RAI Volume 2, Chapter 2.1.1.6, First Set, Number 1:

> Explain how (i) the design features and procedures for collecting the contaminated waste water during fire-suppression in a surface facility provide a capacity that is sufficient to control spills and overflows from collection tanks, and (ii) the processes for removing radioactive material from waste water can effectively operate on the possible types and volumes of liquid low-level radioactive waste potentially generated during fire suppression (SAR page 1.4.5-4).
>
> SAR Table 1.4.5-1 delineates the anticipated annual volume of low-level radioactive waste generated at the repository during expected normal operations. This table does not, however, include an estimate of liquid wastes generated during fire suppression. The fire water storage tank appears to have a capacity that exceeds the volume of the liquid effluent collection tanks located outside of each of five facilities (SAR Figure 1.4.5-1). Consequently, the amount of water used for fire suppression could greatly exceed the capacity of the collection tanks and their transfer pumps in less than 10 minutes, and may overflow from the tanks.

1. RESPONSE

1.1 HOW THE DESIGN FEATURES AND PROCEDURES FOR COLLECTING CONTAMINATED WASTE WATER DURING FIRE SUPPRESSION PROVIDE SUFFICIENT CAPACITY TO CONTROL SPILLS AND OVERFLOWS FROM COLLECTION TANKS

The design features for collecting contaminated waste water during fire suppression in the surface nuclear facilities are in accordance with the guidance provided in Regulatory Guide 1.189, *Fire Protection for Operating Nuclear Power Plants*, Section C.4.1.5, and NFPA 801, *Standard for Fire Protection for Facilities Handling Radioactive Materials*, Section 5.10. Procedures for operating, inspecting, and maintaining waste water collection systems will be developed prior to receipt of waste. Procedure development is addressed in SAR Section 5.6.1.

Section 5.10 of NFPA 801 provides criteria for determining the method to use for sizing drainage and collection systems for fire suppression water. Per NFPA 801, the method for sizing drainage and collection systems is not intended to be based on worst case scenarios for discharge of fire suppression water, therefore the capacity of the fire water storage tank is not used to size the drainage and collection systems. Using the method in Section 5.10.2(2) of NFPA 801, a credible discharge volume over a 30 minute period is calculated as part of the fire hazards analysis. The drainage and collection system is then sized to accommodate this volume. The credible volume of fire suppression water, as well as the anticipated liquid low-level radioactive waste (LLW) volumes provided in SAR Table 1.4.5-1 for the surface nuclear facilities, are used to determine the size of the not important to safety liquid LLW collection systems. The attached Table 1 provides a summary of the liquid LLW tank volumes in the surface nuclear facilities.

The largest credible volume of fire water discharged from the fire suppression system is based on the Density/Area curves of Figure 11.2.3.1.1 in NFPA 13, *Standard for the Installation of*

Sprinkler Systems, for an occupancy classification of Ordinary Hazard, Group 2 or 0.2 gallons per minute (gpm) /ft^2 at 1500 ft^2, resulting in a volumetric flow rate of 300 gpm. A design margin of 10% is added to the volumetric flow rate, which produces a credible volume of 9,900 gallons in 30 minutes.

The estimated weekly volume of liquid LLW from other sources, which includes water used for custodial maintenance and decontamination of equipment and personnel, is added to the credible volume of fire water, as well as the volume of the largest single container of flammable or combustible material used or stored in a potentially contaminated area. This gives a cumulative volume of 10,600 gallons of liquid LLW for the Initial Handling Facility (IHF), Receipt Facility (RF), and Canister Receipt and Closure Facility (CRCF), and 11,400 gallons for the Wet Handling Facility (WHF).

A design margin of 20% is added to each of the facilities' cumulative volumes. An additional 10% is provided for the freeboard capacity in accordance with ANSI/ANS-55.6-1993, *American National Standard for Liquid Radioactive Waste Processing System for Light Water Reactor Plants,* Sections 4.8 and 4.10, resulting in (e.g., cumulative volume × 1.2 × 1.1 and rounding up to the nearest 100 gallons) 14,000 gallons for the liquid LLW sumps in IHF, RF, and CRCF, and 15,100 gallons for the liquid LLW collection tanks in the WHF.

For the IHF, RF, and CRCF, a sampling tank maximum volume of 320 gallons is added to the liquid LLW sump volume to arrive at a working volume of 14,320 gallons for the sump. The maximum volume of each sump is calculated as 15,150 gallons due to rounding up of the sump dimensions. The liquid LLW collection tanks outside the IHF, RF, and CRCF are sized to have a working volume of 15,150 gallons to match the maximum volume of the liquid LLW sumps inside the buildings. With rounding up of the tank dimensions, the liquid LLW collection tanks outside the IHF, RF, and CRCF have a maximum volume of 15,650 gallons.

For the WHF, which has two C2 (normally not contaminated) liquid LLW collection tanks inside the building instead of a sampling tank and sump arrangement, the C2 tanks each have a working volume of 15,100 gallons and a maximum volume of 15,300 gallons due to rounding up of the tank dimensions. The WHF C3 (potential for being contaminated) liquid LLW tank working volume and maximum volume are the same as for one of the WHF C2 liquid LLW tanks.

The Low-Level Waste Facility (LLWF) has two liquid LLW collection tanks and one liquid LLW process tank. All three LLWF tanks have the same capacity which is sized based on the maximum volume of the liquid LLW collection tanks at the IHF, RF, and CRCF (15,650 gallons). An additional 10% freeboard capacity and 20% design margin is provided to the cumulative volume, resulting in 20,658 gallons. With rounding up of the tank dimensions, each of the LLWF tanks has a maximum volume of 22,950 gallons.

The liquid LLW collection systems therefore have sufficient capacity to accommodate the off-normal occurrence of a 30-minute actuation of the fire suppression system, in accordance with NFPA 801, as well as the estimated volume of liquid LLW from other sources in the surface facilities.

1.2 DESCRIPTION OF THE PROCESSES FOR REMOVING RADIOACTIVE MATERIAL FROM WASTE WATER POTENTIALLY GENERATED DURING FIRE SUPPRESSION

1.2.1 Description of Liquid LLW Processes in the IHF, CRCF, and RF

The liquid LLW drainage and collection systems in the IHF, CRCF, and RF are similar in each facility and consist of floor drains in C2 areas that drain into the sampling tank contained within the waste sumps located inside each building. The sampling tank contains a 10 gpm capacity LLW sampling pump that is manually activated to pump the contents to the facilities collection tank. A high-level switch will also automatically activate the sampling pump when the sampling tank contents reach a pre-determined high limit. Design features are provided to allow a liquid sample to be manually taken from the sampling tank, or from the collection tank. In the event that the fire suppression system discharges, the fire water will flow into the sampling tank and automatically overflow into the covered waste sump. The sump contains a 105 gpm LLW sump pump that is manually activated to pump the contents to the collection tank. A high-level alarm is sounded in the facility operation room when the sump contents reach a pre-determined high level. The C2 LLW collection tank is provided with a truck connection to allow the contents to be pumped to a tanker truck for transfer of the liquid to the lined evaporation pond (if clean), or to a collection tank at the LLWF (if contaminated).

The IHF, CRCF, and RF piping and instrumentation diagrams for the liquid LLW collection tanks are shown in SAR Figures 1.2.3-41, 1.2.4-95 and 1.2.6-23.

1.2.2 Description of Liquid LLW Processes in the WHF

The WHF has two drainage and collection systems for liquid LLW that are segregated from each other. Floor drains in C2 areas drain into two C2 collection tanks located inside the building. Floor drains in C3 areas drain into one C3 collection tank, also located inside the building. Design features are provided to allow a liquid sample to be manually taken from the C2 and C3 collection tanks. Level indication for the C2 collection tanks is provided in the facility operation room. The C2 collection tanks each have a 100 gpm capacity LLW transfer pump that is manually activated to pump the contents to the C3 collection tank (if contaminated), or to a tanker truck (if clean). A low-level switch will automatically shut off the transfer pump when the C2 collection tank contents reach a pre-determined limit. The C3 collection tank also has a high-level switch that will automatically shut off the C2 collection tank transfer pumps when the C3 collection tank contents reach a pre-determined high limit. The C3 collection tank has a 100 gpm capacity LLW transfer pump that is manually activated to pump the liquid LLW contents via hard-piped connection to the liquid LLW collection tanks at the LLWF. A low-level switch will automatically shut off the transfer pump when the C3 collection tank contents reach a pre-determined limit.

The WHF piping and instrumentation diagrams for the liquid LLW collection tanks are shown in SAR Figures 1.2.5-74 and 1.2.5-75.

1.2.3 Description of Liquid LLW Processes at the LLWF

The LLWF has two liquid LLW collection tanks and one liquid LLW process tank, all located outside the building. The two collection tanks receive liquid LLW by tanker truck from the IHF, RF, and CRCF, or via a hard-piped connection from the C3 liquid LLW collection tank at the WHF. A high-level switch will automatically shut off the WHF C3 collection tank transfer pump when the contents of either of the two LLWF collection tanks reach a pre-determined high limit. The two collection tanks have design features to connect the tanks to mobile on-site processing equipment. The mobile processing equipment is a manually operated, commercially available system that can process the volume and type of liquid LLW that may arise in the surface nuclear facilities. Selection of a suitable mobile system for processing the liquid LLW will be done as part of a future procurement activity. The processed liquid is discharged into the liquid LLW process tank. When the radioactivity concentration of the liquid in the liquid LLW process tank is confirmed to be below release limits, a portable pump is used to transfer the liquid to a tanker truck for transfer to the lined evaporation pond.

2. COMMITMENTS TO NRC

None.

3. DESCRIPTION OF PROPOSED LA CHANGE

None.

4. REFERENCES

ANSI/ANS-55.6-1993 (Reaffirmed 1999). 1999. *American National Standard for Liquid Radioactive Waste Processing System for Light Water Reactor Plants.* La Grange Park, Illinois: American Nuclear Society. TIC: 258658.

NFPA 801. 2003. *Standard for Fire Protection for Facilities Handling Radioactive Materials.* 2003 Edition. Quincy, Massachusetts: National Fire Protection Association. TIC: 254811.

NFPA 13. 2006. *Standard for the Installation of Sprinkler Systems.* 2007 Edition. Quincy, Massachusetts: National Fire Protection Association. TIC: 258713.

Regulatory Guide 1.189. 2001. *Fire Protection for Operating Nuclear Power Plants.* Washington, D.C.: U.S. Nuclear Regulatory Commission. ACC: MOL.20060105.0191.

Table 1. Liquid LLW Tank Volumes

Facility	Waste Sampling Tank		Waste Sump		Collection Tank		Process Tank	
	Maximum Volume	Working Capacity	Maximum Volume	Working Capacity	Maximum Volume	Working Capacity	Maximum Volume	Working Capacity
IHF, RF & CRCF	320	200	15,150	14,320	15,650	15,150	N/A	N/A
WHF- C2 Areas	N/A	N/A	N/A	N/A	15,300	15,100	N/A	N/A
WHF- C3 Areas	N/A	N/A	N/A	N/A	15,300	15,100	N/A	N/A
LLWF	N/A	N/A	N/A	N/A	22,950	20,658	22,950	20,658

NOTE: All tank volumes and capacities are provided in gallons. Working capacity is denoted as the minimum required capacity.

RAI Volume 2, Chapter 2.1.1.6, First Set, Number 3:

Provide technical basis for designating the Canister Transfer Room (Room no. 2004) in SAR Figure 1.2.4-97, or Figure A-36), as a non-ITS confinement zone. Also, explain the following:

a. Differences in the inspection, testing, and maintenance program for the ITS and non-ITS confinement areas (SAR page 1.2.4-53).

b. How the designation of a confinement area as ITS meets the definition of ITS in 10 CFR 63.2. Also, clarify if the designation of a confinement area as ITS, refers to the structure or the structure and the systems and components within the structure.

c. Explain whether or not the seals through walls and slabs in the CRCF and WHF are ITS. DOE states on SAR page 1.9-12 that, "Penetrations through walls and slabs are sealed to maintain the confinement zone boundaries." However, seals are not listed in SAR Table 1.9-1 for the CRCF or the WHF.

d. Reliability requirements for the ITS confinement zones, and how the reliability of the seals through walls and slabs are accounted for in the reliability of the confinement zones.

DOE identifies event sequences in the CRCF involving, "…Lifting and Lowering a Canister during Transfer to or from Staging, TC (*transportation cask*), WP (*Waste Package*), or AO (*Aging Overpack*) with CTM" in Table 6.1-2 of BSC (2008ac) on page 112. These activities appear to take place in the canister transfer room as well as other areas that are designated ITS confinement areas.

1. RESPONSE

With respect to this response it should be noted that the nomenclature important to safety (ITS) confinement area (or zone) has been applied to certain areas (explained below) to differentiate them from other confinement or non-confinement areas. This nomenclature is not the result of the formal preclosure safety analysis (PCSA) classification process. The ITS requirements with respect to mitigating the consequences of a radionuclide release are satisfied by an ITS heating, ventilation, and air-conditioning (HVAC) exhaust system as detailed in the subsequent discussion.

1.1 PROVIDE A TECHNICAL BASIS FOR DESIGNATING THE CANISTER TRANSFER ROOM AS A NON-ITS CONFINEMENT AREA

The canister transfer room (Room 2004) in the Canister Receipt and Closure Facility (CRCF) is designated as a non-ITS confinement area because the PCSA has determined that during a canister transfer operation there are no Category 1 or Category 2 event sequences resulting in a canister breach causing radionuclide release directly into the canister transfer room, and potential

Category 2 event sequences with respect to radionuclide release in rooms below the canister transfer room are mitigated as detailed in the subsequent discussion.

The potential for the presence of airborne radionuclides in the canister transfer room was considered in the categorization analyses, and may be the result of one of three events: (1) a canister breach within the canister transfer room; (2) a canister breach in one of the rooms below the canister transfer room (i.e., cask unloading rooms (Rooms 1023 and 1024), waste package positioning rooms (Rooms 1018 and 1019), or the canister staging areas (Rooms 1021 and 1022)) and subsequent migration of radionuclides from these rooms up into the canister transfer room; and (3) a canister breach when the canister is transferred (lifted or lowered) between the canister transfer room and one of the rooms below. The following scenarios were evaluated:

- Scenario 1 – Direct radionuclide release in the canister transfer room during a canister transfer.

This scenario is beyond Category 2 since during transfer of the canister (in the canister transfer machine (CTM) shield bell) the conditional probability of a canister breach given a drop of several inches inside the CTM shield bell is beyond Category 2 (BSC 2009, Table 6.3-4). The shield bell is designed to withstand the forces imparted by a canister drop, and consequently prevent the canister from falling onto the canister transfer room floor.

- Scenario 2 – Radionuclide release in a room below the canister transfer room (due to a canister drop) and subsequent migration of radionuclides into the canister transfer room.

Air pressure within an ITS confinement area is maintained at a negative pressure with respect to the adjacent non-ITS confinement areas per the guidelines of ASHRAE DG-1-93, *Heating, Ventilation, and Air-conditioning Design Guide for Department of Energy Nuclear Facilities*, to facilitate a cascading airflow from the non-ITS confinement area into the ITS confinement area. A negative pressure differential between the ITS confinement and non-ITS confinement areas is maintained by the ITS exhaust system, which removes air directly from the ITS confinement areas. Consequently, air flow cascades from higher pressure areas (low contamination potential) to lower pressure areas (high contamination potential) during canister transfer operations. SAR Section 1.2.4.4 describes the ITS exhaust system, and how the system design maintains the required pressure differential to mitigate the release of airborne contamination during a Category 2 event sequence.

- Scenario 3 – Radionuclide release in the CTM bell during canister lifting.

This scenario addresses the Category 2 canister shear event sequence in which a spurious CTM movement occurs while the canister is being lifted or lowered between rooms, and subsequently creates a shear force resulting in canister breach and radionuclide release. During lifting and lowering operations, the CTM shield bell and shield bell skirt configuration enable the ITS HVAC exhaust to maintain the required pressure differential (BSC 2009).

1.2 EXPLAIN THE DIFFERENCES IN THE INSPECTION, TESTING, AND MAINTENANCE PROGRAM FOR ITS AND NON-ITS CONFINEMENT AREAS

Prior to the receipt and possession of high-level radioactive waste, specific inspection, maintenance, and testing programs for the HVAC system and components serving the ITS and non-ITS confinement areas will be determined pursuant to ASHRAE DG-1-93, equipment manufacturer's recommendations, and other applicable guidance. These programs will be developed in a phased manner to support the operation of each waste handling facility as the construction of facilities are completed, and will result in an integrated set of procedures that define the interfaces, roles, responsibilities, accountabilities, and authority for operations, as well as inspection, maintenance, surveillance, and periodic testing. Programmatic controls will ensure that inspection, testing, and maintenance of structures, systems, and components (SSCs) are performed in accordance with the processes outlined in SAR Section 5.6. Inspection, testing, and preventive maintenance will be based upon manufacturer's recommendations, and for ITS systems, results of the PCSA to ensure that credited reliability is preserved.

1.3 EXPLAIN HOW DESIGNATION OF A CONFINEMENT AREA AS ITS MEETS THE DEFINITION OF ITS IN 10 CFR 63.2 AND CLARIFY IF THE CONFINEMENT AREA STRUCTURE IS ALSO DESIGNATED ITS

The fundamental principle followed by PCSA for Category 2 event sequences is that an ITS structure, system, and component is relied upon to prevent (i.e., reduce the probability of) or mitigate (i.e., reduce the consequences of) an event sequence.

The nomenclature "ITS confinement areas" has been applied to those areas in which a Category 2 event sequence involving a breach of a spent nuclear fuel assembly, canister, or waste package can occur. To mitigate radionuclide release from a potential breach, ITS confinement areas are exhausted via the ITS HVAC system through high-efficiency particulate air filters. Maintaining confinement so that a potential radionuclide release is directed through the high-efficiency particulate air filters is relied upon to mitigate Category 2 event sequences so that radiological exposures do not exceed the performance objectives specified in 10 CFR 63.111(b)(2).

With respect to the ITS confinement area structure, the walls and equipment shield doors are designated ITS to preclude collapse onto waste containers or other ITS SSCs. Maintaining the structural integrity of the walls and shield doors simultaneously provides a confinement function. In addition, the equipment shield doors have an ITS requirement to prevent inadvertent opening and to subsequently protect personnel from radiation exposure. Satisfying this safety requirement also simultaneously provides a confinement function. However, as stated above, it is the ITS exhaust systems that maintain the negative pressure differential of an ITS confinement area with respect to a non-ITS confinement, and as such ultimately satisfy the ITS confinement requirement. In this manner, all confinement areas are served by SSCs that prevent or mitigate Category 2 event sequences thereby meeting the definition of ITS in 10 CFR 63.2.

1.4 EXPLAIN WHETHER OR NOT THE SEALS THROUGH WALLS AND SLABS IN THE CANISTER RECEIPT AND CLOSURE FACILITY AND WET HANDLING FACILITY ARE ITS

Seals at penetrations through walls and slabs are not relied upon to reduce the frequency of or mitigate the consequences of an event sequence; therefore, they are non-ITS. Confinement is maintained by the negative pressure induced by the ITS HVAC exhaust. The nuclear safety design bases have a reliability requirement for the HVAC exhaust, which includes the ability of the system to perform its function in various room configurations, including open doors. The ITS HVAC system relies on a supply of air to the ITS confinement areas, either forced supply or in leakage from a variety of rooms within a facility, that is less than the exhaust capability of the ITS HVAC system. Thus, the negative pressure differential between the ITS and non-ITS confinement areas is maintained.

1.5 EXPLAIN RELIABILITY REQUIREMENTS FOR ITS CONFINEMENT AREAS, AND HOW RELIABILITY OF SEALS THROUGH WALLS AND SLABS ARE ACCOUNTED FOR IN THE RELIABILITY OF CONFINEMENT AREAS

Reliability requirements are established for those portions of the HVAC system classified as ITS. These include analysis of inadvertent opening of large doors (e.g., equipment and personnel shield doors). These can be found in SAR Tables 1.9-3 and 1.9-4 as a requirement of ITS HVAC as a subsystem. Wall and slab penetration seals are not designated ITS. There are no specific reliability requirements established for the penetration seals in the ITS confinement area(s) boundaries. Instead, the requirement is at a higher level encompassing the overall ITS HVAC confinement function.

2. COMMITMENTS TO NRC

The DOE commits to update the license application to reflect that seals for penetrations through walls and slabs are not required to maintain confinement zone boundaries as described in Section 3.

3. DESCRIPTION OF PROPOSED LA CHANGE

Delete the following sentence from the third paragraph of SAR Section 1.9.1.10:

Penetrations through walls and slabs are sealed to maintain the confinement zone boundaries.

4. REFERENCES

ASHRAE DG-1-93, *Heating, Ventilation, and Air-Conditioning Design Guide for Department of Energy Nuclear Facilities*. Atlanta, Georgia: American Society of Heating, Refrigerating and Air-Conditioning Engineers. TIC: 240280.

BSC 2009. *Canister Receipt and Closure Facility Reliability and Event Sequence Categorization Analysis*. 060-PSA-CR00-00200-000-00B. Las Vegas, Nevada: Bechtel SAIC Company. ACC: ENG.20090112.0004.

RAI Volume 2, Chapter 2.1.1.6, First Set, Number 4:

Explain the following for the Emergency Diesel Generator Facility (EDGF) ITS HVAC subsystems:

- How DOE plans to perform maintenance on the surface non-confinement ITS HVAC subsystem that cools ITS electrical equipment and battery rooms in the EDGF (SAR Table 1.9-3, page 1.9-69; and Table 1.9-4, page 1.9-83), without having backup air handling units in this subsystem (SAR Figure 1.2.8-26 on page 1.2.8-123). For example, in the CRCF, DOE indicates on SAR page 1.2.4-323 in Figure 1.2.4-104 that, "Backup units are provided in case the operating units are down for maintenance or servicing."

- How DOE plans to ensure that performance of maintenance on an ITS HVAC subsystem in the EDGF would not adversely affect the reliability of ITS systems or subsystems in other surface facilities.

1. RESPONSE

1.1 PERFORMANCE OF MAINTENANCE ON THE SURFACE NONCONFINEMENT ITS HVAC SUBSYSTEM IN THE EDGF

Preventive maintenance for the surface nonconfinement important to safety (ITS) heating, ventilation, and air-conditioning (HVAC) subsystem that cools ITS electrical equipment in the Emergency Diesel Generator Facility (EDGF) will be preformed on a regularly scheduled interval and meet the downtime durations provided by the preclosure safety analysis (PCSA) for maintenance of the two independent and redundant trains. The PCSA has accounted for regularly scheduled preventive maintenance, allowing for one train to be maintained while the other train is operating, as described in SAR Sections 1.9.1.12 and 1.4.1.2.1. Under normal operations, maintenance on one train does not result in the loss of, or the inability of, the opposite train to perform its intended ITS function. If the predetermined amount of downtime for preventive scheduled maintenance of the surface nonconfinement ITS HVAC subsystem in the EDGF as accounted for in the PCSA is reached, the waste handling operations within the Canister Receipt and Closure Facility (CRCF) and Wet Handling Facility (WHF) will be halted in accordance with the Licensing Specifications, Limiting Conditions for Operation, or Action Statements (as applicable).

Backup air handling units provided for the CRCF and WHF confinement ITS HVAC subsystems, as shown in SAR Figures 1.2.4-104 and 1.2.5-87, are designed in accordance with the guidance provided in Sections 3.1, 3.2, 3.10, and 5 of Regulatory Guide 1.52, *Design, Inspection, and Testing Criteria for Air Filtration and Adsorption Units of Post-Accident Engineered-Safety-Feature Atmosphere Cleanup Systems in Light-Water-Cooled Nuclear Power Plants*. The guidance in Regulatory Guide 1.52 applies only to confinement ITS HVAC systems; therefore, Regulatory Guide 1.52 is not applicable to the nonconfinement ITS HVAC system in the EDGF, and as a result, backup air handling units have not been provided in the EDGF.

1.2 PERFORMANCE OF MAINTENANCE ON AN ITS HVAC SUBSYSTEM IN THE EDGF DOES NOT ADVERSELY AFFECT THE RELIABILITY OF ITS SYSTEMS IN OTHER SURFACE FACILITIES

Regularly scheduled preventive maintenance on either of the two independent nonconfinement ITS HVAC subsystem trains in the EDGF does not cause unavailability (i.e., is independent) of system operations in other surface facilities. The PCSA has analyzed availability of HVAC systems powered by both normal offsite power and ITS on-site power. Unavailability of individual trains owing to maintenance is included. The safety function requirements delineated in the nuclear safety design basis includes downtime durations. The PCSA evaluates one train operating while the other train is unavailable due to maintenance (e.g., out of service) as shown in Table B8.4-1 and fault trees of *Canister Receipt and Closure Facility Reliability and Event Sequence Categorization Analysis* (BSC 2009). For example, when Train A of the ITS electric system is out of service for maintenance (resulting in Train A of the CRCF ITS HVAC being out of service), Train B provides support to the operable Train B ITS HVAC system. The maintenance unavailability represented by the ITS load center maintenance event, 060-#EEE-LDCNTRA-BUA-MTN, shown in Table B8.4-1 and Figure B8.4-5 of the analysis (BSC 2009), models the unavailability of any ITS Train A component from the 13.8 kV ITS switchgear (which feeds the nonconfinement ITS HVAC system) in the EDGF through the ITS load center in the CRCF. The maintenance unavailability represented by the ITS diesel generator maintenance event, 26D-#EEY-ITSDG-A-#DG-MTN, shown in Table B8.4-1 and Figure B8.4-10 of the analysis (BSC 2009), models the unavailability of the ITS components or systems that would prevent the Train A ITS diesel generator from starting and loading onto the 13.8 kV ITS switchgear in the EDGF. The operator-related event, 26D-#EEY-ITSDG-A-#DG-RSS, shown in Table B8.4-1 and Figure B8.4-10 of the analysis (BSC 2009), is a basic event that accounts for the operators not restoring the ITS component to normal operable or standby status following maintenance.

2. COMMITMENTS TO NRC

None.

3. DESCRIPTION OF PROPOSED LA CHANGE

None.

4. REFERENCES

BSC (Bechtel SAIC Company) 2009. *Canister Receipt and Closure Facility Reliability and Event Sequence Categorization Analysis*. 060-PSA-CR00-00200-000-00B. Las Vegas, Nevada: Bechtel SAIC Company. ACC: ENG.20090112.0004.

Regulatory Guide 1.52, Rev. 3. 2001. *Design, Inspection, and Testing Criteria for Air Filtration and Adsorption Units of Post-Accident Engineered-Safety-Feature Atmosphere Cleanup Systems in Light-Water-Cooled Nuclear Power Plants*. Washington, D.C.: U.S. Nuclear Regulatory Commission. ACC: MOL.20060105.0199.