



February 18, 2000

PSLTR-00-0054

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 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  
Reactor Protection System Instrumentation

- Reference:
- 1) Letter from J.P. Dimmette Jr. (ComEd) to U.S. NRC, "Request for Technical Specifications Change, Reactor Protection System Instruments", dated October 12, 1999.
  - 2) Letter from S.N. Bailey (U.S. NRC) to O.D. Kingsley (ComEd), "Quad Cities – Issuance of Amendments (TAC Nos. MA6873 & MA6874)", dated January 28, 2000.

In accordance with 10 CFR 50.90 we request changes to the Technical Specifications (TS) of Facility License Nos. DPR-19 and DPR-25 for the Dresden Nuclear Power Station, Units 2 and 3 respectively. The proposed changes are to TS Sections 2.2, "Limiting Safety System Settings," and 3/4.1.A, "Reactor Protection System (RPS)."

The proposed changes remove the main turbine electro-hydraulic control (EHC) low oil pressure trip from the reactor protection system (RPS) trip function requirements. Commonwealth Edison (ComEd) Company has determined that the existing main turbine control valve fast closure scram provides an equivalent level of protection. Furthermore, the "Turbine EHC Control Oil Pressure - Low" trip function is not credited in any design basis event described in the Updated Final Safety Analysis Report (UFSAR). These proposed changes have been reviewed and endorsed by our nuclear steam supply system (NSSS) supplier, General Electric Company. A similar request was submitted by Quad Cities Nuclear Station (Reference 1), and approved by the NRC (Reference 2).

ComEd requests approval of this change request by August 1, 2000 to support removal of this scram function during the planned September 2000 refueling outage.

This request is subdivided as follows:

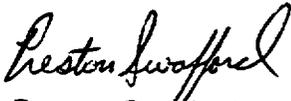
1. Attachment A gives a description and safety analysis of the proposed changes,
2. Attachment B includes the marked-up TS pages with the requested changes indicated,
3. Attachment C provides information supporting a no significant hazards finding in accordance with 10 CFR 50.92(c), and
4. Attachment 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. D. F. Ambler at (815) 942-2920, extension 3800.

Respectfully,



Preston Swafford  
Site Vice President  
Dresden Nuclear Power Station

Attachments

Affidavit

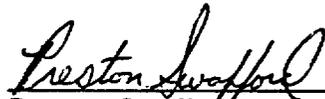
- Attachment A: Description and Safety Analysis for Proposed Changes
- Attachment B: Marked-Up TS Pages for Proposed Changes
- Attachment C: Information Supporting No Significant Hazards Finding
- Attachment D: Information Supporting an Environmental Assessment

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 -  
Reactor Protection System Instrumentation

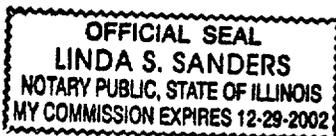
**AFFIDAVIT**

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 18<sup>th</sup> day of  
February, 2000

  
\_\_\_\_\_  
Notary Public



## ATTACHMENT A

### Proposed Change to Technical Specifications Dresden Nuclear Power Station Units 2 and 3 (Page 1 of 5)

#### DESCRIPTION AND SAFETY ANALYSIS FOR PROPOSED CHANGES

##### A. SUMMARY OF PROPOSED CHANGES

In accordance with 10 CFR 50.90, Commonwealth Edison (ComEd) Company is proposing changes to the Technical Specifications (TS) of Facility License Nos. DPR-19 and DPR-25 for the Dresden Nuclear Power Station, Units 2 and 3 respectively. The proposed changes are to TS Sections 2.2, "Limiting Safety System Settings," and 3/4.1.A, "Reactor Protection System (RPS)."

The proposed changes remove the turbine electro-hydraulic control (EHC) low oil pressure trip from the reactor protection system (RPS) trip function requirements. The "Turbine EHC Control Oil Pressure - Low" trip function is not required due to the existing Turbine Control Valve Fast Closure trip function, which provides adequate protection during a postulated loss of EHC control oil event. Furthermore, the trip function is not credited in any design basis event described in the Updated Final Safety Analysis Report (UFSAR). This proposed changes have been reviewed and endorsed by our nuclear steam supply system (NSSS) supplier, General Electric Company.

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

TS Section 2.2, "Limiting Safety System Settings," establishes the operational settings for protective instrumentation. TS Table 2.2.A-1, Functional Unit 10, provides the following RPS Instrumentation Setpoint:

Turbine EHC Control Oil Pressure-Low  $\geq$  900 psig

TS Section 3/4.1.A, "Reactor Protection System (RPS)," provides the requirements for RPS instrumentation operability. TS Table 3.1.A-1, Functional Unit 10, establishes the requirements for the Turbine EHC Control Oil Pressure-Low trip function, including applicable OPERATING MODE(s), Minimum OPERABLE CHANNEL(s) per TRIP SYSTEM, and the ACTION(s) necessary if the Limiting Conditions for Operation are not satisfied. TS Table 4.1.A-1 provides the surveillance requirements for Functional Unit 10.

##### C. BASES FOR THE CURRENT REQUIREMENT

The EHC control system operates using high-pressure oil to provide both control and trip functions for the main turbine. There are several points in this oil system where a loss of oil pressure could result in a rapid operation (i.e. fast closure) of the turbine control valves. During operating conditions, a fast closure of the turbine control valves causes a reactor pressure transient, which can cause reactor power (i.e. neutron flux) to increase rapidly.

## ATTACHMENT A

### Proposed Change to Technical Specifications Dresden Nuclear Power Station Units 2 and 3 (Page 2 of 5)

The loss of EHC control oil event was not originally protected by the turbine control valve fast closure scram function. The control valve fast closure scram function was initially designed as a direct reactor trip on actuation of the fast acting solenoid valves (i.e., via a limit switch that sensed actuation). However, loss of the EHC control oil system pressure did not result in actuation of the fast acting solenoid valves. In response to this design concern, Dresden Nuclear Power Station added the subject EHC low control oil pressure reactor scram (i.e., Turbine EHC Control Oil Pressure-Low) to ensure safety margins consistent with other pressurization events such as the main generator load reject event. This modification was installed in the early 1970's. These RPS switches sense loss of EHC control oil pressure and provide an anticipatory reactor scram signal when EHC oil pressure is below 900 psig. This trip function anticipates the pressure transient, that would be caused by imminent control valve closure, and results in a reactor shutdown before any significant increase in neutron flux occurs. Note that this scram function is bypassed when thermal power is less than 45% of rated thermal output.

#### D. NEED FOR REVISION OF THE REQUIREMENT

In the late 1980s, ComEd implemented a design change that replaced the turbine control valve direct scram on fast acting solenoid actuation with a pressure switch on each control valve. These pressure switches provide a scram function on low EHC oil pressure, specifically low Fluid Actuator Supply Trip Control (FASTC) pressure at the turbine control valves. The NRC in a Safety Evaluation dated June 29, 1992, (Reference 1), accepted this change, for both Units 2 and 3. This modified scram function (i.e. Turbine Control Valve Fast Closure) is functionally equivalent to the Turbine EHC Control Oil Pressure-Low scram function during a postulated loss of EHC control oil event.

The current TS requirements place an undue burden upon plant operations (i.e., the testing and maintenance associated with the instrumentation) without a corresponding increase in reactor safety. Removal of this redundant trip function enhances operational safety because the potential for inadvertent plant scrams is reduced, the number of test cycles on equipment is minimized and the use of plant personnel can be better optimized.

#### E. DESCRIPTION OF THE PROPOSED CHANGES

The following TS changes are proposed.

**Page 2-5:** Eliminate Functional Unit 10, Turbine EHC Control Oil Pressure - Low

**Pages B 2-9**

**and B 2-10:** Eliminate Bases discussion for Functional Unit 10, Turbine EHC Control Oil Pressure - Low

**Page 3/4.1-3:** Eliminate Functional Unit 10, Turbine EHC Control Oil Pressure - Low

**Page 3/4.1-8** Eliminate Functional Unit 10, Turbine EHC Control Oil Pressure - Low

**Page B 3/4.1-2** Eliminate reference to turbine EHC control oil low-pressure scram

## ATTACHMENT A

### Proposed Change to Technical Specifications Dresden Nuclear Power Station Units 2 and 3 (Page 3 of 5)

#### F. SAFETY ANALYSIS OF THE PROPOSED CHANGES

The purpose of the EHC system is to provide cooled, filtered, high pressure oil for the control of the turbine valves. The EHC system supplies high-pressure oil to three primary headers:

Fluid Actuator Supply (FAS) Header,  
Fluid Actuator Supply Trip Control (FASTC), and  
Emergency Trip Supply (ETS).

The FAS header supplies the high pressure oil for positioning selected main turbine steam valves and also provides the oil to the FASTC and ETS headers. The FASTC header is used for the control and trip functions of certain turbine steam valves including the turbine control valves. The FASTC oil enters the control valve positioning unit and is directed to the servo-valve and the fast acting solenoid valve. The FASTC oil is transmitted through the fast acting solenoid valve to the disk dump valve. The purpose of the disk dump valve is to seal the end of the hydraulic positioning cylinder so that a servo-valve can direct FASTC oil into the single acting actuator cylinder of the turbine control valve. The turbine control valve uses the FASTC pressure to open against a closing spring and steam pressure. The disk dump valve, which normally remains closed by the FASTC pressure, will open to release actuator positioning cylinder pressure, in the event the fast acting solenoid valves are energized.

When the load control unit of the EHC logic system senses a turbine/generator load mismatch, the logic system sends a signal to the fast acting solenoid valve to reposition. When the fast acting solenoids reposition, the FASTC oil begins to drain as a result of the repositioned fast acting solenoid valve. The FASTC pressure, which holds the disk dump valve seated, begins to decrease. As a result of the decreasing FASTC pressure, the disk dump valve is forced away from its seat and the FASTC oil in the hydraulic cylinder is rapidly drained causing the control valve to close rapidly.

In the 1970's, Dresden Nuclear Power Station, Units 2 and 3, originally installed a low EHC fluid actuator supply (i.e., FAS) oil pressure reactor scram to anticipate turbine control valve fast closure on a loss of EHC control oil pressure. This trip generates a reactor scram on decreasing FAS oil pressure at a setpoint greater than or equal to 900 psig. This modification was installed as recommended by our turbine supplier, General Electric.

The original turbine control valve fast closure sensor was designed as a direct trip on actuation of the fast acting solenoid via a limit switch that detected solenoid actuation. In response to poor equipment performance and based on a recommendation from General Electric, Dresden Nuclear Power Station upgraded the fast acting solenoid valves. The new design was more reliable and was equipped with a pressure port for a separate pressure switch. This pressure switch senses decreasing EHC oil (i.e. FASTC) pressure and initiates a scram signal at  $\geq 460$  psig (i.e., TS Table 2.2.A-1, Functional Unit 11). This scram is anticipatory in nature in that decreasing FASTC pressure causes the turbine control valves to close in a rapid manner. The low FASTC oil pressure sensor is functionally the same configuration currently installed in most of the General Electric operating Boiling Water Reactors (BWRs). In addition, most operating BWRs with EHC

## ATTACHMENT A

### Proposed Change to Technical Specifications Dresden Nuclear Power Station Units 2 and 3 (Page 4 of 5)

control oil systems have only the FASTC oil pressure scram and do not have a low FAS oil pressure scram.

There are no UFSAR design basis events that take credit for the low FAS oil pressure scram. The scram resulting from low FASTC oil pressure mitigates all events involving Turbine Control Valve fast closure, including the load rejection with bypass failure event. The loss of EHC control oil pressure event was also reviewed to determine the consequences of such an event on fuel thermal limits in the absence of the low FAS oil pressure scram. This review determined that the FASTC sensor will initiate a scram in response to a loss of control oil event coincident with Turbine Control Valve closure. In this respect the low FAS oil pressure scram is a redundant scram since the FASTC scram is capable of the same level of protection. The FASTC scram will provide equivalent protection to fuel thermal limits. This scram configuration with the existing turbine control valve fast closure FASTC oil pressure sensor is functionally the same as the configuration on all BWR 4 through BWR 6 designs.

Based on this review, it has been determined that the existing turbine control valve fast closure scram on low FASTC oil pressure provides adequate protection for reactor pressure vessel (RPV) American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code compliance with respect to pressure, for an Anticipated Operational Occurrence and for Design Basis Accident criteria. For these reasons, the proposed changes which remove the low FAS oil pressure scram is acceptable and does not involve a reduction in plant safety.

Furthermore, the EHC system provides additional protection against a postulated loss of EHC oil pressure through an independent control hydraulic oil pressure trip function that initiates a turbine trip when hydraulic oil pressure decreases to 1100 psig. Above 45% reactor thermal power, a turbine trip results in an anticipatory reactor scram on turbine stop valve closure.

#### G. IMPACT ON PREVIOUS SUBMITTALS

ComEd has reviewed the proposed license amendment request regarding impact on any previous submittals, and has determined that there is no direct impact on any outstanding previous submittals. However, our proposed license amendment request, Reference 2, submitted in support of a change to the allowable out-of-service times and surveillance test intervals for selected instrumentation, has one common affected page, 3/4.1-8.

#### H. SCHEDULE REQUIREMENTS

We request approval of this change request prior to August 1, 2000, to support planned activities removing this scram function during the planned September 2000 refueling outage.

#### I. REFERENCES

- 1). B.L. Siegel (USNRC) to T. J. Kovach (ComEd), "Issuance of Amendments (TAC Nos. M81909 and M81910)," dated June 29, 1992

**ATTACHMENT A**

**Proposed Change to Technical Specifications  
Dresden Nuclear Power Station Units 2 and 3  
(Page 5 of 5)**

- 2). Letter from J.M. Hefley (ComEd) to the NRC, "Proposed Technical Specifications Change Surveillance Test Intervals and Allowable Outage Times for Protective Instrumentation," dated January 11, 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**

**2-5**

**B 2-9**

**B 2-10**

**3/4.1-3**

**3/4.1-8**

**B 3/4.1-2**

TABLE 2.2.A-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION SETPOINTS

<u>Functional Unit</u>	<u>Trip Setpoint</u>
7. Drywell Pressure - High	$\leq 2$ psig
8. Scram Discharge Volume Water Level - High	$\leq 40.4$ gallons (Unit 2) $\leq 41$ gallons (Unit 3)
9. Turbine Stop Valve - Closure	$\leq 10\%$ closed
10. <del>Turbine EHC Control Oil Pressure - Low</del>	<del><math>\geq 900</math> psig</del>
11. Turbine Control Valve Fast Closure	$\geq 460$ psig EHC fluid pressure
12. Turbine Condenser Vacuum - Low	$\geq 21$ inches Hg vacuum
13. Reactor Mode Switch Shutdown Position	NA
14. Manual Scram	NA

DELETED

## BASES

7. Drywell Pressure - High

High pressure in the drywell could indicate a break in the primary pressure boundary systems or a loss of drywell cooling. Therefore, pressure sensing instrumentation is provided as a backup to the water level instrumentation. The reactor is scrammed on high pressure in order to minimize the possibility of fuel damage and reduce the amount of energy being added to the coolant and the primary containment. The scram setting was selected as low as possible without causing spurious scrams.

8. Scram Discharge Volume Water Level - High

The control rod drive scram system is designed so that all of the water which is discharged from the reactor by a scram can be accommodated in the discharge piping. A part of this system is an individual instrument volume for each of the scram discharge volumes. These two instrument volumes and their piping can hold in excess of 90 gallons of water and are the low point in the piping. No credit was taken for the instrument volumes in the design of the discharge piping relative to the amount of water which must be accommodated during a scram. During normal operations, the scram discharge volumes are empty; however, should either scram discharge volume accumulate water, the water discharged to the piping from the reactor during a scram may not be accommodated which could result in slow scram times or partial or no control rod insertion. To preclude this occurrence, level switches have been installed in both instrument volumes which will alarm and scram the reactor while sufficient volume remains to accommodate the discharged water. Diverse level sensing methods have been incorporated into the design and logic of the system to prevent common mode failure. The setting for this anticipatory scram signal has been chosen on the basis of providing sufficient volume remaining to accommodate a scram, even with 5 gpm leakage per drive into the scram discharge volume. As indicated above, there is sufficient volume in the piping to accommodate the scram without impairment of the scram times or the amount of insertion of the control rods.

9. Turbine Stop Valve - Closure

The turbine stop valve closure scram setting anticipates the pressure, neutron flux, and heat flux increase that could result from rapid closure of the turbine stop valves. With a scram setting of 10% of valve closure from full open, the resultant increase in surface heat flux is limited such that MCPR remains above the fuel cladding integrity Safety Limit, even during the worst-case transient that assumes the turbine bypass fails to operate.

10. Turbine EHC Control Oil Pressure - Low

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~~The turbine EHC control system operates using high pressure oil. There are several points in this oil system where a loss of oil pressure could result in a fast closure of the turbine control valves. This fast closure of the turbine control valves is not protected by the turbine control valve fast-~~

**BASES**

closure scram since failure of the oil system would not result in the fast closure solenoid valves being actuated. For a turbine control valve fast closure, the core would be protected by the APRM and reactor high pressure scrams. However, to provide the same margins as provided for the generator load rejection on fast closure of the turbine control valves, a scram has been added to the reactor protection system which senses failure of control oil pressure to the turbine control system. This scram anticipates the pressure transient which would be caused by imminent control valve closure and results in reactor shutdown before any significant increase in neutron flux occurs. The transient response is very similar to that resulting from the turbine control valve fast closure scram. However, since the control valves will not start to close until the fluid pressure is approximately 600 psig, the scram on low turbine EHC control oil pressure occurs well before turbine control valve closure begins. The scram setting is high enough to provide the necessary anticipatory function and low enough to minimize the number of spurious scrams.

**11. Turbine Control Valve Fast Closure**

The turbine control valve fast closure scram is provided to anticipate the rapid increase in pressure and neutron flux resulting from fast closure of the turbine control valves due to a load rejection and subsequent failure of the bypass valves; i.e., MCPR remains above the fuel cladding integrity Safety Limit for this transient. For the load rejection without bypass transient from 100% power, the peak heat flux (and therefore LHGR) increases on the order of 15% which provides a wide margin to the value corresponding to 1% plastic strain of the cladding.

The scram setting based on EHC fluid pressure was developed to ensure that the pressure switch is actuated prior to the closure of the turbine control valves (at approximately 400 psig EHC fluid pressure), yet assure that the system is not actuated unnecessarily due to EHC system pressure transients which may cause EHC system pressure to momentarily decrease.

**12. Turbine Condenser Vacuum - Low**

Loss of condenser vacuum occurs when the condenser can no longer handle the heat input. Loss of condenser vacuum initiates a closure of the turbine stop valves and turbine bypass valves which eliminates the heat input to the condenser. Closure of the turbine stop and bypass valves causes a pressure transient, neutron flux rise and an increase in surface heat flux. To prevent the fuel cladding integrity Safety Limit from being exceeded if this occurs, a reactor scram occurs on turbine stop valve closure. The turbine stop valve closure scram function alone is adequate to prevent the fuel cladding integrity Safety Limit from being exceeded, in the event of a turbine trip transient with bypass closure. The condenser low vacuum scram is anticipatory to the stop valve closure scram and causes a scram before the stop valves (and bypass valves) are closed and thus, the resulting transient is less severe.

DRESDEN - UNITS 2 & 3

3/4.1-3

Amendment Nos.

TABLE 3.1.A-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION

<u>Functional Unit</u>	<u>Applicable OPERATIONAL MODE(s)</u>	<u>Minimum OPERABLE CHANNEL(s) per TRIP SYSTEM<sup>(a)</sup></u>	<u>ACTION</u>
5. Main Steam Line Isolation Valve - Closure	1, 2 <sup>(b)</sup>	4	10
6. Main Steam Line Radiation - High	1, 2 <sup>(b)</sup>	2	15
7. Drywell Pressure - High	1, 2 <sup>(b)</sup>	2	11
8. Scram Discharge Volume Water Level - High			
a. ΔP Switch, and	1, 2 5 <sup>(b, d)</sup>	2 2	11 13
b. Thermal Switch (Unit 2), or Float Switch (Unit 3)	1, 2 5 <sup>(b, d)</sup>	2 2	11 13
9. Turbine Stop Valve - Closure	1 <sup>(d)</sup>	4	16
10. <del>Turbine EHC Control Oil Pressure - Low</del>	<del>1<sup>(d)</sup></del>	<del>2</del>	<del>16</del>
11. Turbine Control Valve Fast	1 <sup>(d)</sup>	2	16
12. Turbine Condenser Vacuum - Low	1, 2 <sup>(b)</sup>	2	10

DELETED

REACTOR PROTECTION SYSTEM

RPS 3/4.1.A

TABLE 4.1.A-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>Functional Unit</u>	<u>Applicable OPERATIONAL MODES</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL<sup>(M)</sup> CALIBRATION</u>
8. Scram Discharge Volume Water Level - High				
a. ΔP Switch, and	1, 2, 5 <sup>(4,4)</sup>	NA	Q	E
b. Thermal Switch (Unit 2), or Float Switch (Unit 3)	1, 2, 5 <sup>(4,4)</sup>	NA	Q	NA
9. Turbine Stop Valve - Closure	1 <sup>(M)</sup>	NA	M	E
10. <del>Turbine EHC Control Oil Pressure - Low</del>	<del>1<sup>(M)</sup></del>	<del>NA</del>	<del>M</del>	<del>E</del>
11. Turbine Control Valve Fast Closure	1 <sup>(M)</sup>	NA	M	E
12. Turbine Condenser Vacuum - Low	1, 2 <sup>(M)</sup>	NA	M	Q
13. Reactor Mode Switch Shutdown Position	1, 2, 3, 4, 5	NA	E	NA
14. Manual Scram	1, 2, 3, 4, 5	NA	M	NA

DELETED

BASES

The primary reactivity control functions during refueling are the refueling interlocks and the SHUTDOWN MARGIN calculations, which together provide assurance that adequate SHUTDOWN MARGIN is available. The IRMs also provide backup protection for any significant reactivity excursions.

The IRM system provides protection against excessive power levels and short reactor periods in the startup and intermediate power ranges (reference SAR Sections 7.4.4.2 and 7.4.4.3).

In the power range, the APRM system provides required protection (reference SAR Section 7.4.5.2). Thus, the IRM system is not required (and is automatically bypassed) in OPERATIONAL MODE 1, the APRMs cover only the intermediate and power range; and the IRMs provide adequate coverage in the startup and intermediate range. The IRM inoperative function ensures that the instrument CHANNEL fails in the tripped condition upon loss of detector voltage.

Three APRM instrument CHANNEL(s) are provided for each TRIP SYSTEM. APRM CHANNEL(s) #1 and #3 operate contacts in one logic path and APRM CHANNEL(s) #2 and #3 operate contacts in the other logic path of the TRIP SYSTEM. APRM CHANNEL(s) #4, #5 and #6 are arranged similarly in the other TRIP SYSTEM's dual logic paths. Each TRIP SYSTEM has one more APRM than is necessary to meet the minimum number required per CHANNEL. This allows the bypassing of one APRM per TRIP SYSTEM for maintenance, testing, or calibration. Additional IRM CHANNEL(s) have also been provided to allow for bypassing of one such CHANNEL.

A reactor mode switch is provided which actuates or bypasses the various scram functions appropriate to the particular plant operating status (reference SAR Section 7.7.1.2). A bypass in the Refuel or Startup/Hot Standby operational modes is provided for the turbine condenser low vacuum scram and main steam line isolation valve closure scrams for flexibility during startup and to allow repairs to be made to the turbine condenser. While this bypass is in effect, protection is provided against pressure or flux increases by the high-pressure scram and APRM 15% scram, respectively, which are effective in Startup/Hot Standby.

The manual scram function is available in OPERATIONAL MODE(s) 1 through 5, thus providing for a manual means of rapidly inserting control rods whenever fuel is in the reactor.

The turbine stop valve closure scram, ~~the turbine EHC control oil low pressure scram,~~ and the turbine control valve fast closure scram occur by design on turbine first stage pressure which is normally equivalent to -45% RATED THERMAL POWER. However, since this is dependent on bypass valve position, the conservative reactor power is used to determine applicability.

Surveillance requirements for the reactor protection system are selected in order to demonstrate proper function and operability. The surveillance intervals are determined in many different ways, such as, 1) operating experience, 2) good engineering judgement, 3) reliability analyses, or 4) other analyses that are found acceptable to the NRC. The performance of the specified surveillances at the specified frequencies provides assurance that the protective functions associated with each CHANNEL can be completed as assumed in the safety analyses. A surveillance interval of "prior to startup" assures that these functions are available to perform their safety functions during control

## 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

Commonwealth Edison (ComEd) Company has evaluated these proposed changes and determined that it involves no significant hazards consideration. According to 10 CFR 50.92(c), a proposed amendment to an operating license involves a no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not:

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

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

Involve a significant reduction in a margin of safety.

ComEd is proposing to remove the existing main turbine electro-hydraulic control (EHC) control oil low pressure scram function specified in Technical Specifications (TS) Section 3/4.1.A, "Reactor Protection System (RPS)," and the corresponding Safety System Setting in TS Section 2.2 "Limiting Safety System Settings."

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 proposed changes remove the "Turbine Electro-Hydraulic Control (EHC) Control Oil Pressure-Low" scram function and the associated Limiting Safety System Setting (LSSS). The purpose of the Turbine EHC Control Oil Pressure scram is to anticipate the pressure transient which would be caused by imminent control valve fast closure on loss of control oil pressure. This function does not serve as an initiator for any accidents evaluated in Chapter 15 of the Updated Final Safety Analysis Report (UFSAR). In addition, this trip function is not credited in any design basis event and is functionally redundant to the Turbine Control Valve Fast Closure RPS trip function during a loss of EHC control oil. The Turbine Control Valve Fast Closure will initiate a scram on a loss of control oil event coincident with turbine control valve closure.

Therefore, these proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

## ATTACHMENT C

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

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

The removal of this function does not represent a change in operating parameters or introduce a new mode of operation. The pressure switches associated with the Turbine Control Valve Fast Closure function provide equivalent protection from a loss of EHC oil. For this reason, the changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

Operation with the proposed changes in place will not change any plant operating parameters, nor any protective system actuation setpoints other than removal of the Turbine EHC Control Oil Pressure-Low scram function. The scram function associated with the Turbine Control Valve Fast Closure provides equivalent protection for events involving turbine control valve fast closure including the loss of EHC control oil pressure. For this reason, eliminating the EHC Control Oil Pressure-Low scram function, which is redundant to other protective instrumentation, does not reduce the margin of safety.

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 (Page 1 of 1)

#### 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.