ATTACHMENT TO LICENSE AMENDMENT NO. 174

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-200	C-200
C-222	C-222
C-235	C-235
C-241	C-241
C-320	C-320
C-321	C-321
C322	C-322
---	C-322a
C-324	C-324
C-352	C-352

(7) Reporting Requirements

(a) Within 30 days of a change to the initial test program described in UFSAR 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. 174, 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

2.3.3 Standby Diesel Fuel Oil System

Design Description

The standby diesel fuel oil system (DOS) supplies diesel fuel oil for the onsite standby power system. The diesel fuel oil is supplied by two above-ground fuel oil storage tanks. The DOS also provides fuel oil for the ancillary diesel generators. A single fuel oil storage tank services both ancillary diesel generators.

The DOS is as shown in Figure 2.3.3-1 and the component locations of the DOS are as shown in Table 2.3.3-3.

1. The functional arrangement of the DOS is as described in the Design Description of this Section 2.3.3.
2. The ancillary diesel generator fuel tank can withstand a seismic event.
3. The DOS provides the following nonsafety-related functions:
   a) Each fuel oil storage tank provides for at least 7 days of continuous operation of the associated standby diesel generator.
   b) Each fuel oil day tank provides for at least four hours of continuous operation of the associated standby diesel engine generator.
   c) The fuel oil flow rate to the day tank of each standby diesel generator provides for continuous operation of the associated diesel generator.
   d) The ancillary diesel generator fuel tank is sized to supply power to long-term safety-related post-accident monitoring loads and control room lighting through a regulating transformer and one PCS recirculation pump for a period of 4 days.
4. Controls exist in the main control room (MCR) to cause the components identified in Table 2.3.3-1 to perform the listed function.
5. Displays of the parameters identified in Table 2.3.3-1 can be retrieved in the MCR.

Table 2.3.3-1

Equipment Name	Tag No.	Display	Control Function
Diesel Fuel Oil Pump A (Motor)	DOS-MP-01A	Yes (Run Status)	Start
Diesel Fuel Oil Pump B (Motor)	DOS-MP-01B	Yes (Run Status)	Start
Diesel Generator Fuel Oil Day Tank A Level	DOS-016A	Yes	-
Diesel Generator Fuel Oil Day Tank B Level	DOS-016B	Yes	-

Note: Dash (-) indicates not applicable.

Table 2.3.6-3			
Equipment Name	**Tag No.**	**Display**	**Control Function**
RNS Pump A (Motor)	RNS-MP-01A	Yes (Run Status)	Start
RNS Pump B (Motor)	RNS-MP-01B	Yes (Run Status)	Start
RNS Flow Sensor	RNS-01A	Yes	-
RNS Flow Sensor	RNS-01B	Yes	-
RNS Suction from Cask Loading Pit Isolation Valve (Position Indicator)	RNS-PL-V055	Yes	-
RNS Pump Miniflow Isolation Valve (Position Indicator)	RNS-PL-V057A	Yes	-
RNS Pump Miniflow Isolation Valve (Position Indicator)	RNS-PL-V057B	Yes	-

Note: Dash (-) indicates not applicable.

Table 2.3.6-4
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
354	2.3.06.01	Not used per Amendment No. 170		
355	2.3.06.02a	2.a) The components identified in Table 2.3.6-1 as ASME Code Section III are designed and constructed in accordance with ASME Code Section III requirements. 2.b) The piping identified in Table 2.3.6-2 as ASME Code Section III is designed and constructed in accordance with ASME Code Section III requirements.	Inspection will be conducted of the as-built components and piping as documented in the ASME design reports.	The ASME Code Section III design reports exist for the as-built components and piping identified in Tables 2.3.6-1 and 2.3.6-2 as ASME Code Section III.
		3.a) Pressure boundary welds in components identified in Table 2.3.6-1 as ASME Code Section III meet ASME Code Section III requirements. 3.b) Pressure boundary welds in piping identified in Table 2.3.6-2 as ASME Code Section III meet ASME Code Section III requirements.	Inspection of the as-built pressure boundary welds will be performed in accordance with the ASME Code Section III.	A report exists and concludes that the ASME Code Section III requirements are met for non-destructive examination of pressure boundary welds.

Table 2.3.7-2		
Piping Line Name	**Line Number**	**ASME Code Section III**
Spent Fuel Pool to RNS Pump Suction	L014	Yes
Cask Loading Pit to RNS Pump Suction	L115	Yes
Refueling Cavity Drain	L033	Yes
PXS IRWST to SFS Pump Suction	L035	Yes
Refueling Cavity Skimmer to SFS Pump Suction	L036	Yes
Refueling Cavity Drain	L037	Yes
Refueling Cavity Drain	L044	Yes
Fuel Transfer Canal Drain	L047	Yes
Cask Washdown Pit Drain	L068	Yes
Cask Loading Pit Drain	L043	Yes
Cask Pit Transfer Branch Line	L045	Yes
Spent Fuel Pool Containment Isolation Thermal Relief Line	L052	Yes
Refueling Cavity Drain	L030	Yes
Upender Pit Drain/Fill Line	L121	Yes
Spent Fuel Pool Drain	L066	Yes
Cask Loading Pit to WLS	L067	Yes
RNS Return to Spent Fuel Pool	L100	Yes
SFS Containment Floodup Line	L120	Yes

Table 2.3.7-3			
Component Name	**Tag No.**	**Display**	**Control Function**
SFS Pump A	SFS-MP-01A	Yes (Run Status)	Start
SFS Pump B	SFS-MP-01B	Yes (Run Status)	Start
SFS Flow Sensor	SFS-13A	Yes	-
SFS Flow Sensor	SFS-13B	Yes	-
Spent Fuel Pool Temperature Sensor	SFS-018	Yes	-
Cask Loading Pit Level Sensor	SFS-022	Yes	-

Note: Dash (-) indicates not applicable.

2.3.8 Service Water System

Design Description

The service water system (SWS) transfers heat from the component cooling water heat exchangers to the atmosphere. The SWS operates during normal modes of plant operation, including startup, power operation (full and partial loads), cooldown, shutdown, and refueling.

The SWS is as shown in Figure 2.3.8-1 and the component locations of the SWS are as shown Table 2.3.8-3.

1. The functional arrangement of the SWS is as described in the Design Description of this Section 2.3.8.
2. The SWS provides the nonsafety-related function of transferring heat from the component cooling water system (CCS) to the surrounding atmosphere to support plant shutdown and spent fuel pool cooling.
3. Controls exist in the main control room (MCR) to cause the components identified in Table 2.3.8-1 to perform the listed function.
4. Displays of the parameters identified in Table 2.3.8-1 can be retrieved in the MCR.

Table 2.3.8-1

Equipment Name	Tag No.	Display	Control Function
Service Water Pump A (Motor)	SWS-MP-01A	Yes (Run Status)	Start
Service Water Pump B (Motor)	SWS-MP-01B	Yes (Run Status)	Start
Service Water Cooling Tower Fan A (Motor)	SWS-MA-01A	Yes (Run Status)	Start
Service Water Cooling Tower Fan B (Motor)	SWS-MA-01B	Yes (Run Status)	Start
Service Water Pump A Flow Sensor	SWS-004A	Yes	-
Service Water Pump B Flow Sensor	SWS-004B	Yes	-
Service Water Pump A Discharge Valve	SWS-PL-V002A	Yes (Valve Position)	Open
Service Water Pump B Discharge Valve	SWS-PL-V002B	Yes (Valve Position)	Open

Table 2.6.1-2	
Load Description	**Power Source**
Load Center Transformers EK-11, EK-12, EK-13, EK-14	ZOS-MG-02A
ECS Panel Transformers	ZOS MG 02A
Diesel Oil Transfer Module Enclosure A Electric Unit Heater	ZOS-MG-02A
Diesel Oil Transfer Module Enclosure A Fan	ZOS-MG-02A
Class 1E Division A Regulating Transformer	ZOS-MG-02A
Class 1E Division C Regulating Transformer	ZOS-MG-02A
Diesel Generator Fuel Oil Transfer Pump A	ZOS-MG-02A
Diesel Generator Room A Building Standby Exhaust Fans 1A and 2A	ZOS-MG-02A
Diesel Generator Service Module A Air Handling Unit (AHU) 01A Fan	ZOS-MG-02A
Diesel Generator Fuel Oil Cooler Fan A	ZOS-MG-02A
Diesel Fuel Oil Transfer Module Unit Heater A	ZOS-MG-02A
Diesel Generator Jacket Water Radiator Fans A	ZOS-MG-02A
Diesel Generator AC/OC Radiator Fan A	ZOS-MG-02A
Diesel Generator Building Engine AHU MS 03A Fan	ZOS-MG-02A
Fuel Oil Day Tank Vault Exhaust Fan A	ZOS-MG-02A
Diesel Generator Lube Oil Cooling Motors A (Front/Rear)	ZOS-MG-02A
Diesel Generator Transformer A	ZOS-MG-02A
Day Tank Heater Pad A	ZOS-MG-02A
Startup Feedwater Pump A	ZOS-MG-02A
Service Water Pump A	ZOS-MG-02A
Service Water Cooling Tower Fan A	ZOS-MG-02A
MCR/Control Support Area (CSA) AHU A Supply and Return Fans	ZOS-MG-02A
Divisions A/C Class 1E Electrical Room AHU A Supply and Return Fans	ZOS-MG-02A
Divisions B/D Class 1E Electrical Room AHU D Supply and Return Fans	ZOS-MG-02A
Air-cooled Chiller Pump 2	ZOS-MG-02A
Component Cooling Water Pump A	ZOS-MG-02A
Air-cooled Chiller 2	ZOS-MG-02A

Table 2.6.1-2 (cont.)	
Load Description	**Power Source**
Air-cooled Chiller 2 Piping Heat Trace	ZOS-MG-02A
Air-cooled Chiller 2 Control and Heat Trace	ZOS-MG-02A
Chemical and Volume Control System (CVS) Makeup Pump A	ZOS-MG-02A
CVS Pump Room Unit Cooler Fan A	ZOS-MG-02A
Normal Residual Heat Removal System (RNS) Pump A	ZOS-MG-02A
RNS Pump Room Unit Cooler Fan A	ZOS-MG-02A
Equipment Room AHU Supply and Return Fans VXS-MA-01A/02A	ZOS-MG-02A
Switchgear Room A AHU Supply and Return Fans VXS-MA-05A/06A	ZOS-MG-02A
Non-1E Battery Charger EDS1-DC-1	ZOS-MG-02A
Non-1E Battery Room A Exhaust Fan	ZOS-MG-02A
Non-1E Battery Charger EDS3-DC-1	ZOS-MG-02A
Class 1E Division A Battery Charger 1 (24-hour)	ZOS-MG-02A
Class 1E Division C Battery Charger 1 (24-hour)	ZOS-MG-02A
Class 1E Division C Battery Charger 2 (72-hour)	ZOS-MG-02A
Divisions A/C Class 1E Battery Room Exhaust Fan A	ZOS-MG-02A
Divisions B/D Class 1E Battery Room Exhaust Fan D	ZOS-MG-02A
Supplemental Air Filtration Unit Fan A	ZOS-MG-02A
Backup Group 4A Pressurizer Heaters	ZOS-MG-02A
Spent Fuel Cooling Pump A	ZOS-MG-02A
Load Center Transformers EK-21, EK-22, EK-23, EK-24	ZOS-MG-02B
ECS Panel Transformers	ZOS-MG-02B
Diesel Oil Transfer Module Enclosure B Electric Unit Heater	ZOS-MG-02B
Diesel Oil Transfer Module Enclosure B Fan	ZOS-MG-02B
Class 1E Division B Regulating Transformer	ZOS-MG-02B
Class 1E Division D Regulating Transformer	ZOS-MG-02B
Diesel Generator Fuel Oil Transfer Pump B	ZOS-MG-02B
Diesel Generator Room B Building Standby Exhaust Fans 1B and 2B	ZOS-MG-02B
Diesel Generator Service Module B AHU 01B Fan	ZOS-MG-02B
Diesel Generator Fuel Oil Cooler Fan B	ZOS-MG-02B

Table 2.6.1-2 (cont.)	
Load Description	**Power Source**
Diesel Fuel Oil Transfer Module Unit Heater B	ZOS-MG-02B
Diesel Generator Jacket Water Radiator Fans B	ZOS-MG-02B
Diesel Generator AC/OC Radiator Fan B	ZOS-MG-02B
Diesel Generator Building Engine AHU MS 03B Fan	ZOS-MG-02B
Fuel Oil Day Tank Vault Exhaust Fan B	ZOS-MG-02B
Diesel Generator Lube Oil Cooling Motors B (Front/Rear)	ZOS-MG-02B
Diesel Generator Transformer B	ZOS-MG-02B
Day Tank Heater Pad B	ZOS-MG-02B
Startup Feedwater Pump B	ZOS-MG-02B
Service Water Pump B	ZOS-MG-02B
Service Water Cooling Tower Fan B	ZOS-MG-02B
MCR/CSA AHU B Supply and Return Fans	ZOS-MG-02B
Divisions B/D Class 1E Electrical Room AHU B Supply and Return Fans	ZOS-MG-02B
Divisions A/C Class 1E Electrical Room AHU C Supply and Return Fans	ZOS-MG-02B
Air-cooled Chiller Pump 3	ZOS-MG-02B
Component Cooling Water Pump B	ZOS-MG-02B
Air-cooled Chiller 3	ZOS-MG-02B
Air-cooled Chiller 3 Piping Heat Trace	ZOS-MG-02B
CVS Makeup Pump B	ZOS-MG-02B
CVS Pump Room Unit Cooler Fan B	ZOS-MG-02B
RNS Pump B	ZOS-MG-02B
RNS Pump Room Unit Cooler Fan B	ZOS-MG-02B
Equipment Room B AHU Supply and Return Fans VXS-MA-01B/02B	ZOS-MG-02B
Switchgear Room B AHU Supply and Return Fans VXS-MA-05B/06B	ZOS-MG-02B
Non-1E Battery Charger EDS2-DC-1	ZOS-MG-02B
Non-1E Battery Charger EDS4-DC-1	ZOS-MG-02B
Non-1E Battery Room B Exhaust Fan	ZOS-MG-02B
Class 1E Division B Battery Charger 1 (24-hour)	ZOS-MG-02B

Table 2.6.1-2 (cont.)	
Load Description	**Power Source**
Class 1E Division B Battery Charger 2 (72-hour)	ZOS-MG-02B
Class 1E Division D Battery Charger 1 (24-hour)	ZOS-MG-02B
Divisions B/D Class 1E Battery Room Exhaust Fan B	ZOS-MG-02B
Divisions A/C Class 1E Battery Room Exhaust Fan C	ZOS-MG-02B
Supplemental Air Filtration Unit Fan B	ZOS-MG-02B
Backup Group 4B Pressurizer Heaters	ZOS-MG-02B
Spent Fuel Cooling Pump B	ZOS-MG-02B

Table 2.6.1-3			
Equipment	**Tag No.**	**Display**	**Control Function**
6900 V Switchgear Bus 1	ECS-ES-1	Yes (Bus voltage, breaker position for all breakers on bus)	Yes (Breaker open/close)
6900 V Switchgear Bus 2	ECS-ES-2	Yes (Bus voltage, breaker position for all breakers on bus)	Yes (Breaker open/close)
Unit Auxiliary Transformer A	ZAS-ET-2A	Yes (Secondary Voltage)	No
Unit Auxiliary Transformer B	ZAS-ET-2B	Yes (Secondary Voltage)	No
Reserve Auxiliary Transformer A	ZAS-ET-4A	Yes (Secondary Voltage)	No
Reserve Auxiliary Transformer B	ZAS-ET-4B	Yes (Secondary Voltage)	No

Table 2.6.1-4

Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
586	2.6.01.04c	Not used per Amendment Nos. 174 and 172 for VEGP Units 3 and 4, respectively.		
587	2.6.01.04d	4.d) Each ancillary diesel generator unit is sized to supply power to long-term safety-related post-accident monitoring loads and control room lighting and ventilation through a regulating transformer; and for one PCS recirculation pump.	Each ancillary diesel generator will be operated with fuel supplied from the ancillary diesel generator fuel tank and with a load of 35 kW or greater and a power factor between 0.9 and 1.0 for a time period required to reach engine temperature equilibrium plus 2.5 hours.	Each diesel generator provides power to the load with a generator terminal voltage of 480 ± 10% volts and a frequency of 60 ± 5% Hz.
588	2.6.01.04e	4.a) The ECS provides the capability for distributing non-Class 1E ac power from onsite sources (ZOS) to nonsafety-related loads listed in Table 2.6.1-2.	Tests will be performed using a test signal to confirm that an electrical path exists for each selected load listed in Table 2.6.1-2 from an ECS-ES-1 or ECS-ES-2 bus. Each test may be a single test or a series of over-lapping tests.	A test signal exists at the terminals of each selected load.
		4.e) The ECS provides two loss-of-voltage signals to the onsite standby power system (ZOS), one for each diesel-backed 6900 Vac switchgear bus.	Tests on the as-built ECS system will be conducted by simulating a loss-of-voltage condition on each diesel-backed 6900 Vac switchgear bus.	A loss-of-voltage signal is generated when the loss-of-voltage condition is simulated.
		4.f) The ECS provides a reverse-power trip of the generator circuit breaker which is blocked for at least 15 seconds following a turbine trip.	Tests on the as-built ECS system will be conducted by simulating a turbine trip signal followed by a simulated reverse-power condition. The generator circuit breaker trip signal will be monitored.	The generator circuit breaker trip signal does not occur until at least 15 seconds after the simulated turbine trip.
		5. Controls exist in the MCR to cause the circuit breakers identified in Table 2.6.1-3 to perform the listed functions.	Tests will be performed to verify that controls in the MCR can operate the circuit breakers identified in Table 2.6.1-3.	Controls in the MCR cause the circuit breakers identified in Table 2.6.1-3 to operate.
		6. Displays of the parameters identified in Table 2.6.1-3 can be retrieved in the MCR.	Inspection will be performed for retrievability of the displays identified in Table 2.6.1-3 in the MCR.	Displays identified in Table 2.6.1-3 can be retrieved in the MCR.

Table 2.6.4-1
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
622	2.6.04.02a	2.a) On loss of power to a 6900 volt diesel-backed bus, the associated diesel generator automatically starts and produces ac power at rated voltage and frequency. The source circuit breakers and bus load circuit breakers are opened, and the generator is connected to the bus.	Tests on the as-built ZOS system will be conducted by providing a simulated loss-of-voltage signal. The starting air supply receiver will not be replenished during the test.	Each as-built diesel generator automatically starts on receiving a simulated loss-of-voltage signal and attains a voltage of 6900 ± 10% V and frequency 60 ± 5% Hz after the start signal is initiated. The source circuit breakers and bus load circuit breakers are opened, and the generator circuit breaker is closed on the associated 6900 V bus.
		2.b) Each diesel generator unit is sized to supply power to the selected nonsafety-related electrical components.	Each diesel generator will be operated with a load of 4000 kW or greater and a power factor between 0.9 and 1.0 for a time period required to reach engine temperature equilibrium plus 2.5 hours.	Each diesel generator provides power to the load with a generator terminal voltage of 6900 ± 10% V and a frequency of 60 ± 5% Hz.
		3. Displays of diesel generator status (running/not running) and electrical output power (watts) can be retrieved in the MCR.	Inspection will be performed for retrievability of the displays in the MCR.	Displays of diesel generator status and electrical output power can be retrieved in the MCR.
		4. Controls exist in the MCR to start and stop each diesel generator.	A test will be performed to verify that controls in the MCR can start and stop each diesel generator.	Controls in the MCR operate to start and stop each diesel generator.
623	2.6.04.02b	Not used per Amendment No. 113		
624	2.6.04.02c	2.c) Automatic-sequence loads are sequentially loaded on the associated buses.	An actual or simulated signal is initiated to start the load sequencer operation. Output signals will be monitored to determine the operability of the load sequencer. Time measurements are taken to determine the load stepping intervals.	The load sequencer initiates a closure signal within ±5 seconds of the set intervals to connect the loads.
625	2.6.04.03	Not used per Amendment No. 113		
626	2.6.04.04	Not used per Amendment No. 113		