Group A

Records Already Publicly Available in ADAMS

North Anna	ML110750123 ML110750124
Fort Calhoun	ML010750324
Vermont Yankee	ML031560786 ML043030582
Oyster Creek	ML031560786 ML043030582
Davis Besse Fitzpatrick Nine Mile 1 & 2 Pilgrim	ML021200037 ML010590482 ML010990176 ML011920234
San Onofre	ML052570659 ML052570317 ML052570319
Millstone 1 & 2 Millstone 3	ML012850031 ML040070238
Indian Point 2 & 3	ML003776428 ML003778517
Browns Ferry 1, 2 & 3	ML013620457 ML020070083 ML020100224

ADAMS Documents as of 04/24/2015 11:02:41 AM

Accession Number	Document Date	Title
ML013270001	11/16/2001	Submittal Of "-A" Accepted Version Of CENPD-404-P, Rev. 0 [Enclosure 1-P Contains Westinghouse Proprietary Class 2 Material]
ML013270010	11/30/2001	Part 1 of 2 of CENPD-404-NP-A, Rev 0, "Implementation of ZIRLO Cladding Material In CE Nuclear Power Fuel Assembly Designs".
ML013270095	11/30/2001	Part 2 of 2 of CENPD-404-NP-A, Rev. 0, "Implementation of ZIRLO Cladding Material in CENP Fuel Desings," Chapter 7.0 Non-LOCA Accidents.

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Availability	Publicly Available
Title	Forwards SE supporting approval of C-E Topical Rept CEN-386-P, "Verification of Acceptability of 1-Pin Burnup Limit of 60 MWD/kg for C-E 16X16 PWR Fuel."
Author Name	THADANI A C
Author Affiliation	NRC OFFICE OF NUCLEAR REACTOR REGULATION (NRR)
Author Affiliation Class	N
Addressee Name	SCHERER A E
Addressee Affiliation	ABB COMBUSTION ENGINEERING NUCLEAR FUEL (FORMERLY
Addressee Affiliation Class	MV
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Keyword	ADEQUACY APPROVALS BURNUP FUELS LIMITS PDR Category P PINS PRESSURIZED WATER REACTORS SELENIUM TOPICAL REPORTS VERIFICATION
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ML052570659	09/14/2005	SONGS Units 2 & 3, Issuance of Amendments on ZIRLO Clad Fuel.
ML052570317	09/14/2005	SONG Unit 2, Tech Specification Pages re ZIRLO Clad Fuel.
ML052570319	09/14/2005	SONGS Unit 3, Technical Specification Pages Re ZIRLO Clad Fuel.

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

Serial# 93-794

Rec'd DEC 21 1993

Nuclear Licensing

December 14, 1993

Docket Nos. 50-280, 50-281
50-338 and 50-339

Mr. W. L. Stewart
Senior Vice President - Nuclear
Virginia Electric and Power Co.
5000 Dominion Blvd.
Glen Allen, Virginia 23060

Dear Mr. Stewart:

SUBJECT: SURRY, UNITS 1 AND 2, AND NORTH ANNA, UNITS 1 AND 2 - REMOVAL OF 45,000 MWD/MTU BATCH AVERAGE BURNUP RESTRICTION (TAC NOS. M87767, M87768, M87812, AND M87813)

By letter dated November 25, 1992, you requested relaxation of the batch average burnup restriction of 45,000 MWD/MTU (megawatt days per metric ton of uranium), as presently specified in NRC letter dated April 9, 1984, for the Surry and North Anna Power Stations, and proposed, instead, that the fuel burnups at both stations be limited to levels consistent with the NRC Safety Evaluation Report on the Westinghouse Electric Corporation's Topical Report WCAP-10125, entitled "Extended Burnup Evaluation of Westinghouse Fuel."

We have reviewed your request and have concluded that it is appropriate to increase the batch average burnup restriction to 50,000 MWD/MTU, or above, as long as the maximum rod average burnup of any fuel rod is no greater than 60 MWD/MTU pursuant to the limits specified in the Federal Register (53 FR 6040) dated February 29, 1988. Our safety evaluation is enclosed. Implicit in our evaluation is that the fuel management scheme will continue to provide the limiting location of the fuel during subsequent cycles of operation.

Bart C. Buckley

Bart C. Buckley, Sr. Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II

Leon B. Engle

Leon B. Engle, Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II

Enclosure:
As stated

cc w/enclosure:
See next page

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Mr. Sherlock Holmes, Chairman
Board of Supervisors
of Surry County
Surry County Courthouse
Surry, Virginia 23683

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON D.C. [illegible]

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

VIRGINIA ELECTRIC AND POWER COMPANY

SURRY, UNITS 1 AND 2 AND NORTH ANNA UNITS 1 AND 2

DOCKET NOS. 50-280, 50-281, 50-338, AND 50-339

1.0 Introduction

By letter dated April 9, 1984, the NRC approved an increase in the batch average burnup restriction from 37,000 to 45,000 MWD/MTU (megawatt days per metric ton of uranium) for both the Surry and North Anna Power Stations. Subsequently, by letter dated November 25, 1992, the Virginia Electric and Power Company (the licensee) requested relaxation of the batch average burnup restriction of 45,000 MWD/MTU, as presently specified in NRC letter dated April 9, 1984, for both the Surry and North Anna facilities, and proposed instead to limit the burnup to limits consistent with the NRC safety evaluation report (SER) on a Westinghouse topical report WCAP-10125, entitled "Extended Burnup Evaluation of Westinghouse Fuel," which was transmitted to the Westinghouse Electric Corporation by NRC letter dated October 11, 1985.

The staff concludes that it is acceptable to raise the limit to 50,000 MWD/MTU, or above, as long as the maximum rod average burnup of any fuel rod is no greater than 60 MWD/MTU pursuant to the limits specified in the Federal Register (53 FR 6040).

2.0 Evaluation

The WCAP-10125 report described the models and methodology used in the safety analysis of Westinghouse fuel at extended burnup and discusses the experimental data used to support those models. As stated in the above-cited NRC letter dated October 11, 1985, we found the topical report to be acceptable for referencing in license applications to the extent specified and under the limitations delineated in the topical report and the associated NRC SER. The staff review of the topical report found that:

1. WCAP-10125 not only discussed models, methodology and data, but also applied these models to show that existing limits continue to be met over a burnup range exceeding that requested by the licensee.

2. The models used have been previously reviewed and approved by the NRC without explicit burnup limits. The analysis simply applied these unchanged models over a burnup range not previously considered, but did not address radiological aspects, which are discussed below.

3. Westinghouse examined the application of the existing methodology at extended burnup and identified no burnup-dependent phenomena which would invalidate the analyses performed.

4. Results of Westinghouse extended burnup Lead Assembly programs at a number of Westinghouse plants (including Surry and North Anna) support the Westinghouse conclusion (excluding radiological aspects discussed below).

   The licensee has reviewed the Westinghouse report (WCAP-10125) and has determined that the results are applicable.

The NRC staff performed an independent analysis of the radiological consequences of extended fuel burnup and concluded that, while there would be an increased thyroid dose resulting from the fuel handling accident, the calculated increase was not significant. The increased thyroid dose meets the acceptance criteria of the Standard Review Plan Section 15.7.4 and the dose guidelines set forth in 10 CFR Part 100. Subsequent to the issuance of the NRC SER, NUREG/CR-5009, entitled "Assessment of the Use of Extended Burnup Fuel in Light Water Power Reactors," was published in February 1988 to document a study conducted by Pacific Northwest Laboratory for the NRC. This report concluded that there are no significant adverse environmental effects associated with increases in the burnup level to a maximum rod average burnup of 60,000 MWD/MTU.

3.0 Environmental Considerations

The staff prepared and published an environmental assessment and finding of no significant impact from the use of extended burnup fuel in commercial light water reactors in the Federal Register (53 FR 6040), which concluded that there are no significant adverse radiological or non-radiological impacts associated with the use of extended burnup fuel and that its use will not significantly affect the quality of the human environment. Therefore, pursuant to 10 CFR 51.31, the Commission has determined that an environmental impact statement need not be prepared for this action.

4.0 Conclusion

We have concluded that increasing of the batch average burnup restriction to 50,000 MWD/MTU, or above, as long as the maximum rod average burnup of any fuel rod is no greater than 60 MWD/MTU for the Surry and North Anna facilities, is acceptable. Implicit in this evaluation is that the fuel management scheme will continue to provide the limiting location of fuel during subsequent cycles of operation.

Principal Contributor: B. Buckley

Date: December 14, 1993

Serial#: 94-406

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

Rec'd APR 29 1994

Nuclear Licensing

April 20, 1994

Docket Nos. 50-280, 50-281
50-338, 50-339

Mr. W. L. Stewart
Senior Vice President - Nuclear
Virginia Electric and Power Company
Innsbrook Technical Center
5000 Dominion Blvd.
Glen Allen, Virginia 23060

Dear Mr. Stewart:

SUBJECT: SURRY, UNITS 1 AND 2, AND NORTH ANNA, UNITS 1 AND 2 - REMOVAL OF 45,000 MWD/MTU BATCH AVERAGE BURNUP RESTRICTION (TAC NOS. M87767, M87768, M87812, AND M87813)

By NRC letter dated December 14, 1993, we approved an increase in the batch average burnup restriction from 45,000 MWD/MTU (megawatt days per metric ton of uranium) to 50,000 MWD/MTU, or above, as long as the maximum rod average burnup of any fuel rod is no greater than 60,000 MWD/MTU.

The 60,000 MWD/MTU value, in several instances, was inadvertently displayed as 60 MWD/MTU. The correct value is 60,000 MWD/MTU.

Sincerely,

Leon B. Engle

Leon B. Engle, Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Bart C. Buckley

Bart C. Buckley, Sr. Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

cc: See next page

September 9, 1988

MEMORANDUM FOR: Sholly Coordinator

FROM: Vernon Rooney, Senior Project Manager
Project Directorate I-3
Division of Reactor Projects I/II

SUBJECT: REQUEST FOR PUBLICATION IN BI-WEEKLY FR NOTICE - NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE

Vermont Yankee Nuclear Power Corporation, Docket No. 50-271, Vermont Yankee Nuclear Power Station, Vernon, Vermont

Date of application for amendment: May 23, 1988, as supplemented on August 15, 1988.

Brief description of amendment: The amendment revises the Technical Specifications to permit the use of the fuel type designated as GE 8X8EB.

Date of issuance: September 9, 1988

Effective date: 30 days from date of issuance

Amendment No.: 108

Facility Operating License No. DPR-28: Amendment revised the Technical Specifications. Date of initial notice in Federal Register: June 15, 1988 (53 FR 22408). The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated September 9, 1988.

No significant hazards consideration comments received: No.

Local Public Document Room Location: Brooks Memorial Library, 224 Main Street, Brattleboro, Vermont 05301.

Vernon L. Rooney, Senior Project Manager
Project Directorate I-3
Division of Reactor Projects I/II

Distribution: Docket File, PDI-3 r/f, MRushbrook, VRooney, RWessman, OGC-Rockville

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Title	Amend 108 to License DPR-28,revising Tech Specs to permit use of GE 8X8EB fuel type.
Author Affiliation	NRC OFFICE OF NUCLEAR REACTOR REGULATION (NRR)
Author Name	WESSMAN R H
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Accession Number	8809190225
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Title	Forwards Amend 108 to License DPR-28 & safety evaluation. Amend revises Tech Specs to permit use of GE 8X8EB fuel type in response to util 880523 application & 880815 clarification.
Author Affiliation	NRC OFFICE OF NUCLEAR REACTOR REGULATION (NRR)
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Document Type	SAFETY EVALUATION REPORT--LICENSING & RELATED ISSUES TEXT-SAFETY REPORT
Title	Safety evaluation supporting Amend 108 to License DPR-28.
Author Affiliation	NRC OFFICE OF NUCLEAR REACTOR REGULATION (NRR)
Author Name	
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