ATTACHMENT TO LICENSE AMENDMENT NO. 111

TO FACILITY COMBINED LICENSE NO. NPF-91

DOCKET NO. 52-025

Replace the following pages of the Facility Combined License No. NPF-91 with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Facility Combined License No. NPF-91

| REMOVE | INSERT |
|---|---|
| 7 | 7 |

Appendix C to Facility Combined License No. NPF-91

| REMOVE | INSERT |
|---|---|
| C-64 | C-64 |
| --- | C-64a |
| C-132 | C-132 |
| C-133 | C-133 |
| C-138 | C-138 |

(7) Reporting Requirements

(a) Within 30 days of a change to the initial test program described in FSAR Section 14, Initial Test Program, made in accordance with 10 CFR 50.59 or in accordance with 10 CFR Part 52, Appendix D, Section VIII, "Processes for Changes and Departures," SNC shall report the change to the Director of NRO, or the Director's designee, in accordance with 10 CFR 50.59(d).

(b) SNC shall report any violation of a requirement in Section 2.D.(3), Section 2.D.(4), Section 2.D.(5), and Section 2.D.(6) of this license within 24 hours. Initial notification shall be made to the NRC Operations Center in accordance with 10 CFR 50.72, with written follow up in accordance with 10 CFR 50.73.

(8) Incorporation

The Technical Specifications, Environmental Protection Plan, and ITAAC in Appendices A, B, and C, respectively of this license, as revised through Amendment No. 111, are hereby incorporated into this license.

(9) Technical Specifications

The technical specifications in Appendix A to this license become effective upon a Commission finding that the acceptance criteria in this license (ITAAC) are met in accordance with 10 CFR 52.103(g).

(10) Operational Program Implementation

SNC shall implement the programs or portions of programs identified below, on or before the date SNC achieves the following milestones:

(a) Environmental Qualification Program implemented before initial fuel load;

(b) Reactor Vessel Material Surveillance Program implemented before initial criticality;

(c) Preservice Testing Program implemented before initial fuel load;

(d) Containment Leakage Rate Testing Program implemented before initial fuel load;

(e) Fire Protection Program

1. The fire protection measures in accordance with Regulatory Guide (RG) 1.189 for designated storage building areas (including adjacent fire areas that could affect the storage area) implemented before initial receipt

Table 2.1.2-4

Inspections, Tests, Analyses, and Acceptance Criteria

| No. | ITAAC No. | Design Commitment | Inspections, Tests, Analyses | Acceptance Criteria |
|---|---|---|---|---|
| 33 | 2.1.02.08d.ii | 8.d) The RCS provides automatic depressurization during design basis events. | ii) Inspections and associated analysis of each fourth-stage ADS sub-loop (four valves and associated piping connected to each hot leg) will be conducted to verify the line routing is consistent with the line routing used for design flow resistance calculations. | ii) The calculated flow resistance for each fourth-stage ADS sub-loop valves and piping is:<br>Loop 1:<br>Sub-loop A: $\leq 5.91 \times 10^{-7}$ ft/gpm$^2$<br>Sub-loop C: $\leq 6.21 \times 10^{-7}$ ft/gpm$^2$<br>Loop 2:<br>Sub-loop B: $\leq 4.65 \times 10^{-7}$ ft/gpm$^2$<br>Sub-loop D: $\leq 6.20 \times 10^{-7}$ ft/gpm$^2$ |
| 34 | 2.1.02.08d.iii | 8.d) The RCS provides automatic depressurization during design basis events. | iii) Inspections of each fourth-stage ADS valve will be conducted to determine the as-manufactured flow area through each valve. | iii) The as-manufactured flow area through each fourth-stage ADS valve is $\geq$ 67 in$^2$. |
| 35 | 2.1.02.08d.iv | 8.d) The RCS provides automatic depressurization during design basis events. | iv) Type tests and analysis will be performed to determine the effective flow area through each stage 1,2,3 ADS valve. | iv) A report exists and concludes that the effective flow area through each stage 1 ADS valve $\geq$ 4.6 in$^2$ and each stage 2,3 ADS valve is $\geq$ 19 in$^2$. |
| 36 | 2.1.02.08d.v | 8.d) The RCS provides automatic depressurization during design basis events. | v) Inspections of the elevation of the ADS stage 4 valve discharge will be conducted. | v) The minimum elevation of the bottom inside surface of the outlet of these valves is greater than plant elevation 110 feet. |
| 37 | 2.1.02.08d.vi | 8.d) The RCS provides automatic depressurization during design basis events. | vi) Inspections of the ADS stage 4 valve discharge will be conducted. | vi) The discharge of the ADS stage 4 valves is directed into the steam generator compartments. |
| 38 | 2.1.02.08d.vii | 8.d) The RCS provides automatic depressurization during design basis events. | vii) Inspection of each ADS sparger will be conducted to determine the flow area through the sparger holes. | vii) The flow area through the holes in each ADS sparger is $\geq$ 274 in$^2$. |

Table 2.1.2-4
Inspections, Tests, Analyses, and Acceptance Criteria

| No. | ITAAC No. | Design Commitment | Inspections, Tests, Analyses | Acceptance Criteria |
|---|---|---|---|---|
| 39 | 2.1.02.08d.viii | 8.d) The RCS provides automatic depressurization during design basis events. | viii) Inspection of the elevation of each ADS sparger will be conducted. | viii) The centerline of the connection of the sparger arms to the sparger hub is $\leq$ 11.5 feet below the IRWST overflow level. |
| 40 | 2.1.02.08e | 8.e) The RCS provides emergency letdown during design basis events. | Inspections of the reactor vessel head vent valves and inlet and outlet piping will be conducted. | A report exists and concludes that the capacity of the reactor vessel head vent is sufficient to pass not less than 8.2 lbm/sec at 1250 psia in the RCS. |

Table 2.2.3-4
Inspections, Tests, Analyses, and Acceptance Criteria

| No. | ITAAC No. | Design Commitment | Inspections, Tests, Analyses | Acceptance Criteria |
|---|---|---|---|---|
| 178 | 2.2.03.08c.i.02 | 8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events. | i) A low-pressure injection test and analysis for each CMT, each accumulator, each IRWST injection line, and each containment recirculation line will be conducted. Each test is initiated by opening isolation valve(s) in the line being tested. Test fixtures may be used to simulate squib valves.<br>2. Accumulators:<br>Each accumulator will be partially filled with water and pressurized with nitrogen. All valves in these lines will be open during the test. Sufficient flow will be provided to fully open the check valves. | i) The injection line flow resistance from each source is as follows:<br>2. Accumulators:<br>The calculated flow resistance between each accumulator and the reactor vessel is $\geq 1.47 \times 10^{-5}$ ft/gpm$^2$ and $\leq 1.83 \times 10^{-5}$ ft/gpm$^2$. |
| 179 | 2.2.03.08c.i.03 | 8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events. | i) A low-pressure injection test and analysis for each CMT, each accumulator, each IRWST injection line, and each containment recirculation line will be conducted. Each test is initiated by opening isolation valve(s) in the line being tested. Test fixtures may be used to simulate squib valves.<br>3. IRWST Injection:<br>The IRWST will be partially filled with water. All valves in these lines will be open during the test. Sufficient flow will be provided to open the check valves. | i) The injection line flow resistance from each source is as follows:<br>3. IRWST Injection:<br>The calculated flow resistance for each IRWST injection line between the IRWST and the reactor vessel is:<br>Line A: $\geq 5.35 \times 10^{-6}$ ft/gpm$^2$ and $\leq 9.09 \times 10^{-6}$ ft/gpm$^2$ and<br>Line B: $\geq 6.15 \times 10^{-6}$ ft/gpm$^2$ and $\leq 1.05 \times 10^{-5}$ ft/gpm$^2$. |

Table 2.2.3-4
Inspections, Tests, Analyses, and Acceptance Criteria

| No. | ITAAC No. | Design Commitment | Inspections, Tests, Analyses | Acceptance Criteria |
|---|---|---|---|---|
| 180 | 2.2.03.08c.i.04 | 8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events. | i) A low-pressure injection test and analysis for each CMT, each accumulator, each IRWST injection line, and each containment recirculation line will be conducted. Each test is initiated by opening isolation valve(s) in the line being tested. Test fixtures may be used to simulate squib valves.<br>4. Containment Recirculation: A temporary water supply will be connected to the recirculation lines. All valves in these lines will be open during the test. Sufficient flow will be provided to open the check valves. | i) The injection line flow resistance from each source is as follows:<br>4. Containment Recirculation: The calculated flow resistance for each containment recirculation line between the containment and the reactor vessel is:<br>Line A: $\leq 1.33 \times 10^{-5}$ ft/gpm$^2$ and<br>Line B: $\leq 1.21 \times 10^{-5}$ ft/gpm$^2$. |
| 181 | 2.2.03.08c.ii | 8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events. | ii) A low-pressure test and analysis will be conducted for each CMT to determine piping flow resistance from the cold leg to the CMT. The test will be performed by filling the CMT via the cold leg balance line by operating the normal residual heat removal pumps. | ii) The flow resistance from the cold leg to the CMT is $\leq 7.21 \times 10^{-6}$ ft/gpm$^2$. |
| 182 | 2.2.03.08c.iii | 8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events. | iii) Inspections of the routing of the following pipe lines will be conducted:<br>– CMT inlet line, cold leg to high point<br>– PRHR HX inlet line, hot leg to high point | iii) These lines have no downward sloping sections between the connection to the RCS and the high point of the line. |
| 183 | 2.2.03.08c.iv.01 | 8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events. | iv) Inspections of the elevation of the following pipe lines will be conducted:<br>1. IRWST injection lines; IRWST connection to DVI nozzles | iv) The maximum elevation of the top inside surface of these lines is less than the elevation of:<br>1. IRWST bottom inside surface |
| 184 | 2.2.03.08c.iv.02 | 8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events. | iv) Inspections of the elevation of the following pipe lines will be conducted:<br>2. Containment recirculation lines; containment to IRWST lines | iv) The maximum elevation of the top inside surface of these lines is less than the elevation of:<br>2. IRWST bottom inside surface |

Table 2.2.3-4
Inspections, Tests, Analyses, and Acceptance Criteria

| No. | ITAAC No. | Design Commitment | Inspections, Tests, Analyses | Acceptance Criteria |
|---|---|---|---|---|
| 197 | 2.2.03.08c.xii | 8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events. | xii) Inspections will be conducted of the CMT level sensors (PXS-11A/B/D/C, -12A/B/C/D, - 13A/B/C/D, -14A/B/C/D) upper level tap lines. | xii) Each upper level tap line has a downward slope of $\geq 2.4$ degrees from the centerline of the connection to the CMT to the centerline of the connection to the standpipe. |
| 198 | 2.2.03.08c.xiii | 8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events. | xiii) Inspections will be conducted of the surfaces in the vicinity of the containment recirculation screens. The surfaces in the vicinity of the containment recirculation screens are the surfaces located above the bottom of the recirculation screens up to and including the bottom surface of the plate discussed in Table 2.2.3-4, item 8.c.vii, out at least 8 ft, 3 in perpendicular to the front and at least 7 feet to the side of the face of the screens. | xiii) These surfaces are stainless steel. |
| 199 | 2.2.03.08c.xiv | 8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events. | xiv) Inspection will be conducted of the excore (source range, intermediate range, and power range) detectors. | xiv) A report exists and concludes that the aluminum surfaces of the excore detectors are encased in a watertight stainless steel or titanium housing. |
| 200 | 2.2.03.08d | 8.d) The PXS provides pH adjustment of water flooding the containment following design basis accidents. | Inspections of the pH adjustment baskets will be conducted. | pH adjustment baskets exist, with a total calculated volume $\geq 560$ ft$^3$.<br>The pH baskets are located below plant elevation 107 ft, 2 in. |
| 201 | 2.2.03.09a.i | 9.a) The PXS provides a function to cool the outside of the reactor vessel during a severe accident. | i) A flow test and analysis for each IRWST drain line to the containment will be conducted. The test is initiated by opening isolation valves in each line. Test fixtures may be used to simulate squib valves. | i) The calculated flow resistance for each IRWST drain line between the IRWST and the containment is $\leq 4.44 \times 10^{-6}$ ft/gpm$^2$. |