

ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8808020374 DOC. DATE: 88/07/22 NOTARIZED: NO DOCKET #
 FACIL: 50-316 Donald C. Cook Nuclear Power Plant, Unit 2, Indiana & 05000316
 AUTH. NAME AUTHOR AFFILIATION
 COPELAND, R.A. Advanced Nuclear Fuels Corp. (formerly Exxon Nuclear Co., I,
 RECIP. NAME RECIPIENT AFFILIATION
 Office of Nuclear Reactor Regulation, Director (Post 870411)

SUBJECT: Forwards listed topical repts, providing fuel storage
 facility thermal hydraulic & criticality analysis results.

DISTRIBUTION CODE: T010D COPIES RECEIVED: LTR 1 ENCL 0 SIZE: 1
 TITLE: Non-Proprietary Topical Report

NOTES:

| RECIPIENT ID CODE/NAME | COPIES LTR ENCL | RECIPIENT ID CODE/NAME | COPIES LTR ENCL |
|---------------------------|--------------------|---------------------------|--------------------|
| INTERNAL: ARM/DAF/LFMB | 1 0 | ASLBP | 1 1 |
| NRR HARWOOD, C | 1 0 | NRR NORBERG, J | 4 4 |
| NRR/DEST/ADE 8H | 1 0 | NRR/DEST/ADS 7E | 1 0 |
| NRR/DLPQ/QAB 10 | 1 0 | NUDOCS-ABSTRACT | 1 1 |
| OGC 15-B-18 | 1 0 | <u>REG FILE</u> 01 | 2 2 |
| RES | 1 1 | RGNI | 1 0 |
| RGN2 | 1 0 | RGN3 | 1 0 |
| RGN4 | 1 0 | RGN5 | 1 0 |
| EXTERNAL: NRC PDR | 1 1 | NSIC | 1 1 |

*Rec'd
w/out encl*

TOTAL NUMBER OF COPIES REQUIRED: LTR 22 ENCL 11

ADVANCED NUCLEAR FUELS CORPORATION

2101 HORN RAPIDS ROAD, PO BOX 130, RICHLAND, WA 99352-0130
(509) 375-8100 TELEX: 15-2878

FUEL ENGINEERING &
TECHNICAL SERVICES

July 22, 1988
RAC:048:88

Director of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Rockville, MD 20852

Dear Sirs:

Subject: Transmittal of the Donald C. Cook Unit 2 Fuel Storage Facility
Thermal Hydraulic and Criticality Analysis Results

Ref.: Donald C. Cook Nuclear Plant No. 2; Docket No. 50-316; License No.
DPR-74

- (1) ANF-88-09, "Thermal-Hydraulic Analysis of the D.C. Cook Spent Fuel Pool"
- (2) ANF-88-112, "Criticality Safety Analysis D.C. Cook Spent Fuel Storage Racks with 15x15 and 17x17 Fuel Enrichments up to 5.0 Percent
- (3) ANF-88-057, "Final Report Criticality Safety Analysis D.C. Cook New Fuel Storage Vault with 5.0% Enriched 17x17 Fuel"

Enclosed are five (5) copies of each of the Advanced Nuclear Fuels Corporation (ANF) topical reports listed above. These topicals report the results from the criticality and thermal hydraulic analyses that support the storage of 17X17 and 15X15 fuel assemblies with burnups to 50.0 GWD/MT and initial enrichment levels up to 5.0% U-235 in the spent fuel storage facility at D.C. Cook Unit 2 (ANF-88-09 and ANF-88-112). The third document (ANF-88-057) reports results from a criticality analysis that supports the storage of 17X17 fuel assemblies containing an enrichment level up to 5.0% U-235 in the new fuel storage vault at D.C. Cook Unit 2. At the request of American Electric Power Service Company (AEPSC), these reports are being transmitted directly by ANF.

If you have any questions regarding this transmittal, please contact Mr. Tom Georgantis of AEP at (614) 223-2059.

Sincerely,



R.A. Copeland
Manager, Reload Licensing

gf

cc: Mr. T. Georgantis (AEPSC)
Mr. John Stang (NRC) (w/Enclosures)

8808020374 880722
PDR ADOCK 05000316
PDC

1010 Rec'd w/out Encl