PLANT SYSTEMS

3/4.7.8 SUPPLEMENTAL LEAK COLLECTION AND RELEASE SYSTEM (SLCRS)

LIMITING CONDITION FOR OPERATION

3.7.8.1 Two SLCRS exhaust air filter trains shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one SLCRS exhaust air filter train inoperable, restore the inoperable train to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.8.1 Each SLCRS exhaust air filter train shall be demonstrated OPERABLE:

a. At least once per 31 days by initiating, from the control room, flow through the "standby" HEPA filter and charcoal adsorber train and verifying that the train operates for at least 15 minutes with the heater controls operational.

b. At least once per 18 months and (1) after each complete or partial replacement of a HEPA filter or charcoal adsorber bank, or (2) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (3) following painting, fire or chemical release in any ventilation zone communicating with the system by: delete

1. Verifying that the charcoal adsorbers remove ≥ 99.95% of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1980 while operating the ventilation system at a flow rate of ~~59,000~~ 57,000 cfm ± 10%.

2. Verifying that the HEPA filter banks remove ≥ 99.95% of the DOP when they are tested in-place in accordance with ANSI N510-1980 while operating the ventilation system at a flow rate of ~~59,000~~ 57,000 cfm ± 10%.

3. Subjecting the carbon contained in at least one test canister or at least two carbon samples removed from one of the charcoal adsorbers to a laboratory carbon sample analysis and verifying a removal efficiency of ≥ 99% for radioactive methyl iodide at an air flow velocity of 0.7 ft/sec ± 20% with an inlet methyl iodide concentration of 1.5 to 2.0 mg/m^3, ≥ 70% relative humidity, and 30°C ± ½°C; other test conditions shall be in accordance with ANSI N510-1980. The carbon samples not obtained from test canisters shall be taken with a slotted tube sampler in accordance with ANSI N509-1980.

Proposed Wording

SURVEILLANCE REQUIREMENTS

4. Verifying a system flow rate of ~~59,000~~ 57,000 cfm ± 10% during system operation.

c. At least once per 18 months by:

1. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 6.8 inches Water Gauge while operating the ventilation system at a flow rate of ~~59,000~~ 57,000 cfm ± 10%.
2. Verifying that the exhaust from the contiguous area is diverted through the SLCRS filter train on a Containment Isolation - Phase "A" signal in less than 5 minutes.

d. Verifying that the air flow distribution to each HEPA filter and charcoal adsorber is within ± 20% of the averaged flow per unit after initial installation and after any maintenance affecting the flow distribution.

e. At least once per 4 months of system operation, perform the surveillance requirement of 4.7.8.1 b.3.

and following painting, fire or chemical release in any ventilation zone communicating with the system

Proposed Wording

ATTACHMENT B

Proposed Technical Specification Change
Unit 2 - Change No. 2A-4
Safety Analysis

Descriptions of amendment request: The proposed amendment would revise the Supplemental Leak Collection and Release System (SLCRS) filter trains surveillance requirements. Technical Specification 4.7.8.1.b requires an in-place leak test be performed on the HEPA and adsorber stage and an iodine removal efficiency test be performed on the adsorber stage at least once per 18 months. Both the leak tests and the iodine removal efficiency test are also required following painting fire or chemical release in any area communicating with the SLCRS. The proposed change would modify the filter testing requirements such that following painting, fire or chemical release in these areas only the charcoal iodine removal efficiency test would be required to be performed. The proposed amendment would also revise the SLCRS flow rate from 59,000 CFM $\pm$ 10% to 57,000 CFM $\pm$ 10% in surveillance items 4.7.8.1.b.1, 2 and 4 and 4.7.8.1.c.1.

The basis for the operability requirements for the SLCRS in the Technical Specifications is that the SLCRS provides for the filtering of postulated radioactive effluents resulting from a Fuel Handling Accident (FHA) and from leakage of Loss of Coolant Accident (LOCA) activity from systems outside the reactor containment building, such as Engineered Safety Features (ESF) equipment, prior to their release to the environment. The system must be operable to ensure that ESF leakage following the postulated design basis accident LOCA and leakage resulting from a FHA will not exceed 10 CFR 100 limits. The periodic filter efficiency testing requirements of surveillance items 4.7.8.1.b ensures that the filter efficiencies assumed in the accident analyses remain valid. However, should the filter be exposed to painting, fire or a chemical release, these releases could degrade the capability of the charcoal to remove radioactive iodine. The technical specifications therefore require the charcoal adsorber efficiency to be tested following this type of release.

As currently structured, however, the technical specification surveillance requirements also require the charcoal adsorber and HEPA filter leakage tests which are not impacted by such a release. The requirement to also do these leakage tests is in accordance with Regulatory Guide 1.52, Revision 2. Obtaining the required charcoal samples after the release could affect the bypass leakage thru the filter. However, Beaver Valley Unit 2 has charcoal test canisters external to the SLCRS charcoal filter housing. Charcoal samples can be obtained and the canister isolated without disturbing the actual filter bed. Therefore, the charcoal adsorber and HEPA filter leakage tests should not be required.

Unlike many plants, Beaver Valley Unit 2 has continuous flow through one of the two redundant main filter banks during normal operation. Therefore, without the proposed amendment the possibility of performing unnecessary leakage testing due to these releases is increased.

The proposed amendment is consistent with the description of the SLCRS as described in the FSAR Section 6.5. However, a revision to the Beaver Valley Unit 2 Regulatory Guide 1.52 position in Section 1.8 of the FSAR will be necessary to note the exception to paragraph C.5 of this guide. This will be included in a future FSAR update.

Since the proposed amendment will not impact the required SLCRS filter efficiencies, this change is considered safe.

This proposed amendment also revised the SLCRS flow rate from 59,000 CFM ±10% to 57,000 CFM ±10%. This change is a result of removing the main steam and feedwater valve area from the SLCRS. The revised total flow rate also reflects the actual system flow rates obtained after final system balancing. FSAR revisions to remove the main steam and feedwater valve area from the SLCRS and indicate the revised system flow rates will be included in a future FSAR update. The revised SLCRS flow rates will not affect the Offsite Dose Calculation Manual. The total flow rate thru the main filter banks has been reduced, therefore, the filter residence time will be slightly increased and the capability of the filters to remove radioactive effluents will not be reduced. The proposed change will not impact the capability of the SLCRS to maintain a negative pressure in the areas connected to the SLCRS. There is no piping in the main steam and feedwater valve area which could contain post-LOCA fluids. Therefore the capability of the SLCRS to collect radioactive effluents from ESF systems operating outside the containment following any postulated LOCAs will not be impacted. This change is therefore considered safe.

ATTACHMENT C

No Significant Hazard Evaluation
Proposed Technical Specification Change
Unit No. 2 - Change No. 2A - 4

Basis for Proposed No Significant Hazards Consideration Determination: The Commission has provided standards for determining whether a significant hazards consideration exists (10 CFR 50.92(c)). A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated: (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

The proposed change does not involve a significant hazards consideration because:

1. Should the filter trains be exposed to painting, fire or chemical release, the efficiency of the charcoal adsorber will be verified. The leakage criteria for the filters would not be affected by this release. Thus the required SLCRS filter efficiency will not be affected by this change. The revised SLCRS flow rates will not affect the capability of the system to collect and filter radioactive effluents. The offsite doses resulting from a fuel handing accident or ESF leakage following a postulated Design Basis Accident LOCA will remain valid. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. The proposed change does not affect the capability of the SLCRS to perform it's design function in the Beaver Valley Unit 2 Safety Analyses and does not affect the operation of other equipment as described in the FSAR. Thus no adverse safety considerations are introduced by this change. Therefore, the probability of an accident or a malfunction of a differently type than previously evaluated would not be created.

3. The proposed change will continue to ensure the operability of the SLCRS filter trains with the required filter efficiencies to limit the offsite dose consequences of any postulated accidents. Therefore, this change will not involve a significant reduction in a margin of safety.

Based on the above considerations, it is proposed to characterize the change as involving no significant hazards considerations.