

Alcoa Power Generating Inc. Yadkin Division PO Box 576 Badin, North Carolina 28009-0576

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September 4, 2015

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

RE: Yadkin Hydroelectric Project (FERC No. 2197)

**Expedited Request for Temporary License Variance** 

### Dear Secretary Bose:

Alcoa Power Generating Inc. (APGI), owner and operator of the Yadkin Project, No. P-2197 (Project), respectfully requests expedited action by the Federal Energy Regulatory Commission (FERC or Commission) to approve a temporary variance from license requirements regarding (a) minimum flows downstream of the Project; and (b) reservoir draw down limits for the Project's High Rock and Narrows Reservoirs. The reasons for this request are set forth below.

## Background

APGI operates the Project under an annual license inasmuch as its application for a new license remains pending before the Commission. However, the project immediately downstream on the same watershed, the Yadkin – Pee Dee Project, No. P-2206, owned by Duke Energy Progress, Inc. (Duke Energy), received a new license by order of the Commission on April 1, 2015 (Order Issuing New License, 151 FERC P62,004). Included in the new Yadkin – Pee Dee Project license is a Low Inflow Protocol (LIP) that describes the procedures to be undertaken in the event that drought conditions occur on the watershed. APGI's pending application for a new Yadkin Project license also contains an identical version of the LIP as Appendix A to the Relicensing Settlement Agreement submitted on May 7, 2007. However, because a new license has not been issued and APGI is operating under an annual license, its drought responsibilities are governed by a Drought Contingency Plan (DCP) approved in 2003.<sup>1</sup>

The LIP and APGI's existing DCP are substantially similar. Both require collaborative stakeholder involvement and extensive communications. However, the LIP contains more detailed descriptions of specific steps and prescriptive actions, and somewhat different nomenclature. Having analyzed the differences, APGI believes that working within the LIP structure means that it is in compliance with the DCP, and so it has been

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<sup>&</sup>lt;sup>1</sup> The Federal Energy Regulatory Commission (FERC or Commission) approved the DCP in an order dated April 23, 2003 (*Accession No. 20030423-3003*).

voluntarily implementing the LIP with Duke Energy and the other stakeholders since mid-summer when the possibility of drought conditions became apparent.

### **The Need for a Variance**

APGI has been monitoring actual and forecasted stream flow, precipitation, and ground water levels in the Yadkin Pee-Dee River Basin (Basin) since conditions began to worsen in the late spring. In accordance with the LIP, and because the US Drought Monitor of North Carolina (<a href="http://www.ncdrought.org/">http://www.ncdrought.org/</a>) classifies more than 10% of the Basin as D1-Moderate Drought, APGI met with the Drought Management Team (DMT²), and others via teleconference on July 2, 2015, August 6, 2015, and September 3, 2015. A summary of each teleconference is provided in Attachment 1.

During the August 6, 2015 and September 3, 2015 teleconferences, the DMT discussed the possibility of implementing some interim operational changes at the Yadkin Project in response to worsening drought conditions in the Basin until such a time the LIP Stage is calculated as Stage 1. Among other things, the LIP requires operational changes at the Yadkin Project (e.g., a proportional drawdown of High Rock and Narrows reservoirs and a reduction in downstream flows from the Yadkin Project) when the LIP Stage is Stage 0 or higher. During recent discussions, many members of the DMT expressed concerns that the LIP is based on lagging indicators and is oftentimes reactive, rather than proactive. In part, this concern may reflect memory of the rapidity with which the onset of the 2002 drought reduced inflows on the watershed.

In an effort to be more proactive and to mitigate worsening conditions, APGI proposed interim reductions in downstream flows from the Yadkin Project to the DMT in an email dated September 2, 2015 (Attachment 2). APGI also discussed the proposed reduction in downstream flows with the DMT during the September 3, 2015 teleconference. The following members of the DMT participated in the September 3, 2015 teleconference and indicated their support of APGI's proposal: the North Carolina Department of Environment and Natural Resources (NCDENR), the North Carolina Wildlife Resources Commission (NCWRC), Duke Energy, the Uwharrie Point Community Association, the Badin Lake Association, and the Pee Dee River Coalition (represented by DOMTAR). APGI has requested that members of the DMT inform the Commission directly regarding their views with respect to this variance request.

Accordingly, and with the DMT's support, APGI respectfully requests a temporary variance from the minimum release requirements pursuant to Article 33 of its license from 1,400 cfs weekly average to 1,200 cfs weekly average and 900 cfs daily average in accordance with the following proposal, effective as soon as possible.

(1) If the monthly LIP evaluation indicates Stage -1 and drought conditions appear to be more rapidly deteriorating, APGI will evaluate the LIP Stage

<sup>&</sup>lt;sup>2</sup> The members of the DMT are: APGI, Duke Energy, North Carolina Department of Environment and Natural Resources, South Carolina Department of Natural Resources, South Carolina Department of Health and Environmental Control, the U.S. Fish and Wildlife Service, and the High Rock Lake Association.

again mid-month (on the 15<sup>th</sup>). If the results of this mid-month evaluation indicate Stage 0, flows from the Yadkin Project will be reduced to 1,200 cfs weekly average.

(2) Subsequently, if the next monthly LIP evaluation indicates Stage 0 and drought conditions appear to be more rapidly deteriorating, APGI will evaluate the LIP Stage again mid-month (on the 15<sup>th</sup>). If the results of this mid-month assessment indicate Stage 1, flows from the Yadkin Project will be reduced to 900 cfs daily average as described in the LIP.

Additionally, because of the potential for outflows to exceed inflows by a substantial margin under these scenarios and the increasing need to use storage from the Project reservoirs, APGI is proposing a proportional drawdown of High Rock and Narrows reservoirs, in accordance with the LIP.

Because the September 1, 2015 LIP evaluation indicates Stage -1 (Normal), APGI is not currently proposing any reductions to downstream flows. We will evaluate the LIP stage again on September 15, and, upon approval of this variance request, take action accordingly and inform the Commission of the action taken.

APGI respectfully requests the Commission's expedited approval of this variance request and will keep the Commission informed of further developments.

Please contact me at (704) 422-5774 or <a href="mark.gross@alcoa.com">mark.gross@alcoa.com</a> if you have any questions.

Sincerely,

Mark Gross

**VP Hydro Operations** 

MA. Sors

CC: Service List Project No. 2197

Thomas LoVullo, FERC Kelly Houff, FERC

**DMT Members** 

Attachments:

Attachment 1: July 2, 2015, August 6, 2015, and September 3, 2015 Teleconference

Summaries

Attachment 2: September 2, 2015 E-mail from Mark Gross, APGI Yadkin VP Hydro

Operations, Proposing Reduction in Downstream Flows

### **CERTIFICATE OF SERVICE**

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list in this proceeding in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure.

Dated at Badin, North Carolina this 4th day of September 2015.

VP Hydro Operations APGI Yadkin Division

P.O. Box 576 Badin, NC 28009 704-422-5774

# Yadkin Project (FERC No. 2197) Drought Management Team Conference Call July 2, 2015

Participants: Amy Kohntopp, Alcoa Power Generating Inc. (APGI)

Athena Strickland, Domtar and Pee Dee River Coalition

Bill Brewer, City of Winston Salem

Bob Stea, NC Division of Water Resources

Chris Goudreau, NC Wildlife Resources Commission

Deb Owen, NC Division of Water Resources

George Galleher, Duke Energy

Jody Smet, EA Engineering, Science and Technology (EA)

John Ellis, US Fish and Wildlife Service

Karen Baldwin, APGI Mark Gross, APGI

Rich Schaeffer, Uwharrie Point Community Association

Tami Styer, Duke Energy

Tim Poole, APGI

Because the U.S. Drought Monitor currently classifies a portion (> 10%) of the Yadkin-Pee Dee River Basin as D1 "Moderate Drought" and in accordance with the Drought Contingency Plan (DCP) for the Yadkin Project (FERC No. 2197), Tim Poole, Chief Operator APGI, convened a call among interested parties on July 2, 2015, to consider actual and forecasted stream flow, precipitation, and ground water levels in the basin.

Jody Smet, EA, explained that in addition to monitoring the US Drought Monitor of North Carolina at <a href="http://www.ncdrought.org/">http://www.ncdrought.org/</a> APGI had also begun calculating the Low Inflow Protocol (LIP, Appendix A to the Yadkin Project Relicensing Settlement Agreement, February 2007) stage as of June 1 and July 1, 2015. The LIP stage for both the June 1 and July 1 calculations (shared with the DMT) show the LIP stage as -1, Normal.

Tim Poole, APGI, provided an update on current conditions. He stated that average inflow into High Rock Reservoir in 2015 has been about 3,618 cfs. This inflow is considerably lower than the yearly averages in 2014 (5,500 cfs) and 2013 (6,300 cfs). As of the date of the call (July 2, 2015), inflow into High Rock, was 1,732 cfs and High Rock Reservoir was 2.9-ft below full pool and Narrows was 1.4-ft below full pool. Tim explained that in accordance with a Headwater Benefits Agreement (HBA) with Duke Energy, APGI is obligated to release 1,610 cfs weekly average from Narrows, and in June 2015, only 1,543 cfs was being released from High Rock. APGI was releasing 1,760 cfs out of Narrows to meet the HBA. In July, the HBA drops to 1,400 weekly average from Narrows. Moving forward Tim planned to meet the HBA obligation by releasing 1,464 cfs on average from Narrows, with 1,307 cfs of that coming from High Rock to maintain reservoir elevations.

Bill Brewer, City of Winston Salem, identified no upstream issues, at present.

Deb Owen and Bob Stea, NC Division of Water Resources, shared some anecdotal information about smaller streams in the basin running low. Bob added that the D1 – Moderate Drought condition had expanded in the basin in recent weeks. He said that the very unstable weather systems make it difficult to designate the drought classifications. George Galleher commented that it looks like more than 10% of the basin is classified as D1. Bob clarified that the US Drought Monitor of North Carolina does not quantify how much of the entire basin falls into a particular classification. Jody agreed and said that APGI watches the monitor and when it looks like 10% or more of the basin is classified as D1 APGI convenes the Drought Management Team (DMT).

Tami Styer and George Galleher questioned the 'Drought Index Ratio' that is a factor in the LIP stage calculation (highlighted below). Jody explained that neither the Drought Index Ratio nor LIP Stage are directly equal to the US Drought Monitor of North Carolina classification. Jody tried to clarify how the Drought Index Ratio is calculated by reading the definition of the 'US Drought Monitor 3-Month Numeric Average' from the LIP (No. 13): "If the U.S. Drought Monitor has a designation ranging from D0 to D4 as of the last day of a month for any part of the Yadkin-Pee Dee River Basin that drains to the Blewett Falls development, the basin will be assigned a numeric value for that month. The numeric value will equal the highest US Drought Monitor designation (e.g., D0=0, D1=1, D2=2, D3=3 and D4=4) . . . . A normal condition in the basin, defined as the absence of a drought designation, will be assigned a numeric value of negative one (-1). A rolling average of the numeric values of the current month and the previous two months will be calculated by APGI at the end of the month . . . ."

The triggers for Stage 0 from a Stage -1 (listed below) were not met on July 1, 2015, so the LIP stage remains Stage -1 (normal).

### July 1, 2015

High Rock HWEL = 652.1 YAD (NME plus 1.1 ft)

Current 3-mo rolling ave inflows = 3408 cfs

Hist 3-mo rolling ave inflows = 5350 cfs (Inflow Ratio = 0.64)

Drought Index Ratio = (-1+0+0)/3 = -0.33Last Month LIP Stage = Stage -1

### If Last Month LIP Stage = Stage -1:

Stage 0: High Rock HWEL < NME minus 0.5 NO

<u>OR</u> High Rock HWEL < NME minus 0 <u>AND</u> US Drought Monitor => 0 **NO** <u>OR</u> High Rock HWEL < NME minus 0 <u>AND</u> Average Inflow < 0.48 **NO** 

Stage 1: High Rock HWEL < NME minus 1 AND US Drought Monitor => 1 NO

**OR** High Rock HWEL < NME minus 1 **AND** Average Inflow < 0.41 **NO** 

Stage 2: High Rock HWEL < NME minus 2 AND US Drought Monitor => 2 NO

**OR** High Rock HWEL < NME minus 2 **AND** Average Inflow < 0.35 **NO** 

Stage 3: High Rock HWEL < NME minus 3 AND US Drought Monitor => 3 NO

**OR** High Rock HWEL < NME minus 3 **AND** Average Inflow < 0.30 **NO** 

Stage 4: High Rock HWEL < NME minus 4 AND US Drought Monitor => 4 NO

**OR** High Rock HWEL < NME minus 4 **AND** Average Inflow < 0.30 **NO** 

Chris Goudreau, NCWRC, acknowledged that the stream gauges are showing lower flows, but he was not aware of any reported issues.

John Ellis, USFWS, had no comment.

Rich Schaeffer, UPCA, expressed his expression for APGI's efforts to keep the reservoir elevations up.

Tami Styer said that Duke Energy had received a new FERC project license for the downstream project/reservoirs (Tillery and Blewett Falls) and that Duke is complying with required minimum flows, lake levels, and Dissolved Oxygen standards. She explained that Duke has a 1.5-ft drawdown limit on Tillery on the weekends, which makes providing minimum flows difficult at times because APGI does not operate/generate on the weekends. Tami said that Duke will continue to coordinate operations with APGI. George asked Tim to forecast project releases over the next month. Tim said that he planned to release 1,450-1,464 cfs on average. Tim and George commented about being on the cusp of a good rainfall (about 7 days out).

Athena Strickland, Domtar and Pee Dee River Coalition, said that maintaining lake levels upstream strained downstream users. She said that there had been 4 good days of water (downstream) in the past 25 days. George and Tami said that Duke is striving to meet the 1,200 cfs from Blewett Falls requirement with generation. Athena also asked about aquatic weeds moving downstream and asked Duke if they had any issues with aquatic weeds. Duke asked if the weed was hydrilla or elodea and Athena responded that she thought it was elodea. Mark Gross, APGI, responded that APGI had identified hydrilla and lyngbya on its project reservoirs and is cooperating with the State to manage the weeds.

At the conclusion of the call, it was collectively agreed that the DMT would meet monthly, unless conditions worsened and more frequent calls became necessary. The next call will be on Thursday, August 6 at 11:00 a.m.

# Yadkin Project (FERC No. 2197) Drought Management Team Conference Call August 6, 2015

Participants: Amy Kohntopp, Alcoa Power Generating Inc. (APGI)

Athena Strickland, Domtar and Pee Dee River Coalition

Bill Brewer, City of Winston Salem
Dale Wooten, Duke Buck Steam Station
Deb Owen, NC Division of Water Resources
Fred Tarver, NC Division of Water Resources

Gary Kenney, Badin Lake Association

Jody Smet, TRC

Karen Baldwin, APGI

Larry Jones, High Rock Lake Association

Linwood Peele, NC Division of Water Resources

Mark Gross, APGI Robert Brown, RBPR Tami Styer, Duke Energy

Tim Poole, APGI

Because the U.S. Drought Monitor currently classifies a portion (> 10%) of the Yadkin-Pee Dee River Basin as D1 "Moderate Drought" and in accordance with the Drought Contingency Plan (DCP) for the Yadkin Project (FERC No. 2197), Mark Gross, VP Operations APGI, convened a call among interested parties on August 6, 2015, to consider actual and forecasted stream flow, precipitation, and ground water levels in the basin. Mark explained that the Low Inflow Protocol (LIP) stage as of August 1 is -1, Normal. There was some discussion about the LIP being reactive rather than proactive and action being based on lagging indicators. Duke Energy (Yadkin Pee Dee Lakes Project) recently received a new project license from the Federal Energy Regulatory Commission (FERC) and is required to implement and comply with the LIP. APGI has not yet received a new project license from FERC, but is voluntarily complying with the LIP.

Tim Poole, APGI, provided an update on current conditions. He stated that average inflow into High Rock Reservoir is about 35-38% of normal. Tim explained that in accordance with a Headwater Benefits (HWB) agreement with Duke Energy, APGI is presently (as of August 6, 2015) releasing 1,474 cfs weekly average from High Rock. Average inflow into High Rock has been really low since August 1.

Larry Jones, High Rock Lake Association, suggested that APGI held High Rock above the Normal Minimum Elevation (NME) through the end of July to avoid entering an LIP Stage 0, and is now, in August pulling the plug on High Rock. Tim Poole explained that this is not the case. He said that inflow into High Rock since August 1 (through August 6) has averaged about 520 cfs, and that APGI must release 1,400 cfs downstream to meet HWB. Larry stated that the water to meet the minimum downstream flow does not have to all come from High Rock. He said that under the LIP there is to be a proportional drawdown of High Rock and Narrows (i.e., share the

pain). Larry also commented that High Rock had dropped 6 inches in the last 24 hours, which is not consistent with the zero discharge being reported.

Mark Gross interjected that at least some of that loss is due to accelerated evaporation. Mark also commented on how quickly conditions change and that an LIP stage calculated only monthly makes it difficult to be immediately responsive to such quickly changing conditions. He said that none of APGI's actions have been intentional to avoid or manipulate the LIP stage and required actions under the LIP. Mark explained that APGI would need to request a variance from the HWB from FERC to reduce flows going downstream. Mark committed to communicating with FERC that APGI may need to request a variance in the very near future. He also agreed to propose an alternate downstream flow proposal until the next LIP calculation on September 1, if necessary.

Tami Styer, Duke Energy, voiced Duke's similar concerns about the LIP being reactive and suggested that Duke is willing to consider revisions to the LIP.

Fred Tarver, NC Division of Water Resources, requested a copy of the HWB agreement, and Tami Styer agreed to provide him a copy. Deb Owen and Linwood Peele raised no other issues on behalf of the NC Division of Water Resources.

Bill Brewer, City of Winston-Salem, said that the City is currently in discussion with the US Army Corps of Engineers (USACE) about flows from and the conservation pool at W. Kerr Scott Reservoir. Larry Jones asked how much downstream flows from W. Kerr Scott would be reduced. Bill answered that at W. Kerr Scott outflow would equal inflow, to maintain the conservation pool and benefit regional water suppliers. Bill explained that the City's use of water from W. Kerr Scott Reservoir has a different purpose (water supply) than water in the Yadkin Project reservoirs (hydro generation) and that releasing water from the W. Kerr Scott Dam has no benefit. There was mention that the water in W. Kerr Scott is being saved for later should the drought conditions become more severe.

On behalf of the Badin Lake Association, Gary Kenney reiterated several of Larry Jones' comments about needing to be proactive instead of reactive and the possible need to revise the LIP. He advocated smaller reductions (in discharge and reservoir elevations) earlier in the process (i.e., less drastic changes).

Tami Styer reported that, at present (August 6), Tillery is .3-ft down from full pool, and Blewett Falls is .4-ft down from full pool. She noted that inflow from the Rocky River had dropped significantly since mid-July. Tami said that Duke continues to meet the requirements of the new project license (reservoir elevations, dissolved oxygen etc.).

Athena Strickland, Domtar and Pee Dee River Coalition, said that downstream users are seeing very little flow, but that it is okay for now.

Dale Wooten, Duke's Buck Steam Station, said that it is evident at the steam station that flows are dropping and the reservoir elevation is falling. He noted no significant issues at the steam station at present.

Jody Smet summarized the discussion noting that conditions in the basin continue to worsen and that it is evident that demand for water will need to be balanced and that the LIP offers direction on how to do this. She noted that APGI had committed to considering a variance request to reduce downstream flows, in advance of reductions required by the LIP. Mark said that he would develop an interim proposal and schedule another conference call to discuss his proposal before going to FERC.

Mark Gross also noted that the LIP requires the licensees (APGI and Duke Energy) to notify the states (North and South Carolina) of the drought stage and that the states would then take the lead in meeting with the drought management advisory group to discuss conditions and identify actions. Fred and Linwood agreed to raise the issue with Bob Stea, North Carolina's drought management lead. A representative from the State of South Carolina did not participate on the call.

# Yadkin Project (FERC No. 2197) Drought Management Team Conference Call September 3, 2015

### **Participants:**

Alan Stuart, Duke Energy

Amy Kohntopp, Alcoa Power Generating Inc. (APGI)

Athena Strickland, Domtar and Pee Dee River Coalition

Chris Goudreau, NC Wildlife Resources Commission

Deb Owen, NC Division of Water Resources

Bob Stea, NC Division of Water Resources

Eric Hudson, NC Department of Environment and Natural Resources

Fred Tarver, NC Division of Water Resources

Garry Kenney, Badin Lake Association

Jody Smet, TRC

Josh Wilund, Alcoa

Karen Baldwin, APGI

Linwood Peele, NC Division of Water Resources

Mark Gross, APGI

Mary Ann Lucas, Alcoa

Phil Fragapane, Duke Energy

Rich Schaeffer, Uwharrie Point Community Association

Robert Brown, RB Public Relations

Shirley Williamson, PB Power

Tim Poole, APGI

Because the U.S. Drought Monitor currently classifies a portion (> 10%) of the Yadkin-Pee Dee River Basin as D1 "Moderate Drought" and in accordance with the Drought Contingency Plan (DCP) for the Yadkin Project (FERC No. 2197), Mark Gross, APGI Yadkin VP Hydro Operations, convened a call among interested parties on September 3, 2015, to consider a response to worsening drought conditions.

Mark Gross commented that there has been a prolonged dry period and inflows into the Yadkin Project continue to diminish. He explained that the September 1, 2015 Low Inflow Protocol (LIP) Stage is -1, Normal. The September 1, 2015, LIP Stage calculation, below, was shared with the Drought Management Team (DMT) prior to the call.

### September 1, 2015

High Rock HWEL = 651.0 YAD (NME)

Current 3-mo rolling ave inflows = 1720 cfs

Hist 3-mo rolling ave inflows = 3600 cfs (Inflow Ratio = 0.48)

Drought Index Ratio = (0+1+1)/3 = 0.67 Last Month LIP Stage = Stage -1

#### *If Last Month LIP Stage = Stage -1:*

Stage 0: High Rock HWEL < NME minus 0.5 NO

**OR** High Rock HWEL < NME minus 0 **AND** US Drought Monitor => 0 **NO OR** High Rock HWEL < NME minus 0 **AND** Average Inflow < 0.48 **NO** 

Mark said that, as discussed on the August 6, 2015, teleconference, APGI had proposed a process to evaluate the LIP stage mid-month and reduce flows from the Yadkin Project if the LIP Stage is 0 or greater (see September 2, 2015 email).

Tim Poole, APGI, provided an update on current conditions. He stated that High Rock and Narrows are currently 4.62-ft and 2.93-ft below full pool, respectively. Inflow into High Rock for the month of August was 1,302 cfs average. Discharge from High Rock and Narrows has averaged 1,380 cfs and 1,503 cfs, respectively. Tim also explained that while the river gauges show streamflow to be about 900 cfs, only 573 cfs is flowing into the Yadkin Project. He attributed the delta to evaporation. Rich Schaeffer, Uwharrie Point Community Association, asked Tim to predict what reservoir elevations would be like if inflow/outflow continued at this same rate. Tim cautioned that precipitation would be a major factor in that equation, but estimated that if stream flows are about 40% of normal, reservoir levels would drop about .2-ft per week through September.

Bob Stea, NC Division of Water Resources, indicated that there had been no real change in the Basin classification shown on the US Drought Monitor of North Carolina; portions of the Basin are currently classified as D0 – Abnormally Dry and D1 – Moderate Drought. Deb Owen noted that stream levels continue to drop, but there are no apparent water quality issues at present.

Fred Tarver said that he had followed up on the US Army Corps of Engineers and the City of Winston Salem's plans to maintain a conservation pool at Kerr Scott Reservoir and had learned that operations remain normal (i.e., there have been no modifications to operations in response to drought conditions).

Chris Goudreau, NCWRC, had no comment.

Rich Schaeffer, UPCA, had no immediate concerns and said he hoped it would rain.

Garry Kenney, Badin Lake Association, was very concerned about using 'lake level capital' (i.e., storage) now to meet downstream flow requirements so that storage would not be available later if conditions in the Basin continue to worsen. He questioned why APGI was only proposing to reduce downstream flows to 1,200 weekly average. He suggested that APGI should reduce downstream flows to 1,000 cfs daily average minimum (June 1-January 31), as would be required by the Relicensing Settlement Agreement (Article PO-2 – Project Instream Flows) and a new Project license. He was concerned 1) about waiting to make a reduction in downstream flows and 2) that the proposed reduction is not enough.

Shirley Williamson, PB Power, briefly summarized the history of the development and purpose of the LIP.

Alan Stuart and Phil Fragapane, Duke Energy, said that Tillery and Blewett Falls are currently .4-ft and 1.2-ft below full pool, respectively. Tillery hit a minimum elevation of .9-ft down on August 18, 2015. Average flow from Tillery has been about 1,850 cfs (minimum flow 369 cfs). Blewett Falls hit a minimum elevation of 2.72-ft below full pool on August 18, 2015. Average flow from Blewett Falls has been about 2,000 cfs (minimum flow 1,160 cfs).

Regarding APGI's proposal, Athena Strickland, Pee Dee River Coalition (Domtar) asked if it was intentional that the proposed reductions are first 1,200 cfs <u>weekly average</u>, and then 900 cfs <u>daily average</u>. Mark Gross replied yes. He explained that APGI and Duke had agreed that 1,200 cfs weekly average roughly equates to 1,000 cfs daily average, which gives APGI more flexibility in its operations. Athena asked the Duke Energy representatives if APGI's proposal works for them. Alan and Phil responded affirmatively and indicated that Duke Energy is fully in favor of APGI's proposed reductions in downstream flows. Athena asked Alan and Phil if Duke Energy would be able to maintain compliance with its FERC license and minimum flow requirements. The Duke Energy representatives answered yes.

Don Rayno, NC Division of Water Resources, asked what a license variance request to FERC would look like. Jody Smet, TRC, explained that APGI Yadkin would be asking for relief from the 1,400 cfs downstream flow requirement (required by the Headwater Benefits Agreement) and would be asking to modify the operation of High Rock and Narrows reservoirs so that APGI could draw down the reservoirs proportionally.

Jody Smet summarized the action items. APGI Yadkin would, with the DMT's support, file a license variance request within the next few days with FERC. APGI will be requesting an expedited review of its request and is hopeful that it would receive approval by the September 15 LIP Stage calculation. APGI will share its correspondence to/from FERC with the DMT. APGI will calculate the LIP Stage again on September 15, 2015 and share the results with the DMT. An interim call will be scheduled mid-month, as necessary.



Alcoa Power Generating Inc. Yadkin Division PO Box 576 Badin, North Carolina 28009-0576

Tel: 1-888-886-1063 Fax: 1-704-422-5776

September 2, 2015

Via Email

RE: Alcoa Power Generating Inc. Yadkin Project (FERC No. 2197)

Drought Management in the Yadkin Pee-Dee River Basin

### Drought Management Team:

As of September 1, 2015 the Low Inflow Protocol (LIP) Stage is -1, Normal. The LIP requires operational changes at the Yadkin Project (e.g., a proportional drawdown of High Rock and Narrows reservoirs and a reduction in downstream flows from the Yadkin Project) when the LIP Stage is Stage 0 or higher.

On the August 6, 2015 Drought Management Team conference call we discussed the possibility of implementing some interim operational changes at the Yadkin Project in response to worsening drought conditions in the Yadkin Pee-Dee River Basin, until such a time the LIP Stage is calculated as Stage 1. There were several concerns expressed on the August 6 call by various members that the LIP is based on lagging indicators and is oftentimes reactive rather than proactive.

In an effort to be more proactive, APGI is proposing to calculate the LIP Stage on not only the 1<sup>st</sup> of each month, but also on the 15<sup>th</sup> of each month for the remainder of 2015. APGI would adjust Project operations (e.g., interim reductions in downstream flows from the Yadkin Project, proportional reservoir drawdowns) based on the LIP Stage. APGI proposes the following:

If the monthly LIP evaluation indicates Stage -1 and drought conditions appear to be more rapidly deteriorating, APGI will evaluate the LIP Stage again mid-month (on the 15<sup>th</sup> or normal business day closest to the 15<sup>th</sup>). If the results of this mid-month evaluation indicate Stage 0, flows from the Yadkin Project will be reduced to 1,200 cfs weekly average (upon FERC approval of a variance request).

Subsequently, if the next monthly LIP evaluation indicates Stage 0 and drought conditions appear to be more rapidly deteriorating, APGI will evaluate the LIP Stage again mid-month (on the 15<sup>th</sup> or normal business day closest to the 15<sup>th</sup>). If the results of this mid-month assessment indicate Stage 1, flows from the Yadkin Project will be reduced to 900 cfs daily average (upon FERC approval of variance request) as described in the LIP.

Because the September 1, 2015 LIP assessment indicates Stage -1, APGI is not currently proposing any reductions to downstream flows. We will evaluate the LIP stage again on

September 15, and, if the above proposed approach is agreeable to the DMT, take action accordingly.

We appreciate your cooperation. Please let me know if you have any comments or concerns about APGI's proposal. I can be reached at <a href="mark.gross@alcoa.com">mark.gross@alcoa.com</a> or (704) 422-5774.

Sincerely,

Mark Gross VP Operations

MA. Soss