine designs or up grade of the two main units and two house units. It shall propose a design, if any, which is expected to provide beneficial water quality impacts. Following any required approval by MDNR and the Commission, or by June 1, 2008, whichever is later, it shall install or modify the turbines as appropriate.

1.4 Monitoring Requirements. Within six months of issuance of this Certification, AmerenUE shall propose a Water Quality Monitoring Plan for MDNR's approval. The plan shall include: (A) monitoring protocols as described below; (B) other appropriate protocols for evaluation, testing, or implementation of any physical or operational measures intended to enhance water quality in the lower Osage River; and (C) provision for terminating monitoring if the operational and other measures are proven to be adequate to attain water quality standards.

#### 1.4.1 <u>Dissolved Oxygen</u>

- 1.4.1.1 AmerenUE shall establish and operate monitoring stations at the Highway 54 Bridge and in the vicinity of the Highway 17 Bridge (approximately river mile 65).
- 1.4.1.2 AmerenUE shall take hourly measurements at both locations May 1st through October 31st.
- 1.4.1.3 By June 1, 2005, AmerenUE shall submit an analysis to DNR in support of AmerenUE's contention that DO releases from Bagnell Dam are in full compliance with applicable water quality standards during the remainder of the year (November 1 through April 30). The analysis will include: A) a summary of DO monitoring data collected from November 2001 through April 2002; B) a technical review of lake stratification mechanisms and principles; C) a review of relevant historical temperature/depth profile data collected from the upstream face of the dam; and D) a proposal for verification based on periodic monitoring of turbine intake water. Following review of this analysis, may require implementation of either the proposed verification monitoring plan or an alternative monitoring plan, as approved by MDNR.
- 1.4.1.4 Monitoring as specified in the paragraphs above shall continue until the monitoring results for five consecutive years show compliance with Missouri's Water Quality Standards. Thereafter, monitoring shall continue only at the Highway 54 Bridge during May 1st through October 31st; provided that the Reach 6 station shall be re-established if results demonstrate non-attainment of the DO level.

#### 1.4.2 Macro Invertebrates

- 1.4.2.1 During each year of the New License term, AmerenUE shall conduct a macro-invertebrate study at Stations 3 (river miles 32.5-41) and 7 (river miles 75-80). The choice of dates for such study in any given year shall be between September 15th and October 14th.
- 1.4.2.2 AmerenUE shall collect samples at each location using kick nets in riffles and/or shallow runs with gravel/cobble substrate. It shall conduct 4 replicates of six kick net samples at each of the two locations.
- 1.4.2.3 AmerenUE shall compare the presence and abundance of taxa at these locations using the Quantitative Similarity Index for Taxa (QSIT),

$$QSIT_{ab} = \sum_{where} \min (P_{ia}, P_{ib})$$

Pia = the relative abundance of species at Station a,

Pib = the relative abundance of species i at Station b, and

Min (Pia, Pib) = the minimum relative abundance of species i at Station a or b.

The expected result is >47% similarity between the sites during the fall sampling events as a running average over the previous five (5) years.

1.4.2.4 AmerenUE shall also use Ephemeroptera and PlecopteraTaxa to evaluate trends in taxa richness. If there is a downward trend in taxa richness at Station 3, AmerenUE shall propose a revision to the Monitoring Plan for MDNR's approval. The level of taxonomic identifications used to calculate QS\_ and EP Taxa shall be consistent with the MDNR standard operating procedure, MDNR-WQMS-209 (Taxonomic Levels for Macroinvertebrate Identifications).

#### 1.4.3 Further Biological Monitoring Measures:

1.4.3.1 AmerenUE shall conduct adequate biological monitoring before and after implementation of fish protection measure(s) to adequately characterize the biological need for specific fish protection plan and to evaluate their positive and/or negative impacts.

1.4.3.2 AmerenUE shall cooperate with MDNR and MDC to assess the integrity of downstream fish populations. From September 15th through October 15th of each year of the New License term, AmerenUE shall provide suitable flows at appropriate times in the lower Osage to facilitate fish sampling efforts. Appropriate times will be those deemed necessary to conduct such sampling as determined by the agencies.

- 1.4.3.3 AmerenUE shall provide MDNR and MDC with access to areas within its control necessary to evaluate matters related to the protection of fisheries and other aquatic species in the Lake and lower Osage.
- 1.5 Reporting. AmerenUE shall submit all reports to Water Protection Program, Missouri Department of Natural Resources, P.O. Box 176, Jefferson City, MO 65102.
- 1.5.1 AmerenUE shall submit reports on the DO monitoring results on a quarterly basis at least until June 1st, 2009. Such quarterly reports shall include, at a minimum, a summary of actions taken and any actual or anticipated variance from the requirements stated herein and the Dissolved Oxygen Enhancement Plan. If the results demonstrate that the DO level has been attained by that date and is expected to continue to be attained, the requirement for quarterly reporting shall terminate.

- 1.5.2 AmerenUE shall submit annual reports of monitoring results to MDNR and FERC.
- 1.6 <u>Water Quality Sampling for Lake Coves</u>. For five (5) years following issuance of this Certification, AmerenUE shall provide \$15,000 per year to MDNR to conduct bacterial sampling in lake coves. AmerenUE agrees to submit these funds by check made payable to the Natural Resource Damages Fund. Checks shall be mailed to the Water Protection Program, Missouri Department of Natural Resources, P.O. Box 176, Jefferson City, MO 65102, upon the receipt of the Water Quality Certification. Annual payment thereafter shall be submitted by July 15th of each year.
- 1.7 <u>Stormwater Pollution Prevention Plan.</u> Within six months of issuance of this water quality certification, AmerenUE shall propose a Stormwater Pollution Prevention Plan for approval by MDNR. The plan shall include measures to educate the public as to best management practices for storm water control from development around the river and Lake of the Ozarks. It shall also include measures to prevent and control nonpoint source pollution from development around the river and Lake of the Ozarks. Such plan shall include, but is not limited to, commitments (including expeditious implementation schedules) to create riparian buffers, corridors, cove wetlands, and lakeside buffers on Project Lands under AmerenUE's current and future control and methods to enhance shoreline clean-ups.
- 1.8 Permitting and Shoreline Management Plan. Within six months of the issuance of this water quality certification, AmerenUE shall propose a Permitting and Shoreline Management Plan for approval by MDNR. This plan shall include, but is not limited to, commitments (including expeditious implementation schedules) to identification and protection of sensitive habitat; measures to assure compliance with federal and state permitting requirements for activities on Project lands; and development of educational programs.
- 1.8.1 Care shall be taken to keep machinery out of the waterways. Fuel, oil, other petroleum products, equipment and any solid waste shall not be stored below the ordinary high water mark at any time or in the adjacent floodway beyond normal working hours. All precautions shall be taken to avoid the release of wastes, fuel or any toxic or harmful material to streams and other adjacent waterbodies as a result of this operation. Petroleum products spilled into any waterbody or on the banks where the material may enter waters of the state shall be immediately cleaned up and disposed of properly. Spills of petroleum must be reported as soon as possible to the Missouri Department of Natural Resources' 24-hour Environmental Emergency Response number at (573) 634-2436 and in accordance with federal and state laws and rules regarding petroleum products.
- 1.8.2 Clearing of vegetation shall be the minimum necessary to accomplish the activity, and shall be done in a manner outlined in the NPDES Stormwater Protection Plan so as to minimize erosion.

#### 1.9 Further Procedures:

- 1.9.1 Upon MDNR's approval, any plan or other document required by Article 5 shall become a condition of the Water Quality Certification. Failure to meet the conditions in Article 5 may result in MDNR's suspension, modification, or revocation or the Water Quality Certification; and that any such amendment may include the development of alternative conditions, standards or payment for each day of noncompliance.
- 1.9.2 If monitoring results demonstrate that water quality criteria for DO or for aquatic life may not be attainable as a result of factors within AmerenUE's reasonable control, AmerenUE may conduct a Use Attainability Analysis or seek site specific criteria in accordance with state and federal laws. If the beneficial uses(s) or water quality criteria are changed pursuant to federal and state law, MDNR will amend the Water Quality Certification as appropriate.

# APPENDIX C

#### APPENDIX C

#### REPRESENTATIVES OF THE PARTIES FOR PURPOSE OF NOTICE

The Parties agree to timely send all other Parties timely written updates to the following information:

#### **AMERENUE**

Office of the General Counsel 1901 Chouteau Avenue P.O. Box 66149, MC 1310 St. Louis, MO 63166-6149 (314) 554-3183 SKnowles@ameren.com

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#### **NATIONAL PARK SERVICE**

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#### MISSOURI DEPARTMENT OF CONSERVATION

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#### MISSOURI DEPARTMENT OF NATURAL RESOURCES

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