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November 19, 2007

U. S Nuclear Regulatory Commission
Washington, D. C. 20555-0001

ATTENTION: Document Control Desk

SUBJECT: Duke Power Company LLC d/b/a Duke Energy Carolinas, LLC (Duke)
Oconee Nuclear Station Units 1,2,&3
Docket Nos. 50-269, 50-270, 50-287
NRC Generic Letter 2004-02
Request for Schedule Relief

On September 13, 2004, the Nuclear Regulatory Commission (NRC) issued Generic Letter (GL) 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized Water Reactors". The GL requires that all corrective actions identified by the licensees' evaluations be completed by December 31, 2007. By letters dated March 1, 2005 as supplemented by letter dated September 1, 2005, Duke submitted a combined response for Oconee Nuclear Station (ONS), McGuire Nuclear Station (MNS), and Catawba Nuclear Station (CNS). In this correspondence, Duke made commitments to complete various corrective actions necessary to fully address the sump blockage issue for ONS. Those commitments were updated in a subsequent letter dated June 28, 2006. All corrective actions (including analyses, modifications, and programmatic changes) were committed to be complete by December 31, 2007.

Duke is fully committed to resolving GSI-191. ONS has been fully engaged in pursuing emergency sump modifications on a timely schedule. A priority was placed on completing the emergency sump replacement modifications, as this represents the largest and most safety significant corrective action with regard to GSI-191. As a result, ONS has been able to complete installation of new sump strainers on all three Oconee units. The new strainers have increased the available screen area from approximately 100 sq. ft. to approximately 4800 sq. ft. for Unit 1 and approximately 5200 sq. ft. for Units 2 and 3. All of these modifications were completed by the fall of 2006. However, there are two corrective actions remaining that ONS will not be able to complete by the committed date. For these items, an extension to the completion schedule is respectfully requested, as noted in the discussion presented below.

1. The ONS downstream effects evaluations identified a need for plant modifications that include replacement of the Emergency Core Cooling (ECCS) and Building Spray (BS) pump seal flush orifices and cyclone separators. Replacement parts are on order and manufacturing is in progress. In view of uncertainties related to parts receipt, the requested completion dates for these modifications are fall of 2008 for Unit 2, spring of 2009 for Unit 3, and fall of 2009 for Unit 1. These dates correspond to the first available refueling outage for each unit during which ONS has confidence that parts will be available.

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2. Also identified by the ONS downstream effects analysis is a need to replace the wear rings and impeller hubs on the High Pressure Injection (HPI) Pumps. This replacement is complete for all HPI Pumps on Units 1 and 2 and for one HPI Pump on Unit 3 (HPI Pump 3B). For HPI Pumps 3A and 3C, the initial plan was to replace these pumps (with upgraded parts for greater wear resistance) during the upcoming refueling outage in fall of 2007. However, parts delivery issues with these Unit 3 replacement pumps have jeopardized replacement during the fall 2007 refueling outage. While ONS is still working toward this schedule, we are requesting relief to allow for parts delivery contingencies. The revised plan, if needed, would be to replace these pumps during the spring 2009 outage.

Enclosure 1 to this letter provides the basis for Duke's conclusion that it is acceptable to extend the completion of the ONS corrective actions required by Generic Letter 2004-02 and an update of on-going activities and a clarification as to what activities are driving the extension request. Duke requests approval of the extension request by December 31, 2007.

Enclosure 2 contains the revised commitments for completion of remaining corrective actions identified by ONS' evaluation of downstream effects.

If you have questions regarding this request or require any additional supporting information, please contact Russ Oakley at 864-885-3829.

Very truly yours,

Bruce Hamilton

Bruce H. Hamilton, Vice President
Oconee Nuclear Station

Enclosures

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Bruce H. Hamilton, being duly sworn, states that he is Vice President, Oconee Nuclear Site, Duke Energy Corporation, and affirms that he is the person who subscribed his name to the foregoing and that all the statements and matters set forth herein are true and correct to the best of his knowledge.

Bruce Hamilton

Bruce H. Hamilton, Vice President
Oconee Nuclear Site

Subscribed and sworn to before me this 19 day of November 2007

Sheila A Barth

Notary Public

My Commission Expires:

6-12-2013

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Enclosure 1

Basis for Extension Request

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Basis for Extension Request

1.0 Background

On September 13, 2004, the NRC issued Generic Letter (GL) 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized Water Reactors." (Reference 1). The GL required that addressees provide by September 1, 2005, a description of and implementation schedule for all corrective actions, including any plant modifications, that are identified while responding to the GL. The GL requested that all licensees complete actions related to the GL by December 31, 2007, or provide justification for continued operation until the actions are completed.

By letter dated March 1, 2005, and supplemented by letter of September 1, 2005, Duke Energy Carolinas LLC (Duke) submitted a combined response to the GL for Oconee Nuclear Station (ONS), McGuire Nuclear Station (MNS), and Catawba Nuclear Station (CNS). In this correspondence, Duke committed to the installation of new post-LOCA containment emergency sump recirculation strainers and completion of other required modifications for ONS Units 1, 2, and 3 by December 31, 2007.

Duke is fully committed to resolving GSI-191. Evaluation of the existing ONS emergency sump strainers in 2004 identified a need to replace them with larger ones in order to ensure adequate emergency core cooling during sump recirculation operation. ONS has installed new sump strainers on all units that increase the available screen area from approximately 100 sq. ft. (all units) to approximately 4800 sq. ft. for Unit 1 and approximately 5200 sq. ft. for Units 2 and 3.

Downstream effects evaluations of component operation identified the need for two additional plant modifications for ONS. One of those modifications is the replacement of the Emergency Core Cooling System (ECCS) and Building Spray (BS) pump seal flush orifices and cyclone separators due to blockage concerns. Also, ONS is replacing HPI pumps with new ones which utilize tougher materials for wear-susceptible parts. Downstream effects evaluation guidance requires vibration analysis to justify existing materials. ONS elected to replace these pumps using upgraded materials in lieu of performing vibration analysis to justify existing materials.

Duke is requesting schedule relief for replacement of the ECCS and BS pump seal flush orifices and cyclone separators. The requested schedule relief would allow replacement of these items in fall of 2008 for Unit 2, spring 2009 for Unit 3, and fall 2009 for Unit 1. Also, deferral of replacement of the ONS HPI pumps 3A and 3C until the spring 2009 refueling outage is requested, again due to parts availability.

Duke believes it is safe and prudent to defer the replacement of these components. The following provides a basis for the proposed extension.

2.0 Justification for Proposed Extension

The NRC staff provided a justification for continued operation (JCO) in 2001 that justifies continued operation of pressurized water reactors through December 31, 2007. Elements of the JCO applicable to ONS include:

- Switchover to emergency sump recirculation following a large-break loss-of-coolant accident (LOCA) will be required no sooner than 44 minutes after accident initiation. This allows time for much of the debris to settle in other places within containment sump pool remote from the Reactor Building Emergency Sump (RBES). Much of this debris will not transport to the RBES strainer due to relatively low transport velocities.

- The probability of the initiating event (i.e., large-break LOCAs) is extremely low. More probable (although still low probability) LOCAs (small, intermediate) will require less ECCS flow, take more time to use up the water inventory in the borated water storage tank, and in some cases may not even require the use of recirculation from the ECCS sump because the flow through the break would be small enough that the operator will have sufficient time to safely shut the plant down.

- ONS has qualified the Reactor Coolant System (RCS) piping for Leak-Before-Break (LBB). LBB-qualified piping is of sufficient toughness that it will most likely leak (even under safe shutdown earthquake conditions) rather than rupture. This, in turn, would allow operators adequate opportunity to shut the plant down safely.

- There are sources of margin which are not credited in the plant's licensing basis. For example, testing has shown that BS pumps are capable of operating for extended periods of time at reduced flow rates with substantial deficiency in Net Positive Suction Head (NPSH). Due to similarity in pumps designs, the Low Pressure Injection (LPI) pumps would be expected to perform similarly. Also, due to the sensitivity of the NPSH analyses to sump temperature, it should be noted that NPSH margins are substantially improved as the sump water cools and vapor pressure decreases. Thus, the transient nature of the event response itself provides margin that is not credited in the NPSH analyses. In addition, there is a high temperature correction factor for required NPSH which is not credited in the NPSH analyses.

These elements will remain valid during the extension period requested by this submittal.

3.0 Reason for the Request for Proposed Extension

ONS has performed analysis of downstream effects in accordance with WCAP 16406-P, Rev. 0, "Evaluation of Downstream Sump Debris Effects in Support of GSI-191" and Nuclear Energy Institute(NEI) Document NEI 04-07, Revision 0, dated May 28, 2004, "Pressurized Water Reactor Sump Performance Evaluation Methodology". The following components were evaluated for wear and plugging:

- Residual Heat Removal (RHR) Pumps and Heat Exchangers
- High Pressure Injection (HPI) Pumps
- Building Spray (BS) System Pumps and Spray Nozzles
- Flow Orifices
- Throttle Valves
- Flow Restrictors
- Instrumentation
- Check Valves
- Drain Lines

The HPI throttle valves, LPI flow restrictors, and the ECCS and BS pump seal flush orifices and cyclone separators were the only components identified as being susceptible to debris plugging. The potential for HPI throttle valve and LPI flow restrictor plugging was addressed by performing actual component testing. The testing showed that the HPI throttle valves could meet the acceptance criteria with higher than predicted post-accident debris loads. The test results were also used to establish a bounding flow coefficient for the LPI flow restrictors. These results did not indicate a need for replacement. LPI, HPI, and BS pump seal flush orifices and cyclone separators will be replaced. However, parts availability will not support completion of this work by the end of calendar year 2007. Procurement of these items was delayed to obtain industry test results needed to justify use of cyclone separators with the postulated ONS sump debris composition. Modification packages are being developed for these replacement parts. However, parts availability has become an issue for ONS due to procurement delays, coupled with long lead time on manufacturer's delivery of these items. Oconee has an aggressive plan to complete the necessary modifications, as described below. The plan provides for replacements to occur during non-outage maintenance windows beginning in the spring of 2008 and extending through spring of 2009. This schedule assumes that parts will be received by the end of calendar year 2007. ONS is requesting relief to allow for parts delivery schedule contingencies. The requested schedule relief would allow replacement of these items during refueling outages beginning with fall of 2008 and finishing in fall of 2009.

The HPI pumps were also identified (by the downstream effects evaluation) as needing replacement, as the current design could not be analyzed to meet the vibration requirements of the guidance documents with the existing materials. Replacement of all Unit 1 and 2 HPI pumps and the 3B pump is complete. For the 3A and 3C pumps, manufacturing problems were identified by testing, and delivery was delayed. When ONS received the pumps, additional problems were identified with the pump shaft sleeves. These problems required ONS to return the pumps to the vendor for repair. ONS is still attempting to replace one of these pumps during the fall 2007 outage pending timely receipt of the repaired pump. However, relief is requested to perform both pump replacements during the spring 2009 Unit 3 refueling outage to allow for contingencies in vendor contract performance (ie, timeliness of parts delivery or unanticipated quality issues). The spring 2009 refueling outage would be the first available replacement opportunity.

4.0 Compliance with SECY-06-0078 Criteria

SECY-06-0078 (Reference 3) specifies two criteria for short duration GL 2004-02 extensions, limited to several months, and a third criterion for extensions beyond several months. These three criteria and Duke's responses are provided below.

4.1 SECY-06-0078 Criterion No. 1:

The licensee has a plant-specific technical/experimental plan with milestones and schedule to address outstanding technical issues with enough margin to account for uncertainties.

Duke Response:

ONS plans to replace seal flush orifices and cyclone separators for the BS, HPI, and LPI pumps on a schedule consistent with our scheduled train maintenance windows for these pumps. Train maintenance is performed weekly at ONS, with each week earmarked for maintenance and testing of selected safety systems. A different set of systems is slotted each week and the schedule is repeated each quarter. In this manner, all safety system/train maintenance is completed on a quarterly basis.

A "planned" schedule for replacement of the ECCS and BS pump seal flush orifices and cyclone separators in accordance with the unit specific maintenance train rotation windows, beginning April 20, 2008 and completing during spring 2009 Unit 3 refueling outage, has been developed. The plan assumes delivery of necessary parts by December 31, 2007, allows time for detailed planning, and provides for the replacement of only one pump per window for risk reasons. The schedule is given below:

LPI Pump 3A:	04/20/08
HPI Pump 1A:	04/27/08
HPI Pump 2A:	05/04/08
HPI Pump 3A:	05/11/08
BS Pump 2A:	06/01/08
BS Pump 1A:	06/15/08
LPI Pump 1A:	06/22/08
LPI Pump 2A:	07/06/08
LPI Pump 3B:	07/13/08
HPI Pump 1B:	07/20/08
HPI Pump 2B:	07/27/08
HPI Pump 3B:	08/03/08
BS Pump 2B:	08/24/08
BS Pump 1B:	09/07/08
LPI Pump 1B:	09/14/08
LPI Pump 2B:	09/28/08
LPI Pump 3C:	10/05/08

HPI Pump 1C:	10/12/08
HPI Pump 2C:	10/19/08
HPI Pump 3C:	10/26/08
LPI Pump 1C:	12/07/08
LPI Pump 2C:	12/21/08
BS Pump 3A:	01/04/09
BS Pump 3B:	Spring '09 Refueling Outage

The above "planned" schedule considers the uncertainty in receipt of replacement parts, allows time for planning the work packages, and considers safety risk of multi-train maintenance. As previously noted, a more lenient "committed" schedule is requested to allow for contingencies in parts delivery and unforeseen work execution problems. That relief would allow replacement of these items beginning with the fall 2008 Unit 2 outage and completing with the fall 2009 Unit 1 outage.

ONS plans to replace one of the two remaining Unit 3 HPI Pumps during the fall 2007 Unit 3 refueling outage. As previously noted, however, this schedule may be impacted due to vendor work which was required to resolve manufacturing issues. Should the current plan be impacted by vendor's ability to deliver replacement pumps on time, relief is requested to allow installation of both of these pumps at the next available refueling outage in the spring of 2009.

4.2 SECY-06-0078 Criterion No. 2:

The licensee identifies mitigative measures to be put in place prior to December 31, 2007, and adequately describes how these mitigative measures will minimize the risk of degraded ECCS [emergency core cooling system] and CSS [containment spray system] functions during the extension period.

Duke Response:

The following mitigative measures have already been implemented to minimize the risk of degraded ECCS and BS functions during the extension period.

4.2.1 Sump Strainer Replacement

ONS has replaced the RBES strainers on all three units. The existing vertical flat screen design was replaced with a pocket array type strainer designed by Control Components Incorporated (CCI). Strainer surface areas were increased from approximately 100 sq. ft. on all units to approximately 4800 sq. ft. on Unit 1 and approximately 5200 sq. ft. on Units 2 and 3. Strainer openings were reduced in size from the previous 0.12" square to a 0.08" diameter circular opening. Increased surface area will provide several beneficial effects. First of all, the approach velocity at the face of the strainer will be decreased from approximately 0.2 ft/sec to approximately 0.004 ft/sec, making debris accumulation on vertical surfaces less likely. Secondly, there will be more area over which to spread the debris inventory, thereby decreasing the bed thickness. The

combined effect of these reductions in bed thickness and flow velocity will reduce head loss across the debris bed, which is a function of both fluid velocity and bed thickness. The smaller openings in the strainer will reduce the bypass factor and the size of the downstream debris, providing additional benefit with regard to potential plugging of small downstream flow passages such as throttle valves and orifices.

4.2.2 HPI Pump Replacement

All HPI pumps (rotating assemblies) have been replaced on Units 1 and 2 as well as HPI pump 3B. The replacements have been upgraded with more durable wear-susceptible parts. This will reduce the likelihood of degraded HPI pump performance in a post-LOCA sump pool environment.

4.2.3 Debris Generation / Source Removal

Debris generation analysis has been completed. Insulation inside containment that is affected during a LOCA event is mostly Reflective Metal Insulation (RMI) with very little fiber. All fibrous piping insulation within the predicted Zone Of Influence (ZOI) inside containment has been removed. A walkdown of containment, augmented by sampling, has been performed and the amount of latent debris is very small. Extensive remediation of degraded containment coatings has been performed on all ONS units in recent refueling outages. Over the past three refueling outages for Unit 1, over 8500 sq. ft. of degraded qualified/acceptable coatings were remediated (completely removed and replaced with a qualified coating system.). In addition to this, over 2800 sq. ft. of unqualified coatings were replaced with qualified coatings. For Unit 2, over 15,000 sq. ft. of qualified/acceptable coatings and more than 2800 sq. ft. of unqualified coatings were remediated during the three most recent refueling outages. On Unit 3, which has most of its degraded coatings in inaccessible areas in the dome area of containment, about 400 sq. ft. of degraded qualified/acceptable coatings were remediated and about 2400 sq. ft. of unqualified coatings were replaced during the three most recent refueling outages. Periodic condition assessments are performed each outage and as localized areas of degradation are identified, those areas are evaluated and scheduled for repair or replacement as necessary. These periodic condition assessments and the resulting repair/replacement activities ensure that the amount of coatings that may be susceptible to detachment from the substrate during a LOCA event is minimized.

4.2.4 Leak-Before-Break (LBB)

Postulated breaks in the reactor coolant loop piping have been eliminated for all ONS units by application of leak-before-break technology. While leak-before-break is not being used to establish the design basis debris load on the new sump screens, the use of LBB would result in a substantial reduction in the zone of influence, and thus a significant reduction in the postulated debris generation, loading on the sump screens, and potential clogging of downstream flow passages.

4.2.5 Procedural Guidance, Training and Actions

By letter dated August 7, 2003, Duke responded to NRC Bulletin 2003-01, "Potential Impact Of Debris Blockage On Emergency Sump Recirculation At Pressurized Water Reactors". Duke's letter stated that ONS would implement the following interim compensatory measures:

(1) operator training on monitoring of indications of and responses to sump clogging;

(2) guidance to reduce depletion of the BWST and initiate makeup to the BWST from normal and alternate sources during efforts to restore normal ECCS flow paths.

(3) LPI and BS systems were scheduled for modification to provide additional fixed system resistance to flow, thereby eliminating the need for operator action to throttle the pumps during LOCA mitigation and effectively reducing flow requirements such that NPSH requirements for these pumps is reduced.

(4) Reactor Vessel Cavity drains were scheduled for flush to ensure they would provide an unobstructed flow path to prevent holdup of sump inventory.

All of the above compensatory measures have been implemented at ONS.

4.2.6 Containment Cleanliness

ONS performs a thorough washdown of containment at the start and finish of each refueling outage using high pressure spray equipment. In addition to this practice, Maintenance personnel perform a cleanup of containment prior to entry into Mode 4 from Mode 5 during startup from each refueling outage. A containment exit inspection procedure is implemented after every containment entry at power and during each refueling outage, prior to entering Mode 4 from Mode 5 on startup. The primary purpose of this procedure is to ensure that no loose debris (rags, trash, clothing, etc.) is present in the Containment Building which could be transported to the emergency sump and cause restriction of ECCS pump suctions during LOCA conditions. Performance of these inspections is required by Selected Licensee Commitment 16.6.11.

Based on the above discussion, Duke meets the requirements of SECY-06- 0078 Criterion No. 2.

4.3 SECY-06-0078 Criterion No. 3:

For proposed extensions beyond several months, a licensee's request will more likely be accepted if the proposed mitigative measures include temporary physical improvements to the ECCS sump or materials inside containment to better ensure a high level of ECCS sump performance.

Duke Response:

As noted above, specific physical improvements in the ECCS sump and/or materials inside containment include:

1. ONS has installed new sump screens that increase the available screen area from approximately 100 sq. ft. on each unit to approximately 4800 sq. ft. on Unit 1 and approximately 5200 sq. ft. for Units 2 and 3. These modifications were completed on all ONS units prior to December 31, 2006.
2. ONS has removed fibrous piping insulation from all units that our baseline analysis identified as being within the Zone Of Influence of a postulated RCS pipe break.
3. ONS has replaced HPI pumps on two of its three units, utilizing more wear-resistant parts.
4. ONS has performed extensive remediation of degraded qualified/acceptable coatings in the reactor buildings and significant replacement of unqualified coatings with qualified systems.

Based on the above discussion, Duke meets the requirements of SECY-06-0078 Criterion No. 3.

5.0 Risk Assessment

In response to a LOCA, the LPI and HPI pumps automatically start upon receipt of an engineered safeguards (ES) actuation signal. These pumps inject to the reactor coolant system (RCS), taking suction from the borated water storage tank (BWST). This system line-up is referred to as the ECCS Injection phase. The Building Spray (BS) pumps start automatically when the containment pressure reaches the setpoint for ES actuation; the BS pumps also take suction from the BWST. The switchover to the ECCS recirculation sumps as suction source to the LPI pumps is manually initiated when the BWST water level decreases to approximately 6 feet. After the ECCS recirculation line-up is established, the LPI pumps continue to inject to the RCS and also supply water to the suction of the HPI pumps. The HPI pumps continue to inject to the RCS until LPI flow is verified, at which time they are manually secured by the operators. The BS pumps (if running) continue to take suction from the BWST until the suction source is manually switched over to the ECCS recirculation sumps.

The additional 24 months of operation (based on the current ONS outage schedules) with the existing seal flush orifices and cyclone separators on the BS/LPI/HPI pumps in place represents a very small increase in incremental risk. The same is true for the 16 month delay in installing the new rotating assemblies in the Unit 3 HPI pumps. Qualitatively, the risk associated with wear and/or plugging these components is judged to be very low due to the following reasons:

- The LOCAs most likely to transport debris to the ECCS sumps are large LOCAs due to the large ZOI they create, the higher flow rates required for mitigation, and the likelihood of containment spray actuation. These LOCAs have a very low probability of occurrence, as demonstrated by Probabilistic Risk Assessment and supported by LBB analyses for the ONS RCS piping.

- Moreover, the smaller, more probable LOCAs have significantly less potential for debris generation and transport.

- Containment cleanliness practices at ONS are quite rigorous, including washdown by pressure spray, thorough cleanliness inspections prior to startup from refueling outages, and Foreign Material Exclusion (FME) controls, including material logging, for reactor building entries in modes 4 and above. This ensures minimal latent debris sources available for transport in the event of a LOCA.

- The inventory of fibrous debris is minimal within the predicted Zone Of Influence (ZOI) from a LOCA. All fiberglass piping insulation has been removed from the steam generator cavities and conservative ZOI at ONS.

- Coatings debris sources are being minimized at ONS by significant remediation of degraded qualified/acceptable coatings and replacement of unqualified coatings with qualified systems on larger equipment. Additionally, the potential for transport of coatings debris has been shown by testing to be relatively low.

- Considerable time (approximately 44 minutes) is available for settling of debris following the onset of a LOCA and prior to the initiation of sump recirculation.

- All of the sump strainer replacement modifications have been completed for ONS. The new sump strainers have a smaller opening size (0.08" diameter circular holes versus 0.12" square openings originally) which reduces the size of particulate that may pass through the strainers and thus limits the potential for plugging of downstream components.

6.0 Conclusion

Duke's request for extension to the completion schedule for downstream effects related modifications is needed due to unavailability of parts delivery. Duke has limited capability to control the factors affecting the manufacturing and delivery of these items. An extension for completing all corrective actions and modifications required by GL 2004-02 until the end of the Unit 1 fall 2009 refueling outage is acceptable because:

There is a low probability of the initiating event (i.e., Large Break LOCA) during the period prior to the Unit 1 fall 2009 outage.

Per the criteria listed in SECY 06-0078, Duke has established a plant-specific plan with milestones and schedules to address outstanding technical issues with enough margin to account for uncertainties.

Duke has completed significant actions, including extensive analysis and has implemented physical improvements (including larger new sump screens), to better ensure a high level of sump

performance. These mitigative measures serve to minimize the risk of degraded ECCS or BS functions during the extension period.

7.0 References

1. NRC Generic Letter 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors," dated September 13,2004
2. Nuclear Energy Institute (NEI) 04-07, Volume 1, "Pressurized Water Reactor Sump Performance Methodology," and NEI 04-07, Volume 2, "Safety Evaluation by the Office of Nuclear Reactor Regulation Related to NRC Generic Letter 2004-02," Revision 0, dated December 2004
3. SECY-06-0078, from L. A. Reyes, NRC Executive Director for Operations, to NRC Commissioners, "Status of Resolution of GSI-191, 'Assessment of [Effect of] Debris Accumulation on PWR [Pressurized Water Reactor] Sump Performance,'" dated March 31, 2006

Enclosure 2

ONS Revised Commitments

Commitment No.	Description	Date
1	Replace seal flush orifices and cyclone separators on Unit 2 BS, HPI, and LPI Pumps.	fall 2008 RFO
2	Replace seal flush orifices and cyclone separators on Unit 3 BS, HPI, and LPI Pumps.	spring 2009 RFO
3	Replace seal flush orifices and cyclone separators on Unit 1 BS, HPI, and LPI Pumps.	fall 2009 RFO
4	Replace HPI Pumps 3A and 3C	spring 2009 RFO