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U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

Subject: Beaver Valley Power Station, Unit No. 1 and No. 2
BV-1 Docket No. 50-334, License No. DPR-66
BV-2 Docket No. 50-412, License No. NPF-73
180- Day Response to Generic Letter 2003-01, Control Room Habitability

This letter provides the FirstEnergy Nuclear Operating Company (FENOC) 180-day response for Beaver Valley Power Station (BVPS) Units 1 and 2 to NRC Generic Letter 2003-01 dated June 12, 2003. This Generic Letter was issued to obtain plant-specific information related to the licensing and design bases for control room habitability.

There are two regulatory commitments contained in Attachment 2 of this letter. If you have questions or require additional information, please contact Mr. Larry R Freeland, Manager, Regulatory Affairs/ Performance Improvement at 724-682-5284.

Sincerely,

L. W. Pearce

L. William Pearce

Attachments

c: Mr. T. G. Colburn, NRR Senior Project Manager
Mr. P. C. Cataldo, NRC Sr. Resident Inspector
Mr. H. J. Miller, NRC Region I Administrator

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ATTACHMENT 1

180 Day Response to Generic Letter 2003-01, "Control Room Habitability"

Generic Letter (GL) 2003-01 requested that information on Control Room Habitability issues be provided within 180 days. The Beaver Valley Power Station (BVPS) performed tracer gas testing on the Control Room Envelope (CRE) in May of 2001. This attachment provides the requested 180-day response for the BVPS Unit 1 and Unit 2 CRE. The guidance provided in Regulatory Guide 1.196 was used in assembling this response.

1. **Provide confirmation that your facility's control room meets the applicable habitability regulatory requirements and that the CRHSs are designed, constructed, configured, operated and maintained in accordance with the facility's design and licensing bases.**

The Beaver Valley Control Rooms meet the habitability regulatory requirements of GDC 1, 2, 3, 4, 5 and 19 as described in the UFSARs. The Control Room Habitability Systems (CRHS) at Beaver Valley are designed, constructed, configured, operated and maintained in accordance with the design and licensing basis.

Both control rooms are a positive pressure design and share a common pressure envelope. The control rooms are located at elevation (735'6") and are separated by a partitioned wall that allows access and air flow between the units. The CRE consists of the following areas at elevation 735'6": Unit 1 Control Room, Unit 1 Computer Room, Kitchen and Restroom Facilities, Unit 2 Control Room, Unit 2 HVAC Equipment Room and Unit 2 Computer Room (attached drawing – page 12). The following areas at Unit 1 are located at the 713'6" elevation: Process Rack Room, HVAC Equipment Room (extends from 713'6" to Unit 1 Control Room), and the Communication Equipment Room (attached drawings- pages 13, 14 and 15). In addition, a stairwell from the Unit 1 Control Room to the lower elevation is contained within the envelope.

Design and Construction: The CRE for Beaver Valley Power Station Units 1 and 2 is designed and constructed to ensure that the amount of unfiltered inleakage is below that assumed in the design basis accident (DBA) analyses. All of the ventilation equipment associated with the Control Room Emergency Ventilation System (CREVS) is located within the envelope with the exception of a small portion of the Unit 1 distribution ductwork (supply and return) that passes through the Unit 1 Cable Spreading Room (not in the CRE) at the 725'6" elevation. With the CREVS operating, the supply duct is at a positive pressure with respect to the adjacent space and is not a source of inleakage. The return ducting is at a negative pressure and has been sealed against inleakage. Two sections of normal ventilation return ductwork, which are not part of the CREVS, have been identified as penetrating the CRE. These are not considered a source of inleakage

since they are at a negative or neutral pressure with respect to the CRE. The exhaust for the restroom fan is upstream of the Unit 1 exhaust dampers and isolated from the outside atmosphere when CREVS is initiated. A walkdown of the CRE in October of 2003 did not identify vulnerabilities due to air inleakage from drain loop seals, instrument/service lines or unsealed penetrations.

System Configuration: The Unit 1 and Unit 2 CREVS are configured in accordance with the facilities design and licensing basis. The CREVS are independent and physically separate. The Unit 1 CREVS consists of two series arranged outdoor air intake dampers and two series outdoor air exhaust dampers. The dampers have bladders that are inflated to seal in the closed position and minimize leakage. Air for the dampers is provided by an independent control air system that is located within the CRE. Upon initiation, the four outdoor air intake and exhaust dampers close. A normally closed 10" butterfly valve is manually opened and 1 of 2 emergency supply pressurization fans is manually started. Outside air is drawn in through the butterfly valve, across an electric heater and discharged through an emergency ventilation filter bank consisting of a prefilter, a charcoal filter and a HEPA filter (refer to UFSAR figure 9.13-2 –Control Room Area – Air Conditioning).

The Unit 2 CREVS also consists of two series arranged outside air intake dampers and two series exhaust dampers. These dampers are a low leakage design and do not contain bladders. Upon initiation, the outside air intake dampers close (exhaust dampers are normally closed). One of two parallel emergency supply fan intake dampers open and outside air is drawn in by 1 of 2 emergency supply pressurization fans through 1 of 2 emergency filter assemblies consisting of a moisture separator, an electric heater, a charcoal filter, and 2 HEPA filters (refer to UFSAR figure 9.4-1- Computer and Control Room Air-Conditioning and Ventilation System).

The Unit 1 CREVS is a manually operated backup system and is only used in the unlikely event that both trains of the Unit 2 CREVS are unavailable. An allowance of 30 minutes has been assumed in the CRH analyses for Unit 1 to provide for this manual operator action. The Unit 1 emergency supply pressurization fans are maintained in "stop" and the Unit 2 emergency supply pressurization fans are maintained in "automatic".

System Operation: The BVPS normal operating procedures ensure that the control room ventilation systems are operated in accordance with the design and licensing basis to limit the amount of unfiltered intake to less than that assumed in the DBA analyses. The normal operating procedures align the ventilation systems for both units in the recirculation mode. A maximum of 500 cfm of unfiltered outside air is drawn in by both units' control room air conditioning systems and mixed with the recirculated air. Manual dampers are set to limit the intake at Unit 1 to 300 cfm and 200 cfm at Unit 2.

The BVPS Emergency Operating Procedures (EOPs) and the Abnormal Operating Procedures (AOPs) ensure that the CREVS are operated in accordance with the design and licensing basis to limit the amount of filtered intake to less than that assumed in the DBA analyses. When operating in the CREVS mode, the emergency ventilation fan draws less than the 1030 cfm of filtered intake assumed in the analyses. The EOPs direct the initiation of CREVS in less than 30 minutes for a main steam line break (MSLB) at either unit. The EOPs/AOPs also require a purge of the control room following a MSLB at either unit or a fuel handling accident (FHA) at Unit 1. Procedures exist for purging the control rooms following a radiological, toxic gas or smoke event. Procedural guidance also exists for isolating the control room for an external fire or toxic gas event. Restoration of the ventilation systems following isolation is controlled and performed by procedure (Post Control Room Habitability System Actuation/Recovery).

Re-alignment of normal or emergency ventilation systems to adjacent spaces for the purpose of maintaining control room habitability is not required. The emergency ventilation system that directly communicates with spaces adjacent to the CRE is the Unit 2 control building ventilation. Because this system is always in operation and supplied with emergency power it would be unaffected by a Loss of Offsite Power (LOOP). The Unit 1 normal switchgear ventilation system is normally operating and supplies ventilation to the Unit 1 Cable Spreading Room and to areas adjacent to the Process Rack Room (elev. 713'6"). During a LOOP, these adjacent areas would become neutral due to the loss of normal ventilation and the lack of emergency ventilation into these areas. The normal switchgear ventilation system was in operation during the tracer gas tests in May of 2001 and the CRE was positive with respect to these areas during the pressurization tests. A review of the normal, abnormal and emergency procedures did not identify any actions that would affect the integrity of the CRE.

The Unit 1 and Unit 2 CREVS lineups and operability assumptions assumed in the analyses are enforced by the plant technical specifications and supporting surveillance testing. The following parameters are tested on an 18 month frequency: system flow rate, heater capabilities, filter bank pressure drop, HEPA filter efficiency, and charcoal filter iodine efficiency. Actuation of CREVS on a Containment Isolation Phase B/Control Room High Radiation test signal is verified on an 18 month frequency. Setpoints for the control room radiation monitors that generate isolation signals for CREVS are verified every refueling outage.

System Maintenance: Maintenance of the CRE consists of maintenance of components and penetrations. Because nearly all the ventilation equipment is contained within the CRE, the only components that form part of the boundary are the series intake and exhaust dampers at each unit. Component testing has been performed on the series intake dampers at both units. During the tracer gas tests in 2001, two of the intake dampers exhibited leakage (which was subsequently corrected) due to a differential pressure

across them created by the control room air conditioning units. Test connections have been installed between the intake dampers to permit future leakage testing.

Maintenance of penetrations is controlled by administrative procedures (Control Room Pressure Boundary Control and Control of Penetrations-Including High Energy Line Break Doors) and a Plant Installation Process Standard (Penetration Seals). These procedures/standards apply to temporary and permanent seals. Instructions and controls for monitoring and restoring a breach are added to work instructions that could potentially affect the CRE integrity. Breaching of any seal in the CRE requires approval of the Shift Manager. Breaches are monitored to ensure that the sum of all breaches does not exceed the maximum allowable area. Ductwork/access panel removal is permitted if reinstallation or closure of the breach can be established within 10 minutes. The work supervisor ensures that adequate controls (i.e. compensatory actions) are in place to close the breach if necessary. Quality Control independently verifies proper installation of all control room boundary temporary and permanent seals.

Design control procedures evaluate permanent Engineering Changes and Temporary Modifications for any potential impact on the CRE. The Engineering Change Process (ECP) addresses control room habitability. Potential changes external to the CRE (e.g. radiological release path, addition of toxic gases, etc.) as well as changes within the CRE (e.g. change in boundary, addition of heat load, etc.) are screened and evaluated. Changes to ventilation systems adjacent to the CRE are not specifically addressed, however, Design Engineering has performed an evaluation of the change process in effect since the tracer gas tests and determined that potential impacts to the CRE were adequately addressed. The ECP evaluation process will be enhanced with the addition of an impact statement to evaluate changes to adjacent area ventilation systems for potential affect on the CRE.

Condition Reports and Corrective Actions associated with control room habitability (System 44A) were reviewed and found to be effective in identifying and resolving equipment and design discrepancies related to control room habitability.

1 (a). That the most limiting unfiltered inleakage into your CRE (and the filtered inleakage if applicable) is no more that the value assumed in your design basis radiological analyses for control room habitability. Describe how and when you performed the analyses, test, and measurements for this confirmation.

There are 5 design basis accidents that credit operability of the CREVS. These are the Loss of Coolant Accident (LOCA- Unit 1/2), Main Steam Line Break (MSLB- Unit 1/2), Control Rod Ejection Accident (CREA-Unit 1/2), Reactor Coolant Pump Locked Rotor Accident (LRA-Unit 1) and the Fuel Handling Accident (FHA-Unit 1). The LOCA,

CREA and FHA for both units have been analyzed using Alternate Source Term (AST) methodology. For the AST analyses, the unfiltered inleakage into the CRE is assumed to be 30 cfm. The MSLB and the LRA are currently analyzed using the original source term and the unfiltered inleakage is assumed to be 10 cfm. The most limiting design basis radiological accident for control room habitability for the BVPS is the Unit 1 Main Steam Line Break outside of containment due to the application of Alternate Repair Criteria to the Unit 1 steam generators. As a result, the most limiting unfiltered inleakage into the CRE is currently 10 cfm. BVPS plans on replacing the Unit-1 steam generators in 2006. At that time, AST will be applied to the MSLB and the LRA as part of the extended power uprate and the limiting DBA for control room habitability will become the LOCA.

A qualified vendor performed tracer gas testing of the CRE at BVPS in May of 2001. The procedures used were in accordance with the methodology described in ASTM Standard E741-95. Sulfur hexaflouride (SF6) was used as the tracer gas. Portable fans were used to mix the CRE supply air to ensure a uniform distribution of the gas. During the test, ingress and egress to the control room took place. Ventilation in the adjacent spaces was in normal system alignment. Air inleakage into the CRE was measured using the Unit 1 CREVS operating in the pressurization mode, the Unit 2 CREVS operating in the pressurization mode, and in the recirculation mode with neither CREVS system in operation. The testing sequence was as follows:

1. Individual component testing was performed on the sealed ductwork within the CRE that could potentially contribute to unfiltered inleakage into the CRE. The return duct to the lower elevation was tested and showed inleakage of <2.3 scfm. A section of the Unit 1 makeup ductwork located downstream of the fans and upstream of the filters showed outleakage of 1.2 +/- 0.2 scfm.

2. A scoping test was performed next, to verify test equipment set-up and proper CRE air mixing.

3. Test 1 consisted of an integrated tracer gas inleakage test in the pressurization mode on the CRE using the Unit 2 control room emergency supply fan (B train) with the lowest pressurization flow. The results indicated 0 scfm air inleakage into the CRE.

4. Test 2 consisted of an integrated tracer gas inleakage test in the pressurization mode on the CRE using the Unit 1 control room emergency supply fan (B train) with the lowest pressurization flow. The results indicated a 35 scfm air inleakage value which exceeded the limit of 10 cfm. The inleakage of 35 scfm was attributed to intake damper leakage. These dampers were subsequently repaired and component tested.

5. Test 3 consisted of an integrated tracer gas inleakage test on the CRE in the recirculation mode with the control room isolated and the Unit 1 and Unit 2 control

room emergency supply fans stopped (i.e. neutral pressure). Only the normal ventilation fan and air conditioning units were operating to recirculate the control room air. The results indicated a 267 cfm air inleakage value. This test verified that the inleakage was less than the limiting value of 310 cfm assumed for a post-DBA alignment for Unit 1 when no emergency ventilation system is operating. This inleakage value is assumed in the DBA analyses during the period allocated for manual operator actions to start the BV-1 CREVS fan. This test result would likely have improved as a result of repairs that were subsequently made to the intake dampers that were identified as the primary source of inleakage in Test 2.

6. The last testing evolution was individual component testing of the Unit 1 and Unit 2 ventilation intake dampers. Two of the series intake dampers (Unit 1 inside and Unit 2 outside) tested at zero inleakage and two intake dampers (Unit 1 outside and Unit 2 inside) tested at approximately 60 scfm inleakage. Because one of each of the series dampers exhibited zero leakage, the total leakage found in Test 2 is less than the amount found during the individual component testing.

   The vendor attributed the inleakage during Test 2, to leakage past the intake dampers. The executive summary of the vendor Final Report stated that: "Note that substantially all of the leakage measured in...Test 2 is due to leakage across the normal mode isolation dampers. Those dampers should be repaired. If the repair is successful as confirmed by a pressure decay test showing 'essentially zero' bypass leakage, CRE inleakage at BVPS will be reduced to a value of less than 10 CFM when operating the CREVS in the Pressurization Mode since no other sources of significant inleakage were discovered."

   The intake dampers were repaired, adjusted and test connections were installed in the ducting to test the dampers. Subsequent decay pressure testing of the intake dampers after rework resulted in a maximum of 0.26 scfm leakage from the Unit 2 intake dampers and 1.45 scfm leakage from the Unit 1 intake dampers. The values are conservative because the test pressures (10 " wg) exceeded the differential pressures (0.97" wg and 0.47" wg) measured across the dampers in the post-DBA configuration used in the tracer gas tests. The preventative maintenance procedure for the intake dampers was subsequently revised to require an acceptance criteria of <0.333 scfm at >2.5 inches wg for each set of dampers for future testing.

   The maximum total identified inleakage for all the components and ductwork tested was 5.41 scfm (2.3 return duct, 1.4 makeup duct, 0.26 -Unit 2 intake dampers and 1.45 -Unit 1 intake dampers). The total allowance for CRE inleakage in the current bounding MSLB analyses is 10 cfm. The tracer gas testing in 2001 confirmed that the total inleakage (including ingress/egress) is within this limit.

1(b). That the most limiting unfiltered inleakage into your CRE is incorporated into your hazardous chemical assessments. This inleakage may differ from the value assumed in your design basis radiological analyses. Also, confirm that the reactor control capability is maintained from either the control room or the alternate shutdown panel in the event of smoke.

Hazardous Chemicals

Unfiltered inleakage is not specifically incorporated into the hazardous chemical assessment because toxic gases are not considered to be a threat based on hazard screening performed on chemicals stored onsite or transported near the Beaver Valley Power Station. A 1981 study, entitled Control Room Habitability Study for Beaver Valley Power Stations Units 1 and 2, was conducted to determine the susceptibility of Beaver Valley Power Stations Unit 1 and 2 to toxic gases. The study concluded that the only chemical requiring monitoring is chlorine. Onsite sources of chlorine gas have since been eliminated. The study also estimated that the total probability from all other potential chemical release sources, that could result in an unacceptable exposure, to be 7×10^{-7} per reactor-year which is less than the NUREG-1407 criterion of 1×10^{-6} per reactor-year. This study was re-evaluated in the year 2000 as part of Generic Letter 88-20 (Individual Plant Examination of External Events submittal) with the same conclusions, and the staff documented their review of the IPEEE in their report dated 12/11/2000 (ref. TAC NOS. M83590 and M83591).

Beaver Valley Power Station monitors for onsite and offsite sources of chemicals. Per procedure (Chemicals and Hazardous Materials Management), potential sources of onsite hazardous chemicals are reviewed on a routine basis via the Material Safety Data Sheet program. Chemicals are screened before they are brought on site to the following criteria: >100 pounds per container, and the potential to form a toxic cloud that has not been previously reviewed for impacts on Control Room Habitability. For any chemical that meets these criteria, Design Engineering performs an evaluation for potential impact on Control Room Habitability and the evaluation is documented in the Corrective Action program.

Potential sources of offsite hazardous chemicals are reviewed on an annual basis in accordance with BVPS procedure (Environmental Spill and Release Preparedness, Prevention and Response). A letter is submitted annually to the Beaver County Local Emergency Planning Committee requesting information on newly reported chemicals near BVPS. Identified sources are screened for impacts on Control Room Habitability. The most recent hazardous chemical review was completed on May 17, 2003.

In the unlikely event of a toxic gas release, BVPS procedure (Toxic Gas Release) would be entered if the control room received a report of either an onsite or offsite toxic gas

release. This procedure requires sounding the standby alarm and announcing the release (or potential release) and its location on the site public address system. If a possible threat to the control room is indicated, the control room is isolated. To limit the amount of intake, the emergency supply fans are verified to be stopped.

As an alternative measure, in the event the control room operators need to don self-contained breathing apparatus, they are provisioned per procedure using the guidance of Regulatory Guide 1.78, "Assumptions for Evaluating the Habitability of a Nuclear Power Plant Control Room During a Postulated Hazardous Chemical Release". When the outside air has cleared, purging toxic gas from the control room is performed using the appropriate procedure.

Smoke Events

Beaver Valley Units 1 and 2 have the capability of safely shutting down the plant from either the Control Room or remote shutdown locations. At Unit 1, the Emergency Shutdown Panel or the Back-up Indicating Panel (BIP) can be used. At Unit 2, the Emergency Shutdown Panel or the Alternate Shutdown Panel (ASP) can be used in the event of smoke in the CRE from either an internal or external source.

Internal Fire in the Control Room or within the Control Room Envelope

The control rooms are constantly manned and any smoke event in the control room would be detected by the staff or annunciated by the control room smoke detectors.

Unit 1- All areas of the CRE share a common ventilation system. Smoke events outside of the control room, but within the CRE (control room, computer room, kitchen and restroom facilities, stairwell to lower level, communication equipment room, HVAC room and process racks area) would be annunciated in the control room. Zone smoke dampers would be manually closed to isolate the affected area. If evacuation of the control room were required, manual isolation of the main control room would prevent smoke from affecting the area of the Emergency Shutdown Panel, which is located within the CRE two floors below the control room. If the Emergency Shutdown Panel were inaccessible, then shutdown of the plant would be performed in accordance with the applicable procedure (Alternate Safe Shutdown From Outside Control Room).

Unit 2- Because the CRE consists of only 2 areas (control room/computer room and adjacent HVAC room), zone isolation is not required. The Emergency Shutdown Panel, located two floors below the control room, is not located within the CRE. A fire in the control room or the HVAC room would not directly affect the Emergency Shutdown Panel since the area of the Emergency Shutdown Panel is supplied by a separate ventilation system. If the Emergency Shutdown Panel were inaccessible, shutdown of the

plant would be performed in accordance with the applicable procedure (Alternate Safe Shutdown from Outside Control Room).

The Unit 1 and Unit 2 control rooms are 'common control rooms' adjoined with access between them. As a result, there are 4 exit doors that open to various areas outside the CRE. This allows for alternate egress paths to the emergency or alternate shutdown panels for each unit.

Purging of smoke from either control room is performed per procedure (Purging Smoke or Toxic Gases from the Control Room) by manually positioning the outdoor, recirculation, and exhaust dampers and running the Unit 2 system on a 100 percent outdoor air supply and 100 percent exhaust mode. If a fire renders the Unit 2 purge ventilation fans inoperable, other methods of smoke removal are available. The Unit 1 ventilation system, which is completely separate from the Unit 2 system, can be utilized. If additional smoke removal is required, the exit doors to the outside can be opened for natural ventilation. If further ventilation is necessary, portable ventilation fans can be utilized per procedure (Setting Up Portable Ventilation). These fans are part of the fire brigade equipment inventory.

External Fire outside the Control Room Envelope and subsequent smoke event

Normal system arrangement for both units' control room ventilation systems is the recirculation mode. A maximum of 500 cfm of outside air is drawn in through the outside air make-up. Smoke from a source external to the CRE could be drawn into the control room. A smoke detection system is provided in the Unit 2 air intake for the control room area that would alarm locally and annunciate in the control room. The intakes for each BVPS Unit control room are within 50 feet of each other at approximately the same elevation (U1- 735-ft, U2- 746-ft) and located on the same side of the control room building. An external smoke event would affect both intakes. Due to the low air turnover rate (500 cfm in a volume of 173,000 cu. ft. for the CRE) the operators would have sufficient time to evaluate the situation and take appropriate action. Intake dampers would be manually closed and the air-conditioning system would continue to run on 100 percent recirculation air. With the dampers closed, a maximum of 310 cfm of unfiltered air would be drawn into the CRE.

1(c). That your technical specifications verify the integrity of the CRE, and the assumed inleakage rates of potentially contaminated air. If you currently have a ΔP surveillance requirement to demonstrate CRE integrity, provide the basis for your conclusion that it remains adequate to demonstrate CRE integrity in light of the ASTM E741 testing results. If you conclude that your ΔP surveillance requirement is no longer adequate, provide a schedule for: 1) revising the surveillance requirement in your technical specification to reference an acceptable surveillance methodology (e.g. ASTM E741), and 2) making any modifications to your CRE so that compliance with your new surveillance requirement can be demonstrated.

Technical Specifications for both control rooms require that the ventilation system "maintains the control room at a positive pressure of ≥ 1/8 inch Water Gauge relative to the outside atmosphere". The licensing basis also requires that a positive pressure be maintained between the CRE and adjacent spaces. The Technical Specification is met by surveillance testing (Control Room Emergency Supply Fan Pressurization Test) on an 18 month frequency. Acceptance criteria for the surveillance test requires that the main control room pressure is ≥ 1/8 inch wg above outside atmosphere. The surveillance also tests that the CRE is at a positive pressure with respect to adjacent spaces that have points of ingress/egress. During the tracer gas testing in May of 2001, some areas of the CRE were identified as being at a negative pressure with respect to adjacent spaces. The final report stated that "this negative differential pressure did not appear to engender inleakage in the respective areas. No indication of inleakage was apparent in the measured tracer gas concentration data". Because the DBA radiological analyses for both BVPS Units are based on unfiltered inleakage and not on the degree of positive pressure between the CRE and adjacent spaces, Beaver Valley is in conformance with GDC 19.

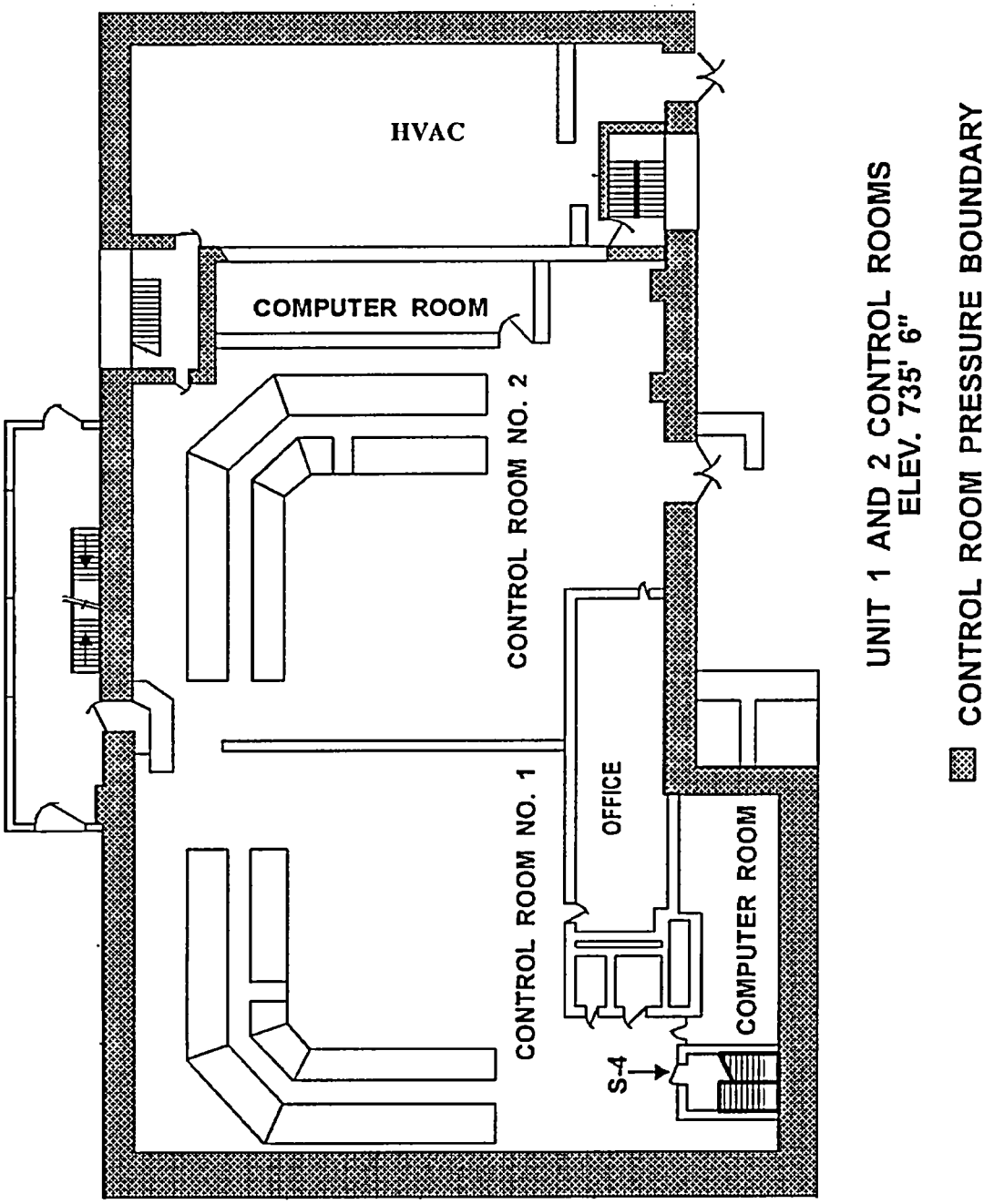
Based on the industry recognition of the inadequacy of the ΔP test alone to be a sufficient measure of CRE inleakage, Beaver Valley will submit a License Amendment Request (LAR) to propose revisions to the Technical Specification surveillance requirements on both BVPS units to utilize a more direct measurement method (i.e. leak rate test) to verify CRE integrity and a periodic verification that a positive pressure is maintained between the CRE and adjacent areas with the CREVS in operation. A LAR will be submitted within 180 days of the Generic Letter 2003-01 response. Also, in accordance with guidance provided in R.G. 1.197, an assessment of control room habitability will be initiated by the end of May 2004, which is three years following the completion of the initial CRE tracer gas test in May of 2001. The Corrective Action program will track these actions.

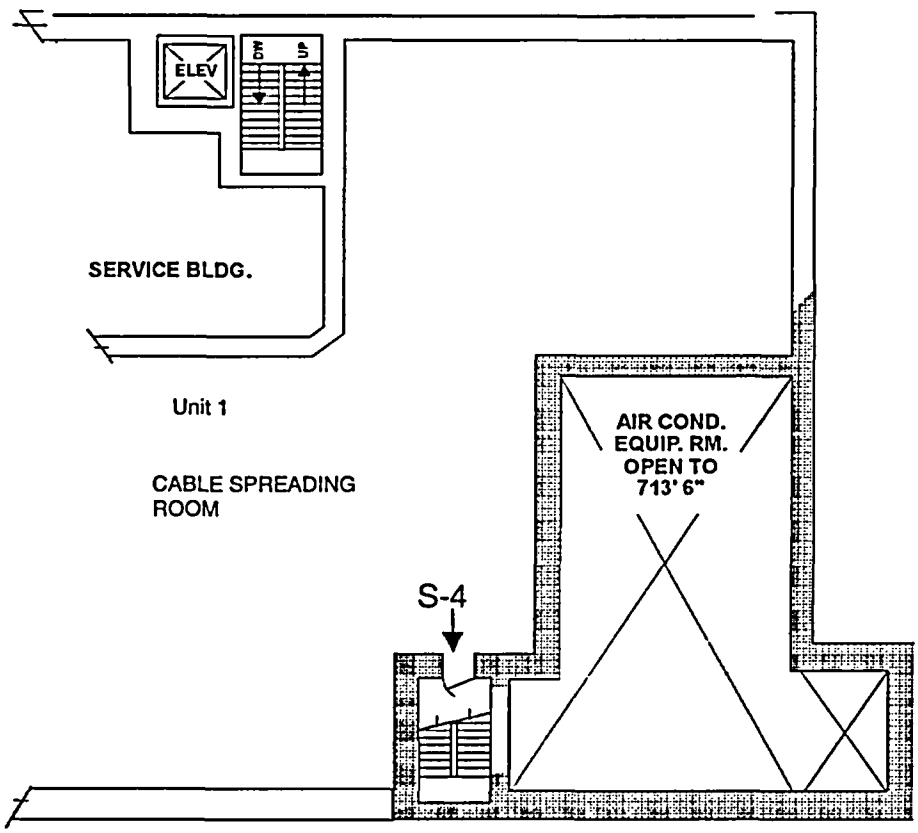
2. **If you currently use compensatory measures to demonstrate control room habitability, describe the compensatory measures at your facility and the corrective actions needed to retire these compensatory measures.**

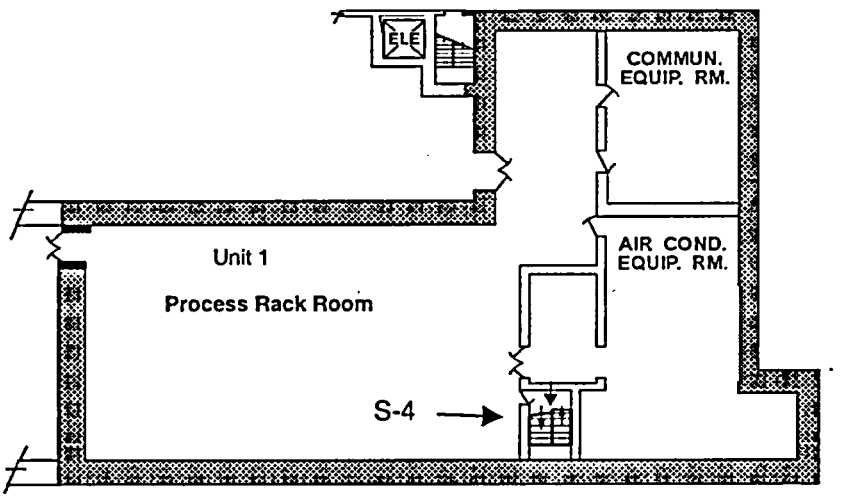
There are no compensatory measures in effect at Beaver Valley with regards to control room habitability.

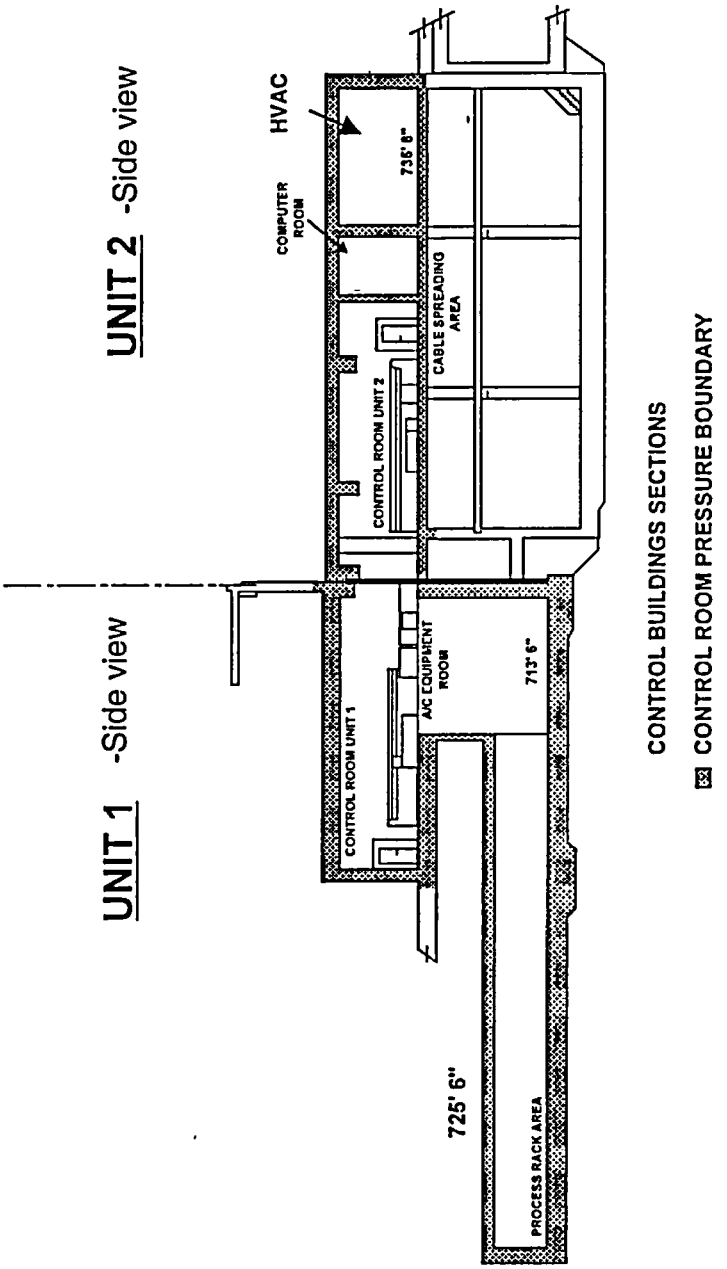
3. **If you believe that your facility is not required to meet either the GDC, the draft GDC, or the "Principal Design Criteria" regarding control room habitability, in addition to responding to 1 and 2 above, provide documentation (e.g. Preliminary Safety Analysis Report, Final Safety Analysis Report sections, or correspondence) of the basis for this conclusion and identify your actual requirements.**

This does not apply to Beaver Valley. (See response to question 1).


HVAC
COMPUTER ROOM
CONTROL ROOM NO. 2
CONTROL ROOM NO. 1
OFFICE
COMPUTER ROOM
S-4
UNIT 1 AND 2 CONTROL ROOMS
ELEV. 735' 6"
CONTROL ROOM PRESSURE BOUNDARY
N


ELEV
SERVICE BLDG.
Unit 1
CABLE SPREADING ROOM
AIR COND. EQUIP. RM. OPEN TO 713' 6"
S-4
CONTROL ROOM PRESSURE BOUNDARY
ELEV. 725' 6"
N


ELE
COMMUN. EQUIP. RM.
AIR COND. EQUIP. RM.
Unit 1
Process Rack Room
S-4
CONTROL ROOM PRESSURE BOUNDARY
EL 713'6"
N


UNIT 2 -Side view
HVAC
COMPUTER ROOM
735' 8"
CABLE SPREADING AREA
CONTROL ROOM UNIT 2
UNIT 1 -Side view
CONTROL ROOM UNIT 1
A/C EQUIPMENT ROOM
713' 6"
725' 6"
PROCESS RACK AREA
CONTROL BUILDINGS SECTIONS
CONTROL ROOM PRESSURE BOUNDARY

ATTACHMENT 2

Commitment List

The following list identifies those actions committed to by FirstEnergy Nuclear Operating Company (FENOC) for Beaver Valley Power Station (BVPS) Unit Nos. 1 and 2 in this document. Any other actions discussed in the submittal represent intended or planned actions by Beaver Valley. These other actions are described only as information and are not regulatory commitments. Please notify Mr. Larry R. Freeland, Manager, Regulatory Affairs/Performance Improvement, at Beaver Valley on (724) 682-5284 of any questions regarding this document or associated regulatory commitments.

Commitment	Due Date
Submit a License Amendment Request to propose revisions to the Technical Specification surveillance requirements on both BVPS units to utilize a more direct measurement method (i.e. leak rate test) to verify Control Room Envelope integrity and a periodic verification that a positive pressure is maintained between the Control Room Envelope and adjacent areas with the Control Room Emergency Ventilation System in operation.	Within 180 days of the submittal date of the response to Generic Letter 2003-01.
Initiate an assessment of control room habitability.	May 31, 2004.