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License Number NPF-3

Serial Number 2690

Docket Number 50-346

May 15, 2001

United States Nuclear Regulatory Commission  
Document Control Desk  
Washington, D. C. 20555-0111

Subject: License Amendment Application to Revise Technical Specification (TS) 3/4.9.4, Refueling Operations - Containment Penetrations, TS 3/4.9.12, Refueling Operations - Storage Pool Ventilation, and Associated Bases Regarding Containment Equipment Hatch Cover Requirements (License Amendment Request 00-0005)

Ladies and Gentlemen:

Enclosed is an application for an amendment to the Davis-Besse Nuclear Power Station (DBNPS), Unit Number 1, Operating License Number NPF-3, Appendix A, Technical Specifications. The proposed changes involve Technical Specification (TS) 3/4.9.4, Refueling Operations - Containment Penetrations, TS 3/4.9.12, Refueling Operations - Storage Pool Ventilation, and associated Bases.

The proposed changes would revise refueling operation TS requirements for containment equipment hatch cover closure during core alterations and during movement of irradiated fuel both inside containment and in the spent fuel pool or cask pit. The proposed change would allow the containment equipment hatch cover to be off during core alterations and movement of irradiated fuel provided the Emergency Ventilation System is operable with the ability to filter any radioactive release.

It should be noted that the enclosed application for amendment did include consideration of the addition of the fuel transfer pit requirements to TS 3/4.9.12, Refueling Operations - Storage Pool Ventilation, that were requested by the FirstEnergy Nuclear Operating Company under letter Serial Number 2640, dated December 2, 2000. There is no impact on the NRC's review of that letter's request (License Amendment Request No. 98-0013) which is currently in progress.

In order to permit the containment equipment hatch cover to be off while moving fuel during the spring 2002 DBNPS thirteenth refueling outage, the FirstEnergy Nuclear Operating Company requests that this amendment be approved by November 26, 2001, with implementation to take place no later than 120 days following amendment issuance.

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Should you have any questions or require additional information, please contact Mr. David H. Lockwood, Manager - Regulatory Affairs, at (419) 321-8450.

Very truly yours,

A handwritten signature in black ink, appearing to read "E. P. Sands". The signature is fluid and cursive, with the first name "E. P." and the last name "Sands" clearly distinguishable.

MAR/s

Enclosures

cc: J. E. Dyer, Regional Administrator, NRC Region III  
S. P. Sands, NRC/NRR Project Manager  
D. J. Shipley, Executive Director, Ohio Emergency Management Agency, State of Ohio  
(NRC Liaison)  
K. S. Zellers, NRC Region III, DB-1 Senior Resident Inspector  
Utility Radiological Safety Board

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Enclosure 1  
Page 1

APPLICATION FOR AMENDMENT  
TO  
FACILITY OPERATING LICENSE NUMBER NPF-3  
DAVIS-BESSE NUCLEAR POWER STATION  
UNIT NUMBER 1

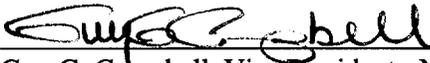
Attached are the requested changes to the Davis-Besse Nuclear Power Station, Unit Number 1, Facility Operating License Number NPF-3. Also included is the Safety Assessment and Significant Hazards Consideration.

The proposed changes (submitted under cover letter Serial Number 2690) concern:

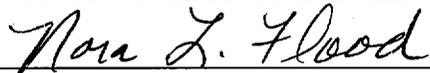
Appendix A, Technical Specifications:

3/4.9.4, Containment Penetrations, and Associated Bases  
3/4.9.12, Storage Pool Ventilation, and Associated Bases

I, Guy G. Campbell, state that (1) I am Vice President - Nuclear of the FirstEnergy Nuclear Operating Company, (2) I am duly authorized to execute and file this certification on behalf of the Toledo Edison Company and The Cleveland Electric Illuminating Company, and (3) the statements set forth herein are true and correct to the best of my knowledge, information, and belief.

By:   
Guy G. Campbell, Vice President - Nuclear

Affirmed and subscribed before me this 15th day of May, 2001.

  
Notary Public, State of Ohio - Nora L. Flood  
My commission expires 9/4/02.

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The following is provided to support issuance of the requested changes to the Davis-Besse Nuclear Power Station (DBNPS), Unit Number 1, Operating License Number NPF-3, Appendix A, Technical Specification (TS) 3/4.9.4, Containment Penetrations, TS 3/4.9.12, Storage Pool Ventilation, and Associated Bases regarding containment equipment hatch cover requirements.

A. Time Required to Implement: The License Amendment associated with this license amendment application is to be implemented no later than 120 days following NRC approval.

B. Reason for Change (License Amendment Request Number 00-0005)

The proposed changes would revise TS requirements for containment equipment hatch cover closure during core alterations and during movement of irradiated fuel both inside containment and in the spent fuel pool or cask pit. The proposed changes would provide for access to the containment through the equipment hatch during core alterations and movement of irradiated fuel provided that the Emergency Ventilation System is operable with the ability to filter any radioactive release through the equipment hatch opening.

C. Safety Assessment and Significant Hazards Consideration: See Attachment 1.

D. Environmental Evaluation: See Attachment 2.

Docket Number 50-346  
License Number NPF-3  
Serial Number 2690  
Attachment 1

**SAFETY ASSESSMENT AND SIGNIFICANT HAZARDS CONSIDERATION  
FOR  
LICENSE AMENDMENT REQUEST NUMBER 00-0005**

(17 Pages Follow)

**SAFETY ASSESSMENT AND SIGNIFICANT HAZARDS CONSIDERATION  
FOR  
LICENSE AMENDMENT REQUEST NUMBER 00-0005**

**TITLE:**

Proposed Revisions to Technical Specification (TS) 3/4.9.4, Refueling Operations - Containment Penetrations, TS 3/4.9.12, Refueling Operations - Storage Pool Ventilation, and Associated Bases Regarding Containment Equipment Hatch Cover Requirements

**DESCRIPTION:**

The purpose of this License Amendment Request is to revise the Davis-Besse Nuclear Power Station (DBNPS) Operating License NPF-3, Appendix A, Technical Specifications, regarding the requirements for containment equipment hatch cover closure during core alterations and during movement of irradiated fuel inside containment. The DBNPS pressurized water reactor vessel is located within a containment building (i.e., the "containment") consisting of two structures: a steel containment vessel and a reinforced concrete shield building. The containment has three access openings for accommodating personnel or equipment: the personnel air lock, the personnel emergency air lock, and the equipment hatch. These openings are discussed in Section 3.8.2.1.10, "Penetrations," of the DBNPS Updated Safety Analysis Report (USAR).

During refueling outages, Technical Specification (TS) 3.9.4 requires the containment equipment hatch cover to be closed and held in place with a minimum of four bolts during core alterations or during irradiated fuel movement within containment. Typically, 120-150 hours are required to perform fuel movement during a refueling outage. With the containment equipment hatch cover closed during this time, other outage maintenance and modification activities within the containment are impacted due to the loss of this larger access opening for moving equipment in and out of containment.

The containment equipment hatch cover (shown in attached Figure 1) is located inside containment and must be completely unbolted, raised, and moved to the side through the use of a chain hoist and monorail in order to allow access. Returning the containment equipment hatch cover to a closed position requires that the closure personnel remain inside containment, move the hatch cover along the monorail, lower it into position, and align the bolt holes. After bolting the cover into place, closure personnel then exit through the personnel air lock.

As depicted in Figure 2, the containment equipment hatch opens into the fuel handling area and not into the out-of-doors environment. This area is serviced by the Emergency Ventilation System (EVS), which can draw air from this area and filter it through high efficiency particulate air filters and charcoal adsorbers prior to discharge to the out-of-doors environment.

In order to prevent potential damage to the equipment hatch and sealing surfaces and to reduce outage delays due to closure of the containment equipment hatch cover during core alterations or movement of irradiated fuel in containment, the DBNPS is proposing changes to the Technical Specifications. Specifically, the proposed changes would provide for access to the containment through the equipment hatch during core alterations and movement of irradiated fuel provided that the EVS is operable with the ability to filter any radioactive release migrating through the

containment equipment hatch opening. TS 3.9.4 requires that at least one door in the emergency air lock be closed during core alterations or movement of irradiated fuel in containment. TS 3.9.4 permits both doors of the personnel air lock to be open provided that at least one air lock door is capable of being closed and a designated individual is available immediately outside the personnel air lock to close the door. The proposed changes would permit relying on this closing of the containment personnel air lock by a designated individual to establish the negative pressure boundary for the EVS servicing the fuel handling area, which includes the spent fuel pool, cask pit, and transfer pit.

Existing TS 3.9.4 reads, in part:

- 3.9.4 The containment penetrations shall be in the following status:
- a. The equipment door closed and held in place by a minimum of four bolts

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APPLICABILITY: During CORE ALTERATIONS or movement of irradiated fuel within the containment.

It is proposed that these parts of TS 3.9.4 be revised to read (changes underlined):

- 3.9.4 The containment penetrations shall be in the following status:
- a. The equipment hatch cover closed and held in place by a minimum of four bolts, except the equipment hatch may be open provided the requirements of Specification 3.9.12 are satisfied.

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APPLICABILITY: During CORE ALTERATIONS or movement of irradiated fuel within the containment.

Existing TS 3.9.12 reads:

- 3.9.12 Two independent emergency ventilation systems servicing the storage pool area shall be OPERABLE.

APPLICABILITY: Whenever irradiated fuel is in the spent fuel pool or cask pit.

ACTION:

- a. With one emergency ventilation system servicing the storage pool area inoperable, fuel movement within the spent fuel pool or cask pit, or crane operation with loads

over the spent fuel pool or cask pit, may proceed provided the OPERABLE emergency ventilation system servicing the storage pool area is in operation and discharging through at least one train of HEPA filters and charcoal adsorbers.

- b. With no emergency ventilation system servicing the storage pool area OPERABLE, suspend all operations involving movement of fuel within the spent fuel pool or cask pit, or crane operation with loads over the spent fuel pool or cask pit, until at least one system is restored to OPERABLE status.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

It is proposed that TS 3.9.12 be revised to read (changes underlined):

3.9.12 Two independent emergency ventilation systems servicing the storage pool area shall be OPERABLE. When an emergency ventilation system servicing the storage pool is incapable of meeting the acceptance criteria of Surveillance Requirement 4.9.12.1 solely because the containment equipment hatch is open and both doors of the containment personnel air lock are open, it may be considered OPERABLE provided that at least one personnel air lock door is capable of being closed and a designated individual is available immediately outside the personnel air lock to close the door.

APPLICABILITY: Whenever irradiated fuel is in the spent fuel pool or cask pit, or during CORE ALTERATIONS or movement of irradiated fuel within the containment with the containment equipment hatch open.

ACTION:

- a. With one emergency ventilation system servicing the storage pool area inoperable, fuel movement within the spent fuel pool or cask pit, or crane operation with loads over the spent fuel pool or cask pit, may proceed provided the OPERABLE emergency ventilation system servicing the storage pool area is in operation and discharging through at least one train of HEPA filters and charcoal adsorbers.
- b. With one emergency ventilation system servicing the storage pool area inoperable, CORE ALTERATIONS and fuel movement within containment may proceed provided either the OPERABLE emergency ventilation system servicing the storage pool area is in operation and discharging through at least one train of HEPA filters and charcoal adsorbers or the containment equipment hatch cover is closed and held in place by a minimum of four bolts.
- c. With no emergency ventilation system servicing the storage pool area OPERABLE, suspend CORE ALTERATIONS and all operations involving movement of fuel within the containment, spent fuel pool or cask pit, or crane operation with loads over the spent fuel pool or cask pit, until at least one system is restored to OPERABLE status. CORE ALTERATIONS and fuel movement within containment may proceed provided the containment equipment hatch cover is closed and held in place by a minimum of four bolts.
- d. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

It is proposed that the following paragraph be added to TS Bases 3/4.9.4:

The containment equipment hatch cover may be off during CORE ALTERATIONS or movement of irradiated fuel in containment provided the requirements of Specification 3.9.12 are satisfied. The requirements of Specification 3.9.12 ensure that the emergency ventilation system servicing the storage area is OPERABLE with the ability to filter any radioactive release through the containment equipment hatch following a fuel handling accident. Since containment closure is not credited for mitigating the consequences of the fuel handling accident as described in the Updated Safety Analysis Report, the equipment hatch cover need not be installed to ensure adequate protection of the public health or safety.

It is also proposed that the following paragraph be added to TS Bases 3/4.9.12:

Specification 3.9.12 permits an emergency ventilation system servicing the storage pool that is incapable of meeting the acceptance criteria of Surveillance Requirement 4.9.12.1 solely because the containment equipment hatch is open and both doors of the containment personnel air lock are open to be considered OPERABLE provided at least one personnel air lock door is capable of being closed and a designated individual is available immediately outside the personnel air lock to close the door. When the containment equipment hatch is open and both doors of the containment personnel air lock are open, the emergency ventilation system servicing the fuel storage area is incapable of maintaining a negative pressure of  $\geq 1/8$  inches Water Gauge relative to the outside atmosphere during system operation. The requirement that at least one personnel air lock door be capable of being closed and a designated individual be available immediately outside the personnel air lock to close the door ensures that the negative pressure boundary can be established in a timely manner following a fuel handling accident in the storage pool area or containment. Once the negative pressure boundary is established, the emergency ventilation system servicing the storage pool area will be capable of establishing the required negative pressure relative to the outside atmosphere.

The proposed changes to the existing TS and Bases are shown on the attached marked-up pages.

#### **SYSTEMS, COMPONENTS, AND ACTIVITIES AFFECTED:**

The proposed changes affect the requirements for installation of the containment equipment hatch cover during core alterations and movement of irradiated fuel inside containment. The proposed changes would also permit crediting the ability to close at least one personnel air lock door and the use of a designated individual immediately outside the personnel air lock to close the door for establishing the negative pressure boundary for the emergency ventilation system servicing the fuel handling area.

#### **FUNCTIONS OF THE AFFECTED SYSTEMS, COMPONENTS, AND ACTIVITIES:**

The containment systems are described in DBNPS USAR Section 6.2, "Containment Systems." The containment systems are designed to contain the pressure generated as a result of the most serious loss-of-coolant accident (LOCA) for the containment vessel. The containment equipment hatch is a welded steel assembly, with a double-gasketed, flanged and bolted cover. The

personnel air lock is a welded steel assembly which has two double-gasketed doors in series. The air lock doors are designed so that with the other door in the air lock open, the closed door can withstand and seal against the design pressures of the containment vessel. During core alterations and movement of irradiated fuel inside containment, the potential for containment pressurization as a result of a LOCA is not present; however, there is the potential of a radioactive release from a fuel handling accident. Therefore, the ability to isolate the fuel handling accident location from the out-of-doors environment is still desired. TS 3.9.4 provides the minimum containment closure requirements which must be met in order to perform core alterations or to move irradiated fuel inside containment. The requirement to have the containment equipment hatch cover closed and held in place by a minimum of four bolts prevents the release of radioactive material through the equipment hatch opening in the event of a fuel handling accident.

The normal and emergency fuel handling area ventilation systems are described in the DBNPS USAR, Section 6.2.3, "Containment Vessel Air Purification and Cleanup Systems," and Section 9.4.2.2, "Fuel Handling Area." Ventilation of the fuel handling area is normally provided by the Fuel Handling Area Ventilation System (FHAVS). The exhaust ductwork for the FHAVS contains two radiation monitors, which upon a high radiation signal will trip the FHAVS fans, open dampers from the FHAVS exhaust ductwork to the suction of the Emergency Ventilation System (EVS) fans, and start the EVS fans. The EVS servicing the storage pool area ensures that all radioactive material released from an irradiated fuel assembly will be filtered through high efficiency particulate air (HEPA) filters and charcoal adsorbers prior to discharge to the atmosphere. The containment equipment hatch, when closed, is part of the FHAVS negative pressure boundary. When the containment equipment hatch is open, the FHAVS negative pressure boundary is extended to include the containment vessel. Figure 2 (attached) shows the relationship between the FHAVS negative pressure boundary and the containment vessel.

#### **EFFECTS ON SAFETY:**

##### TS 3.9.4, Refueling Operations - Containment Penetrations

The proposed changes to TS 3.9.4, "Refueling Operations - Containment Penetrations," and associated Bases would permit the containment equipment hatch to be open during core alterations and movement of irradiated fuel inside containment provided that the requirements of TS 3.9.12, "Refueling Operations - Storage Pool Ventilation," are satisfied. During core alterations and movement of irradiated fuel inside containment, the most severe design basis accident postulated to occur is a fuel handling accident. The fuel handling accident inside containment is described in USAR Section 15.4.7.3, "Accident Analysis - Accident Inside Containment." This analysis was performed in accordance with Safety Guide 25, "Assumptions Used for Evaluating the Potential Radiological Consequences of a Fuel Handling Accident in the Fuel Handling and Storage Facility for Boiling and Pressurized Water Reactors," dated March 23, 1972. This analysis postulates that one fuel assembly suffers mechanical damage resulting in the release of all of the gap activity of the damaged assembly into the refueling canal pool. All the noble gas activities that are released to the pool are assumed to escape from the pool; one percent of the iodine activities that are released to the pool are assumed to escape from the pool. No containment closure or filtration of the release was assumed. The resultant thyroid and whole body doses were calculated to be well within the limits of 10 CFR 100.

As described in the DBNPS USAR, the fuel handling accident inside containment analysis does not take credit for containment closure or filtration to limit the radiological consequences of the accident. Therefore, under the current licensing basis for the DBNPS, the status of the containment equipment hatch cover has no impact on the total amount of radioactivity that is

assumed to be released from containment to the environment. Although neither containment closure nor filtration of the radioactive release were assumed in the analysis, it is conservative to provide a means to mitigate the consequences of a fuel handling accident inside containment. Presently, TS 3.9.4 ensures containment closure can be achieved shortly after a fuel handling accident occurs to mitigate the consequences of the accident. The proposed change to TS 3.9.4 would permit the containment equipment hatch to be open during core alterations and movement of irradiated fuel inside containment provided the storage pool ventilation requirements of TS 3.9.12 are satisfied. The containment equipment hatch opens to the fuel handling area, which includes the spent fuel storage pool, cask pit, and transfer pit. If a fuel handling accident inside containment were to occur with the containment equipment hatch open, the radioactivity released from the damaged assembly would be released through the containment equipment hatch opening and into the fuel handling area. The requirements of TS 3.9.12 would ensure that any radioactivity released into the spent fuel storage pool area would be exhausted via the EVS through a train of HEPA filters and charcoal adsorbers. The EVS is adequately sized and designed to filter the radioactivity released during a fuel handling accident inside containment.

The use of personnel to move the containment equipment hatch cover back into the closure position and bolt it into place was evaluated. Preliminary calculations indicate that reinstalling of the containment equipment hatch under design basis fuel handling accident conditions could result in the personnel reinstalling the hatch cover receiving in excess of 20 rem total effective dose equivalent. Exposing individuals to this dose is unwarranted since the EVS is available to mitigate the consequences of a fuel handling accident inside containment. The DBNPS will revise its procedures to evacuate the fuel handling area following a fuel handling accident inside containment if the equipment hatch cover is off. These procedures will be revised no later than the implementation of this proposed License Amendment following NRC approval.

The proposed changes to TS 3.9.4 and associated Bases would permit the containment equipment hatch to be open during core alterations and movement of irradiated fuel inside containment provided the proposed requirements of TS 3.9.12 are satisfied. No USAR accident analyses are affected by the proposed change. Proposed TS 3.9.12 would ensure the ability to filter any potential release from a fuel handling accident inside containment. The ability to mitigate a fuel handling accident inside containment would continue to exist. Accordingly, it is concluded the proposed changes to TS 3.9.4 and associated Bases will have no adverse effect on nuclear safety if approved by the NRC.

#### TS 3.9.12, Refueling Operations - Storage Pool Ventilation

The proposed changes to TS 3.9.12, "Refueling Operations - Storage Pool Ventilation," and associated Bases would allow a train of EVS to be considered operable when an EVS train servicing the storage pool is incapable of meeting the drawdown requirement of TS Surveillance Requirement (SR) 4.9.12.1 solely because the containment equipment hatch is open and both doors of the containment personnel air lock are open, provided at least one personnel air lock door is capable of being closed and a designated individual is available immediately outside the personnel air lock to close the door.

The requirements for the EVS servicing the storage pool area ensure that all radioactive material released during a fuel handling accident in the storage pool area will be filtered through HEPA filters and charcoal adsorbers prior to discharge to the atmosphere. The fuel handling accident in the spent fuel storage pool area is described in USAR Section 15.4.7.2, "Accident Analysis - Accident Outside Containment." Unlike the analysis for the accident inside containment, the

analysis for the fuel handling accident in the storage pool area credits the use of 95 percent efficient HEPA filters and charcoal adsorbers with mitigating the release.

With the containment equipment hatch cover closed, the hatch cover is part of the FHAVS negative pressure boundary. With the containment equipment hatch open, the FHAVS negative pressure boundary extends to include the inside of the containment vessel. With the containment equipment hatch open and both doors of the containment personnel air lock open, the EVS is incapable of maintaining a negative pressure boundary. The proposed change would require that at least one personnel air lock door be capable of being closed and a designated individual be available immediately outside the personnel air lock to close the door when the equipment hatch and both doors of the containment personnel air lock are open. Essentially, the proposed change would allow crediting the closure of one personnel air lock door by the designated individual with establishing the FHAVS negative pressure boundary. The use of a designated individual to close the containment personnel airlock is currently permitted by TS 3.9.4.b for meeting containment closure requirements. This proposed change would allow crediting this existing action with meeting the FHAVS negative pressure boundary requirements. With NRC approval of the proposed change, the DBNPS will revise its procedures to include guidance for the individual to close the personnel air lock door following a fuel handling accident in the spent fuel storage pool area when the containment equipment hatch is open. These procedures will be revised no later than the implementation of this proposed License Amendment following NRC approval.

With the equipment hatch open and the Containment Purge and Exhaust System operating, the Containment Purge and Exhaust System could potentially interfere with the ability of the EVS to filter any radioactivity released during a fuel handling accident. Therefore, with NRC approval of the proposed change, the DBNPS will revise its procedures to direct the control room staff to shutdown the Containment Purge and Exhaust System and close the Containment Purge and Exhaust System isolation valves following a fuel handling accident in the spent fuel pool area when the equipment hatch is open. Existing procedures ensure the Containment Purge and Exhaust System isolation valves will be closed following a fuel handling accident inside containment. The ability of the EVS servicing the storage pool to filter any radioactive release from a fuel handling accident outside containment will then be maintained. These procedures will be revised no later than the implementation of this proposed License Amendment following NRC approval.

The proposed change would revise TS 3.9.12 to apply during core alterations or movement of irradiated fuel inside the containment when the containment equipment hatch is open. This change ensures that the EVS servicing the fuel handling area is operable with the ability to mitigate the consequences of a fuel handling accident inside containment whenever the ability to achieve containment closure is prevented by the equipment hatch being open.

Additionally, the proposed change would create new TS 3.9.12 Action b to require that with one EVS servicing the storage pool inoperable, the remaining EVS servicing the storage pool area be in operation and discharging through at least one train of HEPA filters and charcoal adsorbers or the containment equipment hatch cover be closed and held in place by a minimum of four bolts prior to core alterations or movement of fuel inside containment. This requirement to place the remaining EVS train in service ensures that the remaining train is operable, that no undetected failures preventing system operation will occur, and that any active failures will be readily detected. With the containment equipment hatch closed, the EVS servicing the storage pool area is no longer necessary to mitigate the consequences of a fuel handling accident inside containment. In this condition, TS 3.9.4 ensures that the consequences of a fuel handling accident inside containment will be mitigated. The proposed change to TS 3.9.12 Action b would

not alter the requirements affecting movement of fuel within the spent fuel pool, cask pit, or transfer pit or crane operation with loads over the spent fuel pool, cask pit, or transfer pit.

Finally, the proposed change would re-designate existing TS 3.9.12 Action b as Action c and require the equipment hatch cover to be closed and held in place by a minimum of four bolts prior to performing core alterations or movement of fuel inside containment when both trains of EVS servicing the storage pool area are inoperable. With both trains of EVS servicing the storage pool inoperable, it is conservative to require the containment equipment hatch to be closed prior to core alteration or movement of fuel within containment to ensure means are available to mitigate the consequences of a fuel handling accident inside containment. With the containment equipment hatch closed, TS 3.9.4 ensures the consequences of a fuel handling accident inside containment will be mitigated. The proposed change to existing TS 3.9.12 Action b would not alter the requirements affecting movement of fuel within the spent fuel pool, cask pit, or transfer pit or crane operation with loads over the spent fuel pool, cask pit, or transfer pit.

The existing controls to ensure the integrity of the FHAVS negative pressure boundary will continue to be maintained for items such as passageway doors. Negative pressure boundary doors are checked under DBNPS procedure DB-OP-00005, "Operator Logs and Rounds," and openings in the negative pressure boundary are tracked to ensure compliance with TS 3.9.12 in accordance with DBNPS procedure DB-OP-00018, "Inoperable Equipment Tracking Log."

The proposed changes to TS 3.9.12 as discussed in its associated Bases would allow crediting the closure of one personnel air lock door by a designated individual with establishing the FHAVS negative pressure boundary. The proposed changes would ensure that means are available to mitigate the consequences of a fuel handling accident inside containment. The ability of the EVS servicing the storage pool area to mitigate a fuel handling accident in the storage pool area would be maintained, and no USAR accident analyses are affected by the proposed changes. Accordingly, it is concluded that the proposed changes to TS 3.9.12 and associated Bases will have no adverse effect on nuclear safety if approved by the NRC.

#### Precedent

These proposed revised TS are similar to those approved by the NRC for Braidwood Units 1 and 2, Operating License Numbers NPF-72 and NPF-77, as TS 3.7.13, "Fuel Handling Building Exhaust Filter Plenum (FHB) Ventilation System," and TS 3.9.4, "Containment Penetrations."

#### **SIGNIFICANT HAZARDS CONSIDERATION:**

The Nuclear Regulatory Commission has provided standards in 10 CFR 50.92(c) for determining whether a significant hazard exists due to a proposed amendment to an Operating License for a facility. A proposed amendment involves no significant hazards consideration if operation of the facility in accordance with the proposed changes would: (1) Not involve a significant increase in the probability or consequences of an accident previously evaluated; (2) Not create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Not involve a significant reduction in a margin of safety. The Davis-Besse Nuclear Power Station has reviewed the proposed changes and determined that a significant hazards consideration does not exist because operation of the Davis-Besse Nuclear Power Station (DBNPS), Unit No. 1, in accordance with these changes would:

- 1a. Not involve a significant increase in the probability of an accident previously evaluated because no such accidents are affected by the proposed changes. The amendment

application proposes to revise DBNPS Technical Specification (TS) 3/4.9.4, Refueling Operations - Containment Penetrations, and its associated Bases and TS 3/4.9.12, Refueling Operations - Storage Pool Ventilation, and its associated Bases. The proposed changes would provide for access to the containment through the containment equipment hatch during core alterations and movement of irradiated fuel, provided that an Emergency Ventilation System is operable with the ability to filter any radioactive release through the containment equipment hatch. The proposed changes would also permit relying on the closing the containment personnel air lock by a designated individual to establish the negative pressure boundary for the Emergency Ventilation System servicing the storage pool. The use of a designated individual to close the containment personnel airlock is currently permitted by TS 3.9.4 for meeting containment closure requirements. Neither the containment equipment hatch nor the Emergency Ventilation System contributes to the initiation of any accident described in the DBNPS Updated Safety Analysis Report.

- 1b. Not involve a significant increase in the consequences of an accident previously evaluated because no equipment, accident conditions, or assumptions are affected which could lead to a significant increase in radiological consequences. The approved analysis for the fuel handling accident inside containment does not take credit for containment closure or Emergency Ventilation System filtering. This analysis results in a maximum calculated offsite dose well within the limits of 10 CFR 100.
2. Not create the possibility of a new or different kind of accident from any accident previously evaluated because no new or different accident initiators are introduced by these proposed means to mitigate the consequences of an accident.
3. Not involve a significant reduction in a margin of safety because there are no changes to the initial conditions contributing to accident severity or the resulting consequences. Consequently, there are no significant reductions in a margin of safety.

#### **CONCLUSION:**

On the basis of the above, the DBNPS has determined that the License Amendment Request does not involve a significant hazards consideration. As this License Amendment Request concerns a proposed change to the Technical Specifications that must be reviewed by the Nuclear Regulatory Commission, this License Amendment Request does not constitute an unreviewed safety question.

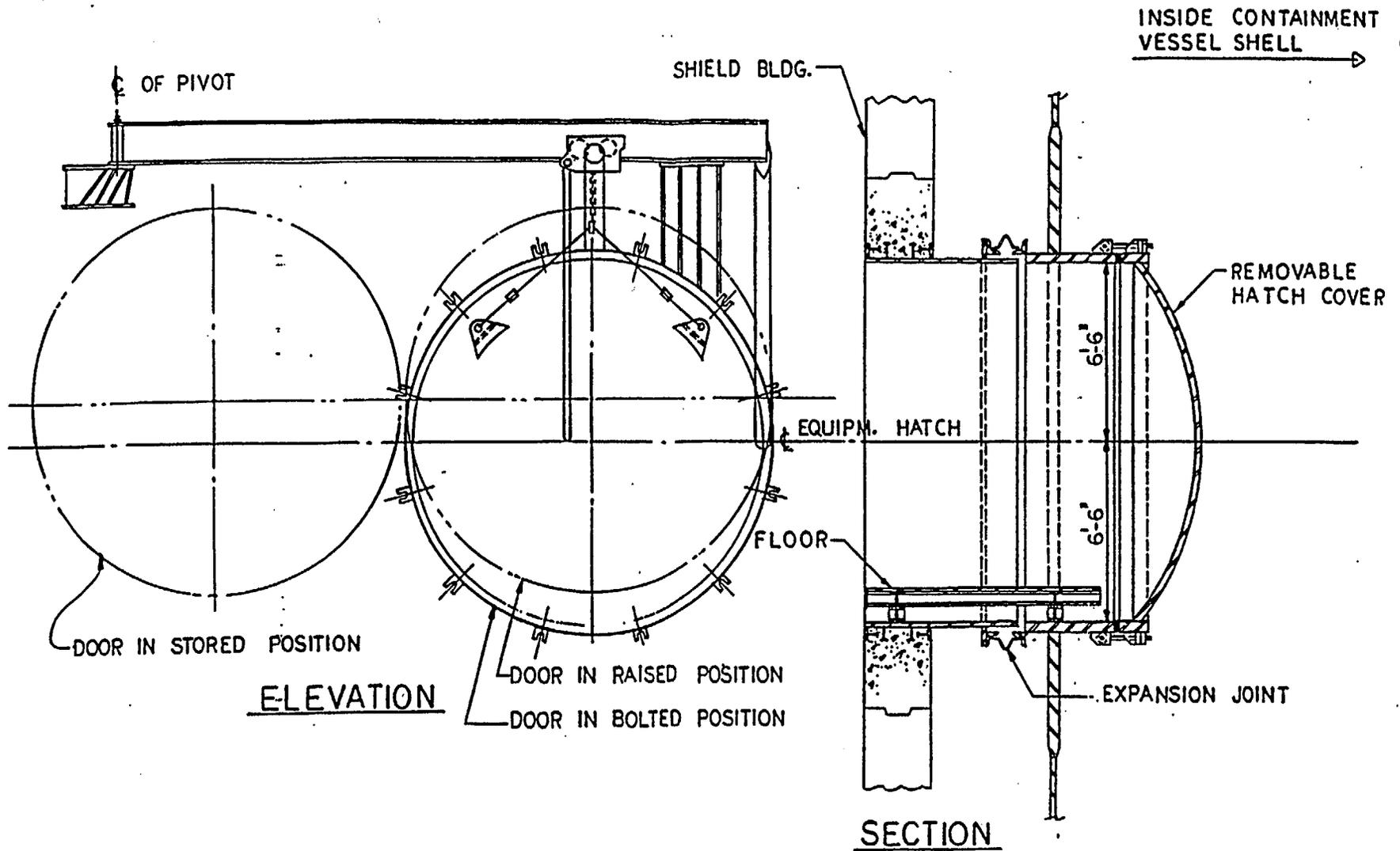
#### **ATTACHMENTS:**

Attached are the proposed marked-up changes to the Operating License.

#### **REFERENCES:**

1. DBNPS Operating License NPF-3, Appendix A, Technical Specifications, through Amendment 245.
2. DBNPS Updated Safety Analysis Report through Revision 22.

3. Safety Guide 25, "Assumptions Used for Evaluating the Potential Radiological Consequences of a Fuel Handling Accident in the Fuel Handling and Storage Facility for Boiling and Pressurized Water Reactors," dated March 23, 1972.



DAVIS-BESSE NUCLEAR POWER STATION  
CONTAINMENT STRUCTURE EQUIPMENT HATCH DETAIL  
FIGURE 3.8-4

REVISION 0  
JULY 1982

Figure 1

DBNPS Auxiliary Building and Shield Building (603' Elevation)

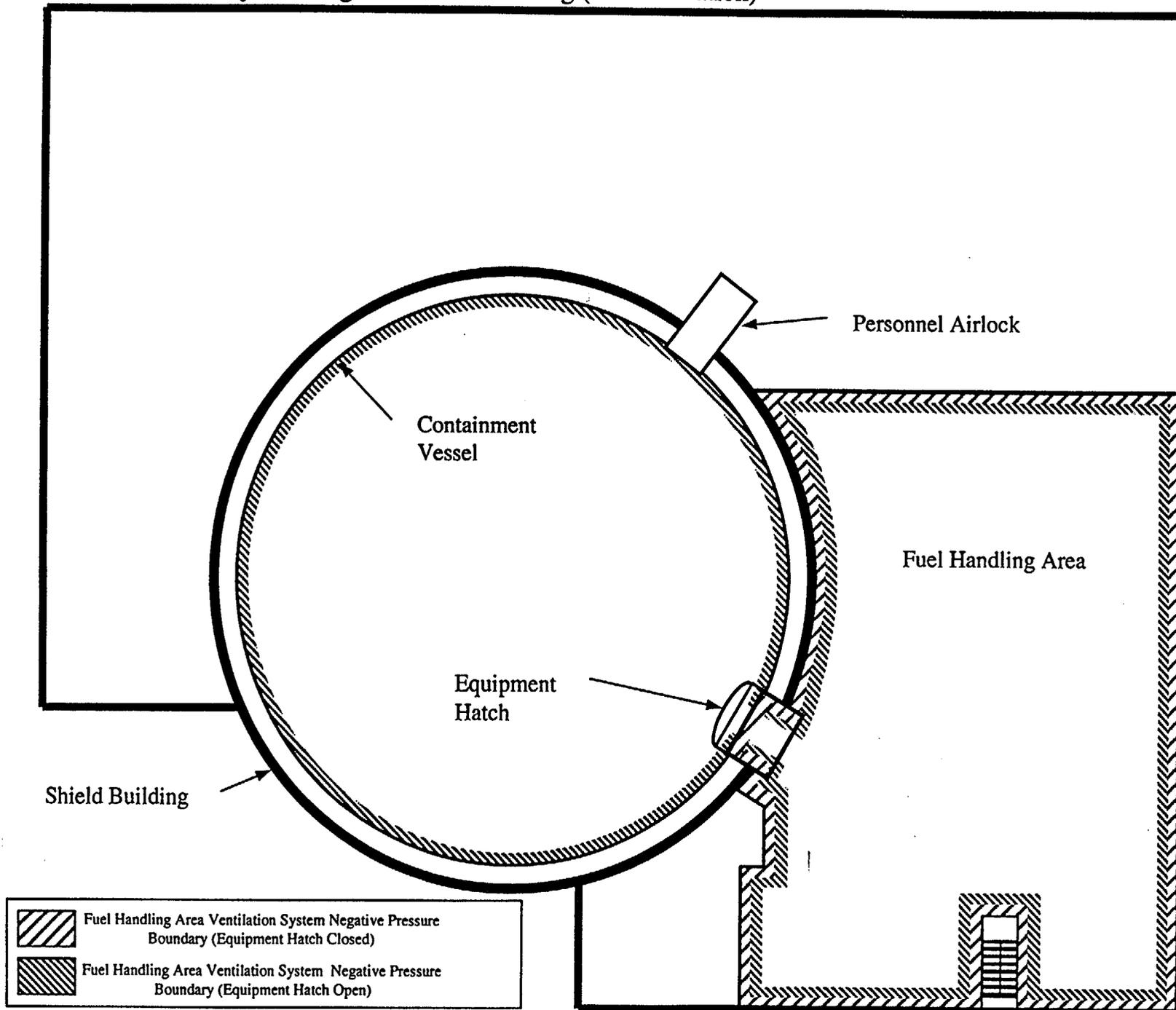


Figure 2

REFUELING OPERATIONSCONTAINMENT PENETRATIONSLIMITING CONDITION FOR OPERATION

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3.9.4 The containment penetrations shall be in the following status:

- a. The equipment ~~door~~hatch cover closed and held in place by a minimum of four bolts, except the equipment hatch may be open provided the requirements of Specification 3.9.12 are satisfied.
- b. A minimum of one door in each air lock closed, but both doors of the containment personnel air lock may be open provided that at least one personnel air lock door is capable of being closed and a designated individual is available immediately outside the personnel air lock to close the door, and
- c. Each penetration providing direct access from the containment atmosphere to the atmosphere outside containment shall be either:
  1. Closed by a manual or automatic isolation valve, blind flange, or equivalent, or
  2. Be capable of being closed from the control room by an OPERABLE containment purge and exhaust valve upon receipt of a high radiation signal from the containment purge and exhaust system noble gas monitor.

APPLICABILITY: During CORE ALTERATIONS or movement of irradiated fuel within the containment.

ACTION:

- a. With the requirements of the above specification not satisfied, immediately suspend all operations involving CORE ALTERATIONS or movement of irradiated fuel in the containment.
- b. With the requirements of Specification 3.9.4.c not satisfied for the containment purge and exhaust system, close at least one of the isolation valves for each of the purge and exhaust penetrations providing direct access from the containment atmosphere to the outside atmosphere within one hour.
- c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

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4.9.4 Each of the above required containment penetrations shall be determined to be either in its required condition or capable of being closed by an OPERABLE containment purge and exhaust valve, within 100 hours prior to the start of and at least once per 7 days during CORE ALTERATIONS or movement of irradiated fuel in the containment, by:

- a. Verifying the penetrations are in their required condition, or
- b. Verifying that with the containment purge and exhaust system in operation, and the containment purge and exhaust system noble gas monitor capable of providing a high radiation signal to the control room, that after initiation of the high radiation signal, the containment purge and exhaust isolation valves can be closed from the control room.

ADDITIONAL CHANGES PREVIOUSLY PROPOSED BY LETTER	
Serial No. <u>2640</u>	Date <u>12/2/00</u>

REFUELING OPERATIONSSTORAGE POOL VENTILATIONLIMITING CONDITION FOR OPERATION

3.9.12 Two independent emergency ventilation systems servicing the storage pool area shall be OPERABLE. When an emergency ventilation system servicing the storage pool is incapable of meeting the acceptance criteria of Surveillance Requirement 4.9.12.1 solely because the containment equipment hatch is open and both doors of the containment personnel air lock are open, it may be considered OPERABLE provided that at least one personnel air lock door is capable of being closed and a designated individual is available immediately outside the personnel air lock to close the door.

APPLICABILITY: Whenever irradiated fuel is in the spent fuel pool or cask pit, or during CORE ALTERATIONS or movement of irradiated fuel within the containment with the containment equipment hatch open.

ACTION:

- a. With one emergency ventilation system servicing the storage pool area inoperable, fuel movement within the spent fuel pool or cask pit, or crane operation with loads over the spent fuel pool or cask pit, may proceed provided the OPERABLE emergency ventilation system servicing the storage pool area is in operation and discharging through at least one train of HEPA filters and charcoal adsorbers.
- b. With one emergency ventilation system servicing the storage pool area inoperable, CORE ALTERATIONS and fuel movement within containment may proceed provided either the OPERABLE emergency ventilation system servicing the storage pool area is in operation and discharging through at least one train of HEPA filters and charcoal adsorbers or the containment equipment hatch cover is closed and held in place by a minimum of four bolts.
- bc. With no emergency ventilation system servicing the storage pool area OPERABLE, suspend CORE ALTERATIONS and all operations involving movement of fuel within the containment, spent fuel pool or cask pit, or crane operation with loads over the spent fuel pool or cask pit, until at least one system is restored to OPERABLE status. CORE ALTERATIONS and fuel movement within containment may proceed provided the containment equipment hatch cover is closed and held in place by a minimum of four bolts.
- ed. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.12.1 The above required emergency ventilation system servicing the storage pool area shall be demonstrated OPERABLE per the applicable Surveillance Requirements of 4.6.5.1, and at least once each REFUELING INTERVAL by verifying that the emergency ventilation system servicing the storage pool area maintains the storage pool area at a negative pressure of  $\geq 1/8$  inches Water Gauge relative to the outside atmosphere during system operation.

4.9.12.2 The normal storage pool ventilation system shall be demonstrated OPERABLE at least once each REFUELING INTERVAL by verifying that the system fans stop automatically and that dampers automatically divert flow into the emergency ventilation system on a fuel storage area high radiation test signal.

# INFORMATION ONLY

## 3/4.9 REFUELING OPERATIONS

### BASES

#### 3/4.9.1 BORON CONCENTRATION

The limitation on reactivity during REFUELING ensures that: 1) the reactor will remain subcritical during CORE ALTERATIONS, and 2) a uniform boron concentration is maintained for reactivity control in the water volumes having direct access to the reactor vessel. This limitation is consistent with the initial conditions assumed for the boron dilution incident in the accident analysis.

The ACTION statement's minimum boration flow rate of 12 gpm is less than the minimum boration flow rate of 25 gpm specified in TS 3/4.1.1.1, Reactivity Control Shutdown Margin because the lower flow rate is based on only boration the reactor vessel.

#### 3/4.9.2 INSTRUMENTATION

The OPERABILITY of source range neutron flux monitors ensures that redundant monitoring capability is available to detect changes in the reactivity condition of the core.

#### 3/4.9.3 DECAY TIME

The minimum requirement for reactor subcriticality prior to movement of irradiated fuel assemblies in the reactor pressure vessel ensures that sufficient time has elapsed to allow the radioactive decay of the short lived fission products. This decay time is consistent with the assumptions used in the safety analyses.

#### 3/4.9.4 CONTAINMENT PENETRATIONS

During CORE ALTERATIONS or movement of irradiated fuel within the containment, release of fission product radioactivity to the environment as a result of a fuel element rupture must be minimized. During MODES 1, 2, 3, and 4, this is accomplished by maintaining CONTAINMENT INTEGRITY as described in LCO 3.6.1.1. In other situations, the potential for containment pressurization as a result of an accident is not present, and therefore less stringent requirements are needed to isolate the containment from the atmosphere outside containment. Both containment personnel air lock doors may be open during CORE ALTERATIONS or during movement of irradiated fuel within the containment provided the conditions specified in LCO 3.9.4.b are met. The individual designated to be continuously available to close the air lock door must be stationed at the auxiliary building side of the air lock. A containment personnel air lock door is considered capable of being closed if the door is not blocked in such a way that it cannot be expeditiously closed, and any hoses and cables running through the air lock employ a means to allow safe, quick disconnect or severance, and are tagged at the air lock with specific instructions to expedite removal. The LCO 3.9.10 requirement to maintain a minimum of 23 feet of water over the top of irradiated fuel assemblies seated within the reactor pressure vessel during movement of fuel assemblies within the reactor pressure vessel while in MODE 6 ensures that sufficient water depth is available to remove 99% of the assumed iodine gas activity released from the rupture of an irradiated fuel assembly. Further, sufficient time is available to close the personnel air lock following a loss of shutdown cooling before boiling occurs.

### 3/4.9 REFUELING OPERATIONS

#### BASES

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#### 3/4.9.4 CONTAINMENT PENETRATIONS (Continued)

Regarding LCO 3.9.4.c, the phrase "atmosphere outside containment" refers to anywhere outside the containment vessel, including (but not limited to) the containment annulus and the auxiliary building.

The containment equipment hatch cover may be off during CORE ALTERATIONS or movement of irradiated fuel in containment provided the requirements of Specification 3.9.12 are satisfied. The requirements of Specification 3.9.12 ensure that the emergency ventilation system servicing the storage area is OPERABLE with the ability to filter any radioactive release through the containment equipment hatch following a fuel handling accident. Since containment closure is not credited for mitigating the consequences of the fuel handling accident as described in the Updated Safety Analysis Report, the equipment hatch cover need not be installed to ensure adequate protection of the public health or safety.

For penetrations that are closed by a method equivalent to a manual or automatic isolation valve, or a blind flange, the isolation technique must be approved by an engineering evaluation. The isolation technique may include the use of a material that can provide a temporary seal capable of maintaining the integrity of the penetration to restrict the release of radioactive material from a fuel handling accident.

With the containment purge and exhaust system in operation, a high radiation signal received from the containment purge and exhaust system noble gas monitor will effectively automatically contain the release by shutting down the containment purge system supply and exhaust fans and closing their inlet and outlet dampers. On a valid signal, the control room operator will then manually close the containment purge and exhaust isolation valves. Therefore, the uncontrolled release of radioactive material from the containment to the environment will be restricted.

With the containment purge and exhaust system not in operation, there would be no flow to the containment purge and exhaust system noble gas monitor, hence the requirements of Specification 3.9.4.c.2 would not be satisfied. In this situation, unless Specification 3.9.4.c.1 is satisfied, entry into the Action statement would be required.

With a containment purge penetration not capable of being closed from the control room by an OPERABLE containment purge and exhaust isolation valve upon receipt of a high radiation signal from the containment purge and exhaust system noble gas monitor, closure of the containment purge and exhaust penetrations with at least one isolation valve ensures that the uncontrolled release of radioactive material from the containment to the environment will be restricted.

#### 3/4.9.5 COMMUNICATIONS

Deleted

REFUELING OPERATIONSBASES3/4.9.12 STORAGE POOL VENTILATION

The requirements on the emergency ventilation system servicing the storage pool area to be operating or OPERABLE ensure that all radioactive material released from an irradiated fuel assembly will be filtered through the HEPA filters and charcoal adsorber prior to discharge to the atmosphere. The OPERABILITY of this system and the resulting iodine removal capacity are consistent with the assumptions of the safety analyses.

Specification 3.9.12 permits an emergency ventilation system servicing the storage pool that is incapable of meeting the acceptance criteria of Surveillance Requirement 4.9.12.1 solely because the containment equipment hatch is open and both doors of the containment personnel air lock are open to be considered OPERABLE provided at least one personnel air lock door is capable of being closed and a designated individual is available immediately outside the personnel air lock to close the door. When the containment equipment hatch is open and both doors of the containment personnel air lock are open, the emergency ventilation system servicing the fuel storage area is incapable of maintaining a negative pressure of  $\geq 1/8$  inches Water Gauge relative to the outside atmosphere during system operation. The requirement that at least one personnel air lock door be capable of being closed and a designated individual be available immediately outside the personnel air lock to close the door ensures that the negative pressure boundary can be established in a timely manner following a fuel handling accident in the storage pool area or containment. Once the negative pressure boundary is established, the emergency ventilation system servicing the storage pool area will be capable of establishing the required negative pressure relative to the outside atmosphere.

3/4.9.13 SPENT FUEL ASSEMBLY STORAGE

The restrictions on the placement of fuel assemblies within the spent fuel pool and cask pit, as dictated by Figure 3.9-1 and Figure 3.9-2, ensure that the k-effective of the spent fuel pool and cask pit will always remain less than 0.95 assuming the spent fuel pool and cask pit to be flooded with non-borated water. The restrictions delineated in Figure 3.9-1 and Figure 3.9-2, and the action statement, are consistent with the criticality safety analyses performed for the spent fuel pool and cask pit.

Docket Number 50-346  
License Number NPF-3  
Serial Number 2690  
Attachment 2

### Environmental Evaluation

The FirstEnergy Nuclear Operating Company (FENOC) has determined that the proposed amendment would change requirements with respect to the installation or use of a facility component located within the restricted area, as defined in 10CFR20, or would change an inspection or surveillance requirement. FENOC has evaluated the proposed changes and has determined that the changes do not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amount of effluent that may be released offsite, or (iii) a significant increase in the individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criterion for categorical exclusion set forth in 10CFR51.22 (c)(9). Therefore, pursuant to 10CFR51.22 (b), an environmental assessment of the proposed change is not required.

Docket Number 50-346  
License Number NPF-3  
Serial Number 2690  
Enclosure 2

**PROPOSED TECHNICAL SPECIFICATION CHANGES  
REVISION BAR FORMAT**

(4 Pages Follow)

## REFUELING OPERATIONS

### CONTAINMENT PENETRATIONS

#### LIMITING CONDITION FOR OPERATION

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3.9.4 The containment penetrations shall be in the following status:

- a. The equipment hatch cover closed and held in place by a minimum of four bolts, except the equipment hatch may be open provided the requirements of Specification 3.9.12 are satisfied,
- b. A minimum of one door in each air lock closed, but both doors of the containment personnel air lock may be open provided that at least one personnel air lock door is capable of being closed and a designated individual is available immediately outside the personnel air lock to close the door, and
- c. Each penetration providing direct access from the containment atmosphere to the atmosphere outside containment shall be either:
  1. Closed by a manual or automatic isolation valve, blind flange, or equivalent, or
  2. Be capable of being closed from the control room by an OPERABLE containment purge and exhaust valve upon receipt of a high radiation signal from the containment purge and exhaust system noble gas monitor.

**APPLICABILITY:** During CORE ALTERATIONS or movement of irradiated fuel within the containment.

#### **ACTION:**

- a. With the requirements of the above specification not satisfied, immediately suspend all operations involving CORE ALTERATIONS or movement of irradiated fuel in the containment.
- b. With the requirements of Specification 3.9.4.c not satisfied for the containment purge and exhaust system, close at least one of the isolation valves for each of the purge and exhaust penetrations providing direct access from the containment atmosphere to the outside atmosphere within one hour.
- c. The provisions of Specification 3.0.3 are not applicable.

#### **SURVEILLANCE REQUIREMENTS**

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4.9.4 Each of the above required containment penetrations shall be determined to be either in its required condition or capable of being closed by an OPERABLE containment purge and exhaust valve, within 100 hours prior to the start of and at least once per 7 days during CORE ALTERATIONS or movement of irradiated fuel in the containment, by:

- a. Verifying the penetrations are in their required condition, or
- b. Verifying that with the containment purge and exhaust system in operation, and the containment purge and exhaust system noble gas monitor capable of providing a high radiation signal to the control room, that after initiation of the high radiation signal, the containment purge and exhaust isolation valves can be closed from the control room.

## REFUELING OPERATIONS

### STORAGE POOL VENTILATION

#### LIMITING CONDITION FOR OPERATION

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3.9.12 Two independent emergency ventilation systems servicing the storage pool area shall be OPERABLE. When an emergency ventilation system servicing the storage pool is incapable of meeting the acceptance criteria of Surveillance Requirement 4.9.12.1 solely because the containment equipment hatch is open and both doors of the containment personnel air lock are open, it may be considered OPERABLE provided that at least one personnel air lock door is capable of being closed and a designated individual is available immediately outside the personnel air lock to close the door.

APPLICABILITY: Whenever irradiated fuel is in the spent fuel pool or cask pit, or during CORE ALTERATIONS or movement of irradiated fuel within the containment with the containment equipment hatch open.

#### ACTION:

- a. With one emergency ventilation system servicing the storage pool area inoperable, fuel movement within the spent fuel pool or cask pit, or crane operation with loads over the spent fuel pool or cask pit, may proceed provided the OPERABLE emergency ventilation system servicing the storage pool area is in operation and discharging through at least one train of HEPA filters and charcoal adsorbers.
- b. With one emergency ventilation system servicing the storage pool area inoperable, CORE ALTERATIONS and fuel movement within containment may proceed provided either the OPERABLE emergency ventilation system servicing the storage pool area is in operation and discharging through at least one train of HEPA filters and charcoal adsorbers or the containment equipment hatch cover is closed and held in place by a minimum of four bolts.
- c. With no emergency ventilation system servicing the storage pool area OPERABLE, suspend CORE ALTERATIONS and all operations involving movement of fuel within the containment, spent fuel pool or cask pit, or crane operation with loads over the spent fuel pool or cask pit, until at least one system is restored to OPERABLE status. CORE ALTERATIONS and fuel movement within containment may proceed provided the containment equipment hatch cover is closed and held in place by a minimum of four bolts.
- d. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.9.12.1 The above required emergency ventilation system servicing the storage pool area shall be demonstrated OPERABLE per the applicable Surveillance Requirements of 4.6.5.1, and at least once each REFUELING INTERVAL by verifying that the emergency ventilation system servicing the storage pool area maintains the storage pool area at a negative pressure of  $\geq 1/8$  inches Water Gauge relative to the outside atmosphere during system operation.

4.9.12.2 The normal storage pool ventilation system shall be demonstrated OPERABLE at least once each REFUELING INTERVAL by verifying that the system fans stop automatically and that dampers automatically divert flow into the emergency ventilation system on a fuel storage area high radiation test signal.

### 3/4.9 REFUELING OPERATIONS

#### BASES

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#### 3/4.9.4 CONTAINMENT PENETRATIONS (Continued)

Regarding LCO 3.9.4.c, the phrase "atmosphere outside containment" refers to anywhere outside the containment vessel, including (but not limited to) the containment annulus and the auxiliary building.

The containment equipment hatch cover may be off during CORE ALTERATIONS or movement of irradiated fuel in containment provided the requirements of Specification 3.9.12 are satisfied. The requirements of Specification 3.9.12 ensure that the emergency ventilation system servicing the storage area is OPERABLE with the ability to filter any radioactive release through the containment equipment hatch following a fuel handling accident. Since containment closure is not credited for mitigating the consequences of the fuel handling accident as described in the Updated Safety Analysis Report, the equipment hatch cover need not be installed to ensure adequate protection of the public health or safety.

For penetrations that are closed by a method equivalent to a manual or automatic isolation valve, or a blind flange, the isolation technique must be approved by an engineering evaluation. The isolation technique may include the use of a material that can provide a temporary seal capable of maintaining the integrity of the penetration to restrict the release of radioactive material from a fuel handling accident.

With the containment purge and exhaust system in operation, a high radiation signal received from the containment purge and exhaust system noble gas monitor will effectively automatically contain the release by shutting down the containment purge system supply and exhaust fans and closing their inlet and outlet dampers. On a valid signal, the control room operator will then manually close the containment purge and exhaust isolation valves. Therefore, the uncontrolled release of radioactive material from the containment to the environment will be restricted.

With the containment purge and exhaust system not in operation, there would be no flow to the containment purge and exhaust system noble gas monitor, hence the requirements of Specification 3.9.4.c.2 would not be satisfied. In this situation, unless Specification 3.9.4.c.1 is satisfied, entry into the Action statement would be required.

With a containment purge penetration not capable of being closed from the control room by an OPERABLE containment purge and exhaust isolation valve upon receipt of a high radiation signal from the containment purge and exhaust system noble gas monitor, closure of the containment purge and exhaust penetrations with at least one isolation valve ensures that the uncontrolled release of radioactive material from the containment to the environment will be restricted.

#### 3/4.9.5 COMMUNICATIONS

Deleted

## REFUELING OPERATIONS

### BASES

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#### 3/4.9.12 STORAGE POOL VENTILATION

The requirements on the emergency ventilation system servicing the storage pool area to be operating or OPERABLE ensure that all radioactive material released from an irradiated fuel assembly will be filtered through the HEPA filters and charcoal adsorber prior to discharge to the atmosphere. The OPERABILITY of this system and the resulting iodine removal capacity are consistent with the assumptions of the safety analyses.

Specification 3.9.12 permits an emergency ventilation system servicing the storage pool that is incapable of meeting the acceptance criteria of Surveillance Requirement 4.9.12.1 solely because the containment equipment hatch is open and both doors of the containment personnel air lock are open to be considered OPERABLE provided at least one personnel air lock door is capable of being closed and a designated individual is available immediately outside the personnel air lock to close the door. When the containment equipment hatch is open and both doors of the containment personnel air lock are open, the emergency ventilation system servicing the fuel storage area is incapable of maintaining a negative pressure of  $\geq 1/8$  inches Water Gauge relative to the outside atmosphere during system operation. The requirement that at least one personnel air lock door be capable of being closed and a designated individual be available immediately outside the personnel air lock to close the door ensures that the negative pressure boundary can be established in a timely manner following a fuel handling accident in the storage pool area or containment. Once the negative pressure boundary is established, the emergency ventilation system servicing the storage pool area will be capable of establishing the required negative pressure relative to the outside atmosphere.

#### 3/4.9.13 SPENT FUEL ASSEMBLY STORAGE

The restrictions on the placement of fuel assemblies within the spent fuel pool and cask pit, as dictated by Figure 3.9-1 and Figure 3.9-2, ensure that the k-effective of the spent fuel pool and cask pit will always remain less than 0.95 assuming the spent fuel pool and cask pit to be flooded with non-borated water. The restrictions delineated in Figure 3.9-1 and Figure 3.9-2, and the action statement, are consistent with the criticality safety analyses performed for the spent fuel pool and cask pit.

Docket Number 50-346  
License Number NPF-3  
Serial Number 2690  
Enclosure 3

### **COMMITMENT LIST**

THE FOLLOWING LIST IDENTIFIES THOSE ACTIONS COMMITTED TO BY THE DAVIS-BESSE NUCLEAR POWER STATION (DBNPS) IN THIS DOCUMENT. ANY OTHER ACTIONS DISCUSSED IN THE SUBMITTAL REPRESENT INTENDED OR PLANNED ACTIONS BY THE DBNPS. THEY ARE DESCRIBED ONLY FOR INFORMATION AND ARE NOT REGULATORY COMMITMENTS. PLEASE NOTIFY THE MANAGER – REGULATORY AFFAIRS (419-321-8450) AT THE DBNPS OF ANY QUESTIONS REGARDING THIS DOCUMENT OR ANY ASSOCIATED REGULATORY COMMITMENTS.

#### **COMMITMENTS**

#### **DUE DATE**

The DBNPS will revise its procedures to provide guidance for the individual to close the personnel air lock door following a fuel handling accident in the spent fuel storage pool area.

No later than implementation of the proposed license amendment

The DBNPS will revise its procedures to evacuate the fuel handling area following a fuel handling accident inside containment if the equipment hatch is open.

No later than implementation of the proposed license amendment

The DBNPS will revise its procedures to instruct the control room staff to shutdown Containment Purge and Exhaust System and close the Containment Purge and Exhaust isolation valves following any fuel handling accident with the equipment hatch open.

No later than implementation of the proposed license amendment