

**COMMUNICATION PLAN FOR OCONEE NUCLEAR STATION (ONS) FOLLOWING  
ISSUANCE OF GI-204**

**JANUARY 2012**

**GOAL**

The goal of this plan is to facilitate communication and coordination within the NRC, as well as facilitate consistency and quality of internal and external communications regarding interest in Oconee Nuclear Station external flood protection associated with the issuance of GI-204.

**BACKGROUND**

Due to its configuration on Lake Keowee, the Oconee three-unit site relies entirely on accident mitigation from the Standby Shutdown Facility (SSF) to provide RCP seal cooling, inventory control, and secondary side heat removal under several conditions including a site flood from rupture of the upstream Jocassee Pumped Storage Dam. In 2006, the staff using the Significance Determination Process (SDP) evaluated a performance deficiency of an unanalyzed opening made in the SSF rendering it vulnerable to external flood. The licensee appealed the finding twice. During a re-evaluation on the second appeal, the staff discovered that the licensee had erroneously computed a random Jocassee Dam rupture frequency that was significantly lower than what should have been based on actual data.

In the 1980s, the licensee had performed a flooding analysis which predicted a resultant on-site flood height of 4.71 feet given Jocassee Dam rupture. This study was used to justify constructing a seismically qualified 5-foot flood protection wall around the entrance to the SSF and was incorporated into the FSAR becoming part of their licensing basis. In the early 1990s, due to a national response plan, the Federal Energy Regulatory Commission (FERC) performed a flood analysis which predicted an on-site flood height of between 12 and 16 feet. The purpose of the flood analysis was to determine population evacuation zones. In 1992, the licensee removed the 5-ft wall and Jocassee rupture flood protection references from their licensing basis. The original licensing basis flooding study which predicted a 4.71-foot flood height is not available. Only the latter FERC flood analysis is available which clearly demonstrates that the current wall does not provide adequate flood protection.

Previous Emergency Plans and licensee response to external hazards for ONS did not adequately address the flooding concerns associated with the potential failure of the Jocassee Dam. On August 15, 2008, the NRC issued a request for information pursuant to Title 10 of the Code of Federal Regulations (10 CFR) Part 50, Section 50.54(f) regarding the protection against external flooding at ONS including a postulated failure of the Jocassee Dam.

Duke responded to the NRC letter on September 26, 2008. The NRC staff reviewed the letter and found that the licensee had not provided sufficient information to demonstrate that ONS will be adequately protected from external flooding events. On April 30, 2009, the NRC issued a letter to Duke requesting additional information to demonstrate that Oconee will be adequately protected from external flooding events. Duke replied by letter on November 30, 2009, with a revision to the flooding analysis. On January 15, 2010, Duke provided the details of new and additional compensatory measures to be implemented at both the ONS and the Jocassee Dam. The January 15, 2010, letter also contained a schedule for the implementation of the compensatory measures. On June 3, 2010, Duke submitted a list of compensatory measures which updated and superseded the commitments made in the January 15, 2010, letter. On June 7 – 11, 2010, the NRC inspected these compensatory measures and determined they were adequate pending completion of permanent plant modifications.

On June 22, 2010, the NRC issued a Confirmatory Action Letter (CAL) to ONS which required the ONS to maintain the compensatory measures listed in the June 3, 2010, letter until final resolution of the inundation of the Oconee site from the failure of the Jocassee Dam and all modifications are made to mitigate the inundation. In addition the CAL required Duke to submit to the NRC by August 2, 2010, all documentation necessary to demonstrate to the NRC that the inundation of the Oconee site resulting from the failure of the Jocassee Dam has been bounded; to submit by November 30, 2010, a list of all modifications necessary to adequately mitigate the inundation; and shall make all necessary modifications by November 30, 2011. The development and completion of the modifications is still in progress pending agreement between the NRC and ONS on the acceptability of the strategy and quality standards to be utilized.

### **KEY MESSAGES**

1. Oconee is in a safe condition and is able to safely mitigate a flooding event using compensatory measures. The compensatory measures provide adequate protection pending completion of permanent modifications.
2. The NRC identified an issue with external flood at ONS prior to the Fukushima event
3. The NRC has been and is continuing to work to resolve the external flood issue at ONS using the appropriate regulatory tools
  - White finding for penetration of SSF wall
  - Inspection of compensatory measures on June 7 – 11, 2010, to verify protective strategy and ability of compensatory measures to implement strategy
  - CAL issued on June 22, 2010
  - Continuing inspections by NRC resident inspectors to verify compensatory measures are maintained

4. The licensee is conducting physical modifications at the Oconee site to mitigate the consequences of the potential Jocassee Dam failure.

**STAKEHOLDERS**

**Internal**

- Office of Public Affairs
- Office of Congressional Affairs
- Office of the General Counsel
- NRC Region II: DRP, DRS, ORA, State Liaison Office
- Office of Nuclear Reactor Regulation
- Office of Nuclear Security and Incident Response
- Office of Enforcement
- Office of the Executive Director for Operations
- The Commission

**External**

- DHS/FEMA Headquarters; Region II
- FERC
- Congress (via OCA)
- State Liaison Officer (South Carolina)
- Public Citizen Groups
- Media Representatives
- Members of the Public
- FEMA
- Department of Homeland Security

**Point of Contact**

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**COMMUNICATION TEAM**

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**ACTION PLAN**

The focus of the activities in this communication plan is to deliver key messages consistently to internal and external stakeholders

Sequence of Events

<b>Time Sequence Goal</b>	<b>ACTION</b>	<b>Responsible Organization</b>
1/15/2012	Complete communication plan with Questions and Answers	Region II/DRP
Prior to public issuance of GI-204	Provide communication plan to RES to attach to GI-204	Region II/DRP
Prior to public issuance of GI-204	Brief Region II Management (ORA/DRP) on communication plan	Region II/DRP
Prior to public issuance of GI-204	Brief Region II PAO/State Liaison Officer on communication plan	Region II/DRP
Prior to public issuance of GI-204	Provide communication plan to NRR	Region II/DRP
Prior to public issuance of GI-204	Implement GI-204 communication plan	Region II
END	Respond to inquiries	Region II

External Communications

No external communication efforts are planned beyond those for GI-204. Inquiries from the public about external flood at ONS will be responded to using the questions and answers provided in this communication plan.

## **COMMUNICATION TOOLS**

This Communication Plan and associated information will be provided to NRC management for use during internal communications. Information that will be prepared and maintained by the Communication Team includes key messages, talking points, and a bank of Questions and Answers for use in communicating with stakeholders. The decision was made that there would be no press release or public notifications beyond those for GI-204.

## **EVALUATION AND MONITORING**

The following activities are planned:

- Monitor internal communications to ensure consistency with key messages or to determine if further information is needed, assess the degree of success that key messages and talking points had upon the target stakeholder audience
- Gather feedback on this plan and its implementation and assess the feedback to determine lessons learned that will be forwarded to NRC senior management, as appropriate.

## **UPDATES AND REVISIONS**

If major revisions are necessary to the plan or its key messages a formal revision will be made and the revision will be placed into ADAMS.

**QUESTIONS AND ANSWERS**

**Q1. What is currently being done about the possibility that the Jocassee dam can fail which may create a problem for safely shutting down Oconee?**

- A1. Duke has implemented compensatory measures to deal with the potential for a Jocassee dam failure including:
- Staging of additional equipment to provide backup means to operate the Jocassee spillway gates
  - Installing condition monitoring equipment for the Keowee spillway gates
  - Increasing awareness of dam status
  - Increasing frequency of inspection and monitoring of Jocassee dam
  - Flood barrier construction is in progress

The NRC has inspected the licensee's mitigating strategy for external flood and the compensatory measures (actions and procedures to implement the strategy). The NRC determined that the mitigation strategy and compensatory measures provided an adequate level of protection pending completion of modifications to mitigate the on-site inundation due to a failure of the Jocassee Dam.

**Q2. Why is the NRC requiring additional mitigating action to be taken only now considering the fact that Oconee has been operating for over 30 years with the Jocassee dam in its current condition?**

- A2. During the Significance Determination Process of a breached flood barrier to the Oconee standby shutdown facility, the NRC discovered that the licensee had been erroneously using a significantly lower random Jocassee Dam rupture frequency. In other words, the potential risk of the Jocassee Dam was initially under estimated. The probability of the event is still very low, but it is now high enough that the threshold requiring preventative or mitigating actions has been met.

**Q3. How long has the NRC known about the flooding issue at Oconee due to a failure of the Jocassee Dam?**

- A3. The NRC has known about the 1992 FERC study since 1994. However, it wasn't until June 2007 that the NRC determined that the Dam Failure Frequency used in the risk analysis was higher than previously used. The increase in the failure frequency put the risk into a range which required regulatory action.

**Q4. Why is the NRC permitting operation of the three Oconee units when it has concerns about the facility's ability to withstand external floods?**

A4. The NRC required the licensee to perform additional corrective measures to increase the assurance that the reactors can be safely shut down following the very remote possibility of the Jocassee Dam failure. The current operating risk is considered to be very small, but based on the new analysis the NRC determined it was prudent to take additional actions which were required by the CAL.

**Q5. Why is the information and correspondence related to the failure of the Jocassee Dam not available to the public?**

A5. The NRC determined that this information should not be publicly available because it identified a plant vulnerability prior to the licensee implementing compensatory measures. Information related to the licensee's mitigation strategies and equipment, including the compensatory measures, is not publicly available because it is linked to the facility's overall security

**Q6. How does the flooding due to a Jocassee a dam breach compare with the event in Japan?**

A6. The ability to supply electrical power to the Oconee site would be similarly affected; however, the licensee has implemented compensatory measures to provide other means of cooling to the reactors and the spent fuel pools. These measures have been inspected by NRC and are routinely reviewed by the on-site resident inspectors.

**Q7. Why is it taking so long for NRC to make the changes to the Oconee site?**

A7. The NRC does not make changes at Nuclear Power Plants. The licensee develops the changes and NRC reviews them to verify they will address this issue. The NRC is currently reviewing the licensee's proposed mitigation strategy to determine if it is acceptable. When the NRC has approved the strategy, the licensee has to develop the modifications and get FERC approval for any modifications planned for FERC regulated structures. Once that is done the licensee can make the appropriate modifications to implement the approved strategy.

**Q8. When will the Oconee site be safe from flooding?**

A8. The NRC determined that Oconee is currently able to safely mitigate a flooding event using the compensatory measures that have been determined by the NRC to be adequate. Permanent modifications will take several years to complete.

**Q9. The GI-204 Screening Analysis Report says that Regulatory actions have been taken for the flooding issue at Oconee. What are those actions?**

A9. In April 2006, the NRC identified that a performance deficiency associated with a breach of the SSF flood barrier. In September 2007, after resolving multiple appeals by the licensee, a White finding was issued for the performance deficiency.

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