

JAFP-20-0047

June 30, 2020

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

James A. FitzPatrick Nuclear Power Plant
Renewed Facility Operating License No. DPR-59
NRC Docket No. 50-333

SUBJECT: License Amendment Request – Application to Modify Technical Specifications 3.6.1.3, “Primary Containment Isolation Valves”

Pursuant to 10 CFR 50.90, "Application for amendment of license, construction permit, or early site permit," Exelon Generation Company, LLC (Exelon) is requesting approval for proposed changes to the Technical Specifications (TS), Appendix A of Renewed Facility Operating License No. DPR-59 for the James A. FitzPatrick Nuclear Power Plant.

Specifically, Exelon requests to revise the containment venting flow path as described in Surveillance Requirement (SR) 3.6.1.3.1.

Attachment 1 provides a description and assessment of the proposed change. Attachment 2 provides the existing TS page marked to show the proposed change. Attachment 3 provides the existing TS Bases page marked to show revised text associated with the proposed TS changes and is provided for information only. Attachment 4 provides revised (clean) TS pages. Attachment 5 provides a one-line diagram of the current line up and proposed change.

The proposed changes have been reviewed by the Plant Operations Review Committee and approved by the Nuclear Safety Review Board in accordance with the requirements of the Exelon Quality Assurance Program.

Exelon requests approval of the proposed amendments by June 30, 2021. Once approved, the amendments shall be implemented within 60 days.

There are no new commitments contained in this submittal.

Pursuant to 10 CFR 50.91 (b)(1), a copy of this License Amendment Request is being provided to the designated New York State official.

License Amendment Request
to Modify the Containment Venting Flow Path
June 30, 2020
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Should you have any questions concerning this letter, please contact Mr. Enrique Villar at (610) 765-5736.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 30th day of June 2020.

Respectfully,

David T. Gudger

David T. Gudger
Senior Manager, Licensing
Exelon Generation Company, LLC

- Attachments:
1. Evaluation of proposed changes
 2. Markup of proposed Technical Specifications Page
 3. Markup of proposed Technical Specifications Bases Page
(For Information Only)
 4. Revised (clean) TS Pages
 5. One-line Diagram

cc: Regional Administrator – NRC Region I
NRC Senior Resident Inspector – JAF
NRC Project Manager, NRR – JAF
A. L. Peterson, NYSERDA

w/ attachments
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ATTACHMENT 1

James A. FitzPatrick Nuclear Power Plant Renewed Facility Operating License No. DPR-59 NRC Docket No. 50-333

Evaluation of Proposed Changes

Subject: License Amendment Request –To Modify the Containment Venting Flow Path as Described in Surveillance Requirement (SR) 3.6.1.3.1.

- 1.0 SUMMARY DESCRIPTION**
- 2.0 DETAILED DESCRIPTION**
- 3.0 TECHNICAL EVALUATION**
- 4.0 REGULATORY EVALUATION**
 - 4.1 Applicable Regulatory Requirements/Criteria**
 - 4.2 Precedent**
 - 4.3 No Significant Hazards Consideration**
 - 4.4 Conclusions**
- 5.0 ENVIRONMENTAL CONSIDERATION**
- 6.0 REFERENCES**

1.0 SUMMARY DESCRIPTION

Pursuant to 10 CFR 50.90, "Application for amendment of license, construction permit, or early site permit," Exelon Generation Company, LLC (Exelon) proposes changes to the Technical Specifications (TS), Appendix A, of Renewed Facility Operating License No. DPR-59 for James FitzPatrick Nuclear Power Plant (JAF).

2.0 DETAILED DESCRIPTION

Currently the Technical Specifications (TS) Surveillance Requirement (SR) 3.6.1.3.1 Note states:

*-----Note-----
Not required to be met when the 20 inch and 24 inch primary containment vent and purge valves are open for inerting, de-inerting, pressure control, ALARA or air quality considerations for personnel entry, or Surveillances that require the valves to be open, provided the full-flow line to Standby Gas Treatment (SGT) System is closed and one or more SGT System reactor building suction valves are open."*

The proposed change is to continue to align the containment vent path through the 6-inch pathway but closing the SGT reactor building suction valves. While the flow through the SGT system remains approximately the same, the new proposed lineup would route flow from the primary containment only thereby reducing the containment venting time by half.

The proposed amendment request proposes to modify the Note as follows:

*-----Note-----
"Not required to be met when the 20 inch and 24 inch primary containment vent and purge valves are open for inerting, de-inerting, pressure control, ALARA or air quality considerations for personnel entry, or Surveillances that require the valves to be open, provided the full-flow line to Standby Gas Treatment (SGT) System is closed."*

3.0 TECHNICAL EVALUATION

Background

The current method for inerting and de-inerting the containment atmosphere is time consuming due to inefficient flow from the containment to SGT System. The existing approach for inerting/de-inerting is to align the containment with the SGT system through the 6-inch pathway while maintaining an open flow path between the Reactor Building and the SGT HEPA filters. This line up is consistent with the language contained in the JAF TS SR 3.6.1.3.1 Note.

Paragraph 50.36(c)(2)(ii) of Title 10 of the Code of Federal Regulations (10 CFR) requires that a TS Limiting Condition for Operation (LCO) be established for each item meeting one or more of four specified criteria (Ref. 1). Criterion 2 of 10 CFR 50.36(c)(2)(ii) states:

“A process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.”

The existing operating restriction (Criterion 2) requires maintaining an open flow path between the Reactor Building and the SGT HEPA filters for containment venting:

“Not required to be met when the 20 inch and 24 inch primary containment vent and purge valves are open for inerting, de-inerting, pressure control, ALARA or air quality considerations for personnel entry, or Surveillances that require the valves to be open, provided the full-flow line to Standby Gas Treatment (SGT) System is closed and one or more SGT System reactor building suction valves are open.”

Of the applicable acceptance criteria, the RB suction valve position (operating) restriction is a product of the potential overpressurization (displacement) of the SGT System demister loop seals should a Loss of Coolant Accident occur during containment venting.

As demonstrated below, Exelon has determined that after reanalysis, this Criterion 2 operating restriction would no longer be required as the pressure does not exceed the demister loop seal length. There is no impact to the design basis function of the Reactor Building Suction valves to open upon receipt of a safety signal. Therefore, the proposed change deletes the associated requirement from the technical specifications. A preventative maintenance (PM) activity will be instituted to ensure the demister loop seals remain full.

Description of SGT System

The SGT System is designed to limit the release of radioactive material to the environment such that the offsite dose from a postulated Design Basis Accident (DBA) is within the limits of Title 10 of the *Code of Federal Regulations* (10 CFR), Part 100. During normal plant operation, the SGT System treats potential radioactive gases prior to discharge to the environment. The combined exhaust from the SGT and other plant systems during normal operation is designed such that the offsite dose is within the limits of 10CFR20. This function is accomplished with two 100% redundant SGT air filtration trains. Each filter train is physically and electrically independent. Each train consists of a demister, an electric heating coil, a prefilter, a High Efficiency Particulate Air (HEPA) prefilter, an activated charcoal absorber, a HEPA after-filter, and an exhaust fan.

The SGT System starts automatically upon occurrence of any of the following signals:

1. A high radiation signal from either one of two Reactor Building ventilation exhaust radiation monitors.
2. A high radiation signal from either one of two refueling floor ventilation exhaust radiation monitors.
3. High Drywell pressure or low reactor water level (same as Reactor Building isolation).
4. A High-Pressure Coolant Injection (HPCI) Initiation Signal

The operating modes of the SGT System for various plant operating conditions are provided below:

Normal Conditions

- Containment atmosphere filtering during deinerting and inerting.
- Below refueling floor ventilation exhaust filtering
- Refueling floor ventilation exhaust filtering
- Secondary Containment leak

Testing Accident Conditions

- Below refueling floor ventilation exhaust filtering
- Refueling floor ventilation exhaust filtering
- Secondary Containment exhaust filtering
- High Pressure Coolant Injection (HPCI) System exhaust filtering
- Primary Containment Atmosphere Control and Dilution System (PCACD) exhaust filtering

Technical Evaluation

The technical evaluation in this license amendment request addresses the valve lineup requirements for containment atmosphere filtering during normal plant operating conditions.

The primary containment is inerted with nitrogen to maintain low oxygen concentrations during normal plant operations. Containment inerting is normally achieved by first supplying nitrogen to the torus until the required oxygen concentration is achieved. Once the torus is inerted, nitrogen is supplied to the drywell until the required oxygen concentration is achieved. Additional nitrogen is then supplied to the drywell until the required drywell to torus differential pressure is achieved. During the containment inerting process, the gas purged from the torus and drywell is processed by the SGT System prior to being exhausted to the atmosphere.

During the containment deinerting process, fresh air is supplied to the containment with a vent and purge supply fan and the containment gas is processed by the SGT System prior to being exhausted to the atmosphere. The drywell and torus at JAF vent through parallel pipelines containing redundant Primary Containment Isolation Valves (PCIVs). A 2" bypass is provided around the PCIVs for controlling containment atmosphere through use of redundant MOVs. Downstream of the outboard PCIVs, the drywell (24-inch) and Torus (20-inch) pipelines are connected to a common pipeline to direct the containment atmosphere to the SGT System for treatment and discharge via the main stack. Prior to reaching the SGT RB Suction Valves and the SGT filter train, the flow path branches to parallel 6-inch and 12-inch pipelines containing isolation valves. The 6-inch pathway is used during Modes 1, 2, and 3 to:

- (1) Provide the primary flow path for containment atmosphere maintenance during normal plant operation and
- (2) Prevent overpressurization of the SGT System when the 20-inch and/or 24-inch PCIVs are open for containment venting.

The current method for containment venting is time consuming due to inefficient flow from the containment to SGT System. The existing approach for containment venting is to align the containment with the SGT system through the 6-inch pathway while maintaining an open flow path between the Reactor Building and the SGT HEPA filters (Attachment 5, Figure 1). This restriction is noted in JAF Technical Specification (TS) Section 3.6.1.3. The proposed change is to vent the containment with the SGT reactor building suction valves closed instead of open (Attachment 5, Figure 2). While the flow through the SGT system remains approximately the same, the new proposed lineup would route flow from the primary containment only thereby reducing the containment venting time by half.

Evaluation of Proposed Change

To maintain design basis functions discussed above in the “Description of the SGT System”, the design basis calculation of record, JAF-CALC-SGT-03102, evaluated that the SGT System can withstand the LOCA-induced loads during the brief periods of containment venting. The calculation includes the following cases:

1. Case 1 considers the current operating valve lineup in which 01-125 MOV-12 is open when Standby Gas Treatment System (SGTS) Train B is operating, i.e., at the time a LOCA is postulated to occur. See Attachment 5, Figure 1.
2. Case 2 considers 01-125-MOV-12 to be closed at the time a LOCA occurs, and to open subsequent to the LOCA. See Attachment 5, Figure 2.

The calculation acceptance criterion, stated in the Table below, were established based on the critical components of the SGT System and the Reactor Building. Within the original analysis, using the 6-inch line for containment venting with an initially closed Reactor Building Supply flowpath, resulted in overpressurized (displaced) demister loop seals.

In pursuit of using the Case 2 operational alignment (Attachment 1, Figure 2), the original analysis was reviewed to identify Case 2 analysis refinements which may eliminate or reduce the potential for a field modification to the demister loop seals. The following details are refinements to the Case 2 analysis:

- The original calculation was evaluated in RELAP5/MOD 3.2.1. The reanalysis was performed in the more recent RELAP/MOD3.3 version. This is typical industry practice as the latest version which includes enhancements for discovered code errors and other experimental baselining.
- All the assumptions and inputs from the original calculation were not affected besides modeling the fan flow more accurately as described below:

Initial fan flow: The previous Case 2 analysis assumed the fan flow equal to the design operating point on the fan curve (7.08 lb/s). However, the resistance of the pipeline between the containment and the fans reduces the actual flow through the system. The fan curve was modeled providing a more accurate initial flow through the system (1.495 lb/s).

Fan flow during LOCA: The previous Case 2 analysis maintained a fixed flow (equal to the fan flow) through the operating train of SGT System. However, during the LOCA, the flow is driven by the pressure surge generated in the system by the drywell pressure change and thus is higher. Modeling the fan during the LOCA with a constant flow equal to that before the accident artificially increases the flow through the filter on the parallel train. This

condition also artificially increases the pressure at the parallel train, which is not a realistic representation of the scenario. The model was updated to allow free flow through both trains.

- In the previous Case 2 analysis, an open flow path to the Reactor Building was modeled during steady state before the LOCA. This created an artificial depressurization of the Reactor Building and was removed from the updated analysis.
- The pressure difference across the HEPA filters was originally calculated by using the pressures computed at the end of the pipe connecting to the inlet transition piece and at the outlet of the filter before the outlet transition piece. Due to the difference in cross-sectional areas of these two locations, the calculated pressure drop was affected by the difference in velocity head. This has a relatively minor impact but was revised in the analysis to better represent the actual pressure difference experienced by the filter.

Additional minor modeling changes include using a smaller time step of 0.01 seconds, increasing the initialization period to better ensure steady-state conditions, and the use of the energy correction option in the phasic velocity term at low-pressures and/or at large-expansions, in accordance with the recommendations in "RELAP5/MOD3.3 Code Manual Volume V - User's Guidelines," June 2016.

The results and conclusions as a result of the refined analysis are presented and discussed below:

SBGT Component	Acceptance Criterion	Case 2 Previous Result*	Case 2 Reanalysis Result*	Conclusion
HEPA B Filter Inlet	1.0 psig	0.89 psig	0.52 psig	Limit Not Exceeded
HEPA B Filter Outlet	0.79 psig	0.74 psig	0.45 psig	Limit Not Exceeded
HEPA B Filter Pressure Drop	8.0 inches H ₂ O	6.73 inches H ₂ O	5.0 inches H ₂ O	Limit Not Exceeded
Reactor Building Pressure Rise	0.28 psi	0.024 psi	0.06 psi	Limit Not Exceeded
Demister Loop Seal	18 inches H ₂ O (see below)	24.6 inches H ₂ O	14.4 inches H ₂ O	<i>Limit No Longer Exceeded</i>

*B Filter analysis is bounding of A Filter configuration

After reanalysis, the requirement of a process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier is no longer required as the pressure does not exceed the demister loop seal acceptance criteria nor the other design basis acceptance criteria.

Also, as a result of this proposed change, there is no impact to the design basis function of the Reactor Building Suction valves to open upon receipt of a safety signal. There is no need to have a TS surveillance requirement for the RB Suction Valves to be open during containment venting when the 20" and 24" PCIVs are open. Therefore, the proposed change modifies the associated requirement in the Technical Specifications.

In conclusion, after reanalysis, the requirements that an open pathway between the Reactor Building and the SGT be maintained during containment venting is no longer required to satisfy Criterion 2 of 10 CFR 50.36(c)(2)(ii), and therefore, the proposed change is acceptable to implement with the restriction noted below.

During update of the analysis, an observation walkdown of the SGT trains discovered that the demister loop seals are shorter than the calculation acceptance criterion. The restoration of this condition to match the design basis documentation (calculation and drawing) is being tracked as part of the JAF Engineering Change and the station corrective action process. The restoration activities will be completed prior to implementation of the TS revision identified herein. Exelon expects the completion of the demister loop seals modification to be completed by April 2021.

It is also important to note that although the existing loop seal is less than the calculation acceptance criteria (12.25 inches H₂O), the length still bounds that required of the Case 1 analysis (10.5 inches H₂O), which represents the current design basis for the existing operational limitation in TS SR 3.6.1.3.1. Therefore, the length of the loop seal does not represent a degraded system condition which currently poses an adverse impact on the ability of the system to perform its design function as required.

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

The following regulatory requirements have been considered:

Title 10 of the Code of Federal Regulations (10 CFR) Paragraph 50.36(c)(2)(ii) criterion 2, which requires:

“A process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.”

4.2 Precedent

ML021360551: TS Changes for SGT and Vent and Purge Valves

Summary: Cooper Nuclear Plant issued a change to Technical Specifications to allow purging containment through the Purge Bypass lines during normal operation. While it is recognized that opening the 24-inch main purge valves during power operation can potentially result in excessive differential pressures across the HEPA Filters during a LOCA, opening the smaller bypass lines does not result in a condition that would damage the filters.

Applicability: This change is similar to the change presented in this LAR. While inerting and deinerting containment in Modes 1 through 3 through the main 12-inch SGT line can potentially over-pressurize the filters resulting in damage to the filter housing, opening the smaller 6-inch line has been shown analytically to not exceed design pressure limitations of the HEPA filters and does not result in excessive pressure drop across the Filter Assembly. In addition, the plant modification to lengthen the loop seal results in maintaining the effectiveness of the HEPA filters assembly during design basis accident conditions.

ML021860221: LCO for SGT System

Summary: A license amendment was issued to identify changes to limiting conditions of operation and surveillance requirements for the SGT System. One change in this surveillance requirement is to include a quarterly surveillance to ensure there is adequate water in the Loop Seal drain lines. The presence of the loop seal is required to maintain 99% efficiency in removing iodine through the charcoal filters. In order to maintain 99% efficiency to remove Iodine in the SGT Filters, if the Loop Seal fails resulting in a leak path through the Loop Seal, air would essentially bypass the charcoal filters and reduce the effectiveness of the SGT filter assembly below the 99% criterion for iodine removal.

Applicability: The demister loop seal at JAF will be lengthened to ensure that the loop seal will remain intact following a LOCA and not result in a leak path of radioactive iodine out of the HEPA filter assembly.

4.3 No Significant Hazards Consideration

Exelon has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed change to the Surveillance Requirement (SR) 3.6.1.3.1 Note to maintain an open flow path between the Reactor Building and the Standby Gas Treatment (SGT) HEPA filters does not involve a significant increase in the probability or consequences of a previously evaluated accident.

The probability of a previously evaluated is independent the proposed modification to the inerting/de-inerting of the containment lineup presently utilized to accomplish this function. The proposed modification improves the efficiency of inerting and de-inerting the containment as well as the reducing the time needed to perform the evolution. The consequences of the accident remain unchanged since the system will not behave differently than previously evaluated.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The proposed change to the Surveillance Requirement (SR) 3.6.1.3.1 Note to maintain an open flow path between the Reactor Building and the Standby Gas Treatment (SGT) HEPA filters does not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed change to the Surveillance Requirement (SR) 3.6.1.3.1 Note to maintain an open flow path between the Reactor Building and the Standby Gas Treatment (SGT) HEPA filters modifies the flow path and increases the demister loop seals length. These modifications improve the evolution efficiency of inerting and de-inerting the containment as well as the reducing the time to perform the evolution. The modification does not introduce any new component, nor changes the manner in which the system components behave during the event.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

Response: No.

The proposed change to the Surveillance Requirement (SR) 3.6.1.3.1 Note to maintain an open flow path between the Reactor Building and the Standby Gas Treatment (SGT) HEPA filters does not involve a significant reduction in a margin of safety.

The proposed change does not adversely affect existing plant safety margins, or the reliability of the equipment assumed to operate in the safety analysis. As such, there are no changes being made to safety analysis assumptions, safety limits, or limiting safety system settings that would adversely affect plant safety.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based upon the above, Exelon concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of “no significant hazards consideration” is justified.

4.4 Conclusions

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

5.0 ENVIRONMENTAL CONSIDERATION

The proposed change does not change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or does not change an inspection or surveillance requirement. The proposed change does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9).

Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed change.

6.0 REFERENCES

1. 10 CFR 50.36, Technical Specifications
2. JAF Technical Specifications, 3.6.1.3
3. JAF Technical Specifications Bases B 3.6.1.3
4. JAF Updated FSAR Section 5.3

ATTACHMENT 2

Markup of Proposed Technical Specifications Page

TS LCO Page

3.6.1.3-7

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.6.1.3.1</p> <p style="text-align: center;">—————NOTE—————</p> <p>Not required to be met when the 20 inch and 24 inch primary containment vent and purge valves are open for inerting, de-inerting, pressure control, ALARA or air quality considerations for personnel entry, or Surveillances that require the valves to be open, provided the full-flow line to Standby Gas Treatment (SGT) System is closed and one or more SGT System reactor building suction valves are open.</p> <hr/> <p>Verify each 20 inch and 24 inch primary containment vent and purge valve is closed.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>
<p>SR 3.6.1.3.2</p> <p style="text-align: center;">—————NOTE—————</p> <ol style="list-style-type: none"> 1. Valves and blind flanges in high radiation areas may be verified by use of administrative means. 2. Not required to be met for PCIVs that are open under administrative controls. <hr/> <p>Verify each primary containment isolation manual valve and blind flange that is located outside primary containment and not locked, sealed or otherwise secured and is required to be closed during accident conditions is closed.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>

(continued)

ATTACHMENT 3

**Markup of Proposed Technical Specifications Bases Page
For Information Only)**

TS Bases Page

B 3.6.1.3-10

BASES

ACTIONS

G.1 and G.2 (continued)

suspend operations with a potential for draining the reactor vessel (OPDRVs) to minimize the probability of a vessel draindown and subsequent potential for fission product release. Actions must continue until OPDRVs are suspended and valve(s) are restored to OPERABLE status. If suspending an OPDRV would result in closing the residual heat removal (RHR) shutdown cooling isolation valves, an alternative Required Action is provided to immediately initiate action to restore the valve(s) to OPERABLE status. This allows RHR shutdown cooling to remain in service while actions are being taken to restore the valve.

SURVEILLANCE
REQUIREMENTS

SR 3.6.1.3.1

This SR ensures that the primary containment vent and purge valves are closed as required or, if open, open for an allowable reason. If a purge valve is open in violation of this SR, the valve is considered inoperable. The SR is modified by a Note stating that the SR is not required to be met when the vent and purge valves are open for the stated reasons. The Note states that these valves may be opened for inerting, de-inerting, pressure control, ALARA or air quality considerations for personnel entry, or Surveillances that require the valves to be open, provided the full-flow 12 inch line (with valve 27MOV-120) to the SGT System is closed ~~and one or more SGT System reactor building suction valves are open~~. This will ensure there is no damage to the filters if a LOCA were to occur with the vent and purge valves open since excessive differential pressure is not expected with the full-flow 12 inch line closed ~~and one or more SGT System reactor building suction valves open~~. The 20 and 24 inch vent and purge valves are capable of closing against the dynamic effects of a LOCA. Therefore, these valves are allowed to be open for limited periods of time. The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

SR 3.6.1.3.2

This SR ensures that each primary containment isolation manual valve and blind flange that is located outside primary containment and not locked, sealed or otherwise secured and is required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside the primary containment boundary is within design limits.

(continued)

ATTACHMENT 4

Clean Technical Specifications Pages

TS LCO Page

3.6.1.3-7

TS Bases Page

B 3.6.1.3-10

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.6.1.3.1</p> <p>-----NOTE-----</p> <p>Not required to be met when the 20 inch and 24 inch primary containment vent and purge valves are open for inerting, de-inerting, pressure control, ALARA or air quality considerations for personnel entry, or Surveillances that require the valves to be open, provided the full-flow line to Standby Gas Treatment (SGT) System is closed.</p> <p>-----</p> <p>Verify each 20 inch and 24 inch primary containment vent and purge valve is closed.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>
<p>SR 3.6.1.3.2</p> <p>-----NOTE-----</p> <ol style="list-style-type: none"> 1. Valves and blind flanges in high radiation areas may be verified by use of administrative means. 2. Not required to be met for PCIVs that are open under administrative controls. <p>-----</p> <p>Verify each primary containment isolation manual valve and blind flange that is located outside primary containment and not locked, sealed or otherwise secured and is required to be closed during accident conditions is closed.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>

(continued)

BASES

ACTIONS

G.1 and G.2 (continued)

suspend operations with a potential for draining the reactor vessel (OPDRVs) to minimize the probability of a vessel draindown and subsequent potential for fission product release. Actions must continue until OPDRVs are suspended and valve(s) are restored to OPERABLE status. If suspending an OPDRV would result in closing the residual heat removal (RHR) shutdown cooling isolation valves, an alternative Required Action is provided to immediately initiate action to restore the valve(s) to OPERABLE status. This allows RHR shutdown cooling to remain in service while actions are being taken to restore the valve.

SURVEILLANCE
REQUIREMENTS

SR 3.6.1.3.1

This SR ensures that the primary containment vent and purge valves are closed as required or, if open, open for an allowable reason. If a purge valve is open in violation of this SR, the valve is considered inoperable. The SR is modified by a Note stating that the SR is not required to be met when the vent and purge valves are open for the stated reasons. The Note states that these valves may be opened for inerting, de-inerting, pressure control, ALARA or air quality considerations for personnel entry, or Surveillances that require the valves to be open, provided the full-flow 12 inch line (with valve 27MOV-120) to the SGT System is closed. This will ensure there is no damage to the filters if a LOCA were to occur with the vent and purge valves open since excessive differential pressure is not expected with the full-flow 12 inch line closed. The 20- and 24-inch vent and purge valves are capable of closing against the dynamic effects of a LOCA. Therefore, these valves are allowed to be open for limited periods of time. The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

SR 3.6.1.3.2

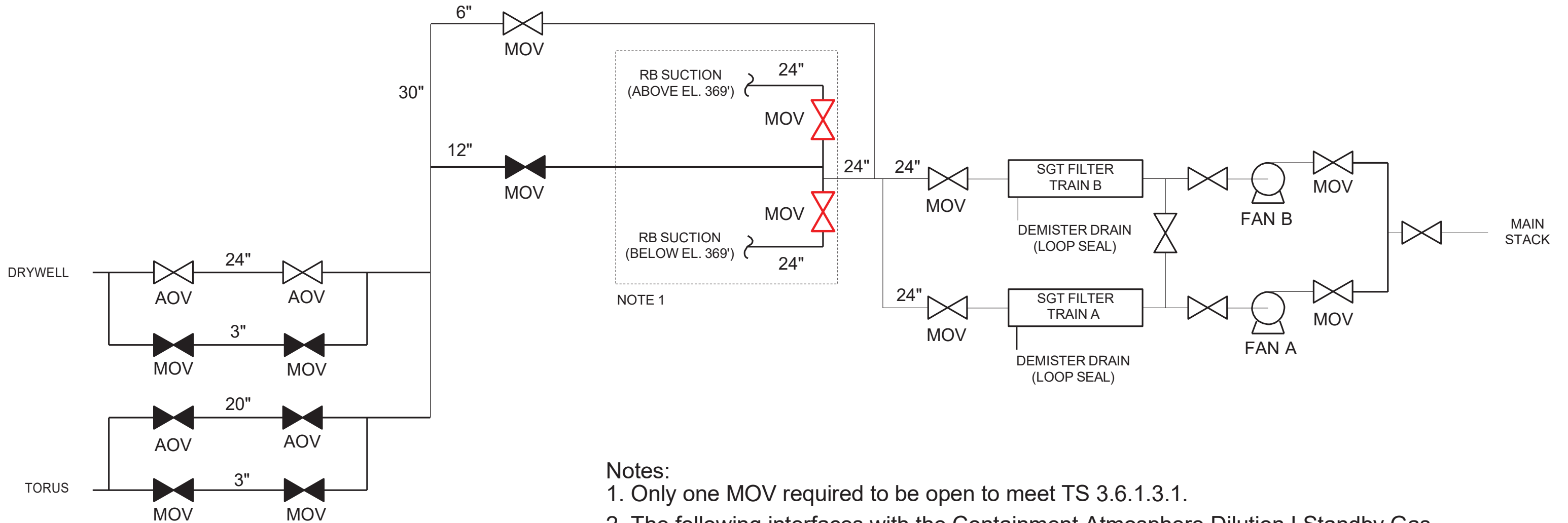
This SR ensures that each primary containment isolation manual valve and blind flange that is located outside primary containment and not locked, sealed or otherwise secured and is required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside the primary containment boundary is within design limits.

(continued)

ATTACHMENT 5

One Line Diagram

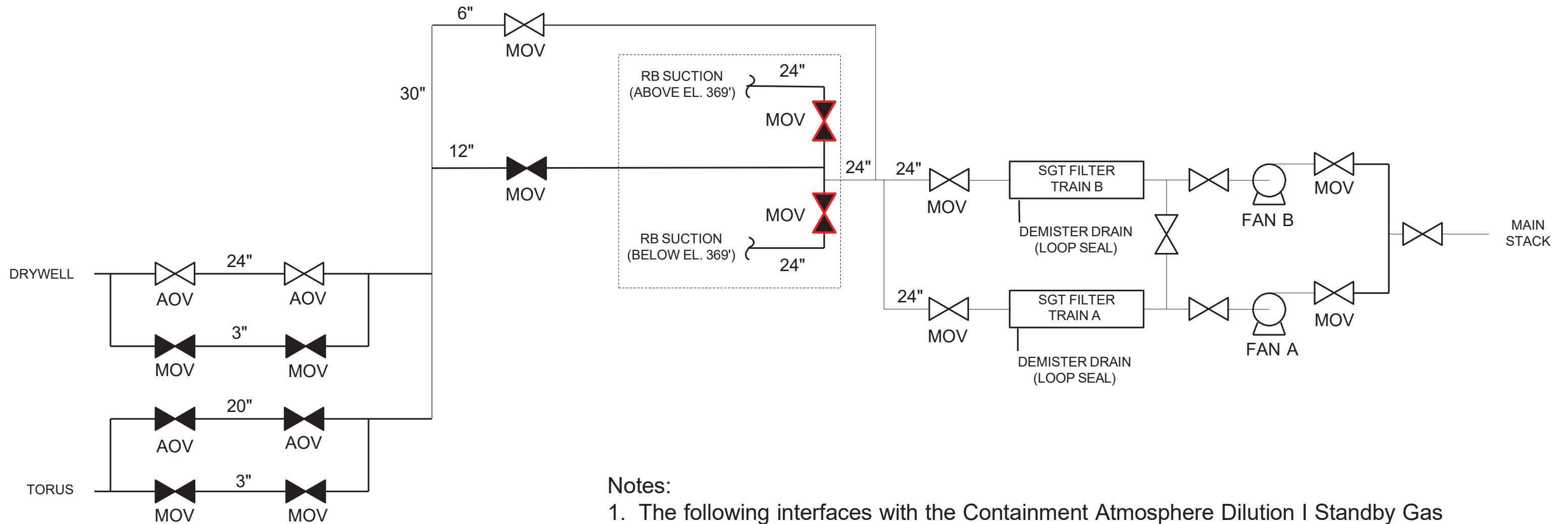
FIGURE 1 CURRENT LINEUP



Notes:

1. Only one MOV required to be open to meet TS 3.6.1.3.1.
2. The following interfaces with the Containment Atmosphere Dilution I Standby Gas Treatment Systems are not depicted but are isolated during this operation:
 - Air for Decay Heat Cooling
 - Aux Gas Treatment System
 - HPCI Gland Seal Exhauster
 - Hardened Containment Vent System
 - Main Steam Leakage Collection System

FIGURE 2 REVISED LINEUP



Notes:

1. The following interfaces with the Containment Atmosphere Dilution I Standby Gas Treatment Systems are not depicted but are isolated during this operation:
 - Air for Decay Heat Cooling
 - Aux Gas Treatment System
 - HPCI Gland Seal Seal Exhauster
 - Hardened Containment Vent System
 - Main Steam Leakage Collection System