



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

February 26, 2014

Mr. Ernest J. Harkness
Site Vice President
FirstEnergy Nuclear Operating Company
Mail Stop A-PY-A290
P.O. Box 97, 10 Center Road
Perry, OH 44081-0097

SUBJECT: PERRY NUCLEAR POWER PLANT, UNIT NO. 1 – SUPPLEMENTAL
INFORMATION NEEDED FOR ACCEPTANCE OF REQUESTED LICENSING
ACTION CONCERNING ALTERNATIVE ACCIDENT SOURCE TERM DESIGN
BASES (TAC NO. MF3197)(L-13-306)

Dear Mr. Harkness:

By letter dated December 6, 2013 (Agencywide Document Access and Management System (ADAMS) Accession No. ML13343A013), FirstEnergy Nuclear Operating Company (FENOC or the licensee) submitted a license amendment request (LAR) for the Perry Nuclear Power Plant. The proposed amendment would revise the Updated Safety Analyses Report to reflect updated radiological calculations using an alternative accident source term form, the applicable design bases event, and to revise the technical specification (TS) definition of DOSE EQUIVALENT IODINE-131. The purpose of this letter is to provide the results of the U.S. Nuclear Regulatory Commission (NRC) staff's acceptance review of this LAR. The acceptance review was performed to determine if there is sufficient technical information in scope and depth to allow the NRC staff to complete its detailed technical review. The acceptance review is also intended to identify whether the application has any readily apparent information insufficiencies in its characterization of the regulatory requirements or the licensing basis of the plant.

Consistent with Section 50.90 of Title 10 of the *Code of Federal Regulations* (10 CFR), an amendment to the license (including the TSs) must fully describe the changes requested, and following as far as applicable, the form prescribed for original applications. Section 50.34 of 10 CFR addresses the content of technical information required. This section stipulates that the submittal address the design and operating characteristics, unusual or novel design features, and principal safety considerations. The NRC staff has reviewed your application and concluded that the information delineated in the enclosure to this letter is necessary to enable the staff to make an independent assessment regarding the acceptability of the proposed amendment/relief request in terms of regulatory requirements and the protection of public health and safety and the environment.

In order to make the application complete, the NRC staff requests that FENOC supplement the application to address the information requested in the enclosure by March 3, 2014. This will enable the NRC staff to begin its detailed technical review. If the information responsive to the NRC staff's request is not received by the above date, the application will not be accepted for review pursuant to 10 CFR 2.101, and the NRC will cease its review activities associated with the application. If the application is subsequently accepted for review, you will be advised of

E. Harkness

- 2 -

any further information needed to support the staff's detailed technical review by separate correspondence.

The information requested and associated time frame in this letter were discussed with Mr. Thomas Lentz of your staff on February 11, 2014.

If you have any questions, please contact the Ms. Eva Brown, at (301) 415-2315.

Sincerely,

/ RA /

Eva A. Brown, Senior Project Manager
Plant Licensing Branch III-2 and Planning
and Analysis Branch
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-440

cc: Distribution via Listserv

SUPPLEMENTAL INFORMATION NEEDED FOR
ALTERNATIVE SOURCE TERM REQUEST
FIRSTENERGY NUCLEAR OPERATING COMPANY
PERRY NUCLEAR POWER PLANT, UNIT 1
DOCKET NO. 50-440

On page 2 of the enclosure to the December 6, 2013, submittal the licensee stated,

[t]he design basis events involving postulated fuel failures were analyzed using a source term for Global Nuclear Fuels (GNF) fuel type GNF2. The GNF2 fuel will begin replacing the currently used GE14 fuel bundles during the next fuel cycle at PNPP [Perry Nuclear Power Plant].

The Completeness of Scope criterion contained in Section 3.1.2 of Appendix B to LIC-109 directs the technical staff to “[d]etermine if there are significant analyses or evaluations missing from the RLA...” The licensee used GNF2 fuel for the evaluation. The current design basis reflects the use of GE14 fuel. As GNF2 fuel is not part of the current licensing basis, this indicates to the NRC staff that two significant analyses/evaluations are missing from the submittal. Therefore, FENOC is requested to provide the analysis/evaluation supporting a conclusion that:

- 1] The alternative source term (AST) analyses performed, using GNF2 source term, are appropriate to apply to the existing licensing fuel bundle design (i.e. GE-14), and
- 2] The AST assumptions for the radiological consequences are bounding of both the analyzed and the current fuel bundle design.

E. Harkness

- 2 -

any further information needed to support the staff's detailed technical review by separate correspondence.

The information requested and associated time frame in this letter were discussed with Mr. Thomas Lentz of your staff on February 11, 2014.

If you have any questions, please contact the Ms. Eva Brown, at (301) 415-2315.

Sincerely,

/ RA /

Eva A. Brown, Senior Project Manager
Plant Licensing Branch III-2 and Planning
and Analysis Branch
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-440

cc: Distribution via Listserv

DISTRIBUTION:

PUBLIC	LPLIII-2 Reading File	RidsAcrsAcnw_MailCTR Resource
RidsNrrDssStsb Resource	RidsNrrDorl Resource	RidsNrrDorlLplIII-2 Resource
RidsNrrPMPerry Resource	AFoli, NRR	RidsOgcMailCenter Resource
RidsNrrLASRohrer Resource	RGrover, NRR	RidsRg2MailCenter Resource
RidsNrrDraArcb Resource	RidsNrrDssSrxb	RidsNrrDssScvb
RidsNrrDeEeeb Resource	JParillo, NRR	BParks, NRR
JBettle, NRR	JGall, NRR	MNorris, NSIR

ADAMS Accession No. ML14029A649

NRR-106

OFFICE	LPLII-2/PM	LPLIII-2/LA	LPLIII-2/BC
NAME	EBrown	SRohrer	TTate
DATE	2/20/14	2/ 4 /14	2/ 26/14

OFFICIAL RECORD COPY