Alabama Power Company Project No. 2203-015

ORDER ISSUING NEW LICENSE

(December 22, 2016)

INTRODUCTION

1. On August 16, 2013, Alabama Power Company (Alabama Power) filed, pursuant to sections 4(e) and 15 of the Federal Power Act (FPA), an application for a new license to continue operation and maintenance of its Holt Hydroelectric Project No. 2203 (Holt Project, or project). The project’s authorized capacity being licensed is 46.9 megawatts (MW). The project is located at the U.S. Army Corps of Engineers’ (Corps) Holt Lock and Dam on the Black Warrior River near the City of Tuscaloosa, in Tuscaloosa County, Alabama, and occupies 36.64 acres of federal land administered by the Corps.

2. As discussed below, this order issues a new license for the Holt Project.

BACKGROUND

3. The Federal Power Commission, predecessor to the Federal Energy Regulatory Commission (Commission, or FERC), issued the original 50-year license to Alabama Power for the Holt Project on October 7, 1965. The license expired August 31, 2015. Since then, the project has operated under annual licenses pending the disposition of the new license application.

1 16 U.S.C. §§ 797(e) and 808 (2012).

2 The Black Warrior River is a navigable waterway of the United States. See Alabama Power Company, 34 F.P.C. ¶ 1108 (1965). Under section 23(b)(1) of the FPA, 16 U.S.C. §817 (2012), a project is required to be licensed if, as pertinent here, it is located on a navigable waterway, located at a federal dam, or occupies federal land.

3 Alabama Power Company, 34 F.P.C ¶ 1108 (1965). The license was effective September 1, 1965.

4. On May 21, 2014, the Commission issued a public notice in the *Federal Register* accepting the application for filing and setting July 20, 2014, as the deadline for filing motions to intervene, comments, recommendations, terms and conditions, and prescriptions. The National Oceanic and Atmospheric Administration (NOAA) filed a notice of intervention.

5. On December 2, 2014, the Commission issued a public notice in the *Federal Register* indicating the application was ready for environmental analysis and setting January 31, 2015, as the deadline for filing comments, recommendations, terms and conditions, and prescriptions. No agency filed reply comments.

6. Commission staff issued an Environmental Assessment (EA) on May 31, 2016, analyzing the potential environmental impacts of the proposed project and alternatives to it, with a deadline of June 30, 2016, for comments. The U.S. Fish and Wildlife Service (FWS) filed comments on June 28, 2016, and the U.S. Environmental Protection Agency Region 4 (EPA) filed comments on June 30, 2016.

7. The intervention, comments, and recommendations have been fully considered in determining whether, and under what conditions, to issue this license.

**PROJECT DESCRIPTION**

**A. Project Area**

8. The Holt Project is located in the Black Warrior River Basin within the state of Alabama and drains approximately 6,276 square miles in north and west-central Alabama. The Black Warrior River is formed by the confluence of three rivers: the Sipsey, Locust, and Mulberry, in the mountainous region of northern Alabama, and flows 45 miles southwest to the City of Tuscaloosa, Alabama. From there, the river flows 130 miles south to its confluence with the Tombigbee River which continues south to join the Alabama River and, finally, the Mobile River, which flows into the eastern Gulf of Mexico.

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8 See EA at 17.
9. The Black Warrior River is impounded along nearly its entire length in a chain of narrow reservoirs, with flows controlled by five dams, four of which are Corps’ dams. Beginning from the headwaters of the Black Warrior River, the dams are: Alabama Power’s Lewis Smith Dam of the Warrior River Project No. 2165 at river mile (RM) 444; the Corps’ Bankhead Lock and Dam of the Warrior River Project No. 2165 at RM 365.5; the Corps’ Holt Lock and Dam at RM 347 (which is the site of Alabama Power’s Holt Project No. 2203); the Corps’ William Oliver Bacon (Oliver) Lock and Dam at RM 337.7; and the Corps’ Selden Lock and Dam at RM 261.

B. Project Facilities

Existing Corps Facilities

10. The Corps’ 600-foot-long, 100-foot-wide Holt navigation lock is located on the south shore of the Black Warrior River. The Corps’ 680-foot-long spillway, topped by 14 control gates, extends from the lock across about two-thirds of the river. Alabama Power owns the remaining structures consisting of two dam sections and a powerhouse, described below. Holt Lake has a surface area of 3,296 acres and a storage capacity of 3,267 acre-feet.

FERC-licensed Holt Project Facilities

11. Alabama Power’s Holt Project consists of a powerhouse and the two dam sections attached at the end of the Corps’ spillway and extending across the remaining one-third of the river to the north shore. The powerhouse contains a single, diagonal-flow turbine with an installed capacity of 46.9 MW, and a 2.39-mile-long, 115-kilovolt (kV) above-ground transmission line that extends from the powerhouse to Southern Company’s Gorgas Steam Plant-Holt substation. The project’s dam sections consist of a 130-foot-long, concrete, non-overflow section and a 110-foot-long earth-filled section. The Holt Project features are described in more detail in Ordering Paragraph (B)(2).

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9 See EA at 18.


C. Project Recreation Site

12. Under the current license, Alabama Power operates and maintains an overlook area known as Overlook Park, located near the powerhouse. Overlook Park provides shoreline fishing access and picnicking opportunities.

D. Project Boundary

13. The existing Holt Project boundary encloses 46.59 acres of land used by Alabama Power for project operation and public recreation access. The proposed project boundary encloses the powerhouse, two dam sections, transmission line, and existing and proposed new project recreation sites.

E. Project Operation

Corps Operation

14. The Corps operates Holt Lock and Dam primarily for navigation by maintaining Holt Lake between a maximum elevation of 187 feet mean sea level (msl)\(^\text{12}\) and a minimum elevation of 186 feet to ensure adequate channel depths in the upper end of the lake. The Corps does not exceed the maximum pool level except during floods.

Hydropower Project Operation

15. Article 40 of the prior license required that the operation of the project be subject to the inspection and supervision of the Corps’ District Engineer, U.S. Army Engineer District, Mobile, Alabama, or other officer or agent designated by the Commission. Alabama Power states that it operates the Holt Project in accordance with Appendix B of the Corps’ 1968 “Black Warrior-Tombigbee River Basin Reservoir Regulation Manual” (Black Warrior-Tombigbee Manual).\(^\text{13}\) Appendix B at B-9 of the manual states:

“Power operations shall be scheduled so that the pool will be at or below elevation 187 at all times when flooding is not occurring, and so that a minimum elevation of 186 may be maintained at all times. In most cases the power plant will utilize all available flow up to the capacity of the turbines. When the pool is at elevation 186 no power releases in excess of inflow will be permitted.”

\(^\text{12}\) All references to reservoir elevations, herein, are in mean sea level.

\(^\text{13}\) See Alabama Power’s August 22, 2014, comments at 1. Appendix B of the Black Warrior-Tombigbee Manual was filed with the Commission on July 14, 2011.
F. Proposed Operation and Environmental Measures

16. Alabama Power proposes no change to project operation or to the generation capacity of the project. Alabama Power proposes the environmental measures discussed below.

17. To enhance recreational opportunities, Alabama Power proposes to: (1) construct a tailrace shoreline fishing access site that includes parking, a platform with steps and handrails, and signs; and (2) continue to operate and maintain Overlook Park as a project recreation site.

18. To maintain water quality during project operation, Alabama Power proposes to: (1) maintain a dissolved oxygen (DO) concentration of no less than 4.0 milligrams per liter (mg/L) at a specific monitoring point when the project is operating; (2) monitor an existing aeration system at the project for two years following the effective date of the new license to document the effects of project operation on water quality and downstream habitat; and (3) install additional structures or modify project operation, if necessary, to maintain a DO concentration of no less than 4.0 mg/L.

19. To enhance recreation opportunities, Alabama Power proposes to continue to implement two components of its existing Shoreline Compliance Program that specifically pertain to the Holt Project: 14 (1) public education and communication; and (2) monitoring of project recreation sites to ensure site maintenance.

20. To protect any previously unidentified cultural resources during a new license term, Alabama Power proposes to consult with the Alabama State Historic Preservation Office (Alabama SHPO) and the Corps, and develop an Historic Properties Management Plan (HPMP) to avoid or mitigate effects to such resources if they are discovered during land-clearing and land-disturbing activities. Alabama Power also proposes to evaluate the Holt Project powerhouse in 2018 for eligibility for listing in the National Register of Historic Places (National Register).

SUMMARY OF LICENSE REQUIREMENTS

21. The license, which authorizes 46.9 MW of renewable energy capacity, requires most of the proposed measures noted above, the staff-recommended measures described below, and the conditions included in Alabama Department of Environmental Management’s (Alabama DEM) water quality certification (certification) (Appendix A).

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Combined, these measures will protect and enhance water quality, wildlife, recreation, and cultural resources at the project.

22. To ensure the project does not interfere with operation of the Corps dam and associated facilities, the license requires project operation to be consistent with the Memorandum of Agreement (MOA) to be developed between Alabama Power and the Corps as a part of the new license and in the interim, operation consistent with the existing license requirement in accordance with Appendix B of the Black Warrior-Tombigbee Manual until such time as a new MOA is approved and filed with the Commission.

23. To minimize project effects on northern long-eared bat and Indiana bat roosting habitat, the license requires Alabama Power to limit tree clearing or tree removal to the period October 15 through March 31.

24. To improve Commission oversight of the license requirements and ensure that future recreation needs are met at the project, the license requires Alabama Power to prepare a new Recreation Plan that includes the new recreation measures and two components of Alabama Power’s existing Shoreline Compliance Program.

25. If a previously unidentified archaeological or cultural resource is discovered during project operation, maintenance, or other project-related activities, the license requires Alabama Power to stop all land-clearing and land-disturbing activities and consult with the Alabama SHPO, the Corps, the Choctaw Nation of Oklahoma, the Jena Band of Choctaw Indians, and the Alabama-Coushatta Tribe of Texas.

26. To protect cultural resources, the license requires Alabama Power to consult with the Alabama SHPO, the Corps, the Choctaw Nation of Oklahoma, the Jena Band of Choctaw Indians, and the Alabama-Coushatta Tribe of Texas prior to implementing any land-disturbing activities, or changes to project operation or facilities to determine the effects of such activities on cultural resources.

WATER QUALITY CERTIFICATION

27. Under section 401(a)(1) of the Clean Water Act (CWA), the Commission may not issue a license authorizing the construction or operation of a hydroelectric project unless the state water quality certifying agency has either issued water quality certification for the project or has waived certification by failing to act on a request for certification within a reasonable period of time, not to exceed 1 year. Section 401(d) of

the CWA provides that the certification shall become a condition of any federal license
that authorizes construction or operation of the project.\footnote{33 U.S.C. § 1341(d) (2012).}

certification pursuant for the CWA for the Holt Project. Alabama DEM received the
application on May 14, 2012. On May 7, 2013, Alabama DEM issued a certification for
the Holt Project that includes seven conditions, which are set forth in Appendix A of this
order and incorporated into the license by Ordering Paragraph (D).

29. One of the seven conditions (Condition 7) is administrative in nature and not
discussed further. The remaining six conditions require Alabama Power to: (1) manage
project operation such that DO concentrations are maintained in accordance with
Alabama DEM’s state regulations,\footnote{The certification states that the DO criteria are specified in Alabama DEM
Admin. Code Reg. 335-6-10-.09(2)4., 335-6-10-.09(3)4, and 335-6-10-.09(5)4.}
including a 4.0-mg/L minimum DO criterion when
the project is operating; (2) monitor for compliance with Condition 1 in the turbine scroll
case\footnote{A scroll case is a spiral-shaped steel intake that guides flow into the turbine.
Water pushes through the turbine via slots on the inner diameter of the scroll case,
causing the turbine to spin.} as proposed;\footnote{See Alabama Power’s March 27, 2015, filing that clarifies that the monitoring
location is detailed in Appendix E of Alabama Power’s Pre-Application Document, filed
August 27, 2010. The monitoring location is at a tap point, within the turbine unit’s
scroll case, which gives a representative reading of intake water DO.} (3) establish a 2-year program for monitoring and recording DO
concentrations and temperatures at 60-minute intervals from June 1 through September
30, when the project is operating, except during flooding events; (4) maintain and
calibrate the monitoring equipment; (5) submit DO and temperature monitoring reports to
the Alabama DEM within 90 days following the end of the annual monitoring period, and
the complete monitoring data to Alabama DEM following the second year of monitoring;
and (6) conduct and file with Alabama DEM an assessment of the effects of the operation
of the Holt Project on Alabama’s water quality standards within 6 months after the final
year of the monitoring period, and develop and implement additional structural or
operational measures if monitoring results do not indicate compliance with the DO
standard.

30. Article 401 requires the licensee to file the reports required by the certification
with the Commission, and to obtain Commission authorization prior to making any
structural or operational changes to the project or implementing any changes to the State’s water quality criteria required by the certification.

COASTAL ZONE MANAGEMENT ACT

31. Under section 307(c)(3)(A) of the Coastal Zone Management Act (CZMA), the Commission cannot issue a license for a project within or affecting a state’s coastal zone unless the state CZMA agency concurs with the license applicant’s certification of consistency with the state’s CZMA program, or the agency’s concurrence is conclusively presumed by its failure to act within 6 months of its receipt of the applicant’s certification.

32. By letter dated February 10, 2011, Alabama DEM notified Alabama Power that the project is neither within the Alabama coastal zone nor within a geographic area in which Alabama DEM would review licenses for consistency with the coastal zone management program. Therefore, no consistency certification is required.

SECTION 18 FISHWAY PRESCRIPTIONS

33. Section 18 of the FPA provides that the Commission shall require the construction, maintenance, and operation by a licensee of such fishways as may be prescribed by the Secretary of the Interior or the Secretary of Commerce, as appropriate.

34. By letter filed June 28, 2016, the Secretary of the Interior requested that the Commission reserve authority to prescribe fishways. Consistent with Commission policy, Article 404 reserves the Commission’s authority to require fishways that may be prescribed by Interior for the Holt Project.

THREATENED AND ENDANGERED SPECIES

35. Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species, or result in the destruction or adverse modification of their designated critical habitat.


21 See Alabama Power’s July 23, 2012 draft License Application, Exhibit E at 17.


36. During pre-filing consultation, FWS initially identified nine federally listed species (seven mussels, one turtle, and one bird) with the potential to occur in the vicinity of the Holt project: the endangered southern clubshell (Pleurobema decisum); ovate clubshell (Pleurobema perovatum); and Warrior pigtoe (Pleurobema furvum) and the threatened fine-lined pocketbook (Lampsilis altilis); Alabama moccasinshell (Medionidus acutissimus); orange-nacre mucket (Lampsilis perovalis); and inflated heelspitter (Potamilus inflatus); threatened flattened musk turtle (Sternotherus depressus); and endangered red-cockaded woodpecker (Picoides borealis). In addition, the Black Warrior waterdog (Necturus alabamensis) and white fringeless orchid (Platanthera integrilabia) were candidate species for listing at the time of issuance of the EA. The white fringeless orchid is now listed as threatened (September 13, 2016) and the Black Warrior waterdog is proposed for listing as endangered (October 6, 2016). Also subsequent to the issuance of the EA, FWS listed the northern long-eared bat (Myotis septentrionalis) as a threatened species. By letter filed June 28, 2016, FWS in comments on the EA indicated that the northern long-eared bat and Indiana bat (Myotis sodalis) could occur in the project area.

37. Alabama Power was designated as non-federal representative for purposes of conducting informal consultation with the FWS pursuant to section 7 of the ESA on March 8, 2011. Because no downstream populations and no historic records of downstream populations of the southern clubshell, ovate clubshell, Warrior pigtoe, or fine-lined pocketbook were found, Alabama Power concluded that relicensing the project would have no effect on these four mussel species. Because records indicated a historic presence of the Alabama moccasinshell, orange-nacre mucket, and inflated heelspitter near the project, but no populations of these three mussel species were found downstream


25 The proposed listing of the Black Warrior waterdog became effective on October 6, 2016. See 81 Fed. Reg. 69,500-69,508 (2016). Under the ESA, the determination of effect of an action on a proposed species is either “jeopardy” or “no jeopardy.” Because staff determined in the EA that relicensing the project would have no effect on the Black Warrior waterdog (See EA at 40), the determination of effect of the proposed Holt Project on the Black Warrior waterdog is “no jeopardy.”


of the project in relicensing surveys,\textsuperscript{28} Alabama Power concluded that the project would be not likely to affect these three mussel species.\textsuperscript{29} Although historically present in the project area, no flattened musk turtles were observed downstream of the project and suitable habitat was found lacking.\textsuperscript{30} Alabama Power concluded that the project would not be likely to adversely affect the turtle. By letter filed July 30, 2014, FWS concluded consultation under section 7 of the ESA for the seven mussel species and the flattened musk turtle.\textsuperscript{31}

38. No red-cockaded woodpeckers, nesting cavities, or preferred habitat was observed near the project in the relicensing surveys.\textsuperscript{32} However, the birds are listed as occurring in Tuscaloosa County. In the EA, Staff determined that relicensing the project was not likely to adversely affect the red-cockaded woodpecker.\textsuperscript{33} On June 1, 2016, Commission staff requested FWS’s concurrence with this finding. FWS, in a letter filed July 25, 2016, concurred with staff’s determination.

39. No populations of the white fringeless orchid\textsuperscript{34} or the Black Warrior waterdog\textsuperscript{35} were found to be near or downstream of the project either historically or in the


\textsuperscript{29} See Alabama Power’s May 11, 2014 filing, Attachment 1, Response to Question 1 of Commission staff’s December 11, 2013 letter.

\textsuperscript{30} See Alabama Power’s July 30, 2014 filing entitled, “Flattened Musk Turtle and Black Warrior Waterdog Field Survey and Habitat Assessment: Lake Oliver, Holt Dam Tailrace, Tuscaloosa County, Alabama,” dated May 19, 2014.

\textsuperscript{31} See Alabama Power’s July 30, 2014 filing, Attachment 1, Consultation with USFWS; and FWS’s June 26, 2016 filing, Review of Environmental Assessment for the Holt Hydroelectric Project.


\textsuperscript{33} See EA at 7.


\textsuperscript{35} See Alabama Power’s July 30, 2014 filing entitled, “Flattened Musk Turtle and Black Warrior Waterdog Field Survey and Habitat Assessment: Lake Oliver, Holt Dam Tailrace, Tuscaloosa County, Alabama,” dated May 19, 2014 and March 27, 2015 filing (\textit{continued ...})
relicensing surveys. Therefore, staff concluded that relicensing the project would have no effect on the white fringeless orchid and the Black Warrior waterdog.\textsuperscript{36}

40. In its comments on the EA, FWS advised staff that it would concur that licensing the project would not be likely to adversely affect the Indiana bat if the licensee limits tree removal to the period between October 15 and March 31. If this timing restriction is not feasible, FWS recommended conducting acoustic or mist net surveys to determine presence of the bat. Article 405 restricts tree clearing to the period from October 15 through March 31; therefore, licensing the project would avoid adverse effects on any Indiana bat summer and maternity roosting that may exist at the project and no further consultation under the ESA is required for this species.

41. With respect to the northern long-eared bat, no habitat would be affected in the transmission line corridor, where only shrubs and small plants would be removed; only a few trees would be removed for five parking spaces to serve the fishing access area; any such cutting would be done outside the maternity roosting season; and forested area is abundant near the project site. Therefore, licensing the project would avoid adverse effects on any northern long-eared bat summer and maternity roosting that may exist at the project. In addition, FWS has issued a 4(d) rule\textsuperscript{37} that focuses on preventing the effects of disturbances to known northern long-eared bat hibernacula\textsuperscript{38} and the effects of tree removal\textsuperscript{39} on roosting northern long-eared bats, including maternity colonies, located within the zone associated with the spread of white-nose syndrome.\textsuperscript{40} Under the 4(d)


\textsuperscript{36} See EA at 39 and 40, respectively.

\textsuperscript{37} Under section 4 pursuant to section 4(d) that establishes measures for the conservation of the northern long-eared bat. 81 Fed. Reg. 1,900 (2016).

\textsuperscript{38} Hibernacula for northern long-eared bats are used during winter and include caves or mines of various sizes with constant temperatures, high humidity, and no air currents.

\textsuperscript{39} FWS defines “tree removal” as cutting down, harvesting, destroying, trimming, or manipulating in any other way the trees, saplings, snags, or any other form of woody vegetation likely to be used by northern long-eared bats. See 81 Fed. Reg. 9, 1902 (2016).

\textsuperscript{40} White-nose syndrome is a disease caused by a white fungus (i.e., \textit{Pseudogymnoascus destructans}) that infects the muzzle and other parts of hibernating (continued ...
rule, take\footnote{Take} that is incidental to tree removal is not prohibited if it: (1) occurs more than 0.25 mile (0.4 kilometer) from a known, occupied hibernacula; (2) avoids cutting or destroying known, occupied maternity roost trees during the pup season (June 1 to July 31); and (3) avoids tree removal within a 150-foot (45-meter) radius of known maternity roost trees during the pup season.\footnote{See 81 Fed. Reg. 1900-1922 (2016).} Because the Holt Project is not within 0.25 mile of a known hibernaculum\footnote{Staff reviewed geological maps of the area available at the Alabama Geologic Survey website and found that the geological conditions necessary for the possibility of hibernacula do not exist within 10.5 miles of the project.} or within 150 feet of a known maternity roost tree and tree clearing will be restricted to the period from October 15 through March 31 (Article 405), relicensing the project will not result in a prohibited take of northern long-eared bat. Therefore, no further consultation under the ESA is required for this species.

**NATIONAL HISTORIC PRESERVATION ACT**

42. Under section 106 of the National Historic Preservation Act (NHPA)\footnote{Section 106 of the National Historic Preservation Act of 1966, as amended, 54 U.S.C. § 306108, Pub. L. No. 113-287, 128 Stat. 3188 (2014). (The National Historic Preservation Act was recodified in Title 54 in December 2014).} and its implementing regulations,\footnote{36 C.F.R. Part 800 (2015).} federal agencies must take into account the effect of any proposed undertaking on properties listed or eligible for listing in the National Register (defined as historic properties) and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking. This process generally requires the Commission to consult with the SHPO to determine whether and how a proposed action may affect historic properties, and to seek ways to avoid or minimize any adverse effects.

bats and is associated with high mortality rates of northern long-eared bat and six other bat species. See https://www.whitenosesyndrome.org/sites/default/files/resource/white-nose_fact_sheet_6-2014_1.pdf.

\footnote{“Take” is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or attempt to engage in any such conduct. “Incidental take” is defined as any taking otherwise prohibited, if such taking is incidental to, and not the purpose of, an otherwise lawful activity. See 81 Fed. Reg. 9, 1901 (2016).}
43. As discussed in the EA, the Alabama SHPO determined that there are no historic properties within the project’s area of potential effects (APE) and that the project would not affect historic properties. However, it is possible that unknown archaeological or cultural resources could be discovered during certain project construction or maintenance activities. Therefore, staff recommended, and Article 407 requires, that Alabama Power consult with the Alabama SHPO, the Corps, the Choctaw Nation of Oklahoma, the Jena Band of Choctaw Indians, and the Alabama-Coushatta Tribe of Texas, if any unidentified archaeological or cultural resources are discovered within the project’s APE. Article 408 requires Alabama Power to consult with these entities prior to implementing any land-disturbing activities, or changes to project operation or facilities, to determine the effects of such activities on cultural resources.

44. Additionally, the Holt Project powerhouse will meet the 50-year threshold for potential National Register eligibility in 2018. At that time, Alabama Power proposes to evaluate the Holt Project powerhouse for National Register-eligibility. In the EA, Commission staff recommended, and Article 409 requires, that Alabama Power evaluate the Holt Project powerhouse in 2018 to determine its eligibility for inclusion in the National Register. If found eligible, Article 409 requires Alabama Power to develop an HPMP that identifies proposed measures for avoiding or mitigating adverse effects on the Holt Project powerhouse.

RECOMMENDATIONS OF FEDERAL AND STATE FISH AND WILDLIFE AGENCIES PURSUANT TO SECTION 10(j) OF THE FPA

45. Section 10(j)(1) of the FPA requires the Commission, when issuing a license, to include conditions based on recommendations submitted by federal and state fish and wildlife agencies pursuant to the Fish and Wildlife Coordination Act, to “adequately and equitably protect, mitigate damages to, and enhance fish and wildlife (including related spawning grounds and habitat)” affected by the project.

46. No agency filed section 10(j) recommendations for the Holt Project.

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46 See EA at 52.
47 See EA at 51.
SECTION 10(a)(1) OF THE FPA

47. Section 10(a)(1) of the FPA requires that any project for which the Commission issues a license be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce; for the improvement and utilization of waterpower development; for the adequate protection, mitigation, and enhancement of fish and wildlife; and for other beneficial public uses, including irrigation, flood control, water supply, recreation, and other purposes.

A. Dissolved Oxygen

48. In its comments on the EA, EPA states that its main concern related to relicensing the Holt Project is water quality monitoring from the project powerhouse to the tailrace. EPA specifically is concerned that the proposed monitoring plan, as discussed in the EA, lacks detail and recommends a long-term, continuous tailrace sampling plan to include generating and non-generating periods and low-flow events. EPA also states that while upgrades to the Holt Project have improved DO conditions, the Commission should consider additional conditions to further improve DO conditions downstream.

49. Condition 1 of Alabama DEM’s water quality certification requires that “operation of [the Holt Project], including the operation of the turbines and existing turbine aeration systems, shall be managed such that [DO] criteria…shall be maintained [in accordance with Alabama DEM’s regulations] at all times at the monitoring point…..” Condition 2 of the certification specifies the monitoring location. Condition 3 of the certification requires monitoring during periods of hydroelectric generation from June 1 through September 30 of each year for two years. If the monitoring results show that the DO


51 See EPA’s June 30, 2016 filing at 2.

52 See EPA’s June 30, 2016 filing at 3 (citing ADEM Admin. Code r. 335-6-10-.09) (2015).

53 See EA at 28; see also, Alabama Power’s December 15, 2014, comments at 4. The monitoring point is within a tap point within the scroll case, located in the powerhouse, which draws forebay water into the plant for monitoring. The water drawn from this tap point is a representative reading of intake water DO, and is routed to a monitoring station inside the powerhouse where DO measurements are monitored at hourly intervals during periods of generation from June 1 through September 30 of each year.
concentration falls below 4.0 mg/L, Condition 6 requires Alabama Power to develop and implement measures to ensure a DO concentration of at least 4.0 mg/L.

50. As discussed in the EA, instances of low DO downstream of the Corp dam occur when the Holt Project is generating using low-DO reservoir water drawn from depths of up to 55 feet during the months of July through September. To mitigate this effect, Alabama Power has upgraded its turbine venting systems to better aerate the water flowing through the powerhouse. After the upgrade, Alabama Power conducted DO monitoring in the turbine scroll case from 2003 through 2010 during periods of generation. That data shows that the DO concentration of the powerhouse discharge generally was at least 4.0 mg/L, confirming the effectiveness of the upgraded turbine venting system.

51. Continued DO monitoring in the scroll case of the powerhouse, as required by the certification, will help to ensure the continued effectiveness of the turbine system.

52. During periods of non-generation, the project ceases drawing low DO water from the depths of the reservoir which avoids the low-DO releases downstream that are attributable to the project. For this reason, there is no need for monitoring during non-generating periods.

B. Recreation Plan

1. Recreation Facilities

53. To enhance recreational opportunities at the project, Alabama Power proposes to: (1) construct a new tailrace shoreline fishing access site that includes paved parking for at least five vehicles, a platform with steps and handrails, and signs; and (2) continue to operate and maintain Overlook Park. In the EA, Commission staff recommended that Alabama Power prepare a recreation plan that includes Alabama Power’s proposed measures and a staff-recommended provision to provide trash removal at the new tailrace shoreline fishing access site. Therefore, Article 406 requires Alabama Power to prepare a Recreation Plan that includes these measures.

54 See EA at 22 and 23.

55 See EA at 23 and 29.

56 Specifically, DO concentrations were greater than 4.0 mg/L 99.4 percent of the time. See EA at 28-29.

57 See EA at 61.
54. Constructing the new tailrace shoreline fishing access site will disturb about one acre through tree removal. As discussed above, tree clearing could affect the summer and maternal roosting of the Indiana bat and northern long-eared bat. To avoid such impacts, Article 405 requires that Alabama Power restrict tree clearing to the period from October 15 through March 31.

2. Shoreline Compliance Program

55. Alabama Power uses a system-wide Shoreline Compliance Program that applies to eight of its hydroelectric developments. In the EA, Commission staff found that the majority of the program is not applicable to the Holt Project because Holt Lake and its shoreline are under the Corps’ jurisdiction. Nevertheless, two of Alabama Power’s system-wide Shoreline Compliance Program measures are applicable to the Holt Project: (1) public education and communication, which would include posting the location and hours of operation of the new tailrace shoreline fishing access site on its website; and (2) monitoring the condition of project recreation sites to ensure that they are being maintained. Therefore, Article 406 requires Alabama Power to include these two components in its Recreation Plan.

ADMINISTRATIVE PROVISIONS

A. Annual Charges

56. The Commission collects annual charges from licensees for administration of the FPA. Article 201 provides for the collection of funds for administration of the FPA and use of a government dam. Although the Holt Project occupies 36.64 acres of federal land administered by the Corps, the Commission does not assess a land use charge for a

58 See EA at 34.

59 The eight hydroelectric developments include Mitchell Dam Project No. 82, and Jordan Dam Project No. 618 as one project, Coosa River Project No. 2146; Martin Dam Project No. 349; Warrior River Project No. 2165; Yates and Thurlow Project No. 2407; and R.L. Harris Project No. 2628, as well as the Holt Project.

60 See EA at 47.


licensee’s use of federal lands adjoining or pertaining to federal dams or other structures. Rather, it assesses the charge for the use of a government dam.

B. Exhibit F and G Drawings

57. The Commission requires licensees to file sets of approved Exhibit F drawings in electronic file format. Article 202 requires the filing of these drawings.

58. The Exhibit G drawings filed on May 4, 2015, are not approved because the maps depict only the approximate location of Alabama Power’s 110-foot-long earth-filled dam section, and the Gorgas Steam Plant-Holt Substation is mislabeled as the Holt Substation. Article 203 requires Alabama Power to make these corrections and refile the Exhibit G drawings.

C. Amortization Reserve

59. The Commission requires that for new major licenses, non-municipal licensees must set up and maintain an amortization account upon license issuance. Article 204 requires the establishment of the account.

D. Headwater Benefits

60. Some projects directly benefit from headwater improvements that were constructed by other licensees, the United States, or permittees. Article 205 requires the licensee to reimburse such entities for these benefits if they were not previously assessed and reimbursed.

E. As-Built Exhibits

61. Where new construction or modifications to the project are involved, the Commission requires licensees to file revised drawings of project features as-built. Article 206 provides for the filing of these drawings.

F. Use and Occupancy of Project Lands and Waters

62. Requiring a licensee to obtain prior Commission approval for every use or occupancy of project land would be unduly burdensome. Therefore, Article 410 allows the licensee to grant permission, without prior Commission approval, for the use and occupancy of project lands for such minor activities as landscape planting. Such uses


64 See 18 C.F.R. § 11.3 (2016).
must be consistent with the purposes of protecting and enhancing the scenic, recreational, and environmental values of the project.

G. **Review of Final Plans and Specifications**

63. Article 301 requires the licensee to notify and coordinate with the Commission’s Division of Dam Safety and Inspections-Atlanta Regional Engineer on any proposed modifications to the water retaining and/or conveyance features of the project resulting from the environmental requirements of the license to ensure that these modifications do not adversely affect the project works, dam safety, or project operation.

H. **Conditions for Projects at Corps Dams**

64. Pursuant to a 2016 Memorandum of Understanding between the Commission and the Department of the Army, seven special articles are included in licenses for hydroelectric projects at Corps facilities. The articles are incorporated in this license as Articles 302 through 308. Article 306 requires that Alabama Power submit a Regulating (or Operating) Plan to the Corps for approval and that Alabama Power enter into a MOA with the Corps. However, because the Holt Project is an existing, operating project, this license includes Article 402 to specify that the project must continue to be operated in accordance with Appendix B of the Corps’ Black Warrior-Tombigbee Manual (filed on July 15, 2011) until such time as the MOA has been approved by the Corps and filed with the Commission. To document compliance with the operational provisions in the MOA, Article 403 requires Alabama Power to develop an Operation Compliance Monitoring Plan.

**STATE AND FEDERAL COMPREHENSIVE PLANS**

65. Section 10(a)(2) of the FPA requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by the project. Under section 10(a)(2)(A), federal and state agencies filed 15 comprehensive plans that address

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67 Comprehensive plans for this purpose are defined at 18 C.F.R. § 2.19 (2016).
various resources in Alabama. Of these, the staff identified and reviewed nine comprehensive plans that are relevant to this project.\textsuperscript{68} No conflicts were found.

**APPLICANT'S PLANS AND CAPABILITIES**

66. In accordance with sections 10(a)(2)(C) and 15(a) of the FPA,\textsuperscript{69} Commission staff evaluated Alabama Power’s record as a licensee for these areas: (A) conservation efforts; (B) compliance history and ability to comply with the new license; (C) safe management, operation, and maintenance of the project; (D) ability to provide efficient and reliable electric service; (E) need for power; (F) transmission services; (G) cost-effectiveness of plans; and (H) actions affecting the public. This order adopts staff’s analyses and conclusions.

A. **Conservation Efforts**

67. Section 10(a)(2)(C) of the FPA requires the Commission to consider the electricity consumption efficiency improvement program of an applicant, including its plans, performance, and capabilities for encouraging or assisting its customers to conserve electricity cost-effectively, taking into account the published policies, restrictions, and requirements of state regulatory authorities. Alabama Power has a record of using available forms of media to educate and encourage its customers to conserve electricity. Examples include print, television, radio advertisements, sponsorships of conservation-oriented events, sporting activities, workshops and conferences, as well as, online resources to spread a message of home energy conservation. These programs show that Alabama Power is making an effort to conserve electricity and has made a satisfactory good faith effort to comply with section 10(a)(2)(C) of the FPA.

B. **Compliance History and Ability to Comply with the New License**

68. Based on a review of Alabama Power’s compliance with the terms and conditions of the existing license, Commission staff finds that Alabama Power’s overall record of making timely filings and compliance with its license is satisfactory. Therefore, staff believes that Alabama Power can satisfy the conditions of a new license.

C. **Safe Management, Operation, and Maintenance of the Project**

69. Commission staff has reviewed Alabama Power’s management, operation, and maintenance of the Holt Project pursuant to the requirements of 18 C.F.R. Part 12 and the

\textsuperscript{68} The list of applicable plans can be found in section 5.4 of the EA for the project.

\textsuperscript{69} 16 U.S.C. §§ 803(a)(2)(C) and 808(a) (2012).
Commission’s Engineering Guidelines and periodic Independent Consultant’s Safety Inspection Reports. Staff concludes that the powerhouse, two dam sections, and other project works are safe, and that there is no reason to believe that Alabama Power cannot continue to safely manage, operate, and maintain these facilities under a new license.

**D. Ability to Provide Efficient and Reliable Electric Service**

70. Commission staff has reviewed Alabama Power’s plans and its ability to operate and maintain the project in a manner most likely to provide efficient and reliable electric service. Staff’s review indicates that Alabama Power regularly inspects the Holt Project turbine/generator unit to ensure that it continues to perform in an optimal manner. Additionally, Alabama Power schedules maintenance to minimize effects on energy production and since the project has been in operation, has undertaken initiatives to ensure that the project is able to operate reliably into the future. Staff concludes that Alabama Power is capable of operating the project to provide efficient and reliable electric service in the future.

**E. Need for Power**

71. The Holt Project provides hydroelectric generation to meet part of Alabama Power’s requirements for resource diversity and its capacity needs. The project has an authorized installed capacity of 46.9 MW and generates an average of approximately 171,791 megawatt-hours (MWh) per year.

72. The North American Electric Reliability Corporation (NERC) annually forecasts electrical supply and demand nationally and regionally for a 10-year period. The Holt Project is in the Southeastern sub-region of the SERC Reliability Corporation (SERC), which is one of eight regional entities of NERC. According to NERC’s 2015 forecast, the SERC Southeastern sub-region is projected to grow at a compound annual rate of 1.26 percent, from 2016 through 2025. Staff concludes that the project would help meet a need for power in the SERC’s sub-region in both the short and long term.

**F. Transmission Services**

73. The project includes a 115-kV transmission line that extends about 2.39 miles from the project powerhouse to Southern Company’s Gorgas Steam Plant-Holt substation, where the lines interconnect with the transmission grid. Alabama Power is not proposing any changes that would affect its own or other transmission line services in the region.

**G. Cost Effectiveness of Plans**

74. Alabama Power proposes to make recreation facility modifications and enhance environmental resources affected by the project. Based on Alabama Power’s record as an
existing licensee, Commission staff concludes that these plans are likely to be carried out in a cost-effective manner.

**H. Actions Affecting the Public**

75. Alabama Power provided extensive opportunity for public involvement in the development of its application for a new license for the Holt Project. During the previous license period, Alabama Power constructed and maintained Overlook Park to enhance the public use of project lands and facilities. Alabama Power uses the project to help meet local power needs. Additionally, the project provides employment opportunities.

**PROJECT ECONOMICS**

76. In determining whether to issue a new license for an existing hydroelectric project, the Commission considers a number of public interest factors, including the economic benefits of project power. Under the Commission’s approach to evaluating the economics of hydropower projects, as articulated in *Mead Corp.*,\(^70\) the Commission uses current costs to compare the costs of the project and likely alternative power with no forecasts concerning potential future inflation, escalation, or deflation beyond the license issuance date. The basic purpose of the Commission’s economic analysis is to provide a general estimate of the potential power benefits and the costs of a project, and of reasonable alternatives to project power. The estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license.

77. In applying this analysis to the Holt Project, staff considered three alternatives: no-action, Alabama Power’s proposal, and the project as licensed herein. Under the no-action alternative, the project would continue to operate as it does now. The Holt Project has an installed capacity of 46.9 MW, which is also the project’s dependable capacity, and generates an average of 171,791 MWh of electricity annually. The average annual project cost is $3,463,306 or $20.16/MWh. When an estimate of average generation is multiplied by the alternative power cost of $91.10/MWh, the total value of the project’s power is $15,650,160 in 2016 dollars. To determine whether the proposed project is currently economically beneficial, the project’s cost is subtracted from the value of the project’s power. Therefore, project power costs $12,186,854, or $70.94/MWh, less than the likely cost of alternative power.\(^71\)

\(^{70}\) 72 FERC ¶ 61,027 (1995).

\(^{71}\) Details of staff’s economic analysis for the Holt Project as licensed herein and for various alternatives are included in the EA. All costs here have been escalated by staff to 2016 dollars.
As proposed by Alabama Power, the levelized annual cost of operating and maintaining the Holt Project would be $3,509,690, or $20.43/MWh. The project would continue to generate an average of 171,791 MWh of electricity annually. Based on an alternative power cost of $91.10/MWh, the total value of the project’s power would be $15,650,160 in 2016 dollars. Therefore, project power would cost $12,140,469, or $70.67/MWh, less than the likely cost of alternative power.

As licensed herein with the mandatory conditions and staff measures, the levelized annual cost of operating and maintaining the Holt Project would be about $3,511,408, or $20.44/MWh. The project would continue to generate an average of 171,791 MWh of electricity annually. Based on an alternative power cost of $91.10/MWh, the total value of the project’s power would be $15,650,160 in 2016 dollars. Therefore, project power would cost $12,138,752 or $70.66/MWh, less than the likely cost of alternative power.

In considering public interest factors, the Commission takes into account that hydroelectric projects offer unique operational benefits to the electric utility system (ancillary service benefits). These benefits include the ability to help maintain the stability of a power system, such as by quickly adjusting power output to respond to rapid changes in system load, and to respond rapidly to a major utility system or regional blackout by providing a source of power to help restart fossil-fuel based generating stations and put them back on line.

**COMPREHENSIVE DEVELOPMENT**

Sections 4(e) and 10(a)(1) of the FPA\(^{72}\) require the Commission to give equal consideration to the power development purposes and to the purposes of energy conservation; the protection, mitigation of damage to, and enhancement of fish and wildlife; the protection of recreational opportunities; and the preservation of other aspects of environmental quality. Any license issued must be such as in the Commission’s judgment will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses. The decision to license this project, and the terms and conditions included herein, reflect such consideration.

The EA for the Holt Project contains background information, analysis of effects, and support for related license articles. Based on the record of this proceeding, including the EA and the comments thereon, licensing the Holt Hydroelectric Project as described in this order would not constitute a major federal action significantly affecting the quality of the human environment. The project will be safe if operated and maintained in accordance with the requirements of this license.

\(^{72}\) 16 U.S.C. §§ 797(e) and 803(a)(1) (2012).
83. Based on an independent review and evaluation of the project, recommendations from the resource agencies and other stakeholders, and the no-action alternative, as documented in the EA, the proposed Holt Hydroelectric Project, with the staff-recommended measures, is best adapted to a comprehensive plan for improving or developing the Black Warrior River.

84. This alternative is selected because: (1) issuance of a new license will serve to maintain a beneficial, dependable, and inexpensive source of electric energy; (2) the required environmental measures will protect or enhance water quality, wildlife, recreation, and cultural resources; and (3) the 46.9 MW of electric capacity comes from a renewable resource that does not contribute to atmospheric pollution.

LICENSE TERM

85. Section 15(e) of the FPA\(^3\) provides that any new license issued shall be for a term that the Commission determines to be in the public interest, but not less than 30 years or more than 50 years. It is Commission policy to issue a 50-year license for a project located at a federal dam. Accordingly, this license is being issued for a term of 50 years.

The Director orders:

(A) This license is issued to Alabama Power Company (licensee), for a period of 50 years, effective the first day of the month in which this order is issued, to construct, operate, and maintain the Holt Hydroelectric Project. This license is subject to the terms and conditions of the Federal Power Act (FPA), which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the FPA.

(B) The Holt Project consists of:

(1) All lands, to the extent of the licensee’s interests in these lands, described in the project description and the project boundary discussion of this order.

(2) Project works consisting of:

(i) a 390-foot-long, 90-foot-wide concrete powerhouse containing a single diagonal-flow turbine with an installed capacity of 46.9 megawatts; (ii) a 130-foot-long, concrete, non-overflow dam section; (iii) a 110-foot-long earth-filled dam section; and (iv) a 2.39-mile-long, 115-kilovolt above-ground transmission line that interconnects at the Southern Company’s Gorgas Steam Plant-Holt substation.

\(^3\) 16 U.S.C. § 808(e) (2012).
The Holt Project works generally described above are more specifically shown and described by the following parts of Exhibits A and F:

Exhibit A: The following sections of Exhibit A filed on August 16, 2013:

Pages A-3 through A-13, entitled “Holt Hydroelectric Project,” describing the mechanical, electrical, and transmission equipment within the application for the license.

Exhibit F: The following Exhibit F drawings filed on August 16, 2013:

<table>
<thead>
<tr>
<th>Exhibit F Drawing</th>
<th>FERC No. 2203-</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheet-1</td>
<td>1001</td>
<td>General Plan</td>
</tr>
<tr>
<td>Sheet-2</td>
<td>1002</td>
<td>Powerhouse Plan Thru Unit</td>
</tr>
<tr>
<td>Sheet-3</td>
<td>1003</td>
<td>General Layout – Powerhouse and Non-Overflow</td>
</tr>
<tr>
<td>Sheet-4</td>
<td>1004</td>
<td>Powerhouse Floor Plan</td>
</tr>
<tr>
<td>Sheet-5</td>
<td>1005</td>
<td>Powerhouse Longitudinal Section Non-Overflow &amp; Parking</td>
</tr>
<tr>
<td>Sheet-6</td>
<td>1006</td>
<td>Transverse Section Thru Service Bay and Dam</td>
</tr>
</tbody>
</table>

(3) All of the structures, fixtures, equipment, or facilities used to operate or maintain the Holt Project, all portable property that may be employed in connection with the project, and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.

(C) The Exhibits A and F described above are approved and made part of this license. The Exhibit G drawings filed as part of the application for license do not conform to Commission regulations and are not approved.

(D) This license is subject to the conditions submitted by the Alabama Department of Environmental Management under section 401(a)(1) of the Clean Water Act, 33 U.S.C. § 1341(a)(1) (2012), as those conditions are set forth in Appendix A to this order.

(E) This license is also subject to the articles set forth in Form L-5 (Oct. 1975), entitled “Terms and Conditions of License for Constructed Major Project Affecting Navigable Waters and Lands of the United States” (see 54 F.P.C. 1799 et seq.), as reproduced at the end of this order, and the following additional articles:

Article 201. Administrative Annual Charges. The licensee must pay the United States annual charges, effective the first day of the month in which the license is issued, and as determined in accordance with provisions of the Commission’s regulations in effect from time to time, for the purposes of:
(a) reimbursing the United States for the cost of administration of Part I of the Federal Power Act. The authorized installed capacity for that purpose is 46.9 megawatts; and

(b) recompensing the United States for the use of a government dam.

Article 202. Exhibit F Drawings. Within 45 days of the date of issuance of this license, as directed below, the licensee must file two sets of the approved exhibit drawings in electronic file format on compact disks with the Secretary of the Commission, ATTN: OEP/DHAC.

Digital images of the approved exhibit drawings must be prepared in electronic format. Prior to preparing each digital image, the FERC Project-Drawing Number (i.e., P-2203-1001 through P-2203-1006) must be shown in the margin below the title block of the approved drawing. Exhibit F drawings must be segregated from other project exhibits, and identified as (CEII) material under 18 C.F.R. § 388.113(c). Each drawing must be a separate electronic file, and the filename must include: FERC Project-Drawing Number, FERC Exhibit, Drawing Title, date of this license, and file extension in the following format [P-2203-1001, F-1, General Plan with Canal Closure Dike, MM-DD-YYYY.TIF]. All digital images of the exhibit drawings must meet the following format specification:

IMAGERY – black & white raster file
FILE TYPE – Tagged Image File Format, (TIFF) CCITT Group 4
(also known as T.6 coding scheme)
RESOLUTION – 300 dots per inch (dpi) desired, (200 dpi minimum)
DRAWING SIZE FORMAT – 22” x 34” (minimum), 24” x 36” (maximum)
FILE SIZE – less than 1 megabyte desired

Article 203. Exhibit G Drawings. Within 90 days of the effective date of the license, the licensee must file for Commission approval, revised Exhibit G drawings enclosing within the Holt Project boundary all principal project works necessary for operation and maintenance of the project and other project purposes, including: (1) the earth-filled dam section as shown in the Exhibit F drawing, Sheet 3; and (2) identification of the substation as the Gorgas Steam Plant-Holt Substation. The Exhibit G drawings must be stamped by a registered land surveyor and comply with sections 4.39 and 4.41 of the Commission’s regulations.

Article 204. Amortization Reserve. Pursuant to section 10(d) of the Federal Power Act, a specified reasonable rate of return on the net investment in the project must be used for determining surplus earnings of the project for the establishment and maintenance of amortization reserves. The licensee must set aside in a project amortization reserve account at the end of each fiscal year one-half of the project surplus earnings, if any, in excess of the specified rate of return per annum on the net investment. To the extent that there is a deficiency of project earnings below the specified rate of
return per annum for any fiscal year, the licensee must deduct the amount of that
deficiency from the amount of any surplus earnings subsequently accumulated, until
absorbed. The licensee must set aside one-half of the remaining surplus earnings, if any,
cumulatively computed, in the project amortization reserve account. The licensee must
maintain the amounts established in the project amortization reserve account until further
order of the Commission.

The specified reasonable rate of return used in computing amortization reserves
must be calculated annually based on current capital ratios developed from an average of
13 monthly balances of amounts properly included in the licensee’s long-term debt and
proprietary capital accounts as listed in the Commission's Uniform System of Accounts.
The cost rate for such ratios must be the weighted average cost of long-term debt and
preferred stock for the year. The cost of common equity must be the interest rate on 10-
year government bonds (reported as the Treasury Department’s 10-year constant maturity
series) computed on the monthly average for the year in question plus four percentage
points (400 basis points).

**Article 205. Headwater Benefits.** If the licensee’s project was directly benefited
by the construction work of another licensee, a permittee, or the United States on a
storage reservoir or other headwater improvement during the term of the original license
(including extensions of that term by annual licenses), and if those headwater benefits
were not previously assessed and reimbursed to the owner of the headwater
improvement, the licensee must reimburse the owner of the headwater improvement for
those benefits, at such time as they are assessed, in the same manner as for benefits
received during the term of this new license. The benefits will be assessed in accordance
with Part 11, Subpart B, of the Commission’s regulations.

**Article 206. As-Built Exhibits.** Within 90 days of completion of construction of
the tailrace shoreline fishing access site authorized by this license, the licensee must file
for Commission approval, revised Exhibits A, F, and G, as applicable, to describe and
show those project facilities as built.

**Article 301. Project Modification Resulting from Environmental Requirements.** If
environmental requirements under this license require modification that may affect the
project works or operations, the licensee must consult with the Commission’s Division of
Dam Safety and Inspections-Atlanta Regional Engineer. Consultation must allow
sufficient review time for the Commission to ensure that the proposed work does not
adversely affect the project works, dam safety, or project operation.

**Article 302. Facility Design and Construction.** The design and construction of
those permanent and temporary facilities, including reservoir impounding cofferdams and
deep excavations, that would be an integral part of, or that could affect the structural
integrity or operation of the Government project must be done in consultation with and
subject to the review and approval of the U.S. Army Corps of Engineers’ (Corps) District
Engineer. The Corps’ review of the cofferdams will be in addition to the licensee’s review and approval of the final plans, and shall in no way relieve the licensee of responsibility and liability regarding satisfactory performance of the cofferdams. Within 90 days from the issuance date of the license, the licensee must furnish the Corps and the Commission’s Division of Dam Safety and Inspections-Atlanta Regional Engineer, a schedule for submission of design documents and the plans and specifications for the project. If the schedule does not afford sufficient review and approval time, the licensee, upon request of the Corps, must meet with the Corps and Commission staff to revise the schedule accordingly.

**Article 303. Review of Contractor Designs.** The licensee must review and approve the design of contractor-designed cofferdams and deep excavations, other than those approved according to Article 302, prior to the start of construction and must ensure that construction of cofferdams and deep excavations are consistent with the approved design. At least 30 days prior to start of construction of the cofferdam, the licensee must file with the Director, Division of Dam Safety and Inspections, with a copy to both the Commission’s Regional Engineer and the U.S. Army Corps of Engineers, one copy of the approved cofferdam construction drawings and specifications and a copy of the letter(s) of approval.

**Article 304. Agreement with Corps.** The licensee must within 90 days from the issuance date of the license, enter into an agreement with the U.S. Army Corps of Engineers (Corps) to coordinate its plans for access to and site activities on lands and property administered by the Corps so that the authorized purposes, including operation of the Federal facilities, are protected. In general, the agreement must not be redundant with the Commission’s requirements contained in this license, must identify the facility, and the study and construction activities, as applicable, and terms and conditions under which studies and construction will be conducted. The agreement must be mainly composed of reasonable arrangements for access to the Corps site to conduct studies and construction activities, such access rights to be conditioned by the Corps as may be necessary to protect the federally authorized project purposes and operations. Should the licensee and the Corps fail to reach an access agreement, the licensee must refer the matter to the Commission for resolution.

**Article 305. Periodic and Continuous Inspections by the Corps.** The construction, operation and maintenance of the project works that, in the judgment of the U.S. Army Corps of Engineers (Corps), may affect the structural integrity or operation of the Corps project shall be subject to periodic or continuous inspections by the Corps. Any construction, operation, and maintenance deficiencies or difficulties detected by the Corps inspection must be immediately reported to the Commission’s Division of Dam Safety and Inspections (D2SI)-Atlanta Regional Engineer. Upon review, the D2SI-Atlanta Regional Engineer must refer the matter to the licensee for appropriate action. In cases when construction, operation, or maintenance practices or deficiencies may create a
situation posing imminent danger to the structural integrity and safety of the Corps project, the Corps inspector has the authority to stop construction or maintenance while awaiting the resolution of the problem. The licensee must immediately inform the D2SI-Atlanta Regional Engineer of the circumstances surrounding the cessation of construction, operation, or maintenance activities. The licensee must not resume construction, operation, or maintenance activities until notified by the D2SI-Atlanta Regional Engineer that the problem or situation has been resolved.

**Article 306. Regulating (or Operating) Plan.** The licensee must, at least 60 days prior to start of construction, submit for approval a regulating plan to the U.S. Corps of Engineers (Corps), describing (a) the designed mode of hydropower operation, (b) reservoir flow diversion and regulation requirements for operation of the Corps project during construction as established by the Corps, and (c) integration of the operation of the hydroelectric facility into the Corps' emergency action plan.

In addition, the licensee, prior to start of power plant operation, must enter into an operating Memorandum of Agreement (MOA) with the Corps describing the detailed operation of the powerhouse acceptable to the Corps. The MOA must specify any restrictions needed to protect the primary purposes of the Corps project. The Division of Dam Safety and Inspection (D2SI)-Atlanta Regional Engineer must be invited to attend meetings regarding the agreement. The MOA must be subject to revision by mutual consent of the Corps and licensee as experience is gained by actual project operation. Should the licensee and the Corps fail to reach agreement, the matter will be referred to the Director, Office of Energy Projects for resolution. Copies of the regulating plan and signed MOA between the Corps and the licensee and any revision thereof must be filed with the Commission.

**Article 307. No Claim.** The licensee shall have no claim under this license against the United States arising from the effect of any changes made in the operation or reservoir levels of the U.S. Army Corps of Engineers project.

**Article 308. Corps’ Written Approval.** The licensee must provide the Commission’s Division of Dam Safety and Inspections (D2SI)-Atlanta Regional Engineer two copies of all correspondence between the licensee and the U.S. Army Corps of Engineers (Corps). The D2SI-Atlanta Regional Engineer shall not authorize construction of any project work until the Corps’ written approval of construction plans and specifications has been received by the D2SI-Atlanta Regional Engineer.

**Article 401. Commission Approval and Reporting.**

(a) Requirement to File Report.

The licensee must file with the Commission the following report as required by the Alabama Department of Environmental Management’s (Alabama DEM) water
quality certification.

<table>
<thead>
<tr>
<th>Alabama DEM WQC Condition No.</th>
<th>Report Name</th>
<th>Commission Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Dissolved oxygen and water temperature monitoring report</td>
<td>Within 90 days following the end of the annual monitoring period</td>
</tr>
</tbody>
</table>

(b) Filing of Amendment Applications.

Certain conditions of Alabama DEM’s certification in Appendix A contemplate unspecified long-term changes to project operation or facilities for the purposes of complying with state water quality standards or mitigating environmental impacts (e.g., condition 6 requires an evaluation and potential license amendment for the purpose of ensuring compliance with state water quality criteria for dissolved oxygen). In addition, condition 1 requires compliance with the requirements of specific Alabama state administrative code, which may be subject to change during the license term. Such changes may not be implemented without prior Commission authorization granted after the filing of an application to amend the license.

Article 402. Interim Operating Requirements. The licensee must operate the project in accordance with Appendix B of the U.S. Army Corps of Engineers (Corps), “Black Warrior – Tombigbee River Basin Reservoir Regulation Manual, Appendix B, Holt Reservoir Black Warrior River, Alabama” as filed on July 15, 2011, until such time as the operating Memorandum of Agreement required by Article 306 has been approved by the Corps and filed with the Commission.

Article 403. Operation Compliance Monitoring Plan. Within six months of the effective date of the license, the licensee must file with the Commission for approval, an Operation Compliance Monitoring Plan that describes how the licensee will comply with the operational requirements and Article 8 of Form L-5 of this license. The plan must include, but not be limited to, the following:

(a) provisions for monitoring flows and water levels, including a description of monitoring locations, equipment or measuring devices, methods, frequency of recording, quality assurance and quality control, and calibration procedures;

(b) a provision for coordinating with the U.S. Army Corps of Engineers (Corps) in the event of an emergency, project shutdown, high-flow events, low-flow periods, or during nonattainment of water quality standards, and specifying what actions would be taken in such events;
(c) a protocol for documenting compliance with the Corps’ operational provisions developed under the Memorandum of Agreement in Article 304;

(d) a schedule of reporting project compliance/non-compliance during normal operation and in the event of an emergency; and

(e) a provision to file copies with the Director, Office of Energy Projects, of the approved Regulating (or Operating) Plan required by Article 306 and a copy of the signed MOA between the Corps and the licensee and any subsequent revisions.

The Operation Compliance Monitoring Plan must be developed after consultation with the Alabama Department of Environmental Management and the Corps. The licensee must include with the plan documentation of consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the entities above, and specific descriptions of how the entities’ comments are accommodated by the plan. The licensee must allow a minimum of 30 days for the entities to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing must include the licensee’s reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. Implementation of the plan must not begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee must implement the plan, including any changes required by the Commission.

Article 404. Reservation of Authority to Prescribe Fishways. Authority is reserved to the Commission to require the licensee to construct, operate, and maintain, or to provide for the construction, operation, and maintenance of such fishways as may be prescribed by the Secretary of the Interior pursuant to section 18 of the Federal Power Act.

Article 405. Protection of Northern Long-eared Bat and Indiana Bat. For the protection of the threatened northern long-eared bat and the endangered Indiana bat, the licensee must limit the cutting, trimming or destruction of trees on project land, to the period of October 15 through March 31. The licensee is permitted to remove hazardous or fallen trees for protection of human life and property along the transmission line corridor at any time. From April 1 through October 14, the licensee may only conduct tree-trimming and tree-removal activities on project lands after consultation with U.S. Fish and Wildlife Service, the Alabama Department of Conservation and Natural Resources, and the U.S. Army Corps of Engineers.

Article 406. Recreation Plan. Within 1 year of license issuance, the licensee must file with the Commission for approval, a Recreation Plan for the Holt Hydroelectric Project. The plan must include, but not be limited to, the following:
(1) a description and as-built drawings of all existing project recreation facilities (all amenities and associated infrastructure) provided at Overlook Park;

(2) a description of, and conceptual drawings and specifications for, a new tailrace shoreline fishing access site that includes paved parking for at least five vehicles and a platform with steps and handrails, as described in the license application filed on August 16, 2013, and a trash receptacle;

(3) a map or maps showing the existing Overlook Park and the new tailrace shoreline fishing access site within the project boundary;

(4) a provision to operate and maintain the existing Overlook Park and the new tailrace shoreline fishing access site that includes: (a) the hours of operation; (b) posting the location and hours of operation of the new tailrace shoreline fishing access site on the licensee’s public website; (c) signs at each project recreation site, as specified in 18 C.F.R. section 8.2 of the Commission’s regulations; and (d) trash removal;

(5) a discussion of how the needs of the disabled were considered in the planning and design of the recreation facilities; and

(6) a provision to: (a) update the signs as needed; and (b) monitor the condition of the project recreation sites to ensure that they are maintained.

The Recreation Plan must be developed after consultation with the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, and the Alabama Department of Conservation and Natural Resources. The licensee must include with the plan an implementation schedule, documentation of consultation, copies of recommendations on the completed plan after it has been prepared and provided to the entities above, and specific descriptions of how the entities’ comments are accommodated by the plan. The licensee must allow a minimum of 30 days for the entities to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing must include the licensee’s reasons, based on the project-specific information.

The Commission reserves the right to require changes to the plan. Implementation of the plan must not begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee must implement the plan, including any changes required by the Commission.

Article 407. Protection of Previously Undiscovered Cultural Resources. If the licensee discovers previously unidentified cultural resources during maintaining, or developing project works or other facilities at the project, the licensee must stop all land-clearing and land-disturbing activities in the vicinity of the resource and consult with the Alabama State Historic Preservation Officer (Alabama SHPO), the U.S. Army Corps of
Engineers (Corps), the Choctaw Nation of Oklahoma, the Jena Band of Choctaw Indians, and the Alabama-Coushatta Tribe of Texas to determine the need for any cultural resource studies or measures. If no studies or measures are needed, the licensee must file with the Commission documentation of its consultation with the entities above immediately.

If a discovered cultural resource is determined to be eligible for the National Register of Historic Places (National Register), the licensee must file for Commission approval a Historic Properties Management Plan (HPMP) prepared by a qualified cultural resource specialist after consultation with the Alabama SHPO, the Corps, the Choctaw Nation of Oklahoma, the Jena Band of Choctaw Indians, and the Alabama-Coushatta Tribe of Texas. In developing the HPMP, the licensee must use the Advisory Council on Historic Preservation and the Federal Energy Regulatory Commission Guidelines for the Development of Historic Properties Management Plans for FERC Hydroelectric Projects, dated May 20, 2002. The HPMP must include the following items: (1) a description of each discovered property, indicating whether it is listed in or eligible for listing in the National Register; (2) a description of the potential effect on each discovered property; (3) proposed measures for avoiding or mitigating adverse effects; (4) documentation of consultation with the entities above; and (5) a schedule for implementing mitigation measures and conducting additional studies. The Commission reserves the right to require changes to the HPMP.

The licensee must not resume land-clearing or land-disturbing activities in the vicinity of a cultural resource discovered during construction until informed by the Commission that the requirements of this article have been fulfilled.

**Article 408. Protection of Cultural Resources.** Prior to implementing any project modifications not specifically authorized by this license, including but not limited to maintenance activities, land-clearing or land-disturbing activities, or changes to project operation or facilities, the licensee must consult with the Alabama State Historic Preservation Officer (Alabama SHPO), the U.S. Army Corps of Engineers (Corps), the Choctaw Nation of Oklahoma, the Jena Band of Choctaw Indians, and the Alabama-Coushatta Tribe of Texas to determine the effects of the activities and the need for any cultural resource studies or measures. If no studies or measures are needed, the licensee must file with the Commission documentation of its consultation with the entities above.

If a project modification is determined to affect an historic property, the licensee must file for Commission approval a Historic Properties Management Plan (HPMP). The HPMP must be prepared by a qualified cultural resource specialist after consultation with the Alabama SHPO, the Corps, the Choctaw Nation of Oklahoma, the Jena Band of Choctaw Indians, and the Alabama-Coushatta Tribe of Texas. In developing the HPMP, the licensee must use the Advisory Council on Historic Preservation and the Federal Energy Regulatory Commission Guidelines for the Development of Historic Properties Management Plans for FERC Hydroelectric Projects, dated May 20, 2002. The HPMP
must include the following items: (1) a description of each historic property; (2) a description of the potential effect on each historic property; (3) proposed measures for avoiding or mitigating adverse effects; (4) documentation of the nature and extent of consultation; and (5) a schedule for implementing mitigation and conducting additional studies.

The Commission reserves the right to require changes to the HPMP. The licensee must not implement any project modifications, other than those specifically authorized in this license, until informed by the Commission that the requirements of this article have been fulfilled.

**Article 409. Evaluation of the Holt Project Powerhouse.** By no later than August 15, 2019, the licensee must file a Determination of Eligibility for the Holt Project powerhouse for inclusion in the National Register of Historic Places (National Register).

The Determination of Eligibility must be conducted after the powerhouse reaches 50 years of age and include, at a minimum, the following: (1) identification of the area of potential effects, as defined in the licensee’s “Cultural Resources Survey of Alabama Power Company’s Holt Hydroelectric Project (FERC No. 2203) Tuscaloosa County, Alabama,” filed February 25, 2013; (2) a detailed description of the Holt Project powerhouse; and (3) evaluation of the Holt Project powerhouse, including determination of its eligibility and if eligible, the criteria for which the powerhouse is listed in the National Register.

The Determination of Eligibility must be conducted after consultation with the Alabama State Historic Preservation Officer and the U.S. Army Corps of Engineers. The licensee must include with the Determination of Eligibility documentation of consultation, copies of recommendations on the completed report after it has been prepared and provided to the entities above, and specific descriptions of how the entities’ comments are accommodated by the report. The licensee must allow a minimum of 30 days for the entities to comment and to make recommendations before filing the report with the Commission. If the licensee does not adopt a recommendation, the filing must include the licensee’s reasons, based on project-specific information.

If the Holt Project powerhouse is determined to be eligible for the National Register, the licensee must file with the Commission for approval, a Historic Properties Management Plan (HPMP). In developing the HPMP, the licensee must use the Advisory Council on Historic Preservation and the Federal Energy Regulatory Commission Guidelines for the Development of Historic Properties Management Plans for FERC Hydroelectric Projects, dated May 20, 2002. The HPMP must include the following items: (1) a description of the Holt Project powerhouse; (2) a description of the potential effect on the Holt Project powerhouse; (3) proposed measures for avoiding or mitigating adverse effects; (4) documentation of consultation with the entities above; and (5) a schedule for implementing mitigation measures.
The Commission reserves the right to require changes to the HPMP. The licensee must not implement any project modifications, other than those specifically authorized in this license, until informed by the Commission that the requirements of this article have been fulfilled.

**Article 410. Use and Occupancy.** (a) In accordance with the provisions of this article, the licensee must have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee must also have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project’s scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee must take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The type of use and occupancy of project lands and waters for which the licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 water craft at a time and where said facility is intended to serve single-family type dwellings; (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and (4) food plots and other wildlife enhancement. To the extent feasible and desirable to protect and enhance the project’s scenic, recreational, and other environmental values, the licensee must require multiple use and occupancy of facilities for access to project lands or waters. The licensee must also ensure that, to the satisfaction of the Commission’s authorized representative, the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the licensee must: (1) inspect the site of the proposed construction, (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site, and (3) determine that the proposed construction is needed and would not change the basic contour of the impoundment shoreline. To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee’s costs of administering the permit program. The Commission reserves the right to require the
licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The licensee may convey easements or rights-of-way across, or leases of project lands for: (1) replacement, expansion, realignment, or maintenance of bridges or roads where all necessary state and federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kilovolts or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project impoundment. No later than January 31 of each year, the licensee must file a copy of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 water craft at a time and are located at least one-half mile (measured over project waters) from any other private or public marina; (6) recreational development consistent with an approved report on recreational resources of an Exhibit E; and (7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from project waters at normal surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 60 days before conveying any interest in project lands under this paragraph (d), the licensee must file a letter with the Commission, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked Exhibit G map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Commission’s authorized representative, within 45 days from the filing date, requires the licensee to file an application for prior approval, the licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under
paragraph (c) or (d) of this article:

(1) Before conveying the interest, the licensee must consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.

(2) Before conveying the interest, the licensee must determine that the proposed use of the lands to be conveyed is not inconsistent with any approved report on recreational resources of an Exhibit E; or, if the project does not have an approved report on recreational resources, that the lands to be conveyed do not have recreational value.

(3) The instrument of conveyance must include the following covenants running with the land: (i) the use of the lands conveyed must not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; (ii) the grantee must take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project; and (iii) the grantee must not unduly restrict public access to project waters.

(4) The Commission reserves the right to require the licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude lands conveyed under this article only upon approval of revised Exhibit G drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project must be consolidated for consideration when revised Exhibit G drawings would be filed for approval for other purposes.

(g) The authority granted to the licensee under this article must not apply to any part of the public lands and reservations of the United States included within the project boundary.

(F) The licensee must serve copies of any Commission filing required by this order on any entity specified in the order to be consulted on matters relating to that filing. Proof of service on these entities must accompany the filing with the Commission.

(G) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in section
313(a) of the FPA, 16 U.S.C. § 825l (2012), and section 385.713 of the Commission’s regulations, 18 C.F.R. § 385.713 (2016). The filing of a request for rehearing does not operate as a stay of the effective date of this license or of any other date specified in this order. The licensee’s failure to file a request for rehearing shall constitute acceptance of this order.

Ann F. Miles  
Director  
Office of Energy Projects
FEDERAL ENERGY REGULATORY COMMISSION

TERMS AND CONDITIONS OF LICENSE FOR CONSTRUCTED MAJOR PROJECT AFFECTING NAVIGABLE WATERS AND LANDS OF THE UNITED STATES

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

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

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

Article 4. The project, including its operation and maintenance and any work incidental to additions or alterations authorized by the Commission, whether or not conducted upon lands of the United States, shall be subject to the inspection and supervision of the Regional Engineer, Federal Energy Regulatory Commission, in the
region wherein the project is located, or of such other officer or agent as the Commission may designate, who shall be the authorized representative of the Commission for such purposes. The Licensee shall cooperate fully with said representative and shall furnish him such information as he may require concerning the operation and maintenance of the project, and any such alterations thereto, and shall notify him of the date upon which work with respect to any alteration will begin, as far in advance thereof as said representative may reasonably specify, and shall notify him promptly in writing of any suspension of work for a period of more than one week, and of its resumption and completion. The Licensee shall submit to said representative a detailed program of inspection by the Licensee that will provide for an adequate and qualified inspection force for construction of any such alterations to the project. Construction of said alterations or any feature thereof shall not be initiated until the program of inspection for the alterations or any feature thereof has been approved by said representative. The Licensee shall allow said representative and other officers or employees of the United States, showing proper credentials, free and unrestricted access to, through, and across the project lands and project works in the performance of their official duties. The Licensee shall comply with such rules and regulations of general or special applicability as the Commission may prescribe from time to time for the protection of life, health, or property.

**Article 5.** The Licensee, within five years from the date of issuance of the license, shall acquire title in fee or the right to use in perpetuity all lands, other than lands of the United States, necessary or appropriate for the construction maintenance, and operation of the project. The Licensee or its successors and assigns shall, during the period of the license, retain the possession of all project property covered by the license as issued or as later amended, including the project area, the project works, and all franchises, easements, water rights, and rights or occupancy and use; and none of such properties shall be voluntarily sold, leased, transferred, abandoned, or otherwise disposed of without the prior written approval of the Commission, except that the Licensee may lease or otherwise dispose of interests in project lands or property without specific written approval of the Commission pursuant to the then current regulations of the Commission. The provisions of this article are not intended to prevent the abandonment or the retirement from service of structures, equipment, or other project works in connection with replacements thereof when they become obsolete, inadequate, or inefficient for further service due to wear and tear; and mortgage or trust deeds or judicial sales made thereunder, or tax sales, shall not be deemed voluntary transfers within the meaning of this article.

**Article 6.** In the event the project is taken over by the United States upon the termination of the license as provided in Section 14 of the Federal Power Act, or is transferred to a new licensee or to a nonpower licensee under the provisions of Section 15 of said Act, the Licensee, its successors and assigns shall be responsible for, and shall
make good any defect of title to, or of right of occupancy and use in, any of such project property that is necessary or appropriate or valuable and serviceable in the maintenance and operation of the project, and shall pay and discharge, or shall assume responsibility for payment and discharge of, all liens or encumbrances upon the project or project property created by the Licensee or created or incurred after the issuance of the license: Provided, That the provisions of this article are not intended to require the Licensee, for the purpose of transferring the project to the United States or to a new licensee, to acquire any different title to, or right of occupancy and use in, any of such project property than was necessary to acquire for its own purposes as the Licensee.

Article 7. The actual legitimate original cost of the project, and of any addition thereto or betterment thereof, shall be determined by the Commission in accordance with the Federal Power Act and the Commission's Rules and Regulations thereunder.

Article 8. The Licensee shall install and thereafter maintain gages and stream-gaging stations for the purpose of determining the stage and flow of the stream or streams on which the project is located, the amount of water held in and withdrawn from storage, and the effective head on the turbines; shall provide for the required reading of such gages and for the adequate rating of such stations; and shall install and maintain standard meters adequate for the determination of the amount of electric energy generated by the project works. The number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, shall at all times be satisfactory to the Commission or its authorized representative. The Commission reserves the right, after notice and opportunity for hearing, to require such alterations in the number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, as are necessary to secure adequate determinations. The installation of gages, the rating of said stream or streams, and the determination of the flow thereof, shall be under the supervision of, or in cooperation with, the District Engineer of the United States Geological Survey having charge of stream-gaging operations in the region of the project, and the Licensee shall advance to the United States Geological Survey the amount of funds estimated to be necessary for such supervision, or cooperation for such periods as may mutually agreed upon. The Licensee shall keep accurate and sufficient records of the foregoing determinations to the satisfaction of the Commission, and shall make return of such records annually at such time and in such form as the Commission may prescribe.

Article 9. The Licensee shall, after notice and opportunity for hearing, install additional capacity or make other changes in the project as directed by the Commission, to the extent that it is economically sound and in the public interest to do so.

Article 10. The Licensee shall, after notice and opportunity for hearing, coordinate the operation of the project, electrically and hydraulically, with such other projects or power systems and in such manner as the Commission may direct in the
interest of power and other beneficial public uses of water resources, and on such conditions concerning the equitable sharing of benefits by the Licensee as the Commission may order.

**Article 11.** Whenever the Licensee is directly benefited by the construction work of another licensee, a permittee, or the United States on a storage reservoir or other headwater improvement, the Licensee shall reimburse the owner of the headwater improvement for such part of the annual charges for interest, maintenance, and depreciation thereof as the Commission shall determine to be equitable, and shall pay to the United States the cost of making such determination as fixed by the Commission. For benefits provided by a storage reservoir or other headwater improvement of the United States, the Licensee shall pay to the Commission the amounts for which it is billed from time to time for such headwater benefits and for the cost of making the determinations pursuant to the then current regulations of the Commission under the Federal Power Act.

**Article 12.** The United States specifically retains and safeguards the right to use water in such amount, to be determined by the Secretary of the Army, as may be necessary for the purposes of navigation on the navigable waterway affected; and the operations of the Licensee, so far as they affect the use, storage and discharge from storage of waters affected by the license, shall at all times be controlled by such reasonable rules and regulations as the Secretary of the Army may prescribe in the interest of navigation, and as the Commission may prescribe for the protection of life, health, and property, and in the interest of the fullest practicable conservation and utilization of such waters for power purposes and for other beneficial public uses, including recreational purposes, and the Licensee shall release water from the project reservoir at such rate in cubic feet per second, or such volume in acre-feet per specified period of time, as the Secretary of the Army may prescribe in the interest of navigation, or as the Commission may prescribe for the other purposes hereinbefore mentioned.

**Article 13.** On the application of any person, association, corporation, Federal agency, State or municipality, the Licensee shall permit such reasonable use of its reservoir or other project properties, including works, lands and water rights, or parts thereof, as may be ordered by the Commission, after notice and opportunity for hearing, in the interests of comprehensive development of the waterway or waterways involved and the conservation and utilization of the water resources of the region for water supply or for the purposes of steam-electric, irrigation, industrial, municipal or similar uses. The Licensee shall receive reasonable compensation for use of its reservoir or other project properties or parts thereof for such purposes, to include at least full reimbursement for any damages or expenses which the joint use causes the Licensee to incur. Any such compensation shall be fixed by the Commission either by approval of an agreement between the Licensee and the party or parties benefiting or after notice and opportunity for hearing. Applications shall contain information in sufficient detail
to afford a full understanding of the proposed use, including satisfactory evidence that
the applicant possesses necessary water rights pursuant to applicable State law, or a
showing of cause why such evidence cannot concurrently be submitted, and a statement
as to the relationship of the proposed use to any State or municipal plans or orders
which may have been adopted with respect to the use of such waters.

Article 14. In the construction or maintenance of the project works, the Licensee
shall place and maintain suitable structures and devices to reduce to a reasonable degree
the liability of contact between its transmission lines and telegraph, telephone and other
signal wires or power transmission lines constructed prior to its transmission lines and
not owned by the Licensee, and shall also place and maintain suitable structures and
devices to reduce to a reasonable degree the liability of any structures or wires falling or
obstructing traffic or endangering life. None of the provisions of this article are intended
to relieve the Licensee from any responsibility or requirement which may be imposed by
any other lawful authority for avoiding or eliminating inductive interference.

Article 15. The Licensee shall, for the conservation and development of fish and
wildlife resources, construct, maintain, and operate, or arrange for the construction,
maintenance, and operation of such reasonable facilities, and comply with such
reasonable modifications of the project structures and operation, as may be ordered by the
Commission upon its own motion or upon the recommendation of the Secretary of the
Interior or the fish and wildlife agency or agencies of any State in which the project or a
part thereof is located, after notice and opportunity for hearing.

Article 16. Whenever the United States shall desire, in connection with the
project, to construct fish and wildlife facilities or to improve the existing fish and wildlife
facilities at its own expense, the Licensee shall permit the United States or its designated
agency to use, free of cost, such of the Licensee's lands and interests in lands, reservoirs,
waterways and project works as may be reasonably required to complete such facilities or
such improvements thereof. In addition, after notice and opportunity for hearing, the
Licensee shall modify the project operation as may be reasonably prescribed by the
Commission in order to permit the maintenance and operation of the fish and wildlife
facilities constructed or improved by the United States under the provisions of this article.
This article shall not be interpreted to place any obligation on the United States to
construct or improve fish and wildlife facilities or to relieve the Licensee of any
obligation under this license.

Article 17. The Licensee shall construct, maintain, and operate, or shall arrange
for the construction, maintenance, and operation of such reasonable recreational facilities,
including modifications thereto, such as access roads, wharves, launching ramps,
beaches, picnic and camping areas, sanitary facilities, and utilities, giving consideration
to the needs of the physically handicapped, and shall comply with such reasonable
Article 18. So far as is consistent with proper operation of the project, the Licensee shall allow the public free access, to a reasonable extent, to project waters and adjacent project lands owned by the Licensee for the purpose of full public utilization of such lands and waters for navigation and for outdoor recreational purposes, including fishing and hunting: Provided, That the Licensee may reserve from public access such portions of the project waters, adjacent lands, and project facilities as may be necessary for the protection of life, health, and property.

Article 19. In the construction, maintenance, or operation of the project, the Licensee shall be responsible for, and shall take reasonable measures to prevent, soil erosion on lands adjacent to streams or other waters, stream sedimentation, and any form of water or air pollution. The Commission, upon request or upon its own motion, may order the Licensee to take such measures as the Commission finds to be necessary for these purposes, after notice and opportunity for hearing.

Article 20. The Licensee shall clear and keep clear to an adequate width lands along open conduits and shall dispose of all temporary structures, unused timber, brush, refuse, or other material unnecessary for the purposes of the project which results from the clearing of lands or from the maintenance or alteration of the project works. In addition, all trees along the periphery of project reservoirs which may die during operations of the project shall be removed. All clearing of the lands and disposal of the unnecessary material shall be done with due diligence and to the satisfaction of the authorized representative of the Commission and in accordance with appropriate Federal, State, and local statutes and regulations.

Article 21. Material may be dredged or excavated from, or placed as fill in, project lands and/or waters only in the prosecution of work specifically authorized under the license; in the maintenance of the project; or after obtaining Commission approval, as appropriate. Any such material shall be removed and/or deposited in such manner as to reasonably preserve the environmental values of the project and so as not to interfere with traffic on land or water. Dredging and filling in a navigable water of the United States shall also be done to the satisfaction of the District Engineer, Department of the Army, in charge of the locality.

Article 22. Whenever the United States shall desire to construct, complete, or improve navigation facilities in connection with the project, the Licensee shall convey to the United States, free of cost, such of its lands and rights-of-way and such rights of
passage through its dams or other structures, and shall permit such control of its pools, as may be required to complete and maintain such navigation facilities.

**Article 23.** The operation of any navigation facilities which may be constructed as a part of, or in connection with, any dam or diversion structure constituting a part of the project works shall at all times be controlled by such reasonable rules and regulations in the interest of navigation, including control of the level of the pool caused by such dam or diversion structure, as may be made from time to time by the Secretary of the Army.

**Article 24.** The Licensee shall furnish power free of cost to the United States for the operation and maintenance of navigation facilities in the vicinity of the project at the voltage and frequency required by such facilities and at a point adjacent thereto, whether said facilities are constructed by the Licensee or by the United States.

**Article 25.** The Licensee shall construct, maintain, and operate at its own expense such lights and other signals for the protection of navigation as may be directed by the Secretary of the Department in which the Coast Guard is operating.

**Article 26.** Timber on lands of the United States cut, used, or destroyed in the construction and maintenance of the project works, or in the clearing of said lands, shall be paid for, and the resulting slash and debris disposed of, in accordance with the requirements of the agency of the United States having jurisdiction over said lands. Payment for merchantable timber shall be at current stumpage rates, and payment for young growth timber below merchantable size shall be at current damage appraisal values. However, the agency of the United States having jurisdiction may sell or dispose of the merchantable timber to others than the Licensee: Provided, That timber so sold or disposed of shall be cut and removed from the area prior to, or without undue interference with, clearing operations of the Licensee and in coordination with the Licensee's project construction schedules. Such sale or disposal to others shall not relieve the Licensee of responsibility for the clearing and disposal of all slash and debris from project lands.

**Article 27.** The Licensee shall do everything reasonably within its power, and shall require its employees, contractors, and employees of contractors to do everything reasonably within their power, both independently and upon the request of officers of the agency concerned, to prevent, to make advance preparations for suppression of, and to suppress fires on the lands to be occupied or used under the license. The Licensee shall be liable for and shall pay the costs incurred by the United States in suppressing fires caused from the construction, operation, or maintenance of the project works or of the works appurtenant or accessory thereto under the license.

**Article 28.** The Licensee shall interpose no objection to, and shall in no way prevent, the use by the agency of the United States having jurisdiction over the lands
of the United States affected, or by persons or corporations occupying lands of the
United States under permit, of water for fire suppression from any stream, conduit, or
body of water, natural or artificial, used by the Licensee in the operation of the project
works covered by the license, or the use by said parties of water for sanitary and
domestic purposes from any stream, conduit, or body of water, natural or artificial,
used by the Licensee in the operation of the project works covered by the license.

Article 29. The Licensee shall be liable for injury to, or destruction of, any
buildings, bridges, roads, trails, lands, or other property of the United States, occasioned
by the construction, maintenance, or operation of the project works or of the works
appurtenant or accessory thereto under the license. Arrangements to meet such liability,
either by compensation for such injury or destruction, or by reconstruction or repair of
damaged property, or otherwise, shall be made with the appropriate department or agency
of the United States.

Article 30. The Licensee shall allow any agency of the United States, without
charge, to construct or permit to be constructed on, through, and across those project
lands which are lands of the United States such conduits, chutes, ditches, railroads, roads,
trails, telephone and power lines, and other routes or means of transportation and
communication as are not inconsistent with the enjoyment of said lands by the Licensee
for the purposes of the license. This license shall not be construed as conferring upon the
Licensee any right of use, occupancy, or enjoyment of the lands of the United States
other than for the construction, operation, and maintenance of the project as stated in the
license.

Article 31. In the construction and maintenance of the project, the location and
standards of roads and trails on lands of the United States and other uses of lands of the
United States, including the location and condition of quarries, borrow pits, and spoil
disposal areas, shall be subject to the approval of the department or agency of the United
States having supervision over the lands involved.

Article 32. The Licensee shall make provision, or shall bear the reasonable cost,
as determined by the agency of the United States affected, of making provision for
avoiding inductive interference between any project transmission line or other project
facility constructed, operated, or maintained under the license, and any radio installation,
telephone line, or other communication facility installed or constructed before or after
construction of such project transmission line or other project facility and owned,
operated, or used by such agency of the United States in administering the lands under its
jurisdiction.

Article 33. The Licensee shall make use of the Commission's guidelines and other
recognized guidelines for treatment of transmission line rights-of-way, and shall clear
such portions of transmission line rights-of-way across lands of the United States as are designated by the officer of the United States in charge of the lands; shall keep the areas so designated clear of new growth, all refuse, and inflammable material to the satisfaction of such officer; shall trim all branches of trees in contact with or liable to contact the transmission lines; shall cut and remove all dead or leaning trees which might fall in contact with the transmission lines; and shall take such other precautions against fire as may be required by such officer. No fires for the burning of waste material shall be set except with the prior written consent of the officer of the United States in charge of the lands as to time and place.

**Article 34.** The Licensee shall cooperate with the United States in the disposal by the United States, under the Act of July 31, 1947, 61 Stat. 681, as amended (30 U.S.C. sec. 601, et seq.), of mineral and vegetative materials from lands of the United States occupied by the project or any part thereof: Provided, That such disposal has been authorized by the Commission and that it does not unreasonably interfere with the occupancy of such lands by the Licensee for the purposes of the license: Provided further, That in the event of disagreement, any question of unreasonable interference shall be determined by the Commission after notice and opportunity for hearing.

**Article 35.** If the Licensee shall cause or suffer essential project property to be removed or destroyed or to become unfit for use, without adequate replacement, or shall abandon or discontinue good faith operation of the project or refuse or neglect to comply with the terms of the license and the lawful orders of the Commission mailed to the record address of the Licensee or its agent, the Commission will deem it to be the intent of the Licensee to surrender the license. The Commission, after notice and opportunity for hearing, may require the Licensee to remove any or all structures, equipment and power lines within the project boundary and to take any such other action necessary to restore the project waters, lands, and facilities remaining within the project boundary to a condition satisfactory to the United States agency having jurisdiction over its lands or the Commission's authorized representative, as appropriate, or to provide for the continued operation and maintenance of nonpower facilities and fulfill such other obligations under the license as the Commission may prescribe. In addition, the Commission in its discretion, after notice and opportunity for hearing, may also agree to the surrender of the license when the Commission, for the reasons recited herein, deems it to be the intent of the Licensee to surrender the license.

**Article 36.** The right of the Licensee and of its successors and assigns to use or occupy waters over which the United States has jurisdiction, or lands of the United States under the license, for the purpose of maintaining the project works or otherwise, shall absolutely cease at the end of the license period, unless the Licensee has obtained a new license pursuant to the then existing laws and regulations, or an annual license under the terms and conditions of this license.
Article 37. The terms and conditions expressly set forth in the license shall not be construed as impairing any terms and conditions of the Federal Power Act which are not expressly set forth herein.
APPENDIX A


Conditions of Certification:

1. The operation of this project, including the operation of the turbine and existing turbine aeration systems, shall be managed such that dissolved oxygen (D.O.) criteria specified at ADEM Administrative Code Reg. 335-6-10-.09(2)4., 335-6-10-.09(3)4., and 335-6-10-.09(5)4. shall be maintained at all times at the monitoring point prescribed herein. Management required to maintain the D.O. concentration shall be implemented to assure that the 4.0 mg/L minimum criterion is maintained.

2. The monitoring point for determining compliance with paragraph 1. above shall be located in the turbine scroll case as described in Appendix F of the PAD.

3. The monitor in the Holt turbine scroll case will record D.O. concentrations and water temperature at 60-minute intervals during periods of hydroelectric generation following one continuous hour of generation beginning June 1 and extending through September 30. During flood events, the monitoring may be temporarily discontinued until tailrace elevations return to normal. The monitoring program will begin following the effective date of new license issued by the Federal Energy Regulatory Commission (FERC) for the Holt Hydroelectric Project if the effective date is within the prescribed monitoring period, monitoring shall begin the following June 1. The monitoring program shall continue for a period of two years.

4. Alabama Power Company will provide adequate and frequent maintenance and calibration of the D.O. and temperature monitoring equipment to assure its proper operation. The D.O. monitoring equipment will be calibrated at an acceptable frequency using the manufacturer’s recommendations, the modified Winkler Method, Method 360.2 of the Environmental Protection Agency’s Method for Chemical Analysis of Water and Wastes, latest edition, or other equivalent methods.

5. Dissolved oxygen and temperature monitoring reports shall be submitted with appropriate certifications to the ADEM within 90 days following the end of the annual monitoring period. Following the final year of monitoring, the complete set of data shall be submitted to the FERC. Monitoring reports shall be submitted in an electronic form compatible with the Microsoft Excel and Word software.

6. An assessment of the effects of the operation of the Holt Hydroelectric Project on the State of Alabama’s water quality standards shall be conducted using the results of the monitoring as described in the previous paragraphs. If the monitoring results do not indicate compliance with the State of Alabama water quality standards (maintenance of a
D.O. concentration of 4.0 mg/l or greater), Alabama Power Company shall develop and implement measures to ensure compliance with the 4.0 mg/l D.O. criterion through structural and/or operation modifications at the project as prescribed in paragraph 1. The assessment shall be filed with ADEM within 6 months following the end of the two year monitoring period. As a part of the assessment Alabama Power Company shall furnish, at the Department’s request, other data and information that may be available but not expressly required in this monitoring plan.

7. The Department also certifies that there are no applicable limitations nor other limitations imposed under Sections 301(b) or 302 or other standards imposed under Sections 306 or 307 of the Clean Water Act. This certification does not, however, exempt Alabama Power Company from requirements imposed under the National Pollutant Discharge Elimination System for other discharges at these facilities regulated by the Department.