IES
UTILITIES INC.

February 13, 1995
NG-95-0554

Mr. William T. Russell, Director
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
Docket No. 50-331
Op. License No. DPR-49
Technical Specifications Bases
(RTS-273): "Containment Hydrogen and Oxygen Operability Requirements," page 3.7-35
References: N/A
File: A-117, T-48

Dear Mr. Russell:

This letter is to notify you of changes to the Duane Arnold Energy Center (DAEC) Technical Specifications (TS) Bases.

In accordance with 10 CFR 50.36, the TS Bases are not a part of the TSs. Therefore these changes are not being submitted as an application for amendment of the DAEC Operating License since the requirements of 10 CFR 50.90 are not applicable to such changes.

These changes delete a reference to outdated surveillance requirements for the containment hydrogen and oxygen analyzers. The TS amendment that changed these requirements inadvertently neglected to delete the reference. In addition, a reference to containment atmosphere oxygen concentration limits was corrected and clarified.

We request you replace the corresponding page in your copy of the DAEC TS with the enclosed revised page.

These changes have been reviewed by the DAEC Operations Committee.

These changes make no new commitments.

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These changes do not change the TS incorporated into the DAEC license and do not involve a change to the updated FSAR that involves an unreviewed safety question as defined in 10 CFR 50.59.

Should you have any questions regarding this matter, please contact this office.

Keith D. Young
Manager, Nuclear Licensing

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Attachments: 1. Description of Change
2. Revised page 3.7-35
3. List of Affected Pages

cc: L. Sueper
L. Liu
B. Fisher
L. Root
J. Franz
G. Kelly (NRC-NRR)
J. Martin (Region III)
S. Brown (State of IA)
NRC Resident Office
Docu

Attachment 1 to
NG-95-0554

DESCRIPTION OF CHANGE

The original Duane Arnold Energy Center (DAEC) Technical Specifications (TS) included a requirement in section 4.7.A.6.c that, "...Should one of the two H2 or O2 analyzers serving the drywell or suppression pool be found inoperable the remaining analyzer of the same type serving the same compartment shall be tested for operability once per week until the defective analyzer is made operable." This requirement was reiterated in the TS Bases with the statement, "If one of the two analyzers of a particular type (H2 or O2) fails, the frequency of testing of the other analyzer of the same type will be increased from monthly to weekly to assure its continued availability. Monthly testing of the analyzers using bottled H2 or O2 will be adequate to ensure the system's readiness because of the multiplicity of design."

TS Amendment 134 moved the operability requirements for the containment hydrogen and oxygen analyzers from 4.7.A.6.c to Table 3.2-H. The operability requirements for the analyzers were changed to comply with NRC Generic Letter 83-36, "NUREG-0737 Technical Specifications," (item II.F.1.6). The new operability requirements as stated in the action statements of Table 3.2-H no longer required weekly testing of the operable analyzer when one analyzer was inoperable. However the amendment left the obsolete language regarding weekly testing of the operable containment analyzer intact in the section 3.7 Bases.

This TS change to the Bases of section 3.7 removes the obsolete text to eliminate potential confusion over the operability requirements for the containment analyzers.

Also, Section 3.7.I and 4.7.I Bases, Oxygen Concentration, stated that "By keeping oxygen concentrations less than 5% (AEC has recommended 4%), Safety Guide No. 7 requirements are satisfied." This sentence was part of the original DAEC TS Bases, however, it is confusing and could be misinterpreted to indicate that maintaining primary containment oxygen concentrations greater than 4% when the containment is inerted is acceptable. DAEC TS 3.7.I.1 requires that primary containment oxygen concentrations be maintained less than 4% when the containment is required to be inerted. The change rewords the Bases to state "By keeping oxygen concentrations less than 4%, Safety Guide No.7 requirements are satisfied."

operability of the whole system annually. The H_2 and O_2 analyzers are provided redundantly. There are two H_2 and two O_2 analyzers. By permitting continued reactor operation at rated power with one of the two analyzers of a given type (H_2 or O_2) inoperable, redundancy of analyzing capability will be maintained while not imposing an unnecessary interruption in plant operation.

Due to the nitrogen addition, the pressure in the containment after a LOCA could possibly increase with time. Under the worst expected conditions the containment pressure will reach 30 psig in approximately 70 days. If and when that pressure is reached, venting from the containment shall be manually initiated. The venting path will be through the Standby Gas Treatment System in order to minimize the offsite dose.

Following a LOCA, periodic operation of the drywell and torus sprays may be used to assist the natural convection and diffusion mixing of hydrogen and oxygen.

3.7.I and 4.7.I BASES

Oxygen Concentration

Safety Guide No. 7 assumptions for metal-water reactions result in hydrogen concentrations in excess of the Safety Guide No. 7 flammability limit. By keeping oxygen concentrations less than 4%, Safety Guide No. 7 requirements are satisfied. The Containment Atmosphere Dilution System further assures that a combustible hydrogen/oxygen atmosphere will not be created in a post-LOCA condition.

CHANGE TO THE DUANE ARNOLD ENERGY CENTER TECHNICAL SPECIFICATIONS BASES

The holders of license DPR-49 for the Duane Arnold Energy Center hereby amend the Bases to the Technical Specifications to said license by deleting certain current page(s) and replacing it (them) with the attached, new page(s). The List of Affected Pages is given below.

LIST OF AFFECTED PAGES

Remove	Insert
3.7-35	3.7-35