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John F. Franz, Jr.
Vice President, Nuclear

NG-96-2322
October 30, 1996

Mr. Frank J. Miraglia, Jr.
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station P1-37
Washington, DC 20555-0001

Subject: Duane Arnold Energy Center (DAEC)
Docket No.: 50-331
Op. License No.: DPR-49
Submittal: License Amendment Request to Convert the DAEC Technical
Specifications to the Improved Technical Specifications (NUREG-1433), (RTS-291)

References: 1) J. Franz (IES) to W. Russell (NRC), "Revision to Schedule for Submittal of
DAEC Conversion to the Standard Technical Specifications (NUREG-1433),"
NG-96-1840, August 30, 1996.
2) Nuclear Energy Institute (NEI), "Improved Technical Specifications Conversion
Guidance," NEI 96-06, August, 1996.
3) NRC Administrative Letter 96-04: "Efficient Adoption of Improved Standard
Technical Specifications," October 9, 1996.

File: A-117

Dear Mr. Miraglia:

The purpose of this letter is to request a license amendment pursuant to 10 CFR Part 50.90 to convert the DAEC Technical Specifications (TS) to the Improved Technical Specifications (ITS) (NUREG-1433, Rev. 1), as committed in Reference 1. The detailed description and justification for the proposed TS amendment consists of 20 volumes and is summarized in Attachment 1. The organization of the volumes is consistent with Reference 2 to facilitate the review of the submittal by the NRC Staff. However, as Reference 2 was only recently made available, and as the development of our application began in May of 1995, our application has been prepared, to the extent practicable, in accordance with the guidelines contained in Reference 2, but does not conform in all respects. For example, our 'Removed Details,' which are categorized as a subgroup of 'Less Restrictive' items in NEI 96-06, are categorized as 'Relocated Items' in our application.

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In addition to the conversion of our Current TS (CTS) to the ITS, several changes to the CTS are included in this application and are described in Attachment 2. For example, changes to extend the DAEC operating cycle from 18 to 24 months. These items are considered to be within the scope of the conversion, as described in Reference 2. Attachment 3 contains a listing of those changes to the CTS which may be considered to be 'beyond scope' as defined in References 2 and 3. For overall conservatism, we have characterized several items as beyond scope because they are not current licensing basis, even though they would not change any CTS requirements. We have kept the number of such beyond scope items to a minimum and included only items that are consistent with the intent of the NUREG-1433 and therefore, should be reviewed as part of our ITS submittal. Consequently, we have not prepared individual submittals for these items, nor prepared a version of our ITS which does not include them. Several of these items have been identified as potential generic changes to the NUREG and 'travelers' have been submitted to our Owners' Group for consideration in accordance with Reference 2.

As the CTS for the DAEC is of a 'custom' nature, some deviations from the NUREG have been taken in order to maintain consistency with our current licensing basis. We have summarized the more significant deviations in Attachment 4. Again, several of these items are potentially generic in nature and travelers for these items have been submitted to our Owners' Group for consideration. Because it will be important for the reviewers to understand the rationale for these deviations, we would like to meet with the Staff at your earliest convenience to discuss these items, prior to beginning the technical review of the individual chapters and sections.

There are currently no outstanding TS amendment requests on the DAEC docket that affect this submittal and to date, we have not identified any changes to the CTS that will be submitted during the review of our ITS conversion. While Amendment # 219 (Appendix J, Option B) to the CTS has been recently approved, the enclosed CTS mark-up pages have not been updated to reflect the new typed pages for those changes. The enclosed CTS mark-up pages are the "pen & ink" pages from that submittal. We will include new CTS mark-up pages based upon the typed Amendment pages in the first revision to our ITS submittal.

Conversion to the ITS will require changes to the DAEC Quality Assurance Program Description (QAPD). A revision to the QAPD will be prepared, pursuant to 10 CFR Part 50.54(a) and submitted to the Staff for review after the Staff's review of ITS Chapter 5.0 (Administrative Controls) is completed. Changes to the Updated Final Safety Analysis Report (UFSAR) necessitated by conversion to the ITS, will be submitted pursuant to 10 CFR Part 50.71(e), after issuance of the final Safety Evaluation for the ITS conversion.

A number of CTS requirements are being proposed for relocation to a licensee-controlled document because they either do not meet the screening criteria of 10 CFR Part 50.34(c)(2)(ii) for the DAEC or are at a level of detail not required by NUREG-1433 for inclusion in the ITS (*i.e.*, a "Relocated Detail" as defined in Reference 2.) The proposed destination of these relocated items is identified in our Discussion of Changes (*e.g.*, UFSAR, QAPD, TS BASES, etc.), except

where a destination has not yet been selected. Where a final destination is not identified, the Discussion of Change indicates that they are being relocated to a "licensee-controlled document" where "changes to the requirements will be evaluated in accordance with the DAEC 10 CFR 50.59 program." We will determine the final destination of these relocated items during implementation of the ITS, acknowledging the guidance contained in Reference 3.

Attachment 5 contains the list of those Generic Travelers (by TSTF No.) that have been incorporated into our submittal. The freeze date for consideration of Generic Travelers was July 31, 1996, with TSTF-114 being the last traveler considered. No travelers, or revisions to previously-issued travelers, issued after this date have been included in our ITS.

The DAEC ITS includes a number of new Surveillance Requirements (SRs). We intend to treat these new SRs as being 'met' at the time of implementation of the ITS, with the first performance scheduled within the required Frequency starting from the final implementation date. The ITS also will extend the Frequency of many current SRs, for example from 18 to 24 months. Upon implementation of the ITS, the due date for these SRs will be changed to reflect the new Frequency based upon their last performance date. In addition, the new SRs for Secondary Containment Isolation Valve/Damper stroke time testing (ITS SR 3.6.4.2.1) and for Turbine Bypass Valve functional and response time testing (ITS SRs 3.7.7.2 and 3, respectively), require a trial run to verify that they can be done with the DAEC design. A trial run of these SRs is planned for the current refuel outage. Based upon the results of these trial runs, we may need to revise our submittal to modify or delete these SRs. Consequently, we consider these issues to be Open Items in our submittal. We expect to close these Open Items by the end of this year.

Implementation of the DAEC ITS is currently planned for the Fourth Quarter of 1997. This date is based upon a requalification examination for licensed operators in December, 1997 and to allow time for sufficient planning to support the Spring 1998 refuel outage. To meet this schedule, and acknowledging that additional review time will be needed by the Staff to support review of those items listed in Attachments 3 and 4, we request that the NRC issue the draft Safety Evaluation for our TS conversion by July 31, 1997, with final approval no later than October 31, 1997.

In accordance with Reference 2, in addition to the three copies required by 10 CFR Part 50.4, our application includes six additional copies for the Staff's use. By prior arrangement with our Licensing Project Manager (LPM), one of these six copies is being forwarded directly to the NRC's contractor for their use. Also, by prior arrangement, we will be forwarding the electronic version of our application to our LPM, via Internet transmission. The DAEC ITS LCOs and BASES have been prepared in Word Perfect 5.2 for Windows and the Discussion of Changes (DOCs) and No Significant Hazards Considerations (NSHC) evaluations have been prepared in MS Word 6.0 format.

The enclosed application has been approved by the DAEC Operations Committee and Safety Committee. This application and evaluation of No Significant Hazards Considerations has been forwarded to our appointed state official, pursuant to 10 CFR Part 50.91.

The following commitment is closed by this letter:

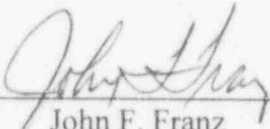
Submit the conversion of the DAEC TS to the Standard TS (NUREG-1433) by October 31, 1996.

Please contact this office if you have any questions regarding this submittal.

This application, consisting of the foregoing letter, attachments and enclosure, is true and accurate to the best of my knowledge and belief.

IES UTILITIES INC.

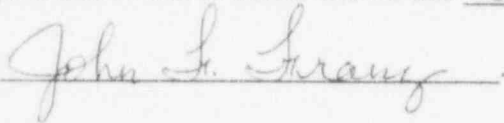
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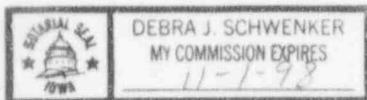

John F. Franz
Vice President, Nuclear


State of Iowa
(County) of Linn

Signed and sworn to before me on this 30th day of October, 1996,

by






Notary Public in and for the State of Iowa

11-1-98
Commission Expires

- Attachment 1: Description of the Content and Organization of each Volume of the DAEC Improved Technical Specifications (ITS) Submittal.
- Attachment 2: Brief Description of Changes to the Current Technical Specifications (CTS) that are Within Scope of the Improved Technical Specifications (ITS) Conversion.
- Attachment 3: Brief Description of Changes to the Current Technical Specifications (CTS) that are Beyond Scope of the Improved Technical Specifications (ITS) Conversion.
- Attachment 4: Significant Changes to the NUREG-1433 Requirements which maintain the DAEC Current Licensing Basis.
- Attachment 5: Technical Specification Task Force (TSTF) Generic Changes to NUREG-1433 that have been incorporated into the DAEC ITS.
- Enclosure: Volumes 1 through 20 of the DAEC Improved Technical Specifications (ITS) Submittal (RTS-291) (described in Attachment 1).
- cc: R. Browning (w/o Enclosure)
L. Liu (w/o Enclosure)
P. Baig (State of Iowa) (w/Evaluation of No Significant Hazards Considerations only)
A. Beach (NRC Region III) (w/Enclosure)
G. Kelly (NRC NRR) (w/Enclosure, 3 copies)
C. Grimes (NRC NRR) (w/Enclosure, 2 copies)
T. Ryan (Lockheed Idaho Technologies Co.) (w/Enclosure)
NRC Resident Office (w/Enclosure)
DOCU (w/Enclosure)

U. S. Nuclear Regulatory Commission

Document Control Desk

To Whom It May Concern:

This is to inform you that we have made the necessary copies and distributed them as follows:

Region III Office - 1 copy

Resident Inspector - 1 copy

Licensing Project Manager - 3 copies

Technical Specification Coordination Branch - 2 copies

Contractor (Lockheed Idaho Technologies Co.) - 1 copy

The enclosed Original is for your file copy.

If you have any questions, please contact Tony Browning, IES Utilities, Duane Arnold Energy Center, at (319) 851-7750.

Description of the Content and Organization of each Volume of the
DAEC Improved Technical Specifications (ITS) Submittal

Volume # 1: Application of 10 CFR 50.36 (c)(2)(i) Selection Criteria (including Relocation Matrix); Mark-up of Relocated Current Technical Specification (CTS) pages.

Volume # 2: CTS mark-up pages (Limiting Conditions for Operations (LCOs) and Surveillance Requirements (SRs) only) in CTS order.

Note: The following Volumes are organized in the following manner on a Chapter/Section basis:

1) Clean, typed ITS (LCO and BASES); 2) CTS mark-up pages (LCOs and SRs only) in ITS order; 3) Discussion of Changes (DOCs) for the CTS; 4) NUREG-1433 mark-up pages (LCO and BASES); 5) DOCs for NUREG-1433; 6) No Significant Hazards Consideration (NSHC) evaluations.

Volume # 3:	DAEC ITS Chapter 1.0	Use and Application
Volume #4:	DAEC ITS Chapter 2.0	Safety Limits
Volume #5	DAEC ITS Section 3.0	Limiting Conditions for Operation Applicability and Surveillance Requirements Applicability
Volume #6	DAEC ITS Section 3.1	Reactivity Control System
Volume #7	DAEC ITS Section 3.2	Power Distribution
Volumes #8, 9 & 10	DAEC ITS Section 3.3	Instrumentation
Volume #11	DAEC ITS Section 3.4	Reactor Coolant System
Volume #12	DAEC ITS Section 3.5	Emergency Core Cooling System and Reactor Core Isolation Cooling System
Volumes #13 & 14	DAEC ITS Section 3.6	Containment System
Volume #15	DAEC ITS Section 3.7	Plant Systems
Volume #16	DAEC ITS Section 3.8	Electrical Systems
Volume #17	DAEC ITS Section 3.9	Refueling Operations
Volume #18	DAEC ITS Section 3.10	Special Operations
Volume #19	DAEC ITS Chapter 4.0	Design Features
Volume #20	DAEC ITS Chapter 5.0	Administrative Controls

Brief Description of Changes to the Current Technical Specifications (CTS)
that are Within Scope of the Improved Technical Specifications (ITS) Conversion

1. Extension of Surveillance Requirements to support the extension of the operating cycle from 18 months to 24 months, as described in NRC Generic Letter 91-04. In addition, the Frequency of other Surveillance Requirements has been extended, using the methodology of Generic Letter 91-04, but are less than 24 months.
2. Implementation of additional Allowed Outage Time (AOT) and extensions to Surveillance Test Intervals (STIs), per NRC-approved Topical Report GENE-770-06-1, "Bases for Changes to Surveillance Test Intervals and Allowed Out of Service Times for Selected Instrumentation Technical Specifications," February, 1991.
3. Conversion of CTS instrument setpoints from current values to Allowable Values, in accordance with the NRC-approved methodology of NEDC-31336, "General Electric Instrument Setpoint Methodology," October, 1986.
4. Relocation of instrument response time values from TS to Updated Final Safety Analysis Report, in accordance with NRC Generic Letter 93-08.

Brief Description of Changes to the Current Technical Specifications (CTS)
that are Beyond Scope of the Improved Technical Specifications (ITS) Conversion

1. DAEC ITS 3.5.1 modifies NUREG-1433 LCO 3.5.1 by revising Conditions C, D, G and I to allow certain combinations of Emergency Core Cooling Systems/subsystems out of service that are supported by the DAEC Loss-of-Coolant Accident (LOCA) analysis. (Note: this change has been determined to be potentially generic and a proposed Traveler has been submitted to the BWR Owners' Group.)
2. DAEC ITS SRs 3.5.1.4, 3.5.1.5, and 3.5.1.6 modify NUREG-1433 SRs 3.5.1.7, 3.5.1.8, and 3.5.1.9 to relax the required flowrates per the DAEC LOCA analysis, using the NRC-approved SAFER/GESTR-LOCA model.
3. DAEC ITS SR 3.8.4.1 modifies the frequency for NUREG-1433 SR 3.8.4.1 for performing pilot cell inspections from weekly to monthly, in accordance with industry (IEEE-450) and vendor recommendations.
4. The DAEC ITS relocates the requirements for Suppression Pool Spray (NUREG-1433 LCO 3.6.2.4) to licensee-controlled documents, as it does not meet the 10 CFR 50.36(c)(2)(ii) screening criteria.

The following changes represent requirements that are not in the CTS, but may not be current licensing basis, which represent significant deviations from the NUREG-1433. They have been characterized as "beyond scope" changes for overall conservatism.

5. DAEC ITS 3.0.3 modifies NUREG-1433 LCO 3.0.3 to allow 8 hours versus 6 hours to reach Mode 2. In addition, all other Required Actions that require reaching Mode 2 in 6 hours have been extended to 8 hours for consistency (*e.g.*, NUREG-1433 LCO 3.3.4.2) (Note: this change has been determined to be potentially generic and a proposed Traveler has been submitted to the BWR Owners' Group.)
6. DAEC ITS 3.4.8 and 3.9.7 modify NUREG-1433 LCO 3.4.7 and 3.9.8 to not require forced circulation when reactor coolant temperature is less than 150 °F. (Note: this change has been determined to be potentially generic and a proposed Traveler has been submitted to the BWR Owners' Group.)
7. DAEC ITS SR 3.8.1.12 combines NUREG SRs 3.8.1.11, 3.8.1.12 and 3.8.1.19 to eliminate unnecessary multiple Emergency Diesel Generator starts.
8. DAEC ITS 3.4.7 modifies the Applicability of NUREG 3.4.8 to use the Reactor Core Isolation Cooling (RCIC) low pressure isolation alarm in lieu of the Shutdown Cooling cut-in pressure permissive.

Significant Changes to the NUREG-1433 Requirements which maintain
the DAEC Current Licensing Basis

1. The DAEC ITS preserves our current philosophy of not entering LCOs for TS-required SRs (and other secondary modes of operation) by the addition of Allowed Outage Time Notes in the necessary LCO Actions.
2. The DAEC ITS does not include the NUREG-1433 SRs 3.1.4.2 and 3.1.4.3 for performing certain control rod drive scram time tests.
3. The DAEC ITS does not include the NUREG-1433 SRs 3.6.4.1.1 and 3.6.4.1.4 to periodically verify the Secondary Containment is normally maintained at negative pressure conditions and to perform certain tests to verify that these conditions can be reached within a specified time.
4. The DAEC ITS does not include the NUREG-1433 SR 3.6.1.1.2 requirement to increase the frequency of testing after two successive failures of the SR.
5. The DAEC ITS maintains the CTS by modifying the NUREG-1433 LCO 3.6.3.4 to only require one Containment Atmosphere Dilution subsystem to be Operable.
6. The DAEC ITS does not include various NUREG-1433 SRs for periodically verifying manual valves are in their required positions (e.g., NUREG-1433 SR 3.7.1.1).
7. The DAEC ITS does not include the NUREG-1433 LCO 3.4.4.a requirement for zero Reactor Coolant Pressure Boundary (RCPB) Leakage.
8. The DAEC ITS maintains the CTS by modifying the NUREG-1433 LCO 3.8.1 requirements by revising the Completion Time for one Off-site Source inoperable to "prior to entering Mode 2 from Modes 3 or 4."
9. The DAEC ITS revises the NUREG-1433 LCO 3.8.4 Completion Time for restoration of one inoperable 125 VDC subsystem from 2 hours to 8 hours. Note: this is a compromise from the CTS allowance of 72 hours.
10. The DAEC ITS maintains the CTS by modifying the NUREG-1433 LCO 3.3.4.2 to only require one of the two ATWS Recirculation Pump Trip systems to be Operable.
11. The DAEC ITS revises the NUREG-1433 Allowed Outage Time for performing SRs 3.3.5.11 and 3.3.5.2 from 6 hours to 12 hours.
12. The DAEC ITS does not include the NUREG-1433 LCO 3.4.5 requirements for Pressure Isolation Valve (PIV) Leakage.

Significant Changes to the NUREG-1433 Requirements which maintain
the DAEC Current Licensing Basis (continued)

13. The DAEC ITS does not include the NUREG-1433 LCO 3.3.7.2 requirements for the Feedwater and Turbine Trip on Reactor High Water Level.
14. The DAEC ITS does not include the NUREG-1433 LCO 3.6.1.4 requirements for a normal operating limit for Drywell Pressure.
15. The DAEC ITS does not include the NUREG-1433 SRs 3.3.5.1.7 and 3.3.6.1.8 for instrument response time tests for ECCS and PCIS logics, respectively.

Technical Specification Task Force (TSTF) Generic Changes to NUREG-1433
that have been incorporated into the DAEC ITS

- TSTF-01: Make LCO 3.0.5 applicable to variables in addition to systems and equipment.
- TSTF-02: Relocate the 10 year sediment cleaning of the fuel oil storage tank to licensee control.
- TSTF-05: Delete Safety Limit violation notification requirements.
- TSTF-08: Revise the SR 3.0.1 Bases to allow credit for unplanned events to meet any Surveillance.
- TSTF-16: Add Action to LCO 3.8.9 to require entry into LCO 3.0.3 when there is a loss of function.
- TSTF-17: Extension of testing frequency of containment airlock interlock mechanism from 184 days to 24 months.
- TSTF-18: Require only one Secondary Containment access door per access opening to be closed.
- TSTF-32: Slow/Stuck Control Rod separation criteria.
- TSTF-33: Specification 3.1.3, Required Action A.2 Completion Time Note.
- TSTF-34: Delete requirements to disarm the associated CRD when two or more withdrawn Control Rods are stuck.
- TSTF-36: Addition of LCO 3.0.3 N/A to shutdown electrical power specifications.
- TSTF-37: Generic Letter 94-01 implementation.
- TSTF-38: Revise visual surveillance of batteries to specify inspection is for performance degradation.
- TSTF-46: Clarify the CIV surveillance to apply only to automatic isolation valves.
- TSTF-64: Clarification of applicability of Channel Calibration and Channel Functional Test.
- TSTF-65: Use of generic titles for utility positions.
- TSTF-86: Delete overtime requirements in Section 5.0.

To: Frank Miraglia
(Document Control)

BOX 1 of 2

Vol. 1	Split Report/Relocated CTS
Vol. 2	CTS Markup (in CTS order)
Vol. 3	DAEC ITS Chapter 1.0
Vol. 4	DAEC ITS Chapter 2.0
Vol. 5	DAEC ITS Section 3.0
Vol. 7	DAEC ITS Section 3.2
Vol. 8	DAEC ITS Section 3.3 (Book 1 of 3)
Vol. 9	DAEC ITS Section 3.3 (Book 2 of 3)
Vol. 17	DAEC ITS Section 3.9
Vol. 18	DAEC ITS Section 3.10
Vol. 19	DAEC ITS Chapter 4.0
Vol. 20	DAEC ITS Chapter 5.0

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William R. Kindley
Vice President
Government Relations
November 5, 1996

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