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10CFR50.90

ComEd

September 1, 2000

PSLTR # 00-0121

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

Dresden Nuclear Power Station, Units 2 and 3
Facility Operating License Nos. DPR-19 and DPR-25
NRC Docket Nos. 50-237 and 50-249

Subject: Request for Technical Specifications Change
Main Steam Line Radiation Monitor Trip of the Mechanical Vacuum Pump

Reference:

1) General Electric Report NEDO-31400A, "Safety Evaluation for Eliminating The Boiling Water Reactor Main Steam Line Isolation Valve Closure Function and Scram Function of the Main Steam Line Radiation Monitor," dated October 1992

2) Letter from A. C. Thadani (U.S. NRC) to G. J. Beck (BWROG), "Acceptance for Referencing Topical Report NEDO-31400," dated May 15, 1991

3) Letter from J. F. Stang (U.S. NRC) to I. Johnson (ComEd), "Issuance of Amendments," dated October 24, 1997

4) Letter from R. Krich (ComEd) to U.S. NRC, "Request for Amendment to Technical Specifications for Elimination of Main Steam Line Radiation Monitor Isolation and Scram Functions," dated December 30, 1999

5) Letter from R. M. Krich (ComEd) to U.S. NRC, "Request for Technical Specifications Changes for Dresden Nuclear Power Station, Units 2 and 3, LaSalle County Station, Units 1 and 2, and Quad Cities Nuclear Power Station, Units 1 and 2, to Convert to Improved Standard Technical Specifications," dated March 3, 2000

6) Letter from S. N. Bailey (U.S. NRC) to O. D. Kingsley (ComEd), "Dresden, LaSalle and Quad Cities – Review Schedule of the Conversion to Improved Standard Technical Specifications," dated May 19, 2000

A001

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," we request a change to the Technical Specifications (TS) of Facility License Nos. DPR-19 and DPR-25 for the Dresden Nuclear Power Station (DNPS), Units 2 and 3 respectively. We are requesting this change as a result of our review for the implementation of the Improved Standard Technical Specifications which identified that a TS Limiting Condition for Operation (LCO) is required for the Mechanical Vacuum Pump (MVP) in accordance with 10 CFR 50.36, "Technical specifications," (c)(2)(ii), Criterion 3. Additionally, as a result of this review, DNPS implemented Administrative controls for the MVP in accordance with NRC Administrative Letter 98-10, "Dispositioning of Technical Specifications That Are Insufficient to Assure Plant Safety." We previously identified that this change was required in Reference 5 and the NRC acknowledged this in Reference 6. The proposed change is to add a new TS Section 3/4.2.K, "Mechanical Vacuum Pump Isolation Instrumentation," for the Main Steam Line Radiation Monitor (MSLRM) trip of the MVP. This proposed change is consistent with the Improved Standard Technical Specifications (i.e., NUREG-1433, Revision 1, "Standard Technical Specifications, General Electric Plants, BWR/4," April 1995).

In addition to the proposed change identified above, DNPS is proposing a corresponding change to our previously submitted request to convert to the Improved Standard Technical Specifications (ISTS). This proposed change is to add a new TS Section 3.3.7.2, "Mechanical Vacuum Pump Trip Instrumentation." The need for this proposed change was identified in References 5 and 6. As outlined in Attachment A, Commonwealth Edison (ComEd) Company has determined that the proposed change satisfies the criteria delineated in the Reference 2 Safety Evaluation. The Quad Cities Nuclear Power Station, Units 1 and 2 in Reference 4 submitted a similar proposed change regarding the MVP to the NRC. We request approval of this proposed change by March 2001, to support the proposed implementation of the Improved Technical Specifications (ITS) at DNPS.

This request is subdivided as follows:

1. Attachment A gives a description and safety analysis of the proposed changes.

2. Attachment B includes the marked-up TS pages with the requested changes indicated.

3. Attachment C describes our evaluation performed using the criteria in 10 CFR 50.91(a)(1) which provides information supporting a finding of no significant hazards consideration using the standards in 10 CFR 50.92(c).

4. Attachment D provides information supporting an Environmental Assessment.

These proposed changes have been reviewed by the Plant Operations Review Committee and the Nuclear Safety Review Board in accordance with the Quality Assurance Program.

ComEd is notifying the State of Illinois of this application request for changes to the TS by transmitting a copy of this letter and its attachments to the designated State Official.

Should you have any questions concerning this letter, please contact Mr. Dale F. Ambler at (815) 942-2920, extension 3800.

Respectfully,

Preston Swafford
Site Vice President
Dresden Nuclear Power Station

Attachments

Affidavit
Attachment A: Description and Safety Analysis for Proposed Changes
Attachment B: Marked-Up TS Pages for Proposed Changes
Attachment C: Information Supporting No Significant Hazards Finding
Attachment D: Information Supporting an Environmental Assessment

cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – Dresden Nuclear Power Station
Office of Nuclear Facility Safety – Illinois Department of Nuclear Safety

STATE OF ILLINOIS	)	
COUNTY OF GRUNDY	)	
IN THE MATTER OF	)	
COMMONWEALTH EDISON (COMED) COMPANY	)	**Docket Numbers**
DRESDEN NUCLEAR POWER STATION Units 2 and 3	)	**50-237 and 50-249**

SUBJECT: Request for Technical Specifications Change -
Main Steam Line Radiation Monitor Trip of the Mechanical Vacuum Pump

AFFIDAVIT

I affirm that the content of this transmittal is true and correct to the best of my knowledge, information and belief.

Preston Swafford
Site Vice President

Subscribed and sworn to before me, a Notary Public in and for the State above named, this 1st day of September, 2000

OFFICIAL SEAL
LINDA S. SANDERS
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES 12-29-2002

Linda S. Sanders
Notary Public

ATTACHMENT A

Proposed Change to Technical Specifications
Dresden Nuclear Power Station Units 2 and 3
(Page 1 of 4)

DESCRIPTION AND SAFETY ANALYSIS FOR PROPOSED CHANGES

A. SUMMARY OF PROPOSED CHANGES

In accordance with 10 CFR 50.90, we request a change to the Technical Specifications (TS) of Facility License Nos. DPR-19 and DPR-25 for the Dresden Nuclear Power Station (DNPS), Units 2 and 3 respectively. We are requesting this change as a result of our review for the implementation of the Improved Standard Technical Specifications which identified that a TS Limiting Condition for Operation (LCO) is required for the Mechanical Vacuum Pump (MVP) in accordance with 10 CFR 50.36, "Technical specifications," (c)(2)(ii), Criterion 3. We previously identified that this change was required in Reference 5 and the NRC acknowledged this in Reference 6. The proposed change is to add a new TS Section 3/4.2.K, "Mechanical Vacuum Pump Isolation Instrumentation," for the Main Steam Line Radiation Monitor (MSLRM) trip of the MVP. This proposed change is consistent with the Improved Standard Technical Specifications (i.e., NUREG-1433, Revision 1, "Standard Technical Specifications, General Electric Plants, BWR/4," April 1995). In addition to the proposed change identified above, DNPS is providing the corresponding proposed change to our previously submitted request to convert to the Improved Standard Technical Specifications (ISTS). This proposed change is to add a new TS Section 3.3.7.2, "Mechanical Vacuum Pump Trip Instrumentation." The need for this proposed change was identified in References 5 and 6. The Quad Cities Nuclear Power Station, Units 1 and 2 in Reference 4 submitted a similar proposed change regarding the MVP to the NRC.

The proposed changes are described in detail in Section E of this Attachment. The marked up TS pages are shown in Attachment B.

B. DESCRIPTION OF THE CURRENT REQUIREMENTS

There is no current requirement in TS for the automatic trip of the MVP. The TS required function was removed from the TS with the approval of Amendment 163 for Unit 2 and Amendment 158 for Unit 3, as described in Reference 3. These amendments removed the reactor trip and containment isolation functions from the Main Steam Line Radiation Monitor (MSLRM). However, the automatic trip function is installed, maintained, and functional for both Units 2 and 3.

C. BASES FOR THE CURRENT REQUIREMENT

There is no current requirement for the tripping of the MVP based upon input from the MSLRM.

D. NEED FOR REVISION OF THE REQUIREMENT

In Amendment 163 for license DPR-19 and Amendment 158 for license DPR-25, the MSLRM – High scram and the Main Steam Line Tunnel Radiation – High input to the Main Steam Line Isolation function were removed from the TS. In addition to the changes mentioned above, two license conditions were added to ensure procedural requirements for manual isolation of the mechanical vacuum pump and Main Steam Line Radiation Monitor alarm setpoints were established. The DNPS evaluation performed assumed that the unit was at full power with the MVP isolated. Subsequent analysis performed to support ISTS implementation identified that during start-up, the MVP would not be isolated and that the thyroid dose to the Main Control Room Operator becomes the limiting factor during a CRDA.

10CFR50.36(c)(2)(ii), Criterion 3, requires that a structure, system or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier, must be addressed by a TS LCO.

Based upon the requirements of 10CFR50.36, DNPS has identified that the control of the automatic trip of the mechanical vacuum pump based upon input from the Main Steam Line Radiation Monitor needs to be incorporated into the TS. The proposed surveillance for the channel functional test and channel calibration are supported by a site specific analysis which determined the analytical limit for the MSLRM following a Control Rod Drop Accident (CRDA). This proposed change is similar to the proposed change submitted in Reference 4 by the Quad Cities Nuclear Power Station regarding its mechanical vacuum pump.

The DNPS ITS is currently under review by the NRC as noted in Reference 6. Based on the proposed changes identified, the equivalent changes are required for the Dresden ITS submittal. This proposed change is similar to the proposed mechanical vacuum pump ITS submittal made by Quad Cities Nuclear Power Station as noted in Reference 5.

E. DESCRIPTION OF THE PROPOSED CHANGES

The following TS changes are proposed:

Current TS:

1.) TS Page V, "Table of Contents"

- Add new Section 3/4.2.K, "Mechanical Vacuum Pump Isolation Instrumentation"

2.) **TS Page 3/4.2-53 and B 3/4.2-5, "INSTRUMENTATION" (New Specification)**

- Add TS 3/4.2.K, "Mechanical Vacuum Pump Isolation Instrumentation"

  This change identifies LCO and Surveillance Requirements (SRs) for the automatic trip of the mechanical vacuum pump based upon input from the MSLRM.

ITS:

1.) **ITS Page 3.3.7.2-1 and B 3.3.7.2-1 "INSTRUMENTATION" (New Specification)**

- Add ITS 3.3.7.2, "Mechanical Vacuum Pump Trip Instrumentation"

  This change identifies LCO and SRs for the automatic trip of the mechanical vacuum pump based upon input from the MSLRM.

F. SAFETY ANALYSIS OF THE PROPOSED CHANGES

The addition of the MSLRM automatic trip signal to the mechanical vacuum pump has no adverse effect on safety. The addition of SRs and the LCO to the TS enhances current safety features of the plant by establishing controls for a required, and currently functional, safety feature. Also, this function does not serve as an initiator for any accidents evaluated in Chapter 15, "Accident and Transient Analysis," of the Updated Final Safety Analysis Report. The calculations of off site dose demonstrate that with the MVP trip instrumentation operating properly, the doses that result from a CRDA with the MVP operating are well within 10 CFR Part 100, "Reactor Site Criteria," and 10 CFR 50 Appendix A, "General Design Criteria (GDC) for Nuclear Power Plants," Criteria 19, "Control room," limits.

G. IMPACT ON PREVIOUS SUBMITTALS

This submittal has no impact on any other submittals except for the ITS submittal as described in section E above.

H. SCHEDULE REQUIREMENTS

To support proper implementation of ITS, we request approval concurrent with approval of the ITS currently scheduled for March 2001.

ATTACHMENT A

Proposed Change to Technical Specifications
Dresden Nuclear Power Station Units 2 and 3
(Page 4 of 4)

I. REFERENCES

1) General Electric Report NEDO-31400A, "Safety Evaluation for Eliminating The Boiling Water Reactor Main Steam Line Isolation Valve Closure Function and Scram Function of the Main Steam Line Radiation Monitor," dated October 1992

2) Letter from A. C. Thadani (U.S. NRC) to G. J. Beck (BWROG), "Acceptance for Referencing Topical Report NEDO-31400," dated May 15, 1991

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6) Letter from S. N. Bailey (U.S. NRC) to O. D. Kingsley (ComEd), "Dresden, LaSalle and Quad Cities – Review Schedule of the Conversion to Improved Standard Technical Specifications," dated May 19, 2000

ATTACHMENT B

Proposed Change to Technical Specifications
Dresden Nuclear Power Station Units 2 and 3
(Page 1 of 1)

MARKED-UP TS PAGES FOR PROPOSED CHANGES

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

3/4.2 K Mechanical Vacuum Pump Isolation Instrumentation 3/4-53

Add

3.2 – LIMITING CONDITIONS FOR OPERATION

K. Mechanical Vacuum Pump Instrumentation

Four CHANNELS of the Main Steam Line Radiation – High Function for the Mechanical Vacuum Pump trip shall be OPERABLE[(a)].

APPLICABILITY:

OPERATIONAL MODE(s) 1 and 2 with the Mechanical Vacuum Pump in service and any main steam line not isolated.

ACTION:

With one or more CHANNEL(s) inoperable:

a. Within one hour, verify sufficient CHANNELS remain OPERABLE to maintain trip capability, AND

b. Within 12 hours, place the inoperable CHANNEL(s) in the tripped condition[(b)].

Otherwise, within 12 hours either:

a. Trip or isolate the Mechanical Vacuum Pump, OR

b. Close the Main Steam Lines, OR

c. Be in OPERATIONAL MODE 3.

4.2 – SURVEILLANCE REQUIREMENTS

K. Mechanical Vacuum Pump Instrumentation

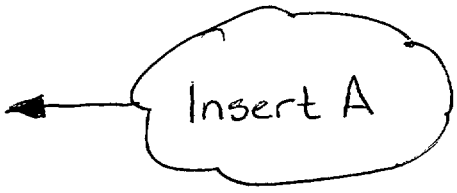
The Main Steam Line Radiation – High Function for the Mechanical Vacuum Pump trip shall be demonstrated OPERABLE by performance of a:

1. CHANNEL CHECK at least once per 12 hours,
2. CHANNEL FUNCTIONAL TEST at least once per 92 days, and
3. CHANNEL CALIBRATION at least once per 24 months. The allowable value shall be ≤ 5900 mR/hr.
4. LOGIC SYSTEM FUNCTIONAL TEST at least once per 24 months including the Mechanical Vacuum Pump breaker.

(a) When a CHANNEL is placed in an inoperable status solely for performance of required surveillances, entry into the associated Limiting Conditions for Operation and required ACTIONs may be delayed for up 6 hours provided Mechanical Vacuum Pump trip capability is maintained.
(b) Not applicable if the inoperable channel is due to an inoperable Mechanical Vacuum Pump breaker.

3/4.2.J Feedwater Trip System Actuation

The feedwater trip system actuation instrumentation is designed to detect a potential failure of the feedwater control system that caused excessive feedwater flow. If undetected, this would lead to reactor vessel water carryover into the main steam lines and to the main turbine. This instrumentation is included in response to Generic Letter 89-19.



INSERT A

3/4.2.K Mechanical Vacuum Pump Isolation Instrumentation

The Mechanical Vacuum Pump Isolation Instrumentation initiates a trip of the main condenser Mechanical Vacuum Pump following an event in which main steam line radiation levels exceed predetermined values. Tripping the mechanical vacuum pump limits the offsite doses in the event of a control rod drop accident (CRDA). The trip logic consists of two independent trip systems with two channels of the Main Steam Line Radiation - High in each trip system. The outputs of each trip system are combined in a one-out-of-two taken twice logic.

The trip of the Mechanical Vacuum Pump is credited in the CRDA radiological analysis. Accordingly, the Mechanical Vacuum Pump trip is required to be operable in Modes 1 and 2. In modes 3, 4 and 5, the consequences of a CRDA are insignificant and are not expected to result in any fuel damage. Surveillance requirements for testing and calibration are provided to ensure an acceptable level of quality and reliability.

3.3 INSTRUMENTATION

3.3.7.2 Mechanical Vacuum Pump Trip Instrumentation

LCO 3.3.7.2 Four channels of Main Steam Line Radiation—High Function for the mechanical vacuum pump trip shall be OPERABLE.

APPLICABILITY: MODES 1 and 2 with the mechanical vacuum pump in service and any main steam line not isolated.

ACTIONS

----------NOTE----------
Separate Condition entry is allowed for each channel.

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One or more channels inoperable.	A.1	Restore channel to OPERABLE status.	12 hours
	OR		
	A.2	---------NOTE--------- Not applicable if inoperable channel is the result of an inoperable mechanical vacuum pump breaker. --- Place channel in trip.	12 hours
B. Mechanical vacuum pump trip capability not maintained.	B.1	Restore trip capability.	1 hour

(continued)

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
C. Required Action and associated Completion Time not met.	C.1	Isolate the associated mechanical vacuum pump.	12 hours
	OR		
	C.2	Remove the associated mechanical vacuum pump breaker from service.	12 hours
	OR		
	C.3	Isolate the main steam lines.	12 hours
	OR		
	C.4	Be in MODE 3.	12 hours

SURVEILLANCE REQUIREMENTS

----------NOTE----------
When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours provided mechanical vacuum pump trip capability is maintained.

SURVEILLANCE		FREQUENCY
SR 3.3.7.2.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.7.2.2	Perform CHANNEL FUNCTIONAL TEST.	92 days
SR 3.3.7.2.3	----------NOTE---------- Radiation detectors are excluded. ---------- Perform CHANNEL CALIBRATION.	92 days
SR 3.3.7.2.4	Perform CHANNEL CALIBRATION. The Allowable Value shall be $\leq$ 5900 mR/hr.	24 months
SR 3.3.7.2.5	Perform LOGIC SYSTEM FUNCTIONAL TEST including mechanical vacuum pump breaker actuation.	24 months

B 3.3 INSTRUMENTATION

B 3.3.7.2 Mechanical Vacuum Pump Trip Instrumentation

BASES

BACKGROUND

The Mechanical Vacuum Pump Trip Instrumentation initiates a trip of the main condenser mechanical vacuum pump breaker following events in which main steam line radiation exceeds predetermined values. Tripping the mechanical vacuum pump limits the offsite and control room doses in the event of a control rod drop accident (CRDA).

The Mechanical Vacuum Pump Trip Instrumentation (Ref. 1) includes detectors, monitors, and relays that are necessary to cause initiation of a mechanical vacuum pump trip. The channels include electronic equipment that compares measured input signals with pre-established setpoints. When the setpoint is exceeded, the channel output relay actuates, which then outputs an isolation signal to the mechanical vacuum pump trip logic.

The trip logic consists of two independent trip systems, with two channels of Main Steam Line Radiation—High in each trip system. Each trip system is a one-out-of-two logic for this Function. Thus, either channel of Main Steam Line Radiation—High in each trip system is needed to trip a trip system. The outputs of the channels in a trip system are combined in a one-out-of-two taken twice logic so that both trip systems must trip to result in a pump trip signal.

There is one mechanical vacuum pump breaker associated with this Function.

APPLICABLE SAFETY ANALYSES

The Mechanical Vacuum Pump Trip Instrumentation is assumed in the safety analysis for the CRDA. The Mechanical Vacuum Pump Trip Instrumentation initiates a trip of the mechanical vacuum pump to limit offsite and control room doses resulting from fuel cladding failure in a CRDA (Ref. 2)

The mechanical vacuum pump trip instrumentation satisfies Criterion 3 of 10 CFR 50.36(c)(2)(ii).

(continued)

BASES (continued)

LCO

The OPERABILITY of the mechanical vacuum pump trip is dependent on the OPERABILITY of the individual Main Steam Line Radiation—High instrumentation channels, which must have a required number of OPERABLE channels in each trip system, with their setpoints within the specified Allowable Value of SR 3.3.7.2.4. The actual setpoint is calibrated consistent with applicable setpoint methodology assumptions. Channel OPERABILITY also includes the mechanical vacuum pump breaker.

An Allowable Value is specified for the Main Steam Line Radiation—High Trip Function specified in the LCO. The nominal trip setpoint is specified in the setpoint calculations. The nominal setpoint is selected to ensure that the setpoint does not exceed the Allowable Value between CHANNEL CALIBRATIONS. Operation with a trip setpoint less conservative than the nominal trip setpoint, but within its Allowable Value, is acceptable. A channel is inoperable if its actual trip setpoint is not within its required Allowable Value. The trip setpoint is that predetermined value of output at which an action should take place. The setpoint is compared to the actual process parameter (i.e., main steam line radiation) and when the measured output value of the process parameter exceeds the setpoint, the associated device (e.g., trip auxiliary unit) changes state. The analytic limit is derived from the limiting value of the process parameter obtained from the safety analysis. The trip setpoints are determined from the analytic limits, corrected for defined process, calibration, and instrument errors. The Allowable Values are then determined, based on the trip setpoint values, by accounting for the calibration based errors. These calibration based errors are limited to reference accuracy, instrument drift, errors associated with measurement and test equipment, and calibration tolerance of loop components. The trip setpoints and Allowable Values determined in this manner provide adequate protection because instrument uncertainties, process effects, calibration tolerances, instrument drift, and severe environment errors (for channels that must function in harsh environments as defined by 10 CFR 50.49) are accounted for and appropriately applied for the instrumentation.

(continued)

BASES (continued)

APPLICABILITY

The mechanical vacuum pump trip is required to be OPERABLE in MODES 1 and 2, when any mechanical vacuum pump is in service (i.e., taking a suction on the main condenser) and any main steam line not isolated, to mitigate the consequences of a postulated CRDA. In this condition fission products released during a CRDA could be discharged directly to the environment. Therefore, the mechanical trip is necessary to assure conformance with the radiological evaluation of the CRDA. In MODE 3, 4 or 5 the consequences of a control rod drop are insignificant, and are not expected to result in any fuel damage or fission product releases. When the mechanical vacuum pump is not in service or the main steam lines are isolated, fission product releases via this pathway would not occur.

ACTIONS

A Note has been provided to modify the ACTIONS related to Mechanical Vacuum Pump Trip Instrumentation channels. Section 1.3, Completion Times, specifies that once a Condition has been entered, subsequent divisions, subsystems, components, or variables expressed in the Condition, discovered to be inoperable or not within limits, will not result in separate entry into the Condition. Section 1.3 also specifies that Required Actions of the Condition continue to apply for each additional failure, with Completion Times based on initial entry into the Condition. However, the Required Actions for inoperable Mechanical Vacuum Pump Trip Instrumentation channels provide appropriate compensatory measures for separate inoperable channels. As such, a Note has been provided that allows separate Condition entry for each inoperable Mechanical Vacuum Pump Trip Instrumentation channel.

A.1 and A.2

With one or more channels inoperable, but with mechanical vacuum pump trip capability maintained (refer to Required Action B.1 Bases), the Mechanical Vacuum Pump Trip Instrumentation is capable of performing the intended function. However, the reliability and redundancy of the Mechanical Vacuum Pump Trip Instrumentation is reduced, such that a single failure in one of the remaining channels could

(continued)

BASES

ACTIONS

A.1 and A.2 (continued)

result in the inability of the Mechanical Vacuum Pump Trip Instrumentation to perform the intended function. Therefore, only a limited time is allowed to restore the inoperable channels to OPERABLE status. Because of the low probability of extensive numbers of inoperabilities affecting multiple channels, and the low probability of an event requiring the initiation of mechanical vacuum pump trip, 12 hours has been shown to be acceptable (Ref. 3) to permit restoration of any inoperable channel to OPERABLE status (Required Action A.1). Alternately, the inoperable channel, may be placed in trip (Required Action A.2), since this would conservatively compensate for the inoperability, restore capability to accommodate a single failure, and allow operation to continue. As noted, placing the channel in trip with no further restrictions is not allowed if the inoperable channel is the result of an inoperable mechanical vacuum pump breaker, since this may not adequately compensate for the inoperable breaker. If it is not desired to place the channel in trip (e.g., as in the case where placing the inoperable channel in trip would result in loss of condenser vacuum), or if the inoperable channel is the result of an inoperable breaker, Condition C must be entered and its Required Actions taken.

B.1

Condition B is intended to ensure that appropriate actions are taken if multiple, inoperable, untripped channels within the same trip system result in not maintaining mechanical vacuum pump trip capability. The mechanical vacuum pump trip capability is maintained when sufficient channels are OPERABLE or in trip such that the Mechanical Vacuum Pump Trip Instrumentation will generate a trip signal from a valid Main Steam Line Radiation – High signal, and the mechanical vacuum pump breaker will open. This would require both trip systems to have one channel OPERABLE or in trip, and the mechanical vacuum pump breaker to be OPERABLE.

The Completion Time is intended to allow the operator time to evaluate and repair any discovered inoperabilities. The Completion Time is acceptable because it minimizes risk while allowing time for restoration or tripping of channels.

(continued)

BASES

ACTIONS (continued)

C.1, C.2, C.3, and C.4

With any Required Action and associated Completion Time not met, the plant must be brought to a MODE or other specified condition in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours (Required Action C.4). Alternately, the associated mechanical vacuum pump may be removed from service since this performs the intended function of the instrumentation (Required Actions C.1 and C.2). An additional option is provided to isolate the main steam lines (Required Action C.3), which may allow operation to continue. Isolating the main steam lines effectively provides an equivalent level of protection by precluding fission product transport to the condenser.

The allowed Completion Time of 12 hours is reasonable, based on operating experience, to reach MODE 3 from full power conditions, or to remove the mechanical vacuum pump from service, or to isolate the main steam lines, in an orderly manner and without challenging plant systems.

SURVEILLANCE REQUIREMENTS

The Surveillances are modified by a Note to indicate that when a channel is placed in an inoperable status solely for performance of required Surveillances, entry into the associated Conditions and Required Actions may be delayed for up to 6 hours provided mechanical vacuum pump trip capability is maintained. Upon completion of the Surveillance, or expiration of the 6 hour allowance, the channel must be returned to OPERABLE status or the applicable Condition entered and Required Actions taken. This Note is based on the reliability analysis (Ref. 3) assumption of the average time required to perform channel Surveillance. That analysis demonstrated that the 6 hour testing allowance does not significantly reduce the probability that the mechanical vacuum pump will trip when necessary.

SR 3.3.7.2.1

Performance of the CHANNEL CHECK once every 12 hours ensures that a gross failure of instrumentation has not occurred. A CHANNEL CHECK is normally a comparison of the parameter

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.7.2.1 (continued)

indicated on one channel to a similar parameter on other channels. It is based on the assumption that instrument channels monitoring the same parameter should read approximately the same value. Significant deviations between the instrument channels could be an indication of excessive instrument drift in one of the channels or something even more serious. A CHANNEL CHECK will detect gross channel failure; thus, it is key to verifying the instrumentation continues to operate properly between each CHANNEL CALIBRATION.

Agreement criteria are determined by the plant staff based on a combination of the channel instrument uncertainties, including indication and readability. If a channel is outside the criteria, it may be an indication that the instrument has drifted outside its limit.

The Frequency is based upon operating experience that demonstrates channel failure is rare. The CHANNEL CHECK supplements less formal, but more frequent, checks of channels during normal operational use of the displays associated with the required channels of this LCO.

SR 3.3.7.2.2

A CHANNEL FUNCTIONAL TEST is performed on each required channel to ensure that the channel will perform the intended function. Any setpoint adjustment shall be consistent with the assumptions of the current plant specific setpoint methodology.

The Frequency of 92 days is based on the reliability analysis of Reference 3.

SR 3.3.7.2.3 and SR 3.3.7.2.4

A CHANNEL CALIBRATION is a complete check of the instrument loop and the sensor. This test verifies the channel responds to the measured parameter within the necessary

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.7.2.3 and SR 3.3.7.2.4 (continued)

range and accuracy. CHANNEL CALIBRATION leaves the channel adjusted to account for instrument drifts between successive calibrations consistent with the plant specific setpoint methodology. A Note to SR 3.3.7.2.3 states that radiation detectors are excluded from CHANNEL CALIBRATION since they are calibrated in accordance with SR 3.3.7.2.4.

The Frequency of SR 3.3.7.2.3 is based upon the assumption of a 92 day calibration interval in the determination of the magnitude of equipment drift associated with the channel, except for the radiation detectors, in the setpoint analysis. The Frequency of SR 3.3.7.2.4 is based upon the assumption of a 24 month calibration interval in the determination of the magnitude of equipment drift for the radiation detector in the setpoint analysis.

SR 3.3.7.2.5

The LOGIC SYSTEM FUNCTIONAL TEST demonstrates the OPERABILITY of the required trip logic for a specific channel. The system functional test of the mechanical vacuum pump breaker is included as part of this Surveillance and overlaps the LOGIC SYSTEM FUNCTIONAL TEST to provide complete testing of the assumed safety function. Therefore, if the breaker is incapable of operating, the associated instrument channel(s) would be inoperable.

The 24 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power. Operating experience has shown these components usually pass the Surveillance when performed at the 24 month Frequency.

(continued)

BASES (continued)

REFERENCES

1. UFSAR, Section 11.5.1.1.

2. UFSAR, Section 15.4.10.

3. NEDC-30851-P-A, "Supplement 2, "Technical Specifications Improvement Analysis for BWR Isolation Instrumentation Common to RPS and ECCS Instrumentation," March 1989.

ATTACHMENT C

Proposed Change to Technical Specifications
Dresden Nuclear Power Station Units 2 and 3
(Page 1 of 2)

INFORMATION SUPPORTING NO SIGNIFICANT HAZARDS CONSIDERATION FINDING

According to 10 CFR 50.92(c), "Issuance of Amendment," a proposed amendment to an operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not:

(1) Involve a significant increase in the probability of occurrence or consequences of an accident previously evaluated; or,

(2) Create the possibility of a new or different kind of accident from any previously analyzed; or

(3) Involve a significant reduction in a margin of safety.

Commonwealth Edison (ComEd) Company is proposing to add a new Technical Specifications (TS) Section 3/4.2.K, "Mechanical Vacuum Pump Isolation Instrumentation," to the Dresden Nuclear Power Station (DNPS) Units 2 and 3, Current TS. The proposed change adds a new section for the Main Steam Line Radiation Monitor (MSLRM) trip of the Mechanical Vacuum Pump (MVP). This proposed change is consistent with the Improved Standard Technical Specifications (ISTS) (i.e., NUREG-1433, Revision 1, "Standard Technical Specifications, General Electric Plants, BWR/4," April 1995). In addition to the proposed change identified above, DNPS is providing the corresponding proposed change to our previously submitted request to convert to the ISTS. This proposed change adds a new TS Section 3.3.7.2, "Mechanical Vacuum Pump Trip Instrumentation."

The determination that the criteria set forth in 10 CFR 50.92 is met for this amendment request is indicated below:

Does the change involve a significant increase in the probability of occurrence or consequences of an accident previously evaluated?

The addition of the MSLRM automatic trip signal to the MVP has no adverse effect on safety. The addition of Surveillance Requirements (SRs) and the Limiting Condition for Operation (LCO) to our TS enhances current safety features of the plant by establishing controls for a required, and currently functional, safety feature. The automatic trip function of the MVP does not serve as an initiator for any accidents evaluated in Chapter 15, "Accident and Transient Analysis," of the Updated Final Safety Analysis Report. Therefore, this change will not result in an increase of either the probability or consequences of an accident.

Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

These proposed changes involve the addition of the MVP trip input from the Main Steam Line Tunnel High Radiation signal. The addition of this function does not represent a change in operating parameters or equipment configuration for DNPS, Units 2 and 3. Operation of DNPS, Units 2 and 3, under the proposed changes does not create the possibility of a new or different type of accident previously evaluated.

Does the change involve a significant reduction in a margin of safety?

These proposed changes create a TS LCO and identify SRs for the MVP trip input from the MSLRM signal. Operation under the proposed change will not change any plant operation parameters, nor any protective system setpoints. The calculations of off site dose demonstrate that with the MVP trip instrumentation operating properly, the doses that result from a CRDA with the MVP operating are well within 10 CFR Part 100, "Reactor Site Criteria," limits.

Therefore, based upon the above evaluation, ComEd has concluded that these changes involve no significant hazards consideration.

ATTACHMENT D

Proposed Change to Technical Specifications
Dresden Nuclear Power Station Units 2 and 3
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INFORMATION SUPPORTING AN ENVIRONMENTAL ASSESSMENT

Commonwealth Edison (ComEd) Company has evaluated this proposed operating license amendment request against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21. ComEd has determined that this proposed license amendment meets the criteria for a categorical exclusion set forth in 10 CFR 51.22(c)(9) and as such, has determined that no irreversible consequences exist in accordance with 10 CFR 50.92(b). This determination is based on the fact that this change is being proposed as an amendment to a license issued pursuant to 10 CFR 50, that changes a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or that changes an inspection or a surveillance requirement, and the amendment meets the following specific criteria:

(i) the amendment involves no significant hazards consideration.

As demonstrated in Attachment C, this proposed amendment does not involve a significant hazards consideration.

(ii) there is no significant change in the types or significant increase in the amounts of any effluent that may be released offsite.

As documented in Attachment A, there will be no change in the types or significant increase in the amounts of any effluents released offsite.

(iii) there is no significant increase in individual or cumulative occupational radiation exposure.

There will be no change in the level of controls or methodology used for processing of radioactive effluents or handling of solid radioactive waste, nor will the proposal result in any change in the normal radiation levels within the plant. Therefore, there will be no increase in individual or cumulative occupational radiation exposure resulting from this change.