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Docket Number 50-346

License Number NPF-3

Serial Number 2336

February 5, 1996

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

Subject: Proposed Modification to the Davis-Besse Nuclear Power Station (DBNPS), Unit Number 1, Facility Operating License NPF-3, Appendix A Technical Specifications to Revise Technical Specification 3/4.3.2.1 - Safety Features Actuation System Instrumentation and Associated Bases

Ladies and Gentlemen:

Enclosed is an application for an amendment to the DBNPS Unit Number 1 Operating License NPF-3, Appendix A, Technical Specifications. The proposed changes involve Technical Specification (TS) 3/4.3.2.1 - Safety Features Actuation System Instrumentation and the associated Bases.

This application proposes revisions to Table 3.3-3 of Technical Specification 3/4.3.2.1 - Safety Features Actuation System Instrumentation: for Functional Unit 4.a., Sequencer, Functional Unit 4.b., Essential Bus Feeder Breaker Trip (90%), Functional Unit 4.c., Diesel Generator Start, Load Shed on Essential Bus (59%), and the associated Bases in order to clarify their design and actuation logic and eliminate the potential for an unnecessary entry into Technical Specification 3.0.3 which requires commencement of a reactor shutdown within one hour.

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Toledo Edison requests that the NRC approve and issue this change by July 1, 1996.

Should you have any questions or require additional information, please contact Mr. James L. Freels, Manager - Regulatory Affairs, at (419) 249-2366.

Very truly yours,

DHL/llh

Enclosure
Attachment

cc: L. L. Gundrum, DB-1 NRC/NRR Project Manager
H. J. Miller, Regional Administrator, NRC Region III
S. Stasek, DB-1 NRC Senior Resident Inspector
J. R. Williams, Chief of Staff, Ohio Emergency Management Agency, State of Ohio (NRC Liaison)
Utility Radiological Safety Board

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APPLICATION FOR AMENDMENT

TO

FACILITY OPERATING LICENSE NUMBER NPF-3

DAVIS-BESSE NUCLEAR POWER STATION

UNIT NUMBER 1

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

The proposed change (submitted under cover letter Serial Number 2336) concerns:

Appendix A, Technical Specification 3/4.3.2.1 - Safety Features Actuation System Instrumentation, and the associated Bases.

By: _____
John P. Stetz, Vice President - Nuclear

Sworn to and subscribed before me this 5th day of February, 1996.

_____
Notary Public, State of Ohio

LORI J. STRAUSS
Notary Public, State of Ohio
My Commission Expires 3/22/98

The following information is provided to support issuance of the requested changes to the Davis-Besse Nuclear Power Station (DBNPS), Unit Number 1, Facility Operating License Number NPF-3, Appendix A, Technical Specifications. The changes involve Technical Specification 3/4.3.2.1 - Safety Features Actuation System Instrumentation and the associated Bases.

A. Time Required to Implement: This change is to be implemented within 90 days after the NRC issuance of the License Amendment.

B. Reason for Change (License Amendment Request Number 93-0003):

This application proposes revisions to Table 3.3-3 of Technical Specification 3/4.3.2.1 - Safety Features Actuation System Instrumentation regarding Functional Unit 4.a., Sequencer, Functional Unit 4.b., Essential Bus Feeder Breaker Trip (90%), Functional Unit 4.c., Diesel Generator Start, Load Shed on Essential Bus (59%), and their associated Bases in order to clarify the design and actuation logic and eliminate the potential for an unnecessary entry into Technical Specification 3.0.3.

C. Safety Assessment and Significant Hazards Consideration: See Attachment

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Serial Number 2336
Attachment 1

SAFETY ASSESSMENT AND SIGNIFICANT
HAZARDS CONSIDERATION
FOR
LICENSE AMENDMENT REQUEST NO. 93-0003

(20 pages follow)

SAFETY ASSESSMENT AND SIGNIFICANT
HAZARDS CONSIDERATION
FOR
LICENSE AMENDMENT REQUEST NO. 93-0003

TITLE:

Proposed Modification to the Davis-Besse Nuclear Power Station (DBNPS), Unit Number 1, Facility Operating License NPF-3, Appendix A Technical Specifications to Revise Technical Specification 3/4.3.2.1 - Safety Features Actuation System Instrumentation and the associated Bases.

DESCRIPTION:

The purpose of these proposed revisions is to clarify Technical Specification 3/4.3.2.1, Table 3.3-3, Safety Features Actuation System (SFAS) Instrumentation, so that it more accurately reflects the design and actuation logic of the DBNPS sequencers and the essential bus undervoltage relays. These revisions also eliminate the potential for unnecessary entry into Technical Specification 3.0.3, which requires commencement of a reactor shutdown within one hour.

This application proposes the following revisions to Technical Specification 3/4.3.2.1 - Safety Features Actuation System Instrumentation:

1) For Table 3.3-3 of Technical Specification 3/4.3.2.1 - Safety Features Actuation System Instrumentation (SFAS):

   a. For Functional Unit 4.a., Sequencer, "Units to Trip" and "Minimum Units Operable" are changed to read "2/BUS"; and the required Action is revised to read "15#";

   b. For Functional Unit 4.b., Essential Bus Feeder Breaker Trip (90%), "Total No. of Units" is revised to read "4*****" and "Units to Trip" and "Minimum Units Operable" are revised to read "2/BUS";

   c. For Functional Unit 4.c., Diesel Generator Start, Load Shed on Essential Bus (59%), "Total No. of Units" is revised to read "4" and "Units to Trip" and "Minimum Units Operable" are revised to read "2/BUS";

   These proposed revisions clarify Table 3.3-3 so that it more accurately reflects the design and actuation logic of the sequencers and the essential bus undervoltage relays. The proposed revisions identify the association between units and each essential bus and its associated

Emergency Diesel Generator. The proposed revisions to Functional Unit 4.a., Sequencer, reflect a design of one unit per SFAS Channel with SFAS Channels 1 and 3 associated with essential bus C1 and Emergency Diesel Generator 1 and SFAS Channels 2 and 4 associated with essential bus D1 and Emergency Diesel Generator 2. The proposed revisions for Functional Units 4.b. and 4.c. reflect the one-out-of-two taken twice logic for the 90% or 59% undervoltage relays on essential buses C1 and D1.

2) Action Statement 15 of Table 3.3-3 is revised to read:

"a. With the number of OPERABLE units one less than the Minimum Units Operable per Bus, place the inoperable unit in the tripped condition within one hour. For functional unit 4.a. the sequencer shall be placed in the tripped condition by physical removal of the sequencer module. The inoperable functional unit may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.2.1.1.

b. With the number of OPERABLE units two less than the Minimum Units Operable per Bus, declare inoperable the Emergency Diesel Generator associated with the functional units not meeting the required minimum units operable and take the ACTION required of Specification 3.8.1.1."

This proposed Action statement in conjunction with the proposed revisions to Table 3.3-3 Functional Units 4.a., 4.b., and 4.c. eliminates the need to enter Technical Specification 3.0.3 when two units of the same function (regardless of Emergency Diesel Generator association) are inoperable. Technical Specification 3.0.3 delineates the action to be taken for circumstances not directly provided for in the existing Action Statements and whose occurrence would violate the intent of the specification. This proposed action is consistent with the Improved Standard Technical Specifications for Babcock & Wilcox Plants, NUREG 1430, Revision 1 and is consistent with the design and actuation logic of the sequencer and undervoltage relays. Action 15.a permits continued operation with one unit inoperable provided the unit is placed in a tripped condition. With a sequencer (Functional Unit 4.a.) in trip, the redundant sequencer unit will provide protection for the associated Emergency Diesel Generator. With an undervoltage relay (Functional Units 4.b. and 4.c.) in trip, the resulting configuration is one-out-of-two logic to initiate the required safety features rather than one-out-of-two taken twice logic with no unit in trip. Therefore, the redundant voltage relay unit provides adequate protection. With both units inoperable, Action 15.b requires the associated Emergency Diesel Generator be declared inoperable as the logic is not capable of providing a Emergency Diesel Generator start signal or protecting the Emergency Diesel Generator from an overload condition.

3) Action Statement 10.a of Table 3.3-3 is revised by deleting the requirements for tripping a sequencer channel. The requirements for tripping a sequencer channel are incorporated into proposed Action Statement 15.a.

4) Footnote *** is deleted from Table 3.3-3.

Footnote *** is no longer required as the proposed Table 3.3-3 entries for Functional Unit 4.a., Sequencer, "Units to Trip" and "Minimum Units Operable", "2/BUS", and proposed Action Statement 15 integrates the requirement to maintain one unit OPERABLE in SFAS channel 1 or 3 and one unit OPERABLE in SFAS channel 2 or 4.

5) The associated Bases are revised to clarify the design and actuation logic of Functional Units 4.a., 4.b., and 4.c. by inclusion of the following:

> "The actuation logic for Functional Units 4.a., 4.b., and 4.c. of Table 3.3-3, Safety Features Actuation System Instrumentation, is designed to provide protection and actuation of a single train of safety features equipment, essential bus or emergency diesel generator. Collectively, Functional Units 4.a., 4.b., and 4.c. function to detect a degraded voltage condition on either of the two 4160 volt essential buses, shed connected loads, disconnect the affected bus(es) from the offsite power source and start the associated emergency diesel generator. In addition, if an SFAS actuation signal is present under these conditions, the sequencer channels for the two SFAS channels which actuate the train of safety features equipment powered by the affected bus will automatically sequence these loads onto the bus to prevent overloading of the emergency diesel generator. Functional Unit 4.a. has a total of four units, one associated with each SFAS channel (i.e., two for each essential bus). Functional Units 4.b. and 4.c. each have a total of four units, (two associated with each essential bus); each unit consisting of two undervoltage relays and an auxiliary relay."

This change clarifies the design and actuation logic of the sequencer and the undervoltage relays to allow consistent application of Technical Specification 3/4.3.2.1.

SYSTEMS, COMPONENTS, AND ACTIVITIES AFFECTED:

Safety Features Actuation System, Emergency Diesel Generators and 4.16kV Essential Buses.

FUNCTIONS OF THE AFFECTED SYSTEMS, COMPONENTS, AND ACTIVITIES:

Summary

The design goal of the Safety Features Actuation System (SFAS) is to automatically prevent or limit fission product and energy release from the core, to isolate the containment vessel and to initiate the operation of the Engineered Safety Features (ESF) equipment in the event of a loss-of-coolant accident (LOCA). The SFAS will automatically sequence the protective action by loading equipment in steps to the Emergency Diesel Generators (EDGs) if normal or reserve power is not available to the 4.16kV essential bus(es) coincident with an SFAS initiation signal. As described in the DBNPS Updated Safety Analysis Report (USAR) Section 6.3.1.4, System Short- and Long-Term Capability, the Emergency Core Cooling System (ECCS)

design basis assumes simultaneous .. s of normal and reserve power with a LOCA.

The EDGs provide highly reliable, independent sources of power to the various components necessary for the ESF systems to function as assumed in the DBNPS USAR. The safety function of the ESF systems is to protect the fuel cladding, ensure Containment Vessel integrity, and reduce the driving force for containment leakage in the event of an accident. As described in the DBNPS USAR Section 8.3.1.2.4, Power Distribution System, the starting and loading of one EDG is adequate to satisfy the minimum ESF requirements.

Offsite and Onsite Electrical Distribution

The electrical system design is described in the DBNPS USAR Chapter 8, Electrical Power. Three 345kV lines connect the utility transmission grid to the DBNPS switchyard. The three 345kV transmission lines access the site by two different right-of-ways. The two 345kV transmission lines located on the same right-of-way are supported on structures set far enough apart to avoid the possibility of structural collapse of one causing an outage of both lines. The 345kV switchyard design is a ring bus scheme with ultimate transition to a breaker-and-a-half scheme. Three overhead 345kV lines are provided from the switchyard to the onsite station distribution system, one line to each of the two startup transformers and a third line to the main transformer. Each circuit is capable of carrying full station auxiliary loads assuming the other two circuits are not functioning.

The normal supply to the onsite distribution system during reactor power operation is the main generator via the unit auxiliary transformer. The reserve electrical power supply and the startup electrical power sources are the two startup transformers. Normally each startup transformer is the reserve power source to one of the two 13.8kV buses of the onsite distribution system. The transfer of a 13.8kV bus between the three sources can be accomplished either manually or automatically. If either startup transformer is out-of-service the remaining transformer will be available, by manual pre-selection via the reserve source selector switches, to automatically supply both buses should the normal source fail. Offsite power is also available by manually removing the generator disconnect links permitting backfeed through the main transformer to the unit auxiliary transformer. The standby emergency power supply is provided by the two EDGs.

Power supply from the 13.8kV buses to the 4.16kV s, .em is from two 12/16 MVA bus tie transformers which step down the voltage from 13.8kV to 4.16kV. Each bus tie transformer normally supplies one essential and one nonessential 4.16kV bus and is available as a reserve source for the other two 4.16kV buses. The capacities of the transformers and circuit breakers are sufficient to permit full station operation with one bus tie transformer out of service. Each essential 4.16kV bus is provided with a fast bus transfer scheme which will transfer the bus from its normal source to an alternate source of power.

Two 4.16kV essential buses C1 and D1 provide power to engineered safety feature equipment for safe shutdown. Two nonessential 4.16kV buses C2 and D2 supply power to nonsafety-related station auxiliaries.

In normal operation, the secondary winding of each bus tie transformer is connected through a 2000 amp circuit breaker to its associated nonessential 4.16kV bus. This bus then feeds the corresponding essential 4.16kV bus through a 1200 amp circuit breaker. Each essential 4.16kV bus can also be energized directly from the other bus tie transformer through a 2000 amp circuit breaker.

Transfer schemes are provided to switch each 4.16kV bus from its normal bus tie transformer to its reserve. The transfer between the two sources is done either manually, initiated by the operator at the control room, or automatically initiated by a protective relay action. Manual transfer is a live bus scheme while automatic transfer is a fast transfer.

Provisions are included to minimize the probability of losing the remaining electric power sources as a result of, or coincident with, a loss of the main generating unit, the transmission network, or the EDGs.

Emergency Diesel Generators

The two EDGs are each connected to one of the essential 4.16kV buses as a standby power source to supply the respective bus upon loss of the normal and reserve power sources. Bus load shedding and isolation, bus transfer to the EDG, and pickup of critical loads are automatic. The EDGs are located in separate, adjacent rooms in the Seismic Class I Auxiliary Building. Each EDG will receive a start signal when any of the following occurs:

a. Loss of essential bus voltage

b. A safety feature actuation signal (Level 2: high containment pressure or low RCS pressure)

c. Manual start

In addition to three incoming offsite 345kV transmission lines and the two EDGs, a Station Blackout Diesel Generator (SBODG) has been installed. The non-class 1E 4.16kV SBODG meets the definition of an alternate A.C. source under the requirements of 10 CFR 50.2 and 10 CFR 50.63. The SBODG is described in USAR Section 8.3.1.1.4.2, Alternate AC Source - Station Blackout Diesel Generator. The NRC staff evaluated the SBODG for compliance with 10 CFR 50.63 and found it acceptable as documented in its letter of March 7, 1991, to Toledo Edison.

The SBODG is a non-class 1E 4.16kV, 2865kW (continuous rating) diesel generator capable of providing A.C. power to all systems required for coping with a station blackout as defined in 10 CFR 50.2. The SBODG has a generating capacity greater than each EDG. The SBODG is located in a separate building, south of the station within the protected area. All cabling between this structure and the station is routed through a buried duct bank.

The SBODG is capable of supplying either of the essential 4.16kV buses through non-essential bus D2 and is available within ten (10) minutes of

the onset of Station Blackout. During an emergency, the SBODG can be manually started and loaded from the Control Room; automatic starting and loading is not provided. Operation of circuit breakers to line-up the SBODG to either essential bus can be accomplished from the Control Room.

Undervoltage Protection

The 4.16kV essential bus undervoltage protection is described in DBNPS USAR Section 8.3.1.1.3, 4160 Volt Auxiliary System. Each 4.16kV essential bus is provided with two levels of voltage protection. Four relays per bus at each voltage level (two per functional unit) function as coincidental logic to preclude spurious trips of the offsite source. The undervoltage trip setpoints and associated time delays are provided in Technical Specification Table 3.3-4, Safety Features Actuation System Trip Setpoints. The time delays associated with the relays are chosen so as to minimize the effect of short duration disturbances from reducing the availability of the offsite power source, to assure that the allowable time duration of a degraded voltage condition does not result in failure of safety systems or components, and to assure the starting times of equipment assumed in the accident analysis are not exceeded. The undervoltage relays set at 90% automatically initiate disconnection of the offsite power source whenever the voltage setpoint and time delay have been exceeded. The 59% undervoltage relays automatically initiate the disconnection of the offsite power source, load shed the bus, and start the diesel generator whenever the voltage setpoint and time delay have been exceeded.

As described in the DBNPS USAR Section 8.3.1.1.4.1, Emergency Diesel Generators, if loss of power is confirmed, by loss of voltage at either essential 4.16kV bus, the following will occur:

1. All bus load breakers, except the breakers supplying power to the 480V essential unit substation supply breakers, makeup pump breakers, and component cooling pump breakers, will be tripped.

2. Both source breakers will be tripped and the bus will be isolated.

3. The associated emergency diesel generator set will be started, if not already running.

4. When the emergency diesel generator reaches rated voltage, the corresponding emergency diesel generator breakers will close energizing the 4.16kV and 480V essential buses.

5a. In case the safety features actuation system has been tripped, the engineered safety features loads will be automatically energized according to the predetermined loading sequence.

5b. In case the safety features actuation system has not been tripped, the emergency diesel generator will be loaded manually: except that in any case, the component cooling water pumps, service water pumps, previously running make up pumps and the essential 480V buses will be started/energized.

Except for manual synchronization during routine testing, the essential bus(es) will be isolated only upon a loss of voltage or a bus fault, and the EDG breaker(s) will be closed only on loss of voltage without a bus fault.

Safety Features Actuation System

The Safety Features Actuation System (SFAS) is described in DBNPS USAR, Section 7.3, Safety Features Actuation System. The SFAS consists of four identical redundant sensing and logic channels and two identical redundant actuation channels. Each sensing channel includes analog circuits with analog isolation devices, and each logic channel includes trip bistable modules with digital isolation devices. The isolated output of the trip bistable module is used to comprise coincidence matrices with the terminating relays within the actuation channel of the SFAS. The trip bistables monitor the station variables and normally feed continuous electrical signals into two-out-of-four coincidence matrices. Should any of the station variables exceed their trip setpoints, the corresponding bistables in each of the four channels will trip and cease sending output signals. Should two of the four channel bistables monitoring the same station variable cease to send output signals, the corresponding normally energized terminating relays on all channels will trip. The terminating relays of sensing and logic Channels 1 and 3, must both be deenergized to activate safety actuation Channel 1. Similarly, sensing and logic Channels 2 and 4 are deenergized to activate actuation Channel 2. The terminating relays act on the actuation control devices such as motor controllers and solenoid valves.

There are four sequencer units; one in each SFAS channel. The sequencers automatically load the actuated safety features equipment onto 4.16 kV essential buses C1 and D1 in a sequential manner when the EDGs are required to supply power in conjunction with an SFAS actuation signal. This is to prevent overloading of the EDGs. When the sequencer is placed in operation it will block the required output modules in the affected channels, and unblock them in a programmed order. The sequencer does not control the equipment, but rather controls the output modules which in turn control the equipment. If there is an SFAS signal, but no loss of essential power, then the sequencer will allow the output modules to operate normally. If an SFAS sequencer is inoperable and is removed from its associated SFAS channel, then the remaining associated SFAS channel will perform the controlling function of the output modules for the associated EDG upon an SFAS signal concurrent with the loss of essential power.

EFFECTS ON SAFETY:

In Table 3.3-3 the Total Number of Units for the 59% and 90% undervoltage protection is changed to 4. As described previously the 4.16kV essential bus 59% and 90% undervoltage protection incorporates a total of four units per voltage level. Two units of each voltage level are associated with each 4.16kV essential bus for each level. The undervoltage protection logic for each bus and voltage level is configured in one-out-of-two taken twice logic. This is reflected in changing the Units to Trip and Minimum Units Operable in Table 3.3-3 to 2/bus. The Units to Trip and Minimum Units Operable for the sequencers are changed to 2/bus. This reflects the

SFAS design of one sequencer per channel with Channels 1 and 3 associated with actuation Channel 1 and Channels 2 and 4 associated with actuation Channel 2. As the changes reflect the design of the undervoltage units and the sequencers they have no adverse safety impact.

Proposed Action Statement 15.a. is consistent with NUREG 1430, Revision 1 for the undervoltage relays as action is taken to place the inoperable unit in the tripped condition so that one additional signal will cause actuation of the protective action. The proposed Action Statement 15.a. completes one-half of the logic by configuring the undervoltage protection logic of Functional Units 4.b. and 4.c. to one-out-of-two to trip. Although there are four sequencer channels, two per EDG, only one is required per EDG to assure proper sequencing of loads provided the inoperable unit of Functional Unit 4.a. is placed in the tripped condition. This action also eliminates the unnecessary entry into Technical Specification 3.0.3 if two units of the same function associated with different essential buses become inoperable. As this action in conjunction with the changes to Table 3.3-3 reflects the design of the affected Functional Units there is no adverse safety impact.

Proposed Action Statement 15.b. is consistent with NUREG 1430, Revision 1 which requires that the associated EDG be declared inoperable if no units of the undervoltage or sequencer functions are operable. This proposed action also eliminates the unnecessary entry into Technical Specification 3.0.3 when two units of the same Functional Unit associated with the same EDG are inoperable. As described in DBNPS USAR Section 8.3.1.1.3, 4160 Volt Auxiliary System, the overall function of Functional Units 4.a., 4.b., and 4.c. is to assure that the allowable time duration of a degraded voltage condition does not result in failure of safety systems or components and that the starting times of equipment assumed in the accident analysis are not exceeded. This is accomplished by detection of degraded or undervoltage conditions, isolating the affected essential bus, starting of the associated EDG and loading the bus. With both sequencers associated with an EDG inoperable, overload protection of the EDG is not available if the EDG is required to supply power coincident with an SFAS actuation signal. With both units of the 90% or 59% undervoltage protection associated with one EDG inoperable, EDG starting and breaker closure will not be available. In either case, it is appropriate to declare the associated EDG inoperable and comply with the requirements of Technical Specification 3.8.1.1. With an EDG declared inoperable compliance with Technical Specification 3.0.5 must be verified to assure the operability of safety systems and components. Technical Specification 3.0.5 delineates what additional conditions must be satisfied to permit operation to continue, consistent with the Action Statements for power sources, when a normal or emergency power source is not operable. It specifically prohibits operations when one division is inoperable because its normal or emergency power source is inoperable and a system, subsystem, train, component or device in another division is inoperable for another reason. As previously discussed the starting and loading of one EDG is adequate to satisfy the minimum ESF requirements. The proposed Action Statement 15.b. is consistent with the need to have an EDG operable to meet the ESF requirement with an allowed outage time commensurate with the level of degradation, and eliminates an inconsistency which would otherwise require an unnecessary Technical Specification 3.0.3 entry. Further, the loss of all A.C. power (station blackout)

accident which has been analyzed in USAR Section 15.2.9, Loss of All AC Power to the Station Auxiliaries (Station Blackout), is not affected by the proposed changes. This accident analysis shows that the loss of all A.C. power (including both EDGs and the SBODG) does not result in excessive pressure in the Reactor Coolant System (RCS) and the natural circulation characteristics of the RCS will assure core decay heat removal and a minimum core DNBR greater than 1.30. Therefore, the proposed Action statement has no adverse safety impact.

Footnote *** is deleted since the requirement for one sequencer unit to be operable in SFAS Channel 1 or 3 and one sequencer unit to be operable in SFAS Channel 2 or 4 is incorporated into the changes proposed to Table 3.3-3 and proposed Action Statement 15. As the appropriate requirements are maintained, there is no adverse safety impact.

Action Statement 10 is revised by removing the requirements for tripping a sequencer channel. The requirements are relocated to proposed Action Statement 15. As the appropriate requirements are maintained, there is no adverse safety impact.

SIGNIFICANT HAZARDS CONSIDERATION:

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

1a. Not involve a significant increase in the probability of an accident previously evaluated because the proposed change to accurately reflect the design and actuation logic of the sequencers and essential bus undervoltage relays, and provide Technical Specification actions for two inoperable functional units does not make a change to any accident initiator, initiating condition or assumption. The accident previously evaluated in the DBNPS Updated Safety Analysis Report (USAR) Section 15.2.9, Loss of All AC Power to the Station Auxiliaries (Station Blackout), is not affected by this proposed change. The proposed action statements maintain the USAR requirement for starting and loading of one EDG to meet the minimum ESF requirements. The proposed change accurately reflects the plant design, therefore, the change does not involve a significant change to the plant design or operation.

1b. Not involve a significant increase in the consequences of an accident previously evaluated because the proposed changes do not invalidate assumptions used in evaluating the radiological consequences of an accident, do not alter the source term or containment isolation and do not provide a new radiation release path or alter potential radiological releases.

2. Not create the possibility of a new or different kind of accident from any accident previously evaluated because the proposed changes do not introduce a new or different accident initiator or introduce a new or different equipment failure mode or mechanism.

3. Not involve a significant reduction in a margin of safety because the proposed changes do not reduce the margin to safety which exists in the present Technical Specifications or USAR. The proposed changes permit continued operation with one unit of the sequencer, 59% or 90% undervoltage protection inoperable provided the unit is placed in the tripped condition which is consistent with the current Technical Specifications. With two units of the same function inoperable the associated EDG is declared inoperable and the requirements of the Technical Specifications for an inoperable EDG entered, including verification that the requirements of Technical Specification 3.0.5 are met to assure that the minimum ESF requirement is met. The operability requirements of the proposed Technical Specifications are consistent with the initial condition assumptions of the safety analyses.

CONCLUSION:

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

ATTACHMENT:

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

REFERENCES:

1. Improved Standard Technical Specifications for Babcock & Wilcox Plants NUREG 1430, Revision 1.

2. 10 CFR 50.2, Definitions.

3. 10 CFR 50.63, Loss of All Alternating Current Power.

4. Letter from D. C. Di Ianni, NRC, to D. C. Shelton, Toledo Edison, dated March 7, 1991, (Toledo Edison Log Number 3421), Subject: Safety Evaluation of the DBNPS Unit No. 1, Station Blackout Rule 10 CFR 50.63 (TAC No. 68536).

5. USAR Section 6.3.1.4, System Short- and Long-Term Capability.

6. USAR Section 7.3, Safety Features Actuation System (SFAS).

7. USAR Chapter 8, Electrical Power.

8. USAR Section 8.3.1.2.4, Power Distribution System.

9. USAR Section 8.3.1.1.4.1, Emergency Diesel Generators.

10. USAR Section 8.3.1.1.4.2, Alternate AC Source - Station Blackout Diesel Generator.

11. USAR Section 8.3.1.1.3, 4160 Volt Auxiliary System.

12. USAR Section 15.2.9, Loss of All AC Power to the Station Auxiliaries (Station Blackout).

13. Technical Specification Interpretation Request No. 91-0004, Rev. 1.