Southern Company Generation Bin 10193 241 Ralph McGill Boulevard NE Atlanta, Georgia 30308-3374 Tel 404.506.7033



September 29, 2010

## North Georgia Hydro Project

FERC Project No. 2354 Aesthetic and Whitewater Flow Releases

Kimberly D. Bose, Secretary Federal Energy Regulatory Commission Mail Code PJ12.3 888 First Street, NE Washington, D.C. 20426

Dear Ms. Bose:

As required by the "Order Approving Plan to Minimize Reservoir Fluctuations," we are writing to notify you of the modifications to the flow regimes prescribed in the license. This plan was filed pursuant to Article 411 of the project license.

In our letter to the Atlanta Regional Office of the FERC dated September 9, 2010, (copy attached), we detailed the events that transpired at Tallulah Falls Dam from August 21 to September 1, 2010. Our present plan of action is to repair the six bottom-hinged gates. These repairs will not be complete until the end of 2010. Therefore, the aesthetic and whitewater releases (Articles 409 and 410, respectively) scheduled for 2010 will not be possible.

A large crane atop a barge on the upstream side of the spillway will be used for the repairs. This will require that Tallulah Lake be kept drawn down below the crest of the spillway. Flow coming down river is presently passed through the Tallulah powerhouse. This will continue for the duration of the repairs.

All other operational license requirements should continue to be met. Lake Burton will be maintained at elevation 1865 feet through October until the prescribed drawdown occurs in November and December. The 35 cfs minimum flow at Tallulah Falls Dam will be passed through the minimum flow pipe

Should you have any questions, please contact me at telephone number 404-506-7033.

Sincerely

Joel Galt

Hydro Services Supervisor

Galo

attachment

## xc: Original and seven copies for FERC Office of the Secretary

Three copies to:
Mr. Charles D. Wagner
Regional Engineer
Federal Energy Regulatory Commission
Gwinnett Commerce Center
3700 Crestwood Parkway, NW, Suite 950
Duluth, GA 30096

# bxc: Georgia Power Company

Mr. S. W. Connally

Mr. F. F. Pitts

Mr. B. L. Brookshire

Mr. J. L. Masters

Ms. K. M. Heirs

# Southern Company Services

Mr. E. B. Allison, Jr.

Mr. J. F. Crew

Job No.: NG10911

EWO: 3487CI

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Southern Company Generation Bin 10193 241 Ralph McGill Boulevard NE Atlanta, Georgia 30308-3374 Tel 404-506-7033



September 9, 2010

#### North Georgia Hydro Project

Gate Failure at Tallulah Falls Dam FERC Project No.2354 (NATDAM No. GA00844)

Mr. Charles D. Wagner, P.E. Regional Engineer Federal Energy Regulatory Commission Gwinnett Commerce Center 3700 Crestwood Parkway, NW, Suite 950 Duluth, GA 30096

Dear Mr. Wagner:

As required by 18 CFR 12.10, we are filing a written report on the condition affecting spillway Gate No. 3 at the Tallulah Falls Dam of the North Georgia Hydroelectric Project.

The spillway section of the Tallulah Falls Dam has ten bays, each 28 feet wide. Four bays on the left side have wooden flashboards which are 7 feet high with aluminum pipe supports. The remaining six bays have wooden gates with steel frames that are bottom hinged and motor operated. Each gate has a vertical height of seven feet. When the gates are in the raised or closed position, they are positioned at a 30 degree angle to the vertical in the downstream direction.

On August 21, 2010, a heavy rainfall occurred in Northeast Georgia which resulted in Tallulah Lake reaching an elevation at which water was flowing over several gates at the dam. With the upstream camera not functioning, an operator was dispatched to conduct a safety check of the upstream area before any gates could be opened. The control room in the Tallulah powerhouse, 1.8 miles downstream, was watching the downstream security camera as the area was being checked and saw Gate 3 fail at the bottom hinges. The on-site operator was asked to verify the situation. After verification, Plant Superintendent Barry Brookshire was contacted; he in turn contacted Hydro Services' Larry Wills. Mr. Wills then called me, followed by a call to you to inform FERC of the situation.

Mr. Brookshire also contacted the Tallulah Falls State Park management to notify them of the situation and suggest that no permits to the bottom of Tallulah Gorge be issued until further notice. Note that on the date of the gate failure, no permits had been issued due to the rain. In order to insure the Gorge could be made as safe as possible, Tallulah Falls Lake was

Mr. Charles D. Wagner, P.E. September 8, 2010

lowered at a rate slow enough that the flows in the Gorge were not excessive but would lower the lake quickly to a zero flow condition. This was accomplished with the flow through the failed Gate 3 and generation through Tallulah powerhouse into Tugalo Lake. This action was completed late on August 22.

An initial inspection of the situation was made as soon as safely possible by North Georgia Project personnel. I visited the site on Sunday, August 22. On Tuesday, August 24, Jeremy Varner, Project Engineer with FERC – ARO, and Gary Clark, Structural Engineer with Southern Company Generation – Hydro Services, conducted another inspection of the Gate 3 area. Based on this inspection, a decision was made to inspect all of the gates and flashboards. Hydro Services subsequently contracted with HDR/DTA to perform this work.

HDR/DTA conducted their inspection on August 30 – September 1, 2010. Mr. Wills and Mr. Clark also took part in this inspection. HDR/DTA's preliminary report indicates that several of the other gates are in need of significant repair, while the flashboards are in need of minor repairs.

Our present plan of action is to keep the water level in Tallulah Falls Lake below the crest of the spillway until repair or replacement of the gates is complete. We are currently exploring methods of repair.

If you have any questions about this report, or if you require additional information, please contact me at (404) 506-7033.

Sincerely,

Joel Galt

Hydro Services Supervisor

xc: Original and two copies to the FERC Regional Engineer

Mr. Charles D. Wagner, P.E. September 8, 2010

bxc: Georgia Power Company

Mr. S. W. Connally

Mr. F. F. Pitts

Mr. B. L. Brookshire Mr. J. L. Masters Ms. K. M. Heirs

Southern Company Services

Mr. E. B. Allison, Jr.

Mr. J. F. Crew

Job No.: NG10911 EWO: 3487CI

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#### September 8, 2010

North Georgia Hydro Project Gate Failure at Tallulah Falls Dam August 21, 2010 FERC Project 2354 (NATDAM No. GA00844)

#### Purpose of Report

The purpose of this report is to provide a written description of the event affecting the safety of the project. On August 21, 2010, Gate No. 3 at Tallulah Falls Dam failed. Gate 3 is a bottom hinged gate, and this is where the gate failed. This resulted in Tallulah Lake being drawn down below the crest of the spillway. This report fulfills the requirements of 18 CFR Section 12.10(a)(2) of the Commission's regulations for a written report of safety-related incidents as defined by Section 12.3(b)(4).

#### **Body of Report**

Section 12.10(a)(2)

### (i) The causes of the condition;

The gate failure was caused by failure of the bolts holding the six bottom hinges to the web of a steel channel embedded in the concrete of the spillway crest.

# (ii) A description of any unusual occurrences or operating circumstances preceding the condition;

At the time of the failure, heavy rainfall had occurred in the vicinity of the dam. An operator had been dispatched to the site to conduct a safety check of the area since the security camera which observes the lake upstream of the dam was not working.

#### (iii) An account of any measure taken to prevent worsening of the condition;

Immediately after verifying the condition of Gate No. 3, necessary contacts were made. This included notifying the Tallulah Gorge State Park management of the situation and suggesting that no gorge floor permits be issued for hiking to the bottom of the gorge. Note that no gorge floor permits had been issued that day due to the heavy rains, so no one was on the gorge floor. As quickly and safely as possible, Tallulah Lake was drawn down below the crest of the dam.

#### (iv) A detailed description of any damage to project works and the status of any repair;

The damage sustained during this event was the failure of the gate hinge bolts, and a tear in the web of the embedded steel channel. The gate is presently wedged between

Mr. Charles D. Wagner, P.E. September 8, 2010

the two adjacent piers and suspended by its hoist cables. There are some minor gouges in the concrete of the piers and spillway crest. Plans are being formulated as to how and what kind of repairs or replacements will be done to restore the dam to full operating condition.

### (v) A detailed description of any personnel injuries;

None of which Georgia Power is knowledgeable. Tallulah Gorge State Park management has not reported any problems.

## (vi) A detailed description of the nature and extent of any private property damages

None of which Georgia Power is knowledgeable.

# (vii) Any other relevant information requested by the Regional Engineer.

Any other information which the Regional Engineer may request will be provided if available.