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VICE PRESIDENT - NUCLEAR

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U. S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555

Perry Nuclear Power Plant  
Docket No. 50-440  
Request for Enforcement  
Discretion With Respect to  
The Containment Airlocks

Gentlemen:

This letter requests that the Nuclear Regulatory Commission exercise Enforcement Discretion with respect to Technical Specification 3.6.1.3, "Primary Containment Air Locks," Action a.1. This letter documents discussions held with the NRC on January 28, 1994, regarding a situation where both of the containment air locks had an inoperable and/or unopenable door. Due to the current wording of the Perry Nuclear Power Plant (PNPP), Unit 1, Technical Specifications, this situation precluded access into primary containment, which is a necessary activity for a BWR/6 design plant. During these discussions two requests for Enforcement Discretion were requested and verbal approval was received from the NRC Staff.

The attachments to this letter provide the information necessary to support these requests, as outlined in 10 CFR 2 Appendix C, Section VII.C. The Plant Operations Review Committee reviewed and concurred with the contents of these requests.

If you have questions or require additional information, please contact Mr. Henry Hegrat - Regulatory Affairs at (216) 280-5606.

Very truly yours,

*David P. Ogden for.*  
*Robert A. Stratman*

RAS:BSF:ral

Attachments

cc: NRC Project Manager  
NRC Resident Inspector Office  
NRC Region III  
State of Ohio

Operating Companies  
Cleveland Electric Illuminating  
Toledo Edison

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## INTRODUCTION

This request for Enforcement Discretion for the Perry Nuclear Power Plant (PNPP) Unit 1 involves use of Technical Specification 3.6.1.3 "Primary Containment Air Locks", Action a.1. This request is submitted to address difficulties experienced due to both of the containment airlocks having one inoperable and/or unopenable air lock door.

## DESCRIPTION OF CIRCUMSTANCES

PNPP has two primary containment airlocks, an "upper airlock" and a "lower airlock". On the evening of January 27, 1994, activities were ongoing to restore OPERABILITY of the outer door on the upper containment air lock. Repairs had been completed on a ball valve in the air supply line, and preparations were underway to begin the "door seal pneumatic system leak test" (commonly referred to as the "drop test"). Due to the inoperability of the outer door, the upper air lock inner door had been locked on both sides of the door to prevent inadvertent opening. At approximately 2015 hours, an entry through the lower containment airlock was unsuccessful due to the failure of one of the two door seals on the outer door to deflate when the handwheel was opened. When one of the door seals on a door will not deflate, it is not physically possible to open the door. Therefore, access to containment was no longer possible through either airlock.

In order to restore the upper containment outer door to OPERABILITY as quickly as possible, the drop test was begun at 2305 hours on January 27, 1994, for a duration of 24 hours. At 0130 hours on January 28, 1994, in an attempt to deflate the lower air lock outer door seal, its air supply system was isolated and the accumulator for the outer door was bled off. This was unsuccessful in deflating the seal which had previously remained inflated. However, since this action deflated the other seal on the outer door, the lower air lock outer door was declared inoperable at this time. All attempts to deflate the problematic door seal were unsuccessful. The only recourse was to plan a work order to puncture the seal, then to begin activities to replace the seal, troubleshoot and repair the problem which was causing the deflation difficulties, and perform post-maintenance retesting including a drop test. This is expected to take several days to complete.

Based on the desire to restore the upper airlock to a usable status upon completion of the drop test (which would require a containment entry to remove the lock on the containment side of the upper air lock inner door), and the expected need to perform containment entries for safety significant reasons before the lower air lock outer door would be restored to full OPERABILITY, discussions with the NRC were initiated on the morning of January 28, 1994, to explore options related to the current Technical Specifications. As a result of previous difficulties, a request for amendment of the Primary Containment Air Lock Specification had been submitted on September 19, 1990, and supplemented on February 26, 1993. Because the changes proposed in these submittals would resolve the current situation, therefore discussions centered around these proposed changes. The details on the Enforcement Discretion items are discussed below, and in Attachment 2 to this letter.

At 1945 hours on January 28, 1994, during Plant Operations Review Committee (PORC) review of the proposed requests for Enforcement Discretion, a manual scram of the plant was performed for reasons unrelated to the airlock difficulties. As a result, the subsequent discussions with the NRC also considered the status of the plant in Operational Condition 3, HOT SHUTDOWN. This included communication of the desirability of remaining in HOT SHUTDOWN in anticipation of plant restart, rather than cycling the plant through the cooldown and subsequent heatup transient that a brief entry through the lower air lock inner door would cause. Details on these discussions are also provided below.

At 2230 on January 28, 1994, Enforcement Discretion was exercised by the NRC on two separate issues related to Technical Specification 3.6.1.3, "Primary Containment Air Locks," ACTION a.1, in support of recovery efforts for containment access.

IDENTIFICATION OF THE ASSOCIATED TECHNICAL SPECIFICATION, PROPOSED COMPENSATORY MEASURES, AND DURATION OF THE ENFORCEMENT DISCRETION

The first Enforcement Discretion item requested that compliance to ACTION a.1 not be limited to the current footnote (\*). The current footnote would only permit relief from ACTION a.1 for entries to repair an inoperable inner door. Until a permanent Technical Specification change can be issued by the NRC, based on the previous February 26, 1993 Amendment Request, the following modified footnote can be applied:

- \* If one or both air locks have one inoperable door, entry into and exit from the air lock(s) through the OPERABLE door is permitted under administrative controls to perform repairs of the affected air lock components. Also, if both air locks have one inoperable or unopenable door, entry into and exit from primary containment is permitted under administrative controls for 7 days.

This discretion is dependent on the following compensatory measures. The opening of the lower air lock inner door shall be preceded by closure of the outer door, and inflation of the remaining intact seal, and, the opening of the inner door will be performed under appropriate administrative control. The administrative controls will include the following: the OPERABLE door need not be locked while personnel are in containment, but a dedicated individual is assigned to control access through the door while it remains unlocked. The dedicated individual shall also ensure prompt closure of the OPERABLE door after entry and/or exit.

The Enforcement Discretion is requested to remain in effect until NRR can issue all or a portion of the License Amendment request originally submitted in September 1990 and supplemented in February 1993.

The second item for which Enforcement Discretion was requested is described in Attachment 2 to this letter.

### SAFETY BASIS FOR THE REQUEST

The safety basis for this Enforcement Discretion request is detailed within the supplemental License Amendment Request dated February 26, 1993. The footnote being utilized as a replacement for the current footnote \* is almost identical to the one proposed as new "footnote \*\*" in the February letter. The only difference is the addition of two words, "or unopenable", to the previously proposed words. These were added due to the realization that if the upper air lock outer door was restored to OPERABLE status before access to the lower airlock could be achieved, then even the reworded footnote might not permit entry through the lower airlock without forcing entry into an ACTION statement requiring cooldown of the plant to Operational Condition 4, "COLD SHUTDOWN". Even with restoration of OPERABILITY of the upper air lock outer door, access through the upper air lock would still not be possible due to the lock on the containment side of the inner door. The addition of these two words does not change in any adverse way the safety basis for the footnote that was described in the February 26, 1993 letter.

The discussions within the February 26, 1993 letter describing the safety basis for the footnote are therefore incorporated herein by reference.

10 CFR 2, Appendix C, specifies that for issues involving enforcement discretion, that the basis be provided for the conclusion that noncompliance with the particular Technical Specification (or license condition) involved will not be a potential detriment to the public health and safety and that a significant safety hazard is not involved. In addition to the paragraphs from the February letter, the following discussion is provided.

The probability of occurrence of a previously evaluated accident is not increased because the containment air locks do not affect the initiation of any accident. The proposed revisions do not change the plant design or methods of operation. Therefore the proposed changes to Specification 3.6.1.3 to revise the wording of footnote \* can not increase the probability of an accident previously evaluated.

The consequences of an accident remain bounded by conditions which exist prior to this change, since operation under the provisions of the proposed footnote to the air lock Actions does not produce potential containment leakage paths beyond those permitted by the currently approved Technical Specifications. The consequences of previously evaluated accidents are based on an assumption for the containment leakage rate. With regard to the containment air locks, that containment leakage rate is maintained provided at least one Operable air lock door is closed during the event. The period of time that an air lock door could have no Operable door closed remains extremely small, as was the case for the current footnote. In the case of having only one air lock with one door inoperable, the Operable door on that air lock may only be used during performance of activities associated with repairs of the affected air lock components. In the case where both air locks have an inoperable door, use of the Operable doors for containment entry and exit (in addition to repair entries) is permissible for only seven days, under administrative controls that limit their use and ensure prompt closure following use for entry and exit through the doors. The use of the air lock for these limited circumstances is

acceptable due to the low probability of an event that could pressurize the containment during the short time that the Operable door will be open for entries/exits. Therefore, the proposed changes to the current footnote \* cannot increase the consequences of any accident previously evaluated by the NRC.

Applying enforcement discretion to Technical Specification Action 3.6.1.3.a.1 under these circumstances therefore does not involve a significant increase in the probability or consequences of an accident previously evaluated.

Containment air locks are designed and assumed to be used for entry and exit. Their operation does not interface with the reactor coolant pressure boundary or any other mechanical or electrical controls which could impact the operations of the reactor or its direct support systems. Therefore a new or different accident cannot be created. The current footnote permits limited use of the Operable door in an air lock; the proposed footnote also limits use of the Operable door; it simply revises the types of limited circumstances for such use. The proposed change to the \* footnote does not create the possibility of a new or different kind of accident, since the conditions of the containment and its air locks remain unchanged, and the actual operating modes and procedures for the air lock are unaffected by these Technical Specification changes. Therefore, applying enforcement discretion to Technical Specification Action 3.6.1.3.a.1 under these circumstances does not create the possibility of a new or different kind of accident from any previously evaluated.

The applicable margin of safety consists of maintaining the containment leak rates within the assumptions of the design basis accident analysis. With regard to the containment air locks, these leak rates are maintained provided at least one Operable air lock door is closed during the event. The period of time that an air lock could have no Operable door closed remains extremely small, as was the case for the current footnote. The current footnote was previously evaluated by the NRC and determined to be acceptable since the potential for an event requiring containment integrity occurring during the limited time when no Operable door is closed is sufficiently remote to justify limited access when required. Therefore, applying enforcement discretion to the Technical Specification Action 3.6.1.3.a.1 footnote under these circumstances does not involve a significant reduction in the margin of safety described in the Technical Specifications.

The issue for which enforcement discretion has been proposed has been reviewed with respect to the above factors and it has been determined that the discretion will not pose a detriment to the public health and safety and that it does not involve a significant safety hazard.

#### ENVIRONMENTAL DETERMINATION

The issue for which enforcement discretion is requested has been reviewed against the criteria of 10 CFR 51.22 for environmental considerations. The proposed discretion does not involve a significant safety hazard, nor increase the types and amounts of effluents that may be released offsite, nor significantly increase individual or cumulative occupational radiation exposures. Accordingly, the issue for which enforcement discretion is



requested meets the eligibility criteria given in 10 CFR 51.22(c)(9) for a categorical exclusion from the requirement for an Environmental Impact Statement. Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with this request.

#### CONSIDERATION OF HOT SHUTDOWN STATUS OF THE PLANT

During the course of discussions on the request for Enforcement Discretion, a manual scram of the plant occurred due to reasons unrelated to the air lock difficulties. The plant therefore entered Operational Condition 3 and was held at pressure and temperature in order to avoid an unnecessary cooldown transient prior to restart, which was considered likely to occur within 48 hours. This resulted in an additional consideration being addressed within the discussions between the NRC and the licensee. Specifically, it was necessary to consider whether the exercise of Enforcement Discretion was still warranted. The Enforcement Discretion would now preclude the need for the plant to cooldown to less than 200 degrees F (Operational Condition 4), while prior to the manual scram it would have precluded a plant shutdown to Operational Condition 3, followed by the cooldown to Operational Condition 4.

Exercise of Enforcement Discretion in this situation is warranted based on the following considerations. Taking the plant to Operational Condition 4 would delay restart of the plant during a period of demand for power. This restart factor alone however, is not typically a sufficient reason to exercise enforcement discretion. The safety significance of the action must be examined and the NRC staff be clearly satisfied that such action is warranted from a health and safety standpoint.

Based on that understanding, the following points are applicable. A plant cooldown is a significant transient, involving cycling of plant safety systems and stresses on the reactor pressure coolant boundary. Avoidance of such unnecessary transients is desirable. Also, the relief being requested is only to permit brief entry into containment, following which the OPERABLE door will be promptly reclosed and sealed to restore containment integrity. As noted in the Technical Specification Bases for the Primary Containment Airlock Specification, "only one closed door in each air lock is required to maintain the integrity of the containment". Without issuance of the Enforcement Discretion, a cooldown to less than 200 degrees F would have been required, even though prior to the beginning of the cooldown, the OPERABLE door on the lower airlock would have been returned to its closed, sealed and locked status. Requiring a cooldown in such an instance is unwarranted and could be avoided by issuance of the previously requested and justified rewording of the Action a.1 footnote.

In addition to the clear guidance provided in the Technical Specification Bases that one door on an air lock is sufficient to ensure plant safety, recognition of this concept is provided by the existence of the exception to Specification 3.0.4 that is contained within Action a.1. This "3.0.4 exception" provides that changes in plant Operational Conditions (e.g. plant startup) are acceptable as long as at least one door in an airlock is OPERABLE. Therefore, plant startup from Operational Condition 3 is no less desirable from a safety viewpoint than a startup from Operational Condition 4.

#### DESCRIPTION OF CIRCUMSTANCES

See Attachment 1 for a description of the circumstances involved.

#### IDENTIFICATION OF THE ASSOCIATED TECHNICAL SPECIFICATION, PROPOSED COMPENSATORY MEASURES, AND DURATION OF THE ENFORCEMENT DISCRETION

The second item for which Enforcement Discretion was requested dealt with the portion of the Technical Specification 3.6.1.3 Action a.1 requirement to lock the OPERABLE door closed within 24 hours. The Enforcement Discretion would allow that if it is not possible to meet the portion of ACTION a.1 which requires the OPERABLE lower inner air lock door to be locked closed within 24 hours of declaration of inoperability of the lower outer door, the NRC will not enforce compliance with the ACTION requirement. This discretion is based on the inaccessibility of the inner door, and will be exercised provided that arrangements are made to immediately install the necessary locking devices as soon as the door becomes accessible. Dedicated personnel are expected to be assigned to install locking devices prior to barrel access being permitted to other individuals. This Enforcement Discretion will expire once the lock has been placed on the OPERABLE lower airlock inner door, at which time conformance to ACTION a.1 will be re-established.

#### SAFETY BASIS FOR THE REQUEST

10 CFR 2, Appendix C, specifies that for issues involving enforcement discretion that the basis for the conclusion that noncompliance with the particular Technical Specification (or license condition) involved be provided, and that there will not be a potential detriment to the public health and safety and that a significant safety hazard is not involved.

The probability of occurrence of a previously evaluated accident is not increased because the containment air locks do not affect the initiation of any accident. The proposed revisions do not change the plant design or methods of operation. Therefore the proposed changes to Specification 3.6.1.3 to revise the wording of footnote \* and the reformatting of Action a can not increase the probability of an accident previously evaluated.

The consequences of an accident remain bounded by conditions which exist prior to this change, since operation under the provisions of the proposed request for enforcement discretion to the air lock Action does not produce potential containment leakage paths beyond those permitted by the currently approved Technical Specifications. The consequences of previously evaluated accidents are based on an assumption for the containment leakage rate. With regard to the containment air locks, that containment leakage rate is maintained provided at least one OPERABLE air lock door is closed during the event. During the period of time that the OPERABLE inner air lock door does not have a locking device installed on it, there is no compromise of containment integrity, and no change to its acceptable leakage rate. Due to the inaccessibility of the inner door during the period when the seal to the outer air lock door is inflated, the inner air lock door can not be passed through, which is exactly the intent of installing the locking device. The proposed enforcement discretion to Action 3.6.1.3.a.1 which was requested cannot increase the consequences of any accident previously evaluated by the NRC.

Therefore, applying enforcement discretion to Technical Specification Action 3.6.1.3.a.1 under these circumstances does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The containment air locks are designed and assumed to be used for entry and exit. Their operation does not interface with the reactor coolant pressure boundary or any other mechanical or electrical controls which could impact the operations of the reactor or its direct support systems. Therefore a new or different accident cannot be created. The deviation from the requirement to lock the OPERABLE air lock door within 24 hours does not create the possibility of a new or different kind of accident, since the intent of the requirement is to prevent entry/egress from the containment, and the inner door was unreachable since the outer air lock door could not be passed through due to the inability to deflate the seal. Therefore, applying enforcement discretion to Technical Specification Action 3.6.1.3.a.1 under these circumstances does not create the possibility of a new or different kind of accident from any previously evaluated.

The applicable margin of safety consists of maintaining the containment leak rates within the assumptions of the design basis accident analysis. With regard to the containment air locks, these leak rates are maintained provided at least one OPERABLE air lock door is closed during the event. The requirement to lock the door is an additional administrative requirement to ensure that the OPERABLE airlock door remains closed. Therefore, applying enforcement discretion to Technical Specification Action 3.6.1.3.a.1 under these circumstances does not involve a significant reduction in the margin of safety described in the Technical Specifications.

The issue for which enforcement discretion has been proposed has been reviewed with respect to the above factors and it has been determined that the discretion will not pose a detriment to the public health and safety and that it does not involve a significant safety hazard.

#### ENVIRONMENTAL DETERMINATION

The above issue for which enforcement discretion is requested has been reviewed against the criteria of 10 CFR 51.22 for environmental considerations. The proposed discretion required does not involve a significant safety hazard, nor increase the types and amounts of effluents that may be released offsite, nor significantly increase individual or cumulative occupational radiation exposures. Accordingly, the issue for which enforcement discretion is requested meets the eligibility criteria given in 10 CFR 51.22(c)(9) for a categorical exclusion from the requirement for an Environmental Impact Statement. Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with this request.

#### CONSIDERATION OF HOT SHUTDOWN STATUS OF THE PLANT

See Attachment 1, the same considerations are involved. This request for Enforcement Discretion was warranted, although use of this Discretion was not necessary.