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U-603281  
8E.100a

October 25, 1999

Docket No. 50-461

10CFR50.90

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

Subject: Clinton Power Station Proposed Amendment of  
Facility Operating License No. NPF-62 (LA-99-001)

Dear Madam or Sir:

Pursuant to 10 CFR 50.90, Illinois Power (IP) hereby applies for amendment of Facility Operating License No. NPF-62 for Clinton Power Station (CPS). IP requests review and approval of a proposed change to the CPS Technical Specifications to clarify the requirements for performing channel calibrations, channel functional tests, and logic system functional tests as these requirements are currently defined in the Technical Specifications. Specifically, IP proposes to incorporate NRC-approved Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-205, Revision 3, "Revision of Channel Calibration, Channel Functional Test, and Related Definitions."

A description of the proposed changes and associated justification (including a Basis for No Significant Hazards Consideration) are provided in Enclosure 2. An annotated copy of the affected pages from the current Technical Specifications (TS) is provided in Enclosure 3. An annotated copy of the affected pages from the current TS Bases is provided in Enclosure 4. The annotated Bases pages in Enclosure 4 are provided for information only since the Bases are not a formal part of the Technical Specifications. Further, an affidavit supporting the facts set forth in this letter and its enclosures is provided in Enclosure 1.

Sincerely yours,

  
M. T. Coyle  
Assistant Vice President

AC01

JLP/krk

**Enclosures**

**cc: NRC Clinton Licensing Project Manager  
Regional Administrator, USNRC Region III  
NRC Resident Office, V-690  
Illinois Department of Nuclear Safety**

AFFIRMATION

Michael T. Coyle, being first duly sworn, deposes and says: That he is Assistant Vice President for Clinton Power Station; that this application for amendment of Facility Operating License NPF-62 has been prepared under his supervision and direction; that he knows the contents thereof; and that the letter and the statements made and the facts contained therein are true and correct to the best of his knowledge and belief.

Date: This 25<sup>th</sup> day of October 1999.

Signed: \_\_\_\_\_

*M.T. Coyle*

M. T. Coyle  
Assistant Vice President

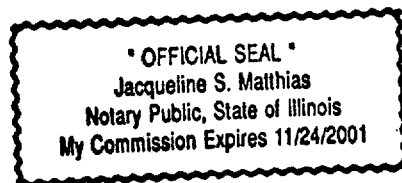
STATE OF ILLINOIS

Dewitt COUNTY

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}

SS.

Subscribed and sworn to before me this 25<sup>th</sup> day of October 1999.



*Jacqueline S. Matthias*  
(Notary Public)

## BACKGROUND

In a meeting between the Nuclear Regulatory Commission (NRC) and the Nuclear Energy Institute (NEI) Technical Specification Task Force (TSTF) on April 17, 1997, a particular subject was discussed relating to the definitions of Channel Calibration, Channel Functional Test, and Logic System Functional Test as specified in the Improved Standard Technical Specifications (ISTS) (NUREG-1434, "Standard Technical Specifications, General Electric Plants, BWR/6"). Following this meeting, the NEI TSTF proposed changes to these and other related definitions as reflected in Standard Technical Specification Change Traveler, TSTF-205, "Revision of Channel Calibration, Channel Functional Test, and Related Definitions." These generic changes were reviewed by the NRC, and NRC approval of Revision 3 to TSTF-205 was obtained on December 24, 1998.

In accordance with 10CFR50.90, Clinton Power Station (CPS) proposes to adopt the recommended changes approved in TSTF-205, Revision 3, as they relate to NUREG-1434, with an exception for correction of a minor editorial change as further discussed below.

## DESCRIPTION OF PROPOSED CHANGE

The proposed changes to the CPS Technical Specifications revise the Channel Calibration, Channel Functional Test, and Logic System Functional Test definitions (consistent with TSTF-205, Revision 3) to eliminate ambiguity and possible misinterpretation. In each of these definitions (as currently worded in the Technical Specifications), amplifying wording is included to define the scope of the test. This wording refers, for example, to "required sensor, alarm, display, and trip functions," or "all required relays and contacts, trip units, solid state logic elements." Despite the intended purpose of this wording, it is itself subject to interpretation regarding what are the "required alarm and trip functions," or what is meant by all "required relay contacts and solid state logic elements." The intent of the testing defined by these definitions is to test the channel or logic circuit to the extent required to verify Operability consistent with the purpose of the surveillance, and with consideration given to the intended scope of the test relative to its required frequency. [A Logic System Functional Test, for example, which is typically performed every 18 months during plant shutdown (for a plant with an 18-month fuel cycle) would be expected to be greater in scope and complexity than a Channel Functional test which is performed every quarter (with the plant on-line).]

The proposed changes would eliminate the noted wording and replace it with wording that more simply reflects the intent of these test requirements. For example, in the current definition of CHANNEL FUNCTIONAL TEST where the definition describes that the scope/purpose of the test is "to verify OPERABILITY, including required alarm, interlock, display, and trip functions, and channel failures trips," such wording would be replaced with wording which describes that the scope/purpose of the test is "to verify OPERABILITY of all devices in the channel required for channel OPERABILITY."

In addition to the above, IP also proposes to revise the statement at the end of the CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST definitions addressing the allowance to have the test “performed by means of any series of sequential, overlapping, or total channel steps so that the entire channel is calibrated (tested).” The words “so that the entire channel is calibrated (tested)” would be deleted to remove potential conflict with verbatim reading of the proposed definition containing the words “of all devices in the channel required for channel OPERABILITY.” This also removes a potential conflict with the flexibility of testing permitting a “successful test... by the verification of the change of state of a single contact of the relay” as proposed in the associated Bases changes.

The specific changes to each definition, i.e., for the CHANNEL FUNCTIONAL TEST, CHANNEL CALIBRATION, and LOGIC SYSTEM FUNCTIONAL TEST definitions, are as follows. (Note: For each definition, the current definition and the proposed/ revised definition is given.)

#### Current Technical Specification Definition

##### CHANNEL CALIBRATION

A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the channel output such that it responds within the necessary range and accuracy to known values of the parameter that the channel monitors. The CHANNEL CALIBRATION shall encompass the entire channel, including the required sensor, alarm, display, and trip functions, and shall include the CHANNEL FUNCTIONAL TEST. Calibration of instrument channels with resistance temperature detector (RTD) or thermocouple sensors may consist of an in-place qualitative assessment of sensor behavior and normal calibration of the remaining adjustable devices in the channel. The CHANNEL CALIBRATION may be performed by means of any series of sequential, overlapping, or total channel steps so that the entire channel is calibrated.

#### Proposed Technical Specification Definition

##### CHANNEL CALIBRATION

A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the channel output such that it responds within the necessary range and accuracy to known values of the parameter that the channel monitors. The CHANNEL CALIBRATION shall encompass all devices in the channel required for channel OPERABILITY and the CHANNEL FUNCTIONAL TEST. Calibration of instrument channels with resistance temperature detector (RTD) or thermocouple sensors may consist of an in-place qualitative assessment of sensor behavior and normal calibration of the remaining adjustable devices in the channel. The CHANNEL CALIBRATION may be performed by means of any series of sequential, overlapping, or total channel steps.

Current Technical Specification Definition

**CHANNEL FUNCTIONAL TEST**

A CHANNEL FUNCTIONAL TEST shall be the injection of a simulated or actual signal into the channel as close to the sensor as practicable to verify OPERABILITY, including required alarm, interlock, display, and trip functions, and channel failure trips. The CHANNEL FUNCTIONAL TEST may be performed by means of any series of sequential, overlapping, or total channel steps so that the entire channel is tested.

Proposed Technical Specification Definition

**CHANNEL FUNCTIONAL TEST**

A CHANNEL FUNCTIONAL TEST shall be the injection of a simulated or actual signal into the channel as close to the sensor as practicable to verify OPERABILITY of all devices in the channel required for channel OPERABILITY. The CHANNEL FUNCTIONAL TEST may be performed by means of any series of sequential, overlapping, or total channel steps.

Current Technical Specification Definition

**LOGIC SYSTEM FUNCTIONAL TEST**

A LOGIC SYSTEM FUNCTIONAL TEST shall be a test of all required logic components (i.e., all required relays and contacts, trip units, solid state logic elements, etc.) of a logic circuit, from as close to the sensor as practicable up to, but not including, the actuated device, to verify OPERABILITY. The LOGIC SYSTEM FUNCTIONAL TEST may be performed by means of any series of sequential, overlapping, or total system steps so that the entire logic system is tested.

Proposed Technical Specification Definition

**LOGIC SYSTEM FUNCTIONAL TEST**

A LOGIC SYSTEM FUNCTIONAL TEST shall be a test of all logic components required for OPERABILITY of a logic circuit, from as close to the sensor as practicable up to, but not including, the actuated device, to verify OPERABILITY. The LOGIC SYSTEM FUNCTIONAL TEST may be performed by means of any series of sequential, overlapping, or total system steps so that the entire logic system is tested.

Following NRC approval of these proposed changes to the Technical Specification definitions, the TS Bases will be revised in accordance with TS 5.5.11, "Technical Specification Bases Control Program." The Bases changes primarily consist of inserting appropriate text in the Surveillance Requirement sections of the TS Bases wherever CHANNEL FUNCTIONAL TEST requirements are addressed. These changes are consistent with the revised definitions and the Bases changes recommended per TSTF 205, Revision 3. While approval of the TS Bases is not being explicitly requested, the intent is to keep the TS Bases wording consistent with the proposed changes to the Technical Specifications.

The affected TS Bases sections affected are listed below:

SR 3.3.1.1.4	SR 3.3.5.1.2
SR 3.3.1.1.5	SR 3.3.5.2.2
SR 3.3.1.1.9	SR 3.3.6.1.2
SR 3.3.1.1.12	SR 3.3.6.2.2
SR 3.3.1.2.5	SR 3.3.6.3.2
SR 3.3.2.1.1	SR 3.3.6.4.2
SR 3.3.2.1.2	SR 3.3.6.5.1
SR 3.3.2.1.3	SR 3.3.7.1.2
SR 3.3.2.1.4	SR 3.3.8.1.2
SR 3.3.2.1.8	SR 3.3.8.2.1
SR 3.3.4.1.1	SR 3.4.7.2
SR 3.3.4.2.2	SR 3.9.1.1
	SR 3.9.2.2

#### JUSTIFICATION FOR PROPOSED CHANGES

The current definitions for CHANNEL FUNCTIONAL TEST, CHANNEL CALIBRATION and LOGIC SYSTEM FUNCTIONAL TEST include wording intended to help define the scope and specificity of these tests. This wording consists of descriptive phrases denoting what may be "required" for implementation of the Surveillance Requirement. However, these phrases, such as "including the required sensor, alarm, display, and trip function" (CHANNEL CALIBRATION definition), "including required alarm, interlock, display, and trip functions" (CHANNEL FUNCTIONAL TEST definition), and "all required relays and contacts, trip units, solid state logic elements" (LOGIC SYSTEM FUNCTIONAL TEST), are subject to interpretation in the application of the word "required." Given that these surveillances are performed for a variety of channel and circuit configurations, it is not clear, for example, whether the list of "required" functions or devices is inclusive or representative.

The proposed change eliminates the ambiguity in the current definition by removing the list of components from the definition and replacing this list with a phrase such as "all devices in the channel required for channel OPERABILITY." The addition of this phrase clarifies the use of the word "required" and makes clear that the components that are

required to be tested or calibrated are only those that are necessary for the channel to perform its safety function. This change will simplify the requirements and allow for consistent application of the definitions, tests, and calibrations.

The changes to the Bases were included in TSTF-205 (Revision 3). Without the associated Bases changes, the Technical Specifications (as revised by the proposed TS changes) would be in conflict with the TS Bases wherever the CHANNEL FUNCTIONAL TEST requirements are addressed. Additional clarification is needed in the Bases since the proposed Channel Functional Test definition does not address the method of testing all the required channel devices. Specifically, in an NRC Inspection Report for Peach Bottom, it was confirmed and documented that a successful test of a channel relay and associated required contacts may be completed by the verification of a single contact and that all contacts of the required device need not be tested provided the required channel contact is otherwise tested (such as by performance of a Logic System Functional Test).

This clarification regarding performance of a CHANNEL FUNCTIONAL TEST is consistent with the proposed definition of the CHANNEL FUNCTIONAL TEST. This testing clarification is appropriate and acceptable since (1) the entire scope of the required test is being performed (only the acceptance criteria is modified to require verification of a certain portion of the instrument functions to have a successful test, (2) all portions of the scope of the required test required for OPERABILITY are being tested, and (3) provision for the acceptance of the verification of change of the state of a single contact of the relay as desired by the NRC is being performed.

Finally, as noted previously, an editorial change in addition to the adoption of TSTF-205, Revision 3 is proposed. Specifically, the Logic System Functional Test definition would be modified to delete the first use of the word "required." This was an apparent oversight in the NRC-approved BWR/6 (NUREG-1434) markup of TSTF-205, Revision 3 which states "all required logic components required for OPERABILITY." This statement would possibly add ambiguity and misinterpretation back into the Logic System Functional Test definition. The proposed editorial change is provided (1) to eliminate this ambiguity and possible misinterpretation of the definition, and (2) to be consistent with the BWR/4 (NUREG-1433) markup of TSTF-205, Revision 3. The proposed editorial change does not change the meaning or intent of the Logic System Functional Test definition.

#### BASIS FOR NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

In accordance with 10CFR 50.92, a proposed change to the operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed change would not: (1) involve a significant increase in the probability or consequences of any accident previously evaluated, (2) create the possibility of a new or different kind of accident from any accident previously evaluated, or (3) involve a significant reduction in a margin of safety. The proposed change has been evaluated



against each of the three criteria and it has been determined that the change does not involve a significant hazard because:

- (1) The proposed change does not involve a significant increase in the probability or consequences of any accident previously evaluated.

The proposed change clarifies the Technical Specification requirements for performance of channel calibrations, channel functional tests, and logic system functional tests. Specifically, the proposed change incorporates the NRC-approved Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-205, Revision 3, "Revision of Channel Calibration, Channel Functional Test, and Related Definitions." The change approved per this TSTF is not expected to adversely affect the performance and effectiveness of required testing as testing appropriate to the associated Surveillance Requirements will continue to be performed. The proposed change does not have a detrimental impact on the condition or performance of any plant structure, system, or component that initiates an analyzed event. Consequently, the probability of an accident previously evaluated is not significantly increased. The equipment being tested is still required to be operable and capable of performing the accident mitigation functions assumed in the accident analysis. As a result, the consequences of any accident previously evaluated are not significantly affected. Therefore, this change does not involve a significant increase in the probability or consequences of any accident previously evaluated.

- (2) The proposed change would not create the possibility of a new or different kind of accident from any accident previously evaluated.

The scope of the proposed change is limited to the clarification of existing test requirements. As such, the proposed change does not involve a physical alteration of the plant (no new or different type of equipment will be installed) or a change in the methods governing normal plant operation. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

- (3) The proposed change will not involve a significant reduction in the margin of safety.

As noted above, the proposed change clarifies requirements for the performance of channel calibrations, channel functional tests, and logic system functional tests. Specifically, the proposed change incorporates the NRC-approved Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-205, Revision 3, "Revision of Channel Calibration, Channel Functional Test, and Related Definitions." No changes or setpoints to plant process limits are involved. The surveillance requirements as revised will continue to ensure that affected equipment is tested in a manner that gives confidence that

the equipment can perform its appropriate safety function. Therefore, this change does not involve a significant reduction in a margin of safety.

Based upon the above analysis, the proposed change will not increase the probability or consequences of any accident previously evaluated, create the possibility of a new or different kind of accident from any accident previously evaluated, or involve a significant reduction in the margin of safety. Therefore, the proposed change meets the requirements of 10 CFR 50.92(c) and involves no significant hazard consideration.

#### Environmental Impact Consideration

The proposed license amendment was evaluated against the criteria of 10 CFR 51.22 for environmental considerations. Since the proposed change involves no change to the design or operation of the facility, the proposed change (1) does not significantly increase individual or cumulative occupational radiation exposures, (2) does not significantly change the types or significantly increase the amount of effluents that may be released offsite, and (3) as discussed in this enclosure, does not involve a significant hazards consideration. Based on the foregoing, it has been concluded that the proposed Technical Specification change meets the criteria given in 10 CFR 51.22(c)(9) for categorical exclusion from the requirement for an Environmental Impact Statement.