FPL Energy Duane Arnold, LLC
3277 DAEC Road
Palo, Iowa 52324

FPL Energy.

Duane Arnold Energy Center

March 28, 2008

NG-08-0201
10 CFR 50.55a(a)(3)(i)

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Duane Arnold Energy Center
Docket No: 50-331
Op. License No: DPR-49

Revised Request To Allow Use Of The Provisions Of IWA-4132 For Remainder of the Fourth Ten-Year Inservice Inspection Interval

Reference: 1. Letter, Richard L. Anderson (FPL Energy Duane Arnold) to Document Control Desk (USNRC), "Request To Allow Use Of The Provisions Of IWA-4132 For Remainder of the Fourth Ten-Year Inservice Inspection Interval," dated February 28, 2008, NG-08-0137

On February 28, 2008, FPL Energy Duane Arnold, LLC (hereafter, FPL Energy Duane Arnold) submitted the relief request of Reference 1. In phone calls dated March 13, 2008 and March 17, 2008, the NRC provided comments concerning Reference 1. This relief request supersedes that of Reference 1.

Pursuant to 10 CFR 50.55a(a)(3)(i), FPL Energy Duane Arnold hereby requests NRC approval of the enclosed request for the remainder of the fourth ten-year Inservice Inspection Interval. The Duane Arnold Energy Center is currently in the 4th 10-year ISI interval, which began on November 1, 2006. This request is for the application of the provisions of IWA-4132 to the stock rotation of Recirculation Pump Seal Flange Assemblies.

It is important to note that the ASME Standards Committee recently approved Record Number 07-1337 which revises IWA-4132 to permit items rotated from stock to include components that are rotated solely for the purpose of testing and preventive maintenance.

FPL Energy Duane Arnold requests approval of this request by February 28, 2009. FPL Energy Duane Arnold no longer requires approval of this request by April 4, 2008, since a mid-cycle shutdown to perform corrective maintenance on the "B" Recirculation Pump Mechanical Seal, as well as other activities, is no longer planned. The mid-cycle shutdown is no longer planned due, in part, to the stable conditions of the seal. The conditions of the "B" Recirculation Pump Mechanical

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Seal continue to be monitored. FPL Energy Duane Arnold plans to maintain communication with the NRC regarding the condition of the "B" Recirculation Pump Mechanical Seal and the need for this relief.

This letter contains no new commitments nor revises any previous commitments.

If you have any questions or require additional information, please contact Steve Catron at (319) 851-7234.

Richard L. Anderson
Vice President, Duane Arnold Energy Center
FPL Energy Duane Arnold, LLC

Enclosure

cc: Administrator, Region III, USNRC
Project Manager, DAEC, USNRC
Resident Inspector, DAEC, USNRC

ENCLOSURE
(Relief Request NDE-R009)
Request To Allow Use Of The Provisions Of IWA-4132 For The Remainder Of The Fourth Ten-Year Inservice Inspection Interval

ENCLOSURE
(Relief Request NDE-R009)
Request To Allow Use Of The Provisions Of IWA-4132 For The Remainder Of The Fourth Ten-Year Inservice Inspection Interval

1. ASME Code Component(s) Affected

Code Class:	1
References:	IWA-4000 IWA-4132
Examination Category:	N/A
Item Number:	N/A
Description:	Relief to use the provisions of IWA-4132 for the stock rotation of Recirculation Pump Seal Flange Assemblies
Component Number	N/A

2. Applicable Code Edition and Addenda

American Society of Mechanical Engineers (ASME) Section XI, 2001 Edition with the 2003 Addenda.

3. Applicable Code Requirement

The Duane Arnold Energy Center (DAEC) fourth ten-year interval uses the ASME Section XI, 2001 Edition with the 2003 Addenda.

IWA-4132 "Items Rotated From Stock" states:

> "For snubbers and pressure relief valves rotated from stock and installed on components (including piping systems), the following requirements may be used in lieu of all other requirements of IWA-4000, provided the rotation is only for testing the removed items."
>
> (a) Items being removed and installed shall be of the same design and construction.
> (b) Items being removed shall have no evidence of failure at the time of removal.
> (c) Items being rotated shall be removed and installed only by mechanical means.
> (d) Items being installed shall previously have been in service.
> (e) Preservice inspections shall be performed as required by IWA-4500.

(f) The Owner shall track the items to ensure traceability of inservice inspection and testing records.
(g) Use of an Inspector and an NIS-2 form are not required.
(h) Testing of removed snubbers, including required sample expansions, shall be performed in accordance with Subsection IWF.

4. Reason for Request

IWA-4132 of the 2001 Edition with the 2003 Addenda of ASME Section XI provides specific requirements for items rotated from stock for the purposes of testing. The items specifically mentioned are snubbers and relief valves. FPL Energy Duane Arnold believes the criteria established in IWA-4132 for snubbers and pressure relief valves for testing can also be applied to the stock rotation of Recirculation Pump Seal Flange Assemblies for preventative maintenance, given that all the cited stock rotations involve mechanical joints on pressure retaining items and that none of these stock rotations involve a repair/replacement activity.

Non-mandatory Appendix J of the ASME Section XI code provides guidance to help the users of the code determine the applicability of IWA-4000. This appendix establishes that repair/replacement activities are separate from maintenance activities. The examples that are given for repair/replacement activities are:

1. removing weld or material defects;
2. reducing the size of defects to a size acceptable to the applicable flaw evaluation criteria;
3. performing welding or brazing;
4. adding items;
5. system changes, such as rerouting of piping;
6. modifying items;
7. rerating.

The stock rotation of seal flange assemblies does not fall under these examples. The disassembly and re-assembly of the mechanical connection for the stock rotation of spare Recirculation Pump Seal Flange assemblies is considered a maintenance activity and thus, the use of IWA-4132 for these activities provides an acceptable level of quality and safety, per 10 CFR 50.55a.

The requirements in IWA-4100 would not apply unless there was a repair/replacement activity performed on the spare Recirculation Pump Seal Flange Assembly prior to installation.

5. Proposed Alternative and Basis for Use

The Recirculation Pump Seal Flange Assembly consists of the seal cartridge and the seal flange. The seal flange is a pressure boundary component that supports the seal cartridge. The entire assembly (seal flange and seal cartridge) is bolted to the pump casing. During maintenance on the seal cartridge the complete assembly (seal cartridge and flange) is rotated as a single unit.

The normal activity of testing components under the criteria of IWA-4132 involves their removal from their installed location by mechanical means (i.e., disassembly and re-assembly of mechanical joints); this activity constitutes the basis for IWA-4132. IWA-4132 recognizes that, rather than re-install the same component tested, a similar component from stock can be rotated into service in its place. FPL Energy Duane Arnold believes the criteria established in IWA-4132 for stock rotation of snubbers and pressure relief valves for testing can also be applied to the stock rotation of Recirculation Pump Seal Flange Assemblies for preventative maintenance.

Per IWA-4132:

(a) Items being removed and installed shall be of the same design and construction.
(b) Items being removed shall have no evidence of failure at the time of removal.
(c) Items being rotated shall be removed and installed only by mechanical means.
(d) Items being installed shall previously have been in service.
(e) Preservice inspections shall be performed as required by IWA-4500.
(f) The Owner shall track the items to ensure traceability of inservice inspection and testing records.
(g) Use of an Inspector and an NIS-2 form are not required.
(h) Testing of removed snubbers, including required sample expansions, shall be performed in accordance with Subsection IWF.

The above criteria are planned to be adopted by FPL Energy Duane Arnold for stock rotation of Recirculation Pump Seal Flange Assemblies, as described below:

1. The seal flange assembly being installed will be a like-for-like replacement (same design) and built to the same construction code.
2. The seal flange assembly will have no evidence of failure (failure being defined as the pressure boundary failure).
3. The seal flange assembly will be removed and installed by mechanical means.

4. The seal flange assembly will have been previously installed.
5. Preservice and inservice inspections will be completed (i.e. Visual VT-1 of the bolting).
6. As the seal flange assembly is installed, the work will be controlled under the work order process. Unique identification for each item will be tracked and controlled.
7. An Inspector and NIS-2 form will not be used unless the item being installed has been repaired/replaced* in accordance with IWA-4000.
8. Testing of the seal flange assembly will be completed as needed to determine acceptability.

*If there is a repair/replacement activity performed on the item to be installed, FPL Duane Arnold plans to follow IWA-4000, including the use of an Inspector, NIS-2 form, and pressure testing.

FPL Energy Duane Arnold has one spare Recirculation Pump Seal Flange Assembly for the DAEC, which is used as stock rotation for preventive maintenance. The Recirculation Pump Seal Flange Assembly is rotated from stock when the mechanical seal starts to show signs of wear prior to its failure. This spare Recirculation Pump Seal Flange Assembly has been previously installed and subsequently refurbished by replacing seal components which are not pressure retaining. FPL Energy Duane Arnold considers this stock rotation to be a maintenance function (disassembly and re-assembly of mechanical joints) and not a repair/replacement activity, per IWA-4000.

Since IWA-4132 does not specifically include the stock rotation of Recirculation Pump Seal Flange Assemblies, FPL Energy Duane Arnold requests the use of the criteria stated above for the stock rotation of Recirculation Pump Seal Flange Assemblies as an alternative to the requirements of IWA-4000 for the fourth ten-year interval.

It is important to note that IWA-4132 of the 2004 Edition of the ASME Section XI code includes preventative maintenance in the rotation of stock items.

Because the basic activity of disassembly and re-assembly of the mechanical joint is the same between the requested activity and that currently permitted, the proposed alternative would provide an acceptable level of quality and safety, and would not adversely impact the health and safety of the public.

6. Duration of Proposed Alternative

This alternative will be used for the remainder of the DAEC fourth ten-year inspection interval.