Southern Nuclear

Cheryl A. Gayheart
Regulatory Affairs Director

3535 Colonnade Parkway
Birmingham, AL 35243
205 992 5316 tel
205 992 7601 fax

cagayhea@southernco.com

May 20, 2020

Docket Nos.: 50-348
50-364

NL-20-0550

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

Joseph M. Farley Nuclear Plant – Units 1 and 2
License Amendment Request to Revise Measurement Units Associated with Reactor Trip System Nuclear Instrument Comparison Surveillance and Trip Setpoint for Control Room Air Intake Radiation Monitors
SNC Responses to NRC Requests for Additional Information

Ladies and Gentlemen:

By letter dated December 12, 2019 (Agencywide Documents Access and Management System Accession Number ML19346E959), Southern Nuclear Operating Company (SNC) submitted a license amendment request (LAR) to the Technical Specifications (TS) for the Joseph M. Farley Nuclear Plant (FNP), Units 1 and 2. This LAR requested to: (1) delete the measurement unit "RTP" (rated thermal power) from the 3% absolute difference acceptance criterion specified in Surveillance requirement (SR) 3.3.1.3; and (2) change the unit of measure associated with the trip setpoint of TS Table 3.3.7-1, Function 3 and add a footnote clarifying that the value represents radiation above background with no system flow.

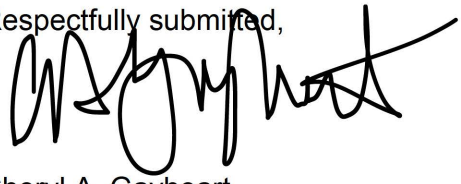
By email dated April 24, 2020, the U.S. Nuclear Regulatory Commission (NRC) staff notified SNC that additional information is needed for the staff to complete their review. Enclosure 1 to this letter provides the SNC responses to the NRC requests for additional information (RAIs). Enclosure 2 provides SNC calculation sheets requested by RAI 1. Enclosure 3 contains TS Bases pages marked to show the accompanying proposed changes for information only.

The conclusions of the No Significant Hazards Consideration and Environmental Consideration contained in the original LAR have been reviewed and are unaffected by these RAI responses.

This letter contains no NRC commitments. If you have any questions, please contact Jamie Coleman at 205.992.6611.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 20th day of May 2020.

Respectfully submitted,



Cheryl A. Gayheart
Director, Regulatory Affairs
Southern Nuclear Operating Company

CAG/tle/sm

Enclosures:

1. SNC Responses to NRC RAIs
2. Requested SNC Calculation Sheets
3. Technical Specification Bases Marked-up Pages (for information only)

cc: Regional Administrator, Region II
NRR Project Manager – Farley
Senior Resident Inspector – Farley
Director, Alabama Office of Radiation Control
RType: CFA04.054

Joseph M. Farley Nuclear Plant – Units 1 and 2
License Amendment Request to Revise Measurement Units Associated with Reactor Trip System Nuclear Instrument Comparison Surveillance and Trip Setpoint for Control Room Air Intake Radiation Monitors
SNC Responses to NRC Requests for Additional Information

Enclosure 1

SNC Responses to NRC RAIs

NRC RAI No. 1

As part of the Audit, the NRC staff reviewed Farley calculation SM-SNC972214-001 to confirm the proposed change from "≤ 800 cpm" is equivalent to "≤ $1x10^{-5}$ µCi/cc." Please submit, on the docket, the information contained on Sheets 19 and 20 under "Basis Determination" in the section titled "R-35A/B (MCR Isolation) Setpoint." Please include the diagram on Sheet 19.

SNC Response to RAI No. 1

The requested calculation sheets are attached in Enclosure 2 to this letter.

NRC RAI No. 2

The LAR states on page E-3:

> CREFS Control Room Air Intake Radiation Monitors Trip Setpoint Measurement Units
>
> 10 CFR 20, Appendix D defines the derived air concentration (DAC) as the airborne concentration of a given radionuclide, which, if breathed by the reference man for a working year of 2,000 hours, would result in a committed effective dose equivalent of 5 rem or a committed dose equivalent of 50 rem to any individual organ or tissue. DAC values for occupational dose are listed in Table 1, Column 3, of Appendix B to 10 CFR 20. The predominant inhalation radionuclides released during a fuel handling accident (FHA) are Xenon (Xe) -133 and Krypton (Kr) -85 and the DAC value for each of these isotopes is 1.0E-04 µCi/ml, or 1.0E-04 µCi/cc.

It appears that the correct reference is to Appendix B rather than Appendix D, and that the stated definition of a derived air concentration is not consistent with the definition of a derived air concentration in 10 CFR 20.1003. Please confirm or correct the record of the Appendix referenced and the definition of a DAC.

In addition, Appendix B states that:

> The DAC values relate to one of two modes of exposure: either external submersion or the internal committed dose equivalents resulting from inhalation of radioactive materials. Derived air concentrations based upon submersion are for immersion in a semi-infinite cloud of uniform concentration and apply to each radionuclide separately.

The Xe-133 and Kr-85 radionuclides are listed in 10 CFR 20, Appendix B in the "Class" column as a "submersion" radionuclide. Please correct the record or explain the basis for selecting the mode of exposure as an internal exposure rather than as an external submersion exposure.

SNC Response to RAI No. 2

SNC concurs that the correct reference is 10 CFR 20 Appendix B and that the Xe-133 and Kr-85 DACs are based on an external exposure.

The above paragraph is revised as follows:

CREFS Control Room Air Intake Radiation Monitors Trip Setpoint Measurement Units

10 CFR 20.1003 defines the derived air concentration (DAC) as the airborne concentration of a given radionuclide in air which, if breathed by the reference man for a working year of 2,000 hours under conditions of light work (inhalation rate 1.2 cubic meters of air per hour), results in an intake of one annual limit on intake (ALI). The ALI in turn is defined as the derived limit for the amount of radioactive material taken into the body of an adult worker by inhalation or ingestion in a year. ALI is the smaller value of intake of a given radionuclide in a year by the reference man that would result in a committed effective dose equivalent of 5 rems (0.05 Sv) or a committed dose equivalent of 50 rems (0.5 Sv) to any individual organ or tissue. DAC values are given in Table 1, Column 3, of Appendix B to 10 CFR 20. These DAC values relate to one of two modes of exposure: either external submersion or the internal committed dose equivalents resulting from inhalation of radioactive materials. DACs based upon submersion are for immersion in a semi-infinite cloud of uniform concentration and apply to each radionuclide separately. The predominant radionuclides released during a fuel handling accident (FHA) are Xenon-133 (Xe-133) and Krypton-85 (Kr-85). Though the Table 1, Column 3 header states “Inhalation,” the exposure due to these isotopes is based on immersion in a semi-infinite cloud. The DAC value for each of these isotopes is 1.0E-04 µCi/ml, or 1.0E-04 µCi/cc.

NRC RAI No. 3

The LAR proposes an administrative change to Table 3.3.7-1, Function 3. “Control Room Radiation Control Room Air Intake (R-35A/B)” by adding a footnote (c) to the Trip Setpoint value. Please explain the meaning of the proposed footnote (c) “Above background with no flow” and how it relates to the statement in SM-SNC972214-001 (sheet 12):

> Per REA99-2094-02, the air sample flow through the detector chambers results in a pressure of ~0.9 atmospheric. The term “no flow” above indicates that the setpoints have not been corrected for this effect.

SNC Response to RAI No. 3

The footnote “Above background with no flow” is explained by breaking it into two parts.

The setpoint is based on 10 CFR 20 Appendix B limits. 10 CFR 20.1002 (Scope) states “The limits in this part do not apply to doses due to background radiation.” Therefore, the Appendix B regulatory limits, and thus the R-24, R-25, and R-35 technical specification setpoints based on those limits, are measured above background. This is the basis for the first half of the footnote.

In regard to the second half of the footnote, the setpoint is based on 10 CFR 20 Appendix B limits, which are at static (atmospheric) conditions. These are the same conditions inhabited by the public and MCR operators. USNRC Information Notice (IN) 82-49, “Correction for Sample Conditions for Air and Gas Monitoring,” raised the issue that the radionuclide concentration

measured by a radiation monitor that draws an air sample through a detector chamber would be lower than the actual concentration at atmospheric conditions. The second half of the footnote ensures that the nominal setpoint is adjusted, if needed, to account for the pressure difference identified in IN 82-49.

Information to explain this footnote will be added to the Technical Specification Bases as shown in Enclosure 3 of this letter. This information will be added to not just B 3.3.7, CREFS Actuation Instrumentation, for the new footnote associated with the R-35 Radiation Monitors, but also B 3.3.6 (R-24 Radiation Monitors) and B 3.3.8 (R-25 Radiation Monitors) for the same, existing, footnotes.

REA99-2094-02, “Re-Evaluation of Information Notice 82-49,” 19 January 2001, was an internal SNC evaluation of the above effect on various air-sampling radiation monitors. The statement on sheet 12 of SM-SNC972214-001 stating that setpoints have not been corrected referred to the Technical Specification setpoints, not the nominal setpoints. The statement will be revised for clarity and to be consistent with the response to this RAI.

Joseph M. Farley Nuclear Plant – Units 1 and 2
License Amendment Request to Revise Measurement Units Associated with Reactor Trip System Nuclear Instrument Comparison Surveillance and Trip Setpoint for Control Room Air Intake Radiation Monitors
SNC Responses to NRC Requests for Additional Information

Enclosure 2

Requested SNC Calculation Sheets

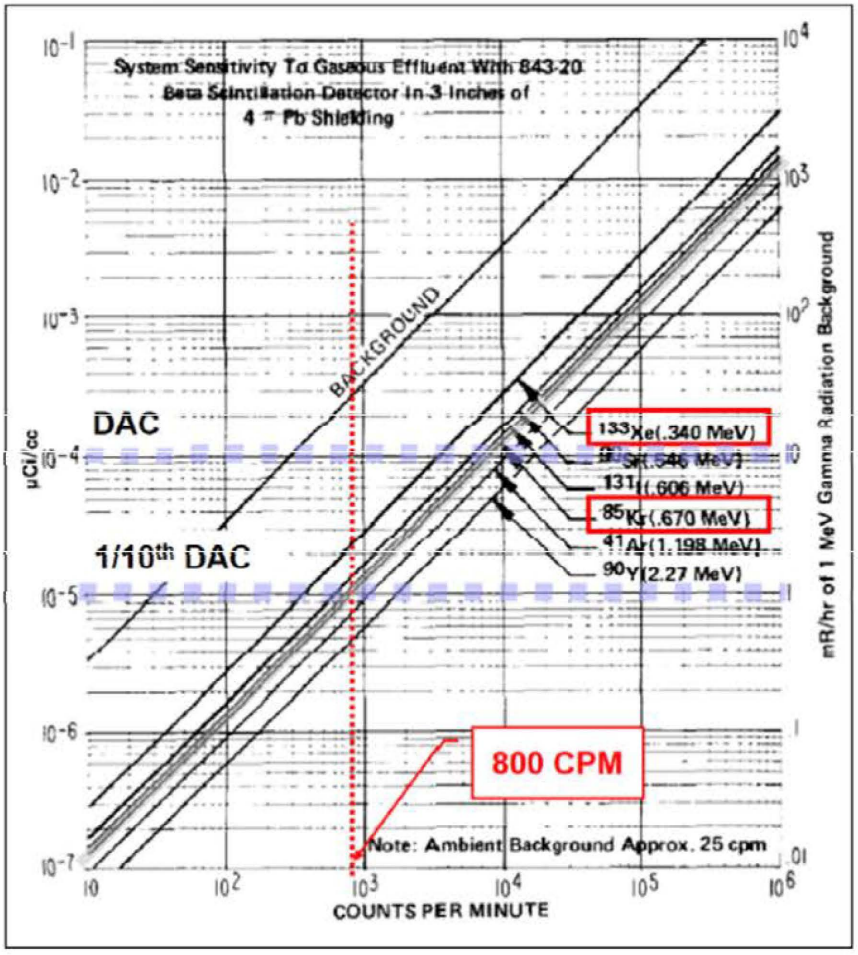
Southern Nuclear Design Calculation

Plant: Farley	Unit: 1&2	Calculation Number: SM-SNC972214-001	Sheet: 19

R-35A/B (MCR Isolation) Setpoint

Basis Determination

The basis for the current R-35A/B may be determined using two methods. The first method is to plot the setpoint (800 CPM; Design Input #3) on the detector gaseous effluent sensitivity curve from its operations & maintenance manual (U262532; page 72 of PDF), note where it intersects the Kr-85 line, and compare the concentration to the DAC (1.0E-04 µCi/mL; Design Input #1) for Kr-85.



The 800 CPM setpoint line intersects the Kr-85 sensitivity line at 1.0E-05 μCi/mL, or one-tenth of its DAC. This is reasonable: MCR ventilation intake is isolated well below the regulatory limit.

The second, confirmatory method, applies the detector's Kr-85 sensitivity [7.8E+07 CPM/ (μCi/mL); Design Input #4] to the DAC (Design Input #1):

Setpoint (CPM) = [7.8E+07 CPM/ (μCi/mL)] * (1.0E-04 μCi/mL)

Setpoint (CPM) = 7800 CPM

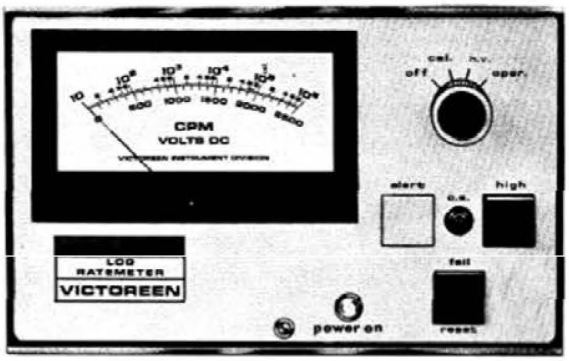
Too high; try 1/10th DAC:

Setpoint (CPM) = [7.8E+07 CPM/ (μCi/mL)] * (1.0E-05 μCi/mL)

Setpoint (CPM) = 780 CPM

This is within 2.5% of the Tech Spec setpoint of 800 CPM.

The Unit 1 R-24A/B and R-25A/B ratemeter analog display in its operations & maintenance manual U258400 (page 48 of PDF) is shown to the right. The U1 R-35A/B ratemeter is the same (page 47 of U262532), but this is a better picture.



The setpoint was likely rounded off to 800 CPM for the following reasons:

- The analog logarithmic scale display has one significant figure of accuracy. It is unlikely a setpoint with two significant figures of accuracy would have been chosen.
- It would have been very difficult to read 780 CPM on this logarithmic scale.

Joseph M. Farley Nuclear Plant – Units 1 and 2
License Amendment Request to Revise Measurement Units Associated with Reactor Trip System Nuclear Instrument Comparison Surveillance and Trip Setpoint for Control Room Air Intake Radiation Monitors
SNC Responses to NRC Requests for Additional Information

Enclosure 3

Technical Specification Bases Marked-up Pages (for information only)

BASES

LCO

2. Automatic Actuation Logic and Actuation Relays (continued)

Containment Phase A Isolation. The Actions Conditions for the containment purge isolation portion of these Functions are different and less restrictive than those for their Phase A isolation and SI roles. If one or more of the SI or Phase A isolation Functions becomes inoperable in such a manner that only the Containment Purge Isolation Function is affected, the Conditions applicable to their SI and Phase A isolation Functions need not be entered. The less restrictive Actions specified for inoperability of the Containment Purge Isolation Functions specify sufficient compensatory measures for this case.

3. Containment Radiation

The LCO specifies one required channel of radiation monitor in MODES 1-4 and two radiation monitoring channels during movement of recently irradiated fuel assemblies (i.e., fuel that has occupied part of a critical reactor core within the previous 70 hours) in containment to ensure that the radiation monitoring instrumentation necessary to initiate Containment Purge Isolation remains OPERABLE.

~~For sampling systems, channel OPERABILITY involves more than OPERABILITY of the channel electronics. OPERABILITY also requires correct valve lineups and sample pump operation, as well as detector OPERABILITY.~~Table 3.3.6-1, Footnote (b), "Above background with no flow," clarifies: (1) That the trip setpoint value is based on 10 CFR 20 Appendix B (Reference 2) limits. 10 CFR 20.1002 (Scope) states "The limits in this part do not apply to doses due to background radiation." Therefore, the Appendix B regulatory limits, and the R-24 technical specification setpoints based on them, are measured above background. (2) The "with no flow" portion of the note deals with the fact that 10 CFR 20 Appendix B limits are at static (atmospheric) conditions. These are the same conditions inhabited by the public and MCR operators. USNRC Information Notice (IN) 82-49, "Correction for Sample Conditions for Air and Gas Monitoring," (Reference 3) raised the issue that the radionuclide concentration measured by a radiation monitor that draws an air sample through a detector chamber would be lower than the actual concentration at atmospheric conditions. The second half of the footnote ensures that the nominal setpoint is adjusted, if needed, to account for the pressure difference identified in IN 82-49.

(continued)

BASES

LCO (continued)

4. Containment Isolation — Phase A

Refer to LCO 3.3.2, Function 3.a., for all initiating Functions and requirements except as described above in item 2, "Automatic Actuation Logic and Actuation Relays."

APPLICABILITY

The Automatic Actuation Logic and Actuation Relays and Containment Isolation — Phase A Functions are required OPERABLE in MODES 1, 2, 3 and 4. The Manual Initiation and Containment Radiation Functions are required OPERABLE in MODES 1, 2, 3, and 4, and during movement of recently irradiated fuel assemblies (i.e., fuel that has occupied part of a critical reactor core within the previous 70 hours) within containment. Under these conditions, the potential exists for an accident that could release significant fission

(continued)

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.3.6.7

The CHANNEL CALIBRATION is a complete check of the instrument loop, including the sensor. The test verifies that the channel responds to a measured parameter within the necessary range and accuracy.

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

SR 3.3.6.8

This SR ensures the individual channel response times are less than or equal to the maximum values assumed in the safety analysis. The response time testing acceptance criteria are included in FSAR Table 7.3-16 (Ref. 4). This surveillance is performed in accordance with the guidance provided in the ESF RESPONSE TIME surveillance requirement in LCO 3.3.2, ESFAS.

REFERENCES

1. 10 CFR 50.67, Accident source term.
2. 10 CFR 20, Appendix B – Annual Limits on Intake (ALIs) and Derived Air Concentrations (DACs) of Radionuclides for Occupational Exposure; Effluent Concentrations; Concentrations for Release to Sewerage. ~~Not used.~~
3. Information Notice 82-49, “Correction for Sample Conditions for Air and Gas Monitoring,” December 16, 1982. ~~Not used.~~
4. FSAR Table 7.3-16.

BASES

LCO
(continued)

2. Automatic Actuation Logic and Actuation Relays

The LCO requires two trains of Actuation Logic and Relays OPERABLE to ensure that no single random failure can prevent automatic actuation.

Automatic Actuation Logic and Actuation Relays consist of the same features and operate in the same manner as described for ESFAS Function 3.a.2, Containment Isolation-Phase A, in LCO 3.3.2. The Actions Conditions for the CREFS portion of these Functions are different and less restrictive than those specified for their Phase A Isolation roles. If one or more of the Phase A Isolation Functions becomes inoperable in such a manner that only the CREFS Function is affected, the Conditions applicable to their Phase A Isolation Function need not be entered. The less restrictive Actions specified for inoperability of the CREFS Functions specify sufficient compensatory measures for this case.

3. Control Room Radiation

The LCO specifies one required Control Room Air Intake Radiation Monitor in MODES 1-4 to ensure that the radiation monitoring instrumentation necessary to provide a backup initiation of control room isolation remains OPERABLE. The LCO requires two air intake radiation monitor channels OPERABLE during CORE ALTERATIONS and during movement of irradiated fuel assemblies when the radiation monitor channels provide the primary control room protection function.

~~For sampling systems, channel OPERABILITY involves more than OPERABILITY of channel electronics. OPERABILITY also requires correct valve lineups and sample pump operation, as well as detector OPERABILITY.~~The setpoint is based upon a release during a fuel handling accident in which Krypton-85 and Xenon-133 are the predominant radionuclides. Derived air concentration (DAC) limits are listed in Table 1, Column 3 of Appendix B to 10 CFR 20 (Reference 1). The trip setpoint ensures control room ventilation intake isolation occurs well before the intake concentration reaches the 10 CFR 20 occupational limit, which is consistent with the GDC 19 and 10 CFR 50.67(b)(2)(iii) dose limit for control room personnel (References 2 and 3).

Table 3.3.7-1, Footnote (c), “Above background with no flow,” clarifies: (1) That the trip setpoint value is based on 10 CFR 20 Appendix B limits. 10 CFR 20.1002 (Scope) states “The limits in this part do not apply to doses due to background radiation.”

Therefore, the Appendix B regulatory limits, and the R-35 technical specification setpoints based on them, are measured above background. (2) The “with no flow” portion of the note deals with the fact that 10 CFR 20 Appendix B limits are at static (atmospheric) conditions. These are the same conditions inhabited by the public and MCR operators. USNRC Information Notice (IN) 82-49, “Correction for Sample Conditions for Air and Gas Monitoring,” (Reference 4) raised the issue that the radionuclide concentration measured by a radiation monitor that draws an air sample through a detector chamber would be lower than the actual concentration at atmospheric conditions. The second half of the footnote ensures that the nominal setpoint is adjusted, if needed, to account for the pressure difference identified in IN 82-49.

(continued)

BASES

LCO (continued)

4. Containment Isolation-Phase A

Refer to LCO 3.3.2, Function 3.a, for all initiating Functions and requirements except as described above in item 2, "Automatic Actuation Logic and Actuation Relays."

APPLICABILITY

The CREFS Functions must be OPERABLE in MODES 1, 2, 3, 4, and the radiation monitor and manual initiation Functions must also be OPERABLE during CORE ALTERATIONS and movement of irradiated fuel assemblies to ensure a habitable environment for the control room operators. The Applicability for the CREFS actuation on the ESFAS Containment Isolation-Phase A Functions are specified in LCO 3.3.2. Refer to the Bases for LCO 3.3.2 for discussion of the Containment Isolation-Phase A Function Applicability.

ACTIONS

The most common cause of channel inoperability is outright failure or drift of the bistable or process module sufficient to exceed the tolerance allowed by the unit specific calibration procedures. Typically, the drift is found to be small and results in a delay of actuation rather than a total loss of function. This determination is generally made during the performance of a COT, when the process instrumentation is set up for adjustment to bring it within specification. If the Trip Setpoint is less conservative than the tolerance specified by the calibration procedure, the channel must be declared inoperable immediately and the appropriate Condition entered.

A Note has been added to the ACTIONS indicating that separate Condition entry is allowed for each Function. The Conditions of this Specification may be entered independently for each Function listed in Table 3.3.7-1 in the accompanying LCO. The Completion Time(s) of the inoperable channel(s)/train(s) of a Function will be tracked separately for each Function starting from the time the Condition was entered for that Function.

A.1

Condition A applies to the actuation logic train Function of the CREFS, the radiation monitor channel Functions, and the manual channel Functions.

If one train is inoperable, or one required radiation monitor channel is inoperable in one or more Functions, 7 days are permitted to restore it to OPERABLE status. The 7 day Completion Time is the same as is allowed if one train of the mechanical portion of the system is inoperable. The basis for this Completion Time is the same as provided in LCO 3.7.10. If the channel/train cannot be restored to

(continued)

BASES

ACTIONS

A.1 (continued)

OPERABLE status, one CREFS train must be placed in the emergency recirculation mode of operation. This accomplishes the actuation instrumentation Function and places the unit in a conservative mode of operation.

B.1.1, B.1.2, and B.2

Condition B applies to the failure of two CREFS actuation trains, two required radiation monitor channels, or two manual initiation trains. The first Required Action is to place one CREFS train in the emergency recirculation mode of operation immediately. This accomplishes the actuation instrumentation Function that may have been lost and places the unit in a conservative mode of operation. The applicable Conditions and Required Actions of LCO 3.7.10 must also be entered for the CREFS train made inoperable by the inoperable actuation instrumentation. In the case of inoperable radiation monitors, one train of CREFS must be declared inoperable and the applicable Condition of LCO 3.7.10 entered. This ensures appropriate limits are placed upon train inoperability as discussed in the Bases for LCO 3.7.10.

Alternatively, both trains may be placed in the emergency recirculation mode. This ensures the CREFS function is performed even in the presence of a single failure.

C.1 and C.2

Condition C applies when the Required Action and associated Completion Time for Condition A or B have not been met and the unit is in MODE 1, 2, 3, or 4. Condition C is only applicable to those CREFS functions in Table 3.3.7-1 required OPERABLE in MODES 1-4. The unit must be brought to a MODE in which overall plant risk is reduced. To achieve this status, the unit must be brought to MODE 3 within 6 hours and MODE 4 within 12 hours. Remaining within the applicability of the LCO is acceptable to accomplish short duration repairs to restore inoperable equipment because the plant risk in MODE 4 is similar to or lower than MODE 5 (Ref. 1). In MODE 4 the Steam Generators and Residual Heat Removal System are available to remove decay heat, which provides diversity and defense in depth. As stated in Reference ~~1~~5, the steam turbine driven Auxiliary Feedwater Pump must be available to remain in MODE 4.

(continued)

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.3.7.7

The CHANNEL CALIBRATION is a complete check of the instrument loop, including the sensor. The test verifies that the channel responds to a measured parameter within the necessary range and accuracy.

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

REFERENCES

1. 10 CFR 20, Appendix B – Annual Limits on Intake (ALIs) and Derived Air Concentrations (DACs) of Radionuclides for Occupational Exposure; Effluent Concentrations; Concentrations for Release to Sewerage.

2. 10 CFR 50, Appendix A – General Design Criteria for Nuclear Power Plants.

3. 10 CFR 50.67, Accident source term.

4. Information Notice 82-49, "Correction for Sample Conditions for Air and Gas Monitoring," December 16, 1982.

5. WCAP-16294-NP-A, Rev. 1, "Risk-Informed Evaluation of Changes to Technical Specification Required Action Endstates for Westinghouse NSSS PWRs," June 2010.

BASES

LCO
(continued)

3. Spent Fuel Pool Room Radiation

The LCO specifies two required Gaseous Radiation Monitor channels to ensure that the radiation monitoring instrumentation necessary to initiate the PRF remains OPERABLE. Each monitor will initiate the associated train of PRF and isolate the normal Spent Fuel Pool Room ventilation.

~~For sampling systems, channel OPERABILITY involves more than OPERABILITY of channel electronics. OPERABILITY requires correct valve lineups, sample pump operation, and detector OPERABILITY.~~Table 3.3.8-1, Footnote (b), "Above background with no flow," clarifies: (1) That the trip setpoint value is based on 10 CFR 20 Appendix B (Reference 2) limits. 10 CFR 20.1002 (Scope) states "The limits in this part do not apply to doses due to background radiation." Therefore, the Appendix B regulatory limits, and the R-25 technical specification setpoints based on them, are measured above background. (2) The "with no flow" portion of the note deals with the fact that 10 CFR 20 Appendix B limits are at static (atmospheric) conditions. These are the same conditions inhabited by the public and MCR operators. USNRC Information Notice (IN) 82-49, "Correction for Sample Conditions for Air and Gas Monitoring," (Reference 3) raised the issue that the radionuclide concentration measured by a radiation monitor that draws an air sample through a detector chamber would be lower than the actual concentration at atmospheric conditions. The second half of the footnote ensures that the nominal setpoint is adjusted, if needed, to account for the pressure difference identified in IN 82-49.

4. Spent Fuel Pool Room Ventilation Differential Pressure

The LCO specifies two channels of spent fuel pool room ventilation differential pressure instrumentation to assure filtration protection is provided when insufficient normal spent fuel pool room ventilation system flow exists to ensure proper operation of the radiation monitors. When the instrumentation detects insufficient spent fuel pool room ventilation flow, the PRF is actuated and the spent fuel storage pool room ventilation isolated in the same manner as the radiation monitor actuation of the system. The differential pressure instrumentation assures filtration of the spent fuel pool room exhaust when the spent fuel pool room normal ventilation system flow is not sufficient for proper operation of the radiation monitors.

(continued)

BASES

LCO (continued)

5. Containment Isolation – Phase B

Refer to LCO 3.3.2, Function 3.b for all initiation Functions and requirements except as described above in item 2, “Automatic Actuation Logic and Actuation Relays.”

Only the Trip Setpoint is specified for each PRF Function in the LCO. The Trip Setpoint limits are defined in plant procedures (~~Ref. 2~~Reference 4).

APPLICABILITY

The manual PRF initiation must be OPERABLE in MODES 1, 2, 3, and 4 and when moving recently irradiated fuel assemblies in the Spent Fuel Pool Room, to ensure the PRF operates to remove fission products associated with leakage after a LOCA or a fuel handling

(continued)

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.3.8.7

The CHANNEL CALIBRATION is a complete check of the instrument loop, including the sensor. The test verifies that the channel responds to a measured parameter within the necessary range and accuracy. The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

REFERENCES

1. 10 CFR 50.67, Accident source term.

2. 10 CFR 20, Appendix B – Annual Limits on Intake (ALIs) and Derived Air Concentrations (DACs) of Radionuclides for Occupational Exposure; Effluent Concentrations; Concentrations for Release to Sewerage.~~FNP – 1/2 - RCP - 252.~~

3. Information Notice 82-49, "Correction for Sample Conditions for Air and Gas Monitoring," December 16, 1982.~~Not used.~~

4. FNP – 1/2 - RCP – 252.