

SACRAMENTO MUNICIPAL UTILITY DISTRICT □ 6201 S Street, Box 15830, Sacramento, California 95813; (916) 452-3211

June 21, 1979

Mr. Robert Reid  
Director, Reactor Licensing  
Division of Reactor Licensing  
Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

RE: Docket No. 50-312  
Proposed Amendment No. 32  
Revision 3  
Rancho Seco Nuclear Generating  
Station, Unit No. 1

Dear Sir:

In accordance with 10 CFR 50.59, the Sacramento Municipal Utility District proposes to amend its operating license DPR-54 for Rancho Seco Nuclear Generating Station No. 1, by submitting Proposed Amendment No. 32 Revision 3, on June 21, 1979. Today, we are submitting forty (40) copies of Proposed Amendment No. 32, Revision 3, which incorporates the pertinent and applicable changes suggested and required by your staff. This submittal is exempt from the requested Class III fee under the provision of Footnote 2 to 10 CFR 170.22. Footnote 2 does permit the exemption of certain types of license amendments from fees. These are:

1. Those in fee Classes I, II and III which result from written Commission request provided that they have only minor safety significance, are to simplify or clarify the license or Technical Specifications and are being issued for the convenience of the Commission, and
2. Orders issued by the Commission pursuant to 10 CFR 2.204.

The Commission requested this revision via a letter from R. A. Purple (NRC) to E. K. Davis dated February 28, 1975.

This revision adds specific Limiting Conditions for Operation applicable to air filter systems and specifies that the methyl iodide removal efficiency of the charcoal filters be determined at least every 720 hours of operations. Wherever possible, this proposed amendment brings the facility ventilation and filter systems into agreement with the latest Standard Technical Specifications, Regulation Guides, and applicable standards.

324 320

7907100 50'9

June 21, 1979

You will notice in the attached replacement pages which comprise Proposed Amendment No. 32, Revision 3, that the title of Specification 4.11 has changed from "Reactor Building Purge Filtering System" to "Auxiliary and Spent Fuel Building Filtering System." As discussed and agreed upon in previous transmittals, this constitutes deleting the specification on the Reactor Purge Filter. This is allowed as the filter is not used or required for any imposed accident at the facility. While deletion of this filter system from the Technical Specification is justified by its non-safety function, the system will still be maintained and operated to assure the requirements of NRC Regulatory Guide 1.112 are met.

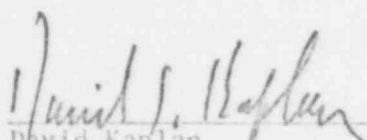
The next significant change by Proposed Amendment No. 32, Revision 3, is deletion of the requirement to perform an "in-place" leakage test on the Reactor Building Emergency Filtering System. Since this system is fully contained within the Reactor Building where it provides recirculation air cleanup in a post-LOCA condition, it satisfies the conditions of ANSI N510, Table 1, for which such testing is unnecessary.

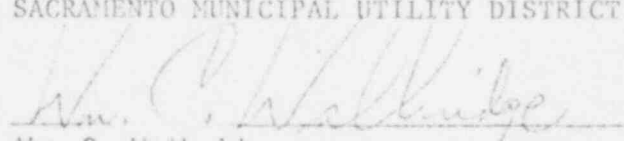
Added to the existing license are new and specific surveillance requirements on the Auxiliary and Spent Fuel Building System. A detailed review of the potential non-LOCA accidents has revealed that credit has been taken for this filter system in these analyses. Hence, it is proposed to add requirements to the facility license that will assure that the assumed effectiveness of these filters will be available. While conducting the review for this system, it was determined that a previously unmonitored release point was available from the Auxiliary Building to the environment. A filter system meeting design requirements similar to those imposed upon the Auxiliary and Spent Fuel Building Filter System is being procured and installed. This Proposed Amendment No. 32, Revision 3, establishes the Technical Specification requirements for operation of this new filter unit when installed.

Your staff proposed a revision to our Technical Specifications which would have established testing criteria for air heaters which were assumed to be installed in the facility filter systems. The design parameters for Rancho Seco do not require that heaters be installed as humidity controls on the operating filter systems at Rancho Seco. Therefore, we have deleted the staff's recommendations regarding testing criteria for heaters which are not required nor installed at Rancho Seco. Coincidentally, the laboratory testing conditions for the installed activated charcoal are now established to be those representative of the actual accident in normal conditions to which the charcoal will be exposed, rather than that which would result from the operation of heaters ahead of the charcoal filters.

Respectfully submitted,

SACRAMENTO MUNICIPAL UTILITY DISTRICT

  
David Kaplan  
Legal Counsel  
Sacramento Municipal  
Utility District

  
Wm. C. Walbridge  
General Manager

324 321

June 21, 1979

Subscribed and sworn to before me  
this 22nd day of June, 1979.



*Betty Mattier*

Betty Mattier, Notary Public in and  
for the County of Sacramento,  
State of California

My Commission Expires 1-12-80

RANCHO SECO UNIT 1  
TECHNICAL SPECIFICATIONS

Limiting Conditions for Operation

3.13 AIR FILTER SYSTEMS

Applicability

This specification applies to the operability of the emergency control room filtering system, the Auxiliary and Spent Fuel Building filter systems, and the Reactor Building emergency filtering system.

Objective

To assure that these systems will be able to perform their design functions.

Specification

- 3.13.1 The emergency control room filter system and the Reactor Building emergency filtering systems shall be operable at all times when containment integrity is required, except as noted in 3.13.3 and 3.13.4 below.
- 3.13.2 One Auxiliary and Spent Fuel Building filter unit must be operable. The reactor shall be placed in a hot shutdown condition within twelve (12) hours any time both units become inoperable.
- 3.13.3 With the emergency control room filter system inoperable, restore the system to operable status within seven (7) days or be in at least hot standby within the next six (6) hours and in cold shutdown within the following thirty (30) hours.
- 3.13.4 If one of the two RB emergency filters is made, or found to be, inoperable for any reason, reactor operation is permissible only during the succeeding thirty (30) days provided that all active components of the other in-containment air treatment circuit shall be demonstrated to be operable within eight (8) hours and daily thereafter. With both RB emergency filtering systems inoperable, the reactor shall be placed in at least hot standby within the next six (6) hours and in cold shutdown within the following thirty (30) hours.

Bases

The time to return a Reactor Building Emergency Filter to operability is allowed because two 50% capacity RB Spray Systems and the other RB Emergency Filter are available for SFAS requirements. Tech Spec 3.3.2 covers fan and cooler operability.

See also Sections 4.10, 4.11 and 4.12.

RANCHO SECO UNIT 1  
TECHNICAL SPECIFICATIONS

Surveillance Standards

4.10 EMERGENCY CONTROL ROOM FILTERING SYSTEM

Applicability

Applies to the emergency control room filtering system components.

Objective

To verify that this system and its components will be able to perform their design functions.

Surveillance Requirements

4.10.1 The Control Room Emergency Ventilation System shall be:

- A. Demonstrated operable at least once per quarter by initiating flow through the ventilation/cooling system and demonstrating that the outside air makeup system flow is  $40 \text{ cfm} \pm 20 \text{ percent}$ .
- B. Demonstrated operable at least once per refueling interval, or once every 18 months, whichever occurs first, or after each partial or complete replacement of the HEPA filter bank or charcoal adsorber bank, or following painting, fire, or chemical release in the operating air makeup system, by:
  1. Verifying that the charcoal adsorbers remove  $\geq 99$  percent of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510 while operating the filter train at a flow rate of  $40 \text{ cfm} \pm 20 \text{ percent}$ .
  2. Verifying that the HEPA filter banks remove  $\geq 99$  percent of the DOP when they are tested in-place in accordance with ANSI N510 while operating the filter train at a flow rate of  $40 \text{ cfm} \pm 20 \text{ percent}$ .
  3. Verifying within 31 days after removal that a laboratory analysis of a carbon sample from either at least one test canister or carbon sample removed from one of the charcoal adsorbers demonstrates a removal efficiency of  $\geq 90\%$  for radioactive methyl iodide when the sample is tested in accordance with ANSI N509 (30°C, 95% R.H.). The carbon samples not obtained from test canisters shall be prepared by either:
    - (a) Emptying one entire bed from a removed adsorber tray, mixing the adsorbent thoroughly, and obtaining samples at least two inches in diameter and with a length equal to the thickness of the bed.

RANCHO SECO UNIT 1  
TECHNICAL SPECIFICATIONS

Surveillance Standards

Surveillance Requirements (Continued)

- 4.10.1 B. 3. (b) Emptying a longitudinal sample from an adsorber tray, mixing the adsorbent thoroughly and obtaining samples at least two inches in diameter and with a length equal to the thickness of the bed.
4. Verifying that the pressure drop across the combined HEPA filters, and charcoal adsorber banks is <6 inches Water Gauge while operating the ventilation makeup system at a flow rate of 40 cfm  $\pm$  20 percent.
5. Verifying that on a high radiation signal, the normal system automatically is isolated and that the Emergency System operates.
6. Verify the air makeup system maintains the room at a positive pressure of >0.005 inches W.C. relative to the outside atmosphere with a flow of 40 cfm  $\pm$  20 percent.
- C. Demonstrated operable after every 720 hours of charcoal adsorber operation by:
1. Verifying within 31 days after removal that a laboratory analysis of a carbon sample from either at least one test canister or carbon sample removed from one of the charcoal adsorbers demonstrates a removal efficiency of  $\geq$ 90% for radioactive methyl iodide when the sample is tested in accordance with ANSI N509 (30°C, 95% R.H.). The carbon samples not obtained from test canisters shall be prepared by either:
- (a) Emptying one entire bed from a removed adsorber tray, mixing the adsorbent thoroughly, and obtaining samples at least two inches in diameter and with a length equal to the thickness of the bed or,
- (b) Emptying a longitudinal sample from an adsorber tray, mixing the adsorbent thoroughly, and obtaining samples at least two inches in diameter and with a length equal to the thickness of the bed.
2. After reinstallation of the sampled adsorber tray, per C.1:
- (a) Verify that the charcoal adsorbers remove  $\geq$ 99 percent of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510 while operating the filter train at a flow rate of 40 cfm  $\pm$  20 percent.

Proposed Amendment No. 32 Rev. 3

RANCHO SECO UNIT 1  
TECHNICAL SPECIFICATIONS

Surveillance Standards

Surveillance Requirements (Continued)

- 4.10.1 C. 2. (b) Verify that the HEPA filter bank removes  $\geq 99$  percent of the DOP when tested in-place in accordance with ANSI N510 while operating the filter train at a flow rate of 40 cfm  $\pm 20$  percent.

Bases

The purpose of the emergency control room filtering system is to limit the particulate and gaseous fission products to which the control room area would be subjected during an accidental radioactive release in or near the Auxiliary Building. The system is designed with a filter train which consists of a prefilter and charcoal filter ahead of a high efficiency particulate filter, and charcoal filter with a booster fan to pressurize the control room with outside air.

Since this system is not normally operated, a periodic test is required to ensure its operability when needed. Quarterly testing of this system will show that the system is available for its safety action. During this test the system will be inspected for such things as water, oil, or other foreign material; gasket deterioration, adhesive deterioration in the HEPA filter; and unusual or excessive noise or vibration when the fan motors are running. The flow of 40 cfm was selected to limit the maximum radiation dose to occupants of the control room in an accident. For this analysis, both charcoal filter banks were assumed to provide DF's of 10, while the HEPA filter DF is assumed to be 100.

Refueling interval testing will verify the methyl iodide removal efficiency of the charcoal and the amount of leakage past the charcoal and absolute filters are at least equal to the design values. The charcoal adsorber efficiency acceptance criteria is set significantly higher than required so as to assure a DF of 10 will be available to the next test interval.

The system is automatically started, and the normal system isolated, when the radiation level in the control room increases, or manually whenever desired by the operator.

The testing required after painting, fire or chemical release, is not to be interpreted to include minor touch-up painting, lighted cigarettes, housekeeping chemicals and detergents, or other similar activities common to the normal routine.

RANCHO SECO UNIT 1  
TECHNICAL SPECIFICATIONS

Surveillance Standards

4.11 AUXILIARY AND SPENT FUEL BUILDING FILTER SYSTEMS

Applicability

Applies to the Auxiliary Building exhaust filter system and to the Spent Fuel Pool Building when irradiated fuel is being moved or is stored in it.

Objective

To verify that the Auxiliary Building exhaust filter system and components will be able to perform their design functions.

Surveillance Requirements

4.11.1 When irradiated fuel which has decayed less than 90 days is in the spent fuel storage pool:

- A. The spent fuel storage pool building exhaust ventilation system shall be verified to be operating with all spent fuel building doors closed (excepting intermittent personnel use) prior to fuel movement and at least once per 8 hours during either fuel movement within the spent fuel storage pool or crane operation with loads over the spent fuel storage pool.

4.11.2 Proper Operation of ventilation system shall be verified:

- A. At least once per month by observing flow through the operating HEPA filter and charcoal adsorber train and verifying that the train operates with <6 inches Water Gauge pressure drop across the combined HEPA and Charcoal filter banks.
- B. At least once per refueling interval, or once every 18 months, whichever occurs first, or after each partial or complete replacement of the HEPA filter bank or charcoal adsorber bank, or following painting, fire, or chemical release in the operating air makeup system, by:
  - 1. Verifying that the charcoal adsorbers remove  $\geq 99$  percent of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510 while operating the filter train at a flow rate not exceeding  $43,400 \text{ cfm} \pm 10$  percent.
  - 2. Verifying that the HEPA filter banks remove  $\geq 99\%$  of the DOP when they are tested in-place in accordance with ANSI N510 while operating the filter train at a flow rate not exceeding  $43,400 \text{ cfm} \pm 10\%$ .

Proposed Amendment No. 32 Rev. 3



RANCHO SECO UNIT 1  
TECHNICAL SPECIFICATIONS

Surveillance Requirements (Continued)

Surveillance Standards

- 4.11.2 B.
3. Verifying that with the Auxiliary Building exhaust system operating at a flow rate not exceeding  $43,400 \text{ cfm} \pm 10$  percent and exhausting through the HEPA filters and charcoal adsorbers, to the facility vent, not exceeding  $10,800 \text{ cfm} \pm 10$  percent exhaust from the spent fuel pool area while providing a negative pressure in the spent fuel building  $>0.01$  inches W.C.
  4. Verifying within 31 days after removal that a laboratory analysis of a carbon sample from at least one test canister or carbon sample removed from one of the charcoal adsorbers demonstrates a removal efficiency of  $\geq 90\%$  for radioactive methyl iodide when the sample is tested in accordance with ANSI N509 ( $30^\circ\text{C}$ , 95% R.H.). The carbon samples not obtained from test canisters shall be prepared by either:
    - (a) Emptying one entire bed from a removed adsorber tray, mixing the adsorbent thoroughly, and obtaining samples at least two inches in diameter and with a length equal to the thickness of the bed or,
    - (b) Emptying a longitudinal sample from an adsorber tray, mixing the adsorbent thoroughly, and obtaining samples at least two inches in diameter and with a length equal to the thickness of the bed.
- C. Verify that the air distribution across the adsorber section is uniform, per ANSI N510, following original installation, modification or major repair.
- D. Demonstrated operable after every 720 hours of charcoal adsorber operation by:
1. Verifying within 31 days after removal that a laboratory analysis of a carbon sample from at least one test canister or carbon sample removed from one of the charcoal adsorbers demonstrates a removal efficiency of  $\geq 90\%$  for radioactive methyl iodide when the sample is tested in accordance with ANSI N509 ( $30^\circ\text{C}$ , 95% R.H.). The carbon samples not obtained from test canisters shall be prepared by either:
    - (a) Emptying one entire bed from a removed adsorber tray, mixing the adsorbent thoroughly and obtaining samples at least two inches in diameter and with a length equal to the thickness of the bed.
    - (b) Emptying a longitudinal sample from an adsorber tray, mixing the adsorbent thoroughly, and obtaining samples at least two inches in diameter and with a length equal to the thickness of the bed.
  2. After reinstallation of the sampled adsorber tray per D.1:
    - (a) Verify that the charcoal adsorbers removed  $\geq 99\%$  of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510 while operating the filter train at a flow rate not exceeding  $43,400 \text{ cfm} \pm 10$  percent.

Surveillance Requirements (Continued)

- 4.11.2 D. 2. (b) Verify that the HEPA filter bank removes  $>99\%$  of the DOP when tested in-place in accordance with ANSI N510 while operating the filter train at a flow rate not exceeding  $43,400 \text{ cfm} \pm 10\%$ .

Bases

The Auxiliary Building exhaust system consists of two full capacity units arranged to take suction from a common plenum, draw the air through HEPA and charcoal filter banks and discharge it into the plant vent. Only one unit is operated at a time, allowing the other to be serviced or held in reserve.

This system draws all of the potentially radioactively contaminated air in the plant, external to the Reactor Building, through it. The following major areas are served:

- 1) Spent Fuel Building
- 2) Radio-Chemical Lab Hoods and Service Area
- 3) Radwaste Area
- 4) Waste Gas Discharge
- 5) Condenser Air Ejector Exhaust
- 6) Various Instrumentation and Sampling Discharges

While providing service to these areas the filters provide a minimum DF of 10 for radioactive iodine and a DF of 100 for particulate matter which may be released in the following:

- 1) Letdown Line rupture outside the Reactor Building
- 2) Post LOCA Decay Heat Removal Leakage
- 3) Dropped Fuel Assembly in Spent Fuel Pool
- 4) OTSG Tube Rupture
- 5) Makeup Tank Rupture

Releases of radioactive materials, and the resulting dosage from these accidents, are based on the maximum flow rate from the plant vent. Reduced flow rates are conservative as to the effect of plant releases. Shutdown of the entire system in response to a specific occurrence is likewise allowable at the operator's discretion. The negative pressure requirement for the Spent Fuel Building is to ensure that all potential releases of radioactive material are drawn into the exhaust system, filtered, and monitored prior to release.

In-place leakage testing of the filters demonstrates their integrity and the DF of the HEPA bank. The laboratory testing of charcoal will demonstrate the suitability for a bank to remain in service as well as provide an estimate of its remaining service life.

The testing required after painting, fire or chemical release, is not to be interpreted to include minor touch-up painting, lighted cigarettes, house-keeping chemicals and detergents, or other similar activities common to the normal routine.

Refueling interval testing will verify the methyl iodide removal efficiency of the charcoal and the amount of leakage past the charcoal and absolute filters are at least equal to the design values. The charcoal adsorber efficiency acceptance criteria is set significantly higher than required so as to assure a DF of 10 will be available to the next test interval.

RANCHO SECO UNIT 1  
TECHNICAL SPECIFICATIONS

Surveillance Standards

4.12 REACTOR BUILDING EMERGENCY FILTERING SYSTEM

Applicability

Applies to testing Reactor Building Emergency air filters.

Objective

To verify that the Reactor Building emergency air filters will perform their design function.

Surveillance Requirements

- 4.12.1 The Reactor Building Emergency Filtering System shall be demonstrated OPERABLE:
- A. OPERABILITY of the fans and associated cooling equipment is demonstrated in Technical Specification 4.5.2.
  - B. At least once per refueling interval, or once every 18 months, whichever occurs first, or after each partial or complete replacement of the HEPA filter bank or charcoal adsorber bank, or following painting, fire, or chemical release in the operating air makeup system by:
    - (1) Verifying within 31 days after removal that a laboratory analysis of a carbon sample from either at least one test canister or carbon sample removed from one of the charcoal adsorbers demonstrates a removal efficiency of  $\geq 85\%$  for radioactive methyl iodide when the sample is tested in accordance with ANSI N509 (130°C, 95% R.H.). The carbon samples shall be prepared by either:
      - (a) Emptying one entire bed from a removed adsorber tray, mixing the adsorbent thoroughly, and obtaining samples at least two inches in diameter and with a length equal to the thickness of the bed.
      - (b) Emptying a longitudinal sample from an adsorber tray, mixing the adsorbent thoroughly, and obtaining samples at least two inches in diameter and with a length equal to the thickness of the bed.
    - (2) Verifying a filter train flow rate of 40,000 cfm  $\pm 10\%$  during system operation when tested in accordance with ANSI N510.
  - C. Verify that the air distribution across the adsorber section is uniform, per ANSI N510, following original installation, modification, or major repair.

RANCHO SECO UNIT 1  
TECHNICAL SPECIFICATIONS

Surveillance Standards

Surveillance Requirements (Continued)

4.12.1 D. Demonstrated operable after every 720 hours of charcoal adsorber operation by:

- (i) Verifying within 31 days after removal that a laboratory analysis of a carbon sample from either at least one test canister or carbon sample removed from one of the charcoal adsorbers demonstrates a removal efficiency of  $\geq 85\%$  for radioactive methyl iodide when the sample is tested in accordance with ANSI N509 (130°C, 95% R.H.). The carbon samples not obtained from test canisters shall be prepared by either:
  - (a) Emptying one entire bed from a removed adsorber tray, mixing the adsorbent thoroughly and obtaining samples at least two inches in diameter and with a length equal to the thickness of the bed.
  - (b) Emptying a longitudinal sample from an adsorber tray, mixing the adsorbent thoroughly and obtaining samples at least two inches in diameter and with a length equal to the thickness of the bed.

Fases

The Reactor Building emergency filters are charcoal adsorbers used post LOCA to remove iodine from the Containment atmosphere. In this application credit was taken for 85% iodine removal efficiency.

In-place filter leakage testing, with refrigerant gas per ANSI N510, is not required for recirculating systems located within reactor containment as long as the adsorbent is sampled and tested per ANSI N509 as described above. Operability is adequately demonstrated in Technical Specification 4.5.2.

The testing required after painting, fire or chemical release, is not to be interpreted to include minor touch-up painting, lighted cigarettes, housekeeping chemicals and detergents, or other similar activities common to the normal routine.

RANCHO SECO UNIT 1  
TECHNICAL SPECIFICATIONS

Surveillance Standards

4.19 AUXILIARY BUILDING GRADE AND MEZZANINE LEVEL FILTER SYSTEM

Applicability

Applies to the Auxiliary Building exhaust filter system which serves the ventilation equipment room at the mezzanine level and the grade level areas containing equipment such as the makeup tank, machine shop and drumming station.

Objective

To verify that the Auxiliary Building grade and mezzanine levels exhaust filter system and its components will be able to perform their design functions.

Specification

4.19.1 Proper operation of this exhaust ventilation system shall be verified:

- A. At least once per month by observing flow through the HEPA filter and charcoal adsorber train and verifying that the train operates with less than 6 inches water gauge pressure drop across the combined HEPA and Charcoal filter banks.
  - 1. Air flow rate through the filter train shall be adjusted to maintain  $19,500 \text{ cfm} \pm 10\%$ .
- B. At least once per refueling interval, or once every 18 months, whichever occurs first, or after each partial or complete replacement of HEPA filter bank or charcoal adsorber bank, or following painting, fire, or chemical release in the operating air makeup system, by:
  - 1. Verifying that the charcoal adsorbers remove  $\geq 99\%$  of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510 while operating the filter train at a flow rate of  $19,500 \text{ cfm} \pm 10\%$ .
  - 2. Verifying that the HEPA filter banks removed  $\geq 99\%$  of the DOP when they are tested in-place in accordance with ANSI N510 while operating the filter train at a flow rate of  $19,500 \text{ cfm} \pm 10\%$ .
  - 3. Verifying within 31 days after removal, that a lab analysis of a carbon sample from at least one test canister or carbon sample removed from one of the charcoal adsorbers demonstrates a removal efficiency of  $\geq 90\%$  for radioactive methyl iodide when the sample is tested in accordance with ANSIN509 (30°C, 95% R.H.). The carbon samples not obtained from test canisters shall be prepared from either:

RANCHO SECO UNIT 1  
TECHNICAL SPECIFICATIONS

Surveillance Standards

Specification (Continued)

- 4.19.1 B. 3. a. Emptying one entire bed from a removed adsorber tray, mixing the adsorbent thoroughly and obtaining samples at least 2 inches in diameter with a length equal to the thickness of the bed, or
- b. Emptying a longitudinal sample from an adsorber tray, mixing the adsorber thoroughly, and obtaining samples at least 2 inches in diameter with a length equal to the thickness of the bed.
- C. Verify that the air distribution across the filter banks is uniform per ANSI N510 following original installation, modification or repair.
- D. Demonstrated operable after every 720 hours of charcoal adsorber operation.
1. Verifying within 31 days after removal that a laboratory analysis of a carbon sample from at least one test canister or carbon sample removed from one of the charcoal adsorbers demonstrates a removal efficiency of  $\geq 90\%$  for radioactive methyl iodide when the sample is tested in accordance with ANSI N509 (30°C, 95% R.H.). The carbon samples not obtained from test canisters shall be prepared from either:
- a. Emptying one entire bed from a removed adsorber tray, mixing the adsorbent thoroughly and obtaining samples at least 2 inches in diameter and with a length equal to the thickness of the bed, or
- b. Emptying a longitudinal sample from an adsorber tray mixing the adsorber thoroughly and obtaining samples at least 2 inches in diameter with a length equal to the thickness of the bed.
2. If an adsorber tray is removed in obtaining the charcoal sample per D.1:
- a. Verify that the charcoal adsorbers remove  $\geq 99\%$  of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510 while operating the filter train at a flow rate of 19,500 cfm  $\pm 10\%$ .

RANCHO SECO UNIT 1  
TECHNICAL SPECIFICATIONS

Surveillance Standards

Specification (Continued)

- 4.19.1 E. If at any time the Auxiliary Building Grade and Mezzanine Levels Filter System is determined to be inoperable, continued reactor operation, at power, is allowable only if the fans supplying the served areas are shut down and the exhaust flow path closed off.

Bases

This unit serves two areas of the Auxiliary Building.

- A. 14,500 cfm is drawn from grade level. This area contains the solid rad-waste drumming station, hot machine shop, Makeup Tank, various rad-waste filters and demineralizers, and access openings to the Auxiliary Building basement, in addition to accumulated contaminated equipment and materials awaiting processing.
- B. 5,000 cfm is drawn from the east end of the +20-foot ventilation equipment room. This area contains no direct source of radioactive materials other than those passing through the other ventilation equipment. These all contain filters and operate at less than atmospheric pressure, except for the filtered discharges. This volume of air is exhausted strictly for ventilation purposes and is not providing hazards control, nor is it assumed in any safety analysis.

The need for the above areas to be exhausted, filtered, and monitored, is strictly based upon the potential for radioactive materials to be present in the ventilated space at grade level. A specific design basis accident, with its companion source term, has not been identified, although a Makeup Tank rupture, as considered for the Auxiliary and Spent Fuel Building Exhaust Filter System, is a likely candidate. Suffice to state that it could be no greater than that used in the design of the Auxiliary Building Exhaust System, A-542, which provides full flow HEPA and Charcoal filtering of building air prior to discharge to the plant vent. Therefore, this unit is to be provided with similar filters and operated to similar leakage and removal efficiency requirements.

Reactor operation with this system inoperable is allowable if steps are taken to assure that any release of radioactive materials would be monitored. Shutdown of the area supply fans while closing off the exhaust flow path will provide this assurance since the Auxiliary Building Exhaust System exhausts the adjacent areas and thus provides the required monitoring.

The testing required after painting, fire or chemical release, is not to be interpreted to include minor touch-up painting, lighted cigarettes, housekeeping chemicals and detergents, or other similar activities common to the normal routine.