

Jeffrey T. Gasser
Executive Vice President
and Chief Nuclear Officer

**Southern Nuclear
Operating Company, Inc.**
40 Inverness Center Parkway
Post Office Box 1295
Birmingham, Alabama 35201

Tel 205.992.7721
Fax 205.992.6165



February 21, 2007

Docket Nos.: 50-348 50-424
50-364 50-425

NL-07-0355

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555-0001

Joseph M. Farley Nuclear Plant
Vogtle Electric Generating Plant
Examination and Mitigation of Alloy 82/182 Pressurizer Butt Welds

Ladies and Gentlemen:

In October 2006, while performing examinations of its pressurizer Alloy 82/182 butt welds in accordance with MRP-139, a PWR licensee discovered several circumferential indications in its pressurizer surge, safety, and relief nozzles. Because of the potential importance of this issue, Southern Nuclear Operating Company (SNC) notified the NRC of Joseph M. Farley Nuclear Plant's (FNP) and Vogtle Electric Generating Plant's (VEGP) actions taken or committing to for examination and mitigating activities for Alloy 82/182 butt welds on pressurizer spray, surge, safety, and relief nozzles, by letter NL-07-0121 dated January 30, 2007. Based on information from subsequent telephone conference calls between SNC and the NRC on February 13, 2007 regarding VEGP Alloy 82 pressurizer butt welds, and on February 16, 2007 regarding FNP Alloy 82/182 pressurizer butt welds, this letter supersedes NL-07-0121 in its entirety.

It should be noted that neither FNP nor VEGP pressurizers contain Alloy 600 material. FNP pressurizer nozzle butt welds contain Alloy 82/182, while VEGP pressurizer nozzle butt welds contain only Alloy 82 material.

Mitigation activities and post-mitigation examinations at FNP-1 and VEGP-2 will be completed prior to December 31, 2007. Examination activities at FNP-2 will be completed prior to December 31, 2007. Mitigation activities and post-mitigation examinations at VEGP-1 will be completed after December 31, 2007. Please refer to the enclosures for details of the actions taken or planned for each unit.

SNC will stay apprised of industry actions and recommendations referenced in NEI letter, dated January 26, 2007, from Marvin S. Fertel to Luis A. Reyes, "Industry Actions Associated with Potential Generic Implications of Wolf Creek Inspection Findings."

SNC commits to adopt contingency plans to shut down Vogtle Unit 1 by December 31, 2007, if the technical information, being developed by the MRP (or by industry) through advanced finite element analyses, does not provide reasonable assurance to the NRC that PWSCC crack conditions will remain stable and not lead to rupture without significant time from the onset of detectable leakage. The schedule could also be accelerated if new information is obtained during upcoming examinations that challenge current assumptions.

This letter contains NRC commitments. The NRC will be notified in writing in advance if FNP or VEGP deviates from any of the commitments described in this letter. Our staff is available to meet with the NRC to discuss the information in this letter.

If you have any questions, please advise.

Sincerely,



Jeffrey T. Gasser

JTG/LPH/daj

Enclosures: 1. Examination and Mitigation Information for FNP-1 & FNP-2
 2. Examination and Mitigation Information for VEGP-1 & VEGP-2
 3. List of Regulatory Commitments

cc: Southern Nuclear Operating Company
 Mr. J. R. Johnson, Vice President – Farley
 Mr. T. E. Tynan, Vice President – Vogtle
 Mr. D. H. Jones, Vice President – Engineering
 RType: CFA04.054; CVC7000; LC# 14539

U. S. Nuclear Regulatory Commission
Dr. W. D. Travers, Regional Administrator
Ms. K. R. Cotton, NRR Project Manager – Farley
Mr. B. K. Singal, NRR Project Manager – Vogtle
Mr. E. L. Crowe, Senior Resident Inspector – Farley
Mr. G. J. McCoy, Senior Resident Inspector – Vogtle

Nuclear Energy Institute
Mr. M. S. Fertel
Mr. J. H. Riley

Enclosure 1

**Joseph M. Farley Nuclear Plant
Examination and Mitigation Information for FNP-1 & FNP-2**

Enclosure 1

Joseph M. Farley Nuclear Plant Examination and Mitigation Information for FNP-1 & FNP-2

FNP-1

Examination and mitigation of pressurizer Alloy 82/182 butt welds at Farley Unit 1 have not been completed, but SNC will complete all mitigation activities on these locations during the 1R21 outage which starts in September 2007. Details concerning Farley Unit 1 mitigation activities are provided in the enclosed table. Future examinations of pressurizer weld overlays at Farley Unit 1 will be performed in accordance with industry guidance (MRP-139) and a NRC approved alternative.

Farley Unit 1 will perform daily measurement of Reactor Coolant System (RCS) unidentified leakage in MODES 1, 2, and 3 (when the plant is in a stable condition as defined by the Technical Specification Bases) until the pressurizer Alloy 82/182 butt welds are mitigated. The process described below will be used:

- Identification of unidentified leakage rates greater than either of the following limits when this increase is sustained for 72 hours:

- 0.25 gpm greater than a baseline value.

The baseline shall be established using RCS leak rate information collected during the first 7 days of Mode 1, 100% power operation, after the most recent bare metal visual examination of the pressurizer Alloy 82/182 butt weld locations.

- 0.1 gpm increase between two consecutive daily measurements.
- Once the 72-hour evaluation period (i.e., period of sustained leakage rate increase) is complete, place the unit in Mode 3, Hot Standby, in 6 hours and in Mode 5, Cold Shutdown, in an additional 36 hours.
- A positive determination that the source of the unidentified leakage did not come from the pressurizer will negate the requirement for shutdown and/or pressurizer Alloy 82/182 butt weld bare metal visual examination.
- If a quantity of leakage can be assigned to a source other than the pressurizer and that quantity decreases the unidentified leakage below one of the thresholds (0.1 gpm step increase or 0.25 gpm above baseline), this will negate the requirement for shutdown and/or pressurizer Alloy 82/182 butt weld bare metal visual examination.
- The leakage monitoring program enhancements will be fully implemented including operator training by March 1, 2007. In the meantime, SNC will issue temporary instructions, as appropriate, to meet the intent of the new program as soon as practical.

Enclosure 1

Joseph M. Farley Nuclear Plant
Examination and Mitigation Information for FNP-1 & FNP-2

FNP is evaluating the Pressurized Water Reactors Owner Group (PWROG) program (WCAP-16465 & WCAP-16423) regarding standardized RCS leakage monitoring, and anticipates implementation during 2007.

SNC will report to the NRC, within 60 days of restart, details of any corrective or mitigative action taken for FNP-1. SNC will report bare metal visual examination results to the NRC within 60 days of restart.

FNP-1
Examination and Mitigation Information Table
Examination and Mitigation Summary for Alloy 82/182 Pressurizer Butt Welds

| Nozzle | | Post-Mitigation MRP-139 Volumetric Examination Requirement to be Met | | Mitigation Completed or to be Completed | Comments |
|----------------------------|--|---|-------------------------|---|--------------------------|
| Function / Designation | Susceptible Material Description | Outage Designation | Start Date (MM/YYYY) | Outage Designation | |
| Spray ALA 1-4205-35DM | (1) (2) (3) & (4) Alloy 82 / 182 | 1R21 | 09/2007 | 1R21 | Mitigate by weld overlay |
| Surge ALA 1-4500-6DM | (1) (2) & (3) Alloy 82 / 182 | 1R21 | 09/2007 | 1R21 | Mitigate by weld overlay |
| Safety 1 ALA 1-4501-1DM | (1) (2) & (4) Alloy 82 / 182 | 1R21 | 09/2007 | 1R21 | Mitigate by weld overlay |
| Safety 2 ALA 1-4502-1DM | (1) (2) & (4) Alloy 82 / 182 | 1R21 | 09/2007 | 1R21 | Mitigate by weld overlay |
| Safety 3 ALA 1-4503-1DM | (1) (2) & (4) Alloy 82 / 182 | 1R21 | 09/2007 | 1R21 | Mitigate by weld overlay |
| Relief ALA 1-4504-1DM | (1) (2) & (4) Alloy 82 / 182 | 1R21 | 09/2007 | 1R21 | Mitigate by weld overlay |

- (1) Nozzle-to-safe end butter
- (2) Nozzle-to-safe end weld
- (3) Thermal sleeve-to-safe end weld
- (4) Liner weld-to-safe end butter

Enclosure 1

Joseph M. Farley Nuclear Plant Examination and Mitigation Information for FNP-1 & FNP-2

FNP-2

Two pressurizer Alloy 82/182 butt welds at FNP-2 have been examined per a Performance Demonstration Initiative (PDI) qualified ultrasonic testing (UT) method in accordance with MRP-139. Details concerning the locations examined and the results of completed examinations are provided in the enclosed tables. Future examinations of pressurizer butt welds at FNP-2 will be performed in accordance with industry guidance (MRP-139).

Examination of the four remaining pressurizer Alloy 82/182 butt welds at FNP-2 has not been completed, but SNC will complete all MRP-139 required examinations of these welds during the 2R18 outage in April 2007. Mitigation by weld overlay of all six FNP-2 pressurizer nozzles is planned for the 2R20 outage in spring 2010. Details concerning FNP-2 examination and mitigation activities are provided in the enclosed table.

Farley Unit 2 will perform daily measurement of Reactor Coolant System (RCS) unidentified leakage in MODES 1, 2, and 3 (when the plant is in a stable condition as defined by the Technical Specification Bases) until the pressurizer Alloy 82/182 butt welds are examined. The process described below will be used:

- Identification of unidentified leakage rates greater than either of the following limits when this increase is sustained for 72 hours:

- 0.25 gpm greater than a baseline value.

The baseline shall be established using RCS leak rate information collected during the first 7 days of Mode 1, 100% power operation, after the most recent bare metal visual examination of the pressurizer Alloy 82/182 butt weld locations.

- 0.1 gpm increase between two consecutive daily measurements.
- Once the 72-hour evaluation period (i.e., period of sustained leakage rate increase) is complete, place the unit in Mode 3, Hot Standby, in 6 hours and in Mode 5, Cold Shutdown, in an additional 36 hours.
- A positive determination that the source of the unidentified leakage did not come from the pressurizer will negate the requirement for shutdown and/or pressurizer Alloy 82/182 butt weld bare metal visual examination.
- If a quantity of leakage can be assigned to a source other than the pressurizer and that quantity decreases the unidentified leakage below one of the thresholds (0.1 gpm step increase or 0.25 gpm above baseline), this will negate the requirement for shutdown and/or pressurizer Alloy 82/182 butt weld bare metal visual examination.

Enclosure 1

Joseph M. Farley Nuclear Plant
Examination and Mitigation Information for FNP-1 & FNP-2

- The leakage monitoring program enhancements will be fully implemented including operator training by March 1, 2007. In the meantime, SNC will issue temporary instructions, as appropriate, to meet the intent of the new program as soon as practical.

FNP is evaluating the PWROG program (WCAP-16465 & WCAP-16423) regarding standardized RCS leakage monitoring, and anticipates implementation during 2007.

SNC will report to the NRC, within 60 days of restart, details of examination results of any unmitigated weld examinations and any corrective or mitigative action taken. SNC will report bare metal visual examination results to the NRC within 60 days of restart.

FNP-2
Examination and Mitigation Information Table
Examination and Mitigation Summary for Alloy 82/182 Pressurizer Butt Welds

| Nozzle | | MRP-139 Volumetric Examination Requirement Met or to be Met | | Mitigation Completed or to be Completed | Comments |
|----------------------------|-------------------------------------|---|----------------------|---|--|
| Function / Designation | Susceptible Material Description | Outage Designation | Start Date (MM/YYYY) | Outage Designation | |
| Spray APR 1-4205-49DM | (1) (2) (3) & (4) Alloy 82 / 182 | 2R17 | 10/2005 | 2R20 (Spring 2010) | PDI examination acceptable. Mitigate by weld overlay. |
| Surge APR 1-4500-7DM | (1) (2) & (3) Alloy 82 / 182 | 2R18 | 04/2007 | 2R20 (Spring 2010) | Mitigate by weld overlay |
| Safety 1 APR 1-4501-1DM | (1) (2) & (4) Alloy 82 / 182 | 2R18 | 04/2007 | 2R20 (Spring 2010) | Mitigate by weld overlay |
| Safety 2 APR 1-4502-1DM | (1) (2) & (4) Alloy 82 / 182 | 2R18 | 04/2007 | 2R20 (Spring 2010) | Mitigate by weld overlay |
| Safety 3 APR 1-4503-1DM | (1) (2) & (4) Alloy 82 / 182 | 2R17 | 10/2005 | 2R20 (Spring 2010) | PDI examination acceptable. Mitigate by weld overlay. |
| Relief APR 1-4504-1DM | (1) (2) & (4) Alloy 82 / 182 | 2R18 | 04/2007 | 2R20 (Spring 2010) | Mitigate by weld overlay |

- (1) Nozzle-to-safe end butter
- (2) Nozzle-to-safe end weld
- (3) Thermal sleeve-to-safe end weld
- (4) Liner weld-to-safe end butter

Enclosure 2

**Vogtle Electric Generating Plant
Examination and Mitigation Information for VEGP-1 & VEGP-2**

Enclosure 2

Vogtle Electric Generating Plant Examination and Mitigation Information for VEGP-1 & VEGP-2

VEGP-1

The pressurizer spray nozzle Alloy 82 butt weld at VEGP-1 has been examined per a PDI qualified UT method in accordance with MRP-139. Details concerning the examination are provided in the enclosed table.

Examination of the five remaining pressurizer Alloy 82 butt welds and mitigation activities at VEGP-1 will be completed after December 31, 2007. Details concerning VEGP-1 examination and mitigation activities are provided in the enclosed table. Future examinations of pressurizer weld overlays at VEGP-1 will be performed in accordance with industry guidance (MRP-139) and a NRC approved alternative. The results of future examinations or mitigations of pressurizer Alloy 82 butt weld locations will be reported to the NRC within 60 days of startup from the outage during which they were performed.

Mitigation by weld overlay of all six VEGP-1 pressurizer nozzles is planned for the 1R14 outage in March 2008. The primary reason that VEGP-1 is not being completed before December 31, 2007 is because the outage cycle for this unit had only one planned outage between the issuance of MRP-139 in July 2005 and the December 31, 2007 implementation schedule for pressurizer butt welds. SNC considered it essential to perform a walkdown of the pressurizer cubicle to plan the weld overlay activity, since the design of the top of the Vogtle pressurizer has several significant interferences that must be removed to provide access for the weld overlay tooling and then replaced. The walkdown information permits better planning, a more accurate design package, reduced implementation risk, and lower radiation exposure than performing this activity without the benefit of the walkdown.

The industry examination and evaluation guideline MRP-139, paragraph 6.8.2 states, "Owners who know that their welds cannot be volumetrically examined are not required to perform a best-effort NDE; however, by the time the examination is due, they are required to have a plan to address either the susceptibility of the weld or the inspectability of the weld." Vogtle performed physical profiling of the six pressurizer Alloy 82 butt welds during the 1R12 outage in spring 2005 and determined the three safety nozzles and the relief nozzle cannot be examined in accordance with PDI requirements due to unfavorable geometries that limit examination volume coverage to between 27% and 60%. Vogtle has a plan in place and a vendor contract awarded to make the welds examinable by applying weld overlays during the 1R14 outage in March 2008, which is approximately 10 weeks after the MRP-139 implementation schedule.

Enclosure 2

Vogtle Electric Generating Plant Examination and Mitigation Information for VEGP-1 & VEGP-2

SNC considers the scheduled March 2008 mitigation date acceptable based on the following:

- Previous examination results
Bare metal visual (BMV) examinations were performed on all six pressurizer Alloy 82 butt welds during the 1R12 and 1R13 outages in 2005 and 2006 with no evidence of leakage. The spray nozzle was examined in accordance with PDI in the 1R12 outage in 2005 and found acceptable. The remaining five Alloy 82 butt weld examinations have been performed under the ISI Program in accordance with ASME Section XI. Details of the safety nozzles and relief nozzle exams were reported in SNC response to Bulletin 2004-01 by letter NL-04-1150, dated July 26, 2004. The most recent ISI examinations were in the 1R9 outage (2000) for the safety nozzles and relief nozzle, and in the 1R5 outage (1995) for the surge nozzle. These were not PDI exams; however, based on physical profile data, the anticipated PDI exam coverage for the surge nozzle is near 100%.
- Assessment of original fabrication welds documentation to identify welds that had been reworked
SNC participated in a PWR Owners Group Materials Subcommittee project (PWROG PA-MS-0233) to review fabrication details of dissimilar metal welds. For Vogtle Unit 1, Alloy 82 weld repairs were identified only on the inside diameter of the spray nozzle and the safety #1 nozzle. The spray nozzle was examined in accordance with PDI in 2005, and there were no recordable indications. The safety #1 nozzle had a number of ground outs on the inner diameter which were repaired using Alloy 82 weld filler metal. A postweld heat treatment was performed after the safety #1 nozzle repairs.
- Water chemistry, e.g., zinc addition
VEGP-1 follows current industry guidelines for primary water chemistry. Strong evidence exists that zinc addition to the primary coolant inhibits the initiation of PWSCC and may also slow the propagation of existing cracks. The VEGP-1 pressurizer surge line has been exposed to approximately 50 ppb-months of zinc chemistry. Zinc was initially added during Cycle 12 (August 2004); however, it was discontinued in October 2005 because of considerations for nuclear fuel. There are plans to resume zinc addition approximately midway through the current operating cycle at VEGP-1.
- Plant age
The susceptibility to PWSCC of Alloy 82 is largely a function of time at temperature when all other variables are constant. Since pressurizers in a PWR operate at saturated conditions, all PWRs that operate at a nominal 2250 psi have a pressurizer operating temperature within a few degrees of 653° F, and can be

Enclosure 2

Vogtle Electric Generating Plant Examination and Mitigation Information for VEGP-1 & VEGP-2

compared directly based on operating time. Based on industry data (MRP-48) in response to NRC Bulletin 2001-01, the EFPY for VEGP-1 ranked in the lower third of U.S. PWR operating plants and has less operating time than the plant for which circumferential flaws in the pressurizer dissimilar metal welds were observed.

- Industry safety assessment

As a result of the circumferential indications found in October 2006 the industry, through EPRI MRP, reviewed the Alloy 82 Pipe Butt Weld Safety Assessment (MRP-113) and the Primary System Piping Butt Weld Inspection and Evaluation Guideline (MRP-139). This review was transmitted from EPRI to the NRC by letter MRP 2007-03 dated January 22, 2007. The review is contained in the report, entitled "Implications of Wolf Creek Pressurizer Butt Weld Indications Relative to Safety Assessment and Inspection Requirements," attached to the letter. The conclusions from the industry review included:

- MRP-113 and MRP-139 remain valid.
- Critical flaw sizes are several times larger than the indications observed in October 2006.
- Bare metal visual examinations during that last refueling outage, and improved leak monitoring, ensure a low risk of leaks and an extremely low risk of rupture through the spring 2008.

Details concerning Vogtle Unit 1 examination and mitigation activities are provided in the enclosed table. Future examinations of pressurizer butt welds at Vogtle Unit 1 will be performed in accordance with industry guidance (MRP-139) and a NRC approved alternative.

Vogtle Unit 1 will perform daily measurement of Reactor Coolant System (RCS) unidentified leakage in MODES 1, 2, and 3 when the plant is in a stable condition (as defined by the Technical Specification Bases) until the pressurizer Alloy 82 butt welds are mitigated. The process described below will be used:

- Identification of unidentified leakage rates greater than either of the following limits when this increase is sustained for 72 hours:
 - 0.25 gpm greater than a baseline value.

The baseline shall be established using RCS leak rate information collected during the first 7 days of Mode 1, 100% power operation, after the most recent bare metal visual examination of the pressurizer Alloy 82 butt weld locations.

- 0.1 gpm increase between two consecutive daily measurements.

Enclosure 2

Vogtle Electric Generating Plant Examination and Mitigation Information for VEGP-1 & VEGP-2

- Once the 72-hour evaluation period (i.e., period of sustained leakage rate increase) is complete, place the unit in Mode 3, Hot Standby, in 6 hours and in Mode 5, Cold Shutdown, in an additional 36 hours.
- A positive determination that the source of the unidentified leakage did not come from the pressurizer will negate the requirement for shutdown and/or pressurizer Alloy 82 butt weld bare metal visual examination.
- If a quantity of leakage can be assigned to a source other than the pressurizer and that quantity decreases the unidentified leakage below one of the thresholds (0.1 gpm step increase or 0.25 gpm above baseline), this will negate the requirement for shutdown and/or pressurizer Alloy 82 butt weld bare metal visual examination.
- The leakage monitoring program enhancements will be fully implemented including operator training by March 1, 2007. In the meantime, SNC will issue temporary instructions as appropriate to meet the intent of the new program as soon as practical.

VEGP is evaluating the Pressurized Water Reactors Owner Group (PWROG) program (WCAP-16465 & WCAP-16423) regarding standardized RCS leakage monitoring, and anticipates implementation during 2007.

SNC will report to the NRC, within 60 days of restart, details of any corrective or mitigative action taken. SNC will report bare metal visual examination results to the NRC within 60 days of restart.

VEGP-1
Examination and Mitigation Information Table
Examination and Mitigation Summary for Alloy 82 Pressurizer Butt Welds

| Nozzle | | Post-Mitigation MRP-139 Volumetric Examination Requirement to be Met | | Mitigation Completed or to be Completed | Comments |
|------------------------------|--|---|-------------------------|---|--|
| Function / Designation | Susceptible Material Description | Outage Designation | Start Date (MM/YYYY) | Outage Designation | |
| Spray 11201-V6-002-W21 | (1) (2) (3) & (4) Alloy 82 | 1R12 | 03/2005 | 1R14 (Spring 2008) | PDI examination acceptable. Mitigate by weld overlay. |
| Surge 11201-V6-002-W22 | (1) (2) & (3) Alloy 82 | 1R14 | 03/2008 | 1R14 (Spring 2008) | Mitigate by weld overlay. |
| Safety 1 11201-V6-002-W17 | (1) & (2) Alloy 82 | 1R14 | 03/2008 | 1R14 (Spring 2008) | Mitigate by weld overlay. |
| Safety 2 11201-V6-002-W18 | (1) & (2) Alloy 82 | 1R14 | 03/2008 | 1R14 (Spring 2008) | Mitigate by weld overlay. |
| Safety 3 11201-V6-002-W19 | (1) & (2) Alloy 82 | 1R14 | 03/2008 | 1R14 (Spring 2008) | Mitigate by weld overlay. |
| Relief 11201-V6-002-W20 | (1) & (2) Alloy 82 | 1R14 | 03/2008 | 1R14 (Spring 2008) | Mitigate by weld overlay. |

- (1) Nozzle-to-safe end butter
- (2) Nozzle-to-safe end weld
- (3) Thermal sleeve-to-safe end weld
- (4) Liner weld-to-safe end butter

Enclosure 2

Vogtle Electric Generating Plant Examination and Mitigation Information for VEGP-1 & VEGP-2

VEGP 2

Examination and mitigation of pressurizer Alloy 82 butt welds at Vogtle Unit 2 have not been completed, but SNC will complete all MRP-139 examination and mitigation activities on these locations during the 2R12 outage which starts in March 2007. Details concerning Vogtle Unit 2 examination and mitigation activities are provided in the enclosed table. Future examinations of pressurizer weld overlays at Vogtle Unit 2 will be performed in accordance with industry guidance (MRP-139) and a NRC approved alternative.

Vogtle Unit 2 will perform daily measurement of Reactor Coolant System (RCS) unidentified leakage in MODES 1, 2, and 3 (when the plant is in a stable condition as defined by the Technical Specification Bases) until the pressurizer Alloy 82 butt welds are mitigated. The process described below will be used:

- Identification of unidentified leakage rates greater than either of the following limits when this increase is sustained for 72 hours:
 - 0.25 gpm greater than a baseline value.

The baseline shall be established using RCS leak rate information collected during the first 7 days of Mode 1, 100% power operation, after the most recent bare metal visual examination of the pressurizer Alloy 82 butt weld locations.
 - 0.1 gpm increase between two consecutive daily measurements.
- Once the 72-hour evaluation period (i.e., period of sustained leakage rate increase) is complete, place the unit in Mode 3, Hot Standby, in 6 hours and in Mode 5, Cold Shutdown, in an additional 36 hours.
- A positive determination that the source of the unidentified leakage did not come from the pressurizer will negate the requirement for shutdown and/or pressurizer Alloy 82 butt weld bare metal visual examination.
- If a quantity of leakage can be assigned to a source other than the pressurizer and that quantity decreases the unidentified leakage below one of the thresholds (0.1 gpm step increase or 0.25 gpm above baseline), this will negate the requirement for shutdown and/or pressurizer Alloy 82 butt weld bare metal visual examination.
- The leakage monitoring program enhancements will be fully implemented including operator training by March 1, 2007. In the meantime, SNC will issue temporary instructions as appropriate to meet the intent of the new program as soon as practical.

Enclosure 2

Vogtle Electric Generating Plant
Examination and Mitigation Information for VEGP-1 & VEGP-2

VEGP is evaluating the PWROG program (WCAP-16465 & WCAP-16423) regarding standardized RCS leakage monitoring, and anticipates implementation during 2007.

SNC will report to the NRC, within 60 days of restart, details of any corrective or mitigative action taken. SNC will report bare metal visual examination results to the NRC within 60 days of restart.

VEGP-2
Examination and Mitigation Information Table
Examination and Mitigation Summary for Alloy 82 Pressurizer Butt Welds

| Nozzle | | Post-Mitigation MRP-139 Volumetric Examination Requirement to be Met | | Mitigation Completed or to be Completed | Comments |
|------------------------------|--|---|-------------------------|---|--------------------------|
| Function / Designation | Susceptible Material Description | Outage Designation | Start Date (MM/YYYY) | Outage Designation | |
| Spray 21201-V6-002-W21 | (1) (2) (3) & (4) Alloy 82 | 2R12 | 03/2007 | 2R12 | Mitigate by weld overlay |
| Surge 21201-V6-002-W22 | (1) (2) & (3) Alloy 82 | 2R12 | 03/2007 | 2R12 | Mitigate by weld overlay |
| Safety 1 21201-V6-002-W17 | (1) & (2) Alloy 82 | 2R12 | 03/2007 | 2R12 | Mitigate by weld overlay |
| Safety 2 21201-V6-002-W18 | (1) & (2) Alloy 82 | 2R12 | 03/2007 | 2R12 | Mitigate by weld overlay |
| Safety 3 21201-V6-002-W19 | (1) & (2) Alloy 82 | 2R12 | 03/2007 | 2R12 | Mitigate by weld overlay |
| Relief 21201-V6-002-W20 | (1) & (2) Alloy 82 | 2R12 | 03/2007 | 2R12 | Mitigate by weld overlay |

- (1) Nozzle-to-safe end butter
- (2) Nozzle-to-safe end weld
- (3) Thermal sleeve-to-safe end weld
- (4) Liner weld-to-safe end butter

Enclosure 3

**Joseph M. Farley Nuclear Plant
Vogtle Electric Generating Plant**

List of Regulatory Commitments

Enclosure 3

List of Regulatory Commitments

The following table identifies those actions committed to by Southern Nuclear Operating Company in this document for Farley Nuclear Plant and Vogtle Electric Generating Plant. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments.

| Commitment | Type | | Scheduled Completion Date (If Required) |
|---|-----------------|-----------------------|--|
| | One-Time Action | Continuing Compliance | |
| FNP-1 will perform MRP-139 mitigation and post-mitigation examination activities on the pressurizer nozzles by the end of the 1R21 outage (Fall 2007). | X | | End of 1R21 Outage |
| FNP-2 will perform MRP-139 required examinations on the pressurizer Alloy 82/182 butt welds during the 2R18 outage (Spring 2007). | X | | End of 2R18 Outage |
| FNP-2 will perform MRP-139 mitigation and post-mitigation examination activities on the pressurizer nozzles by the end of the 2R20 outage (Spring 2010). | X | | End of 2R20 Outage |
| VEGP-1 will perform MRP-139 mitigation and post-mitigation examination activities on the pressurizer nozzles during the 1R14 outage (Spring 2008). | X | | End of 1R14 Outage |
| SNC commits to adopt contingency plans to shut down Vogtle Unit 1 by December 31, 2007, if technical information being developed by the MRP (or by industry) through advanced finite element analyses do not provide reasonable assurance to the NRC that PWSCC crack conditions will remain stable and not lead to rupture without significant time from the onset of detectable leakage. The schedule could also be accelerated if new information is obtained during upcoming examinations that challenge current assumptions. | X | | December 31, 2007 |
| VEGP-2 will perform MRP-139 mitigation and post-mitigation examination activities on the pressurizer nozzles during the 2R12 outage (Spring 2007). | X | | End of 2R12 Outage |

Enclosure 3

List of Regulatory Commitments

| Commitment | Type | | Scheduled Completion Date (If Required) |
|--|-----------------|-----------------------|--|
| | One-Time Action | Continuing Compliance | |
| If a shut down occurs due to excessive primary system unidentified leakage, and if the leakage cannot be confirmed to originate from a source other than the pressurizer nozzles, a bare metal visual examination of Alloy 82/182 weld locations on the pressurizer will be performed to determine whether the leakage originated at those locations (FNP & VEGP). | | X | Ongoing until mitigation of pressurizer Alloy 82/182 welds |
| Examinations of pressurizer weld overlays will be performed in accordance with MRP-139 and/or NRC approved alternatives (FNP & VEGP). | | X | |
| SNC will report to the NRC within 60 days of restart details of examination results of any unmitigated weld examinations and any corrective or mitigative action taken. SNC will report bare metal visual examination results to the NRC within 60 days of restart (FNP & VEGP). | | X | Until mitigated or examined. |
| Processes described in Enclosures 1 & 2 for monitoring primary system leakage will be used until Alloy 82/182 butt weld locations on the pressurizer have been mitigated or examined (FNP & VEGP). | | X | Until mitigated or examined. |