

APR 30 1982



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

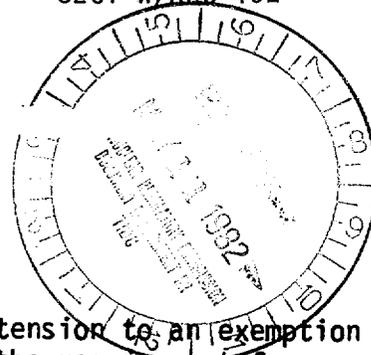
Docket No. 50-313

Mr. William Cavanaugh, III
Senior Vice President - Energy Supply
Arkansas Power & Light Company
P. O. Box 551
Little Rock, Arkansas 72203

Dear Mr. Cavanaugh:

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By letter dated April 2, 1982, you requested an extension to an exemption for Arkansas Nuclear One, Unit No. 1 (ANO-1) from the requirement for a continuing in-vessel material surveillance program as set forth in Appendix H to Title 10 of the Code of Federal Regulations Part 50 (10 CFR 50) which was granted on April 1, 1977, for a period of five years from April 1, 1977. You have requested the extension of the exemption until the pending amendment to Appendix H becomes effective. The pending amendment to Appendix H would permit an integrated surveillance program for a set of reactors that have similar design and operating features. The exemption which was granted on April 1, 1977, permitted the operation of ANO-1 while irradiating the reactor vessel surveillance capsules at Davis-Besse, Unit No. 1. This is part of a Babcock and Wilcox (B&W) Owners Group Integrated Reactor Vessel Surveillance Program (IRVSP) which meets the requirements of the pending amendment to Appendix H.

You have concluded that the objective and technical description of the IRVSP has not changed from that described in the Safety Evaluation by the Office of Nuclear Reactor Regulation supporting Amendment No. 22 to Facility Operating License No. DPR-51 and the initial exemption to the provisions of Appendix H. You state that the IRVSP continues to provide material data that leads the ANO-1 reactor vessel and has demonstrated that the material behavior prediction techniques are conservative. Further, you state that no operational or fuel management modifications that will adversely affect the IRVSP are expected.

The staff's basis for original approval of the ANO-1 surveillance program was written in the Safety Evaluation supporting Amendment No. 22, April 1, 1977. That program is still in place. We concluded in that evaluation that the information to be derived from the surveillance specimens in the host vessels relevant to the ANO-1 reactor vessel, will be sufficient to provide assurance of safety margins that comply with Appendix G, 10 CFR Part 50 for the ANO-1. That conclusion still applies.

It was stated in the 1977 SER that, until data becomes available from the surveillance program, the prediction of radiation damage could be based on the trend curves in Reg. Guide 1.99 Revision 1 for at least the next 5 years. The staff has had occasion to review those trend curves in

connection with the pressurized thermal shock problem, and have concluded that they are conservative in the region of data pertinent to ANO-1.

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Moreover, there have been several capsules from the host vessels tested during the intervening five years for B&W plants; none were scheduled from TMI-2. The results have shown that the predictions based on Reg. Guide 1.99 Revision 1 are conservative. With regard to future capsule withdrawals, there are samples of one ANO-1 weld metal in TMI-2, but there are also samples of this weld metal in Davis-Besse 1, one of which is scheduled for removal in 1983. If they are for some reason not available on schedule, the properties of that weld will be evaluated on a more conservative basis by predictions based on Reg. Guide 1.99.

In addition, the dosimetry results have shown that fluences can be estimated from power histories with reasonable accuracy. This relationship is documented in BAW 1485, June 1978.

On the basis of our evaluation of your justification for extension of exemption and the above assessment, we conclude that the proposed integrated surveillance program is acceptable for at least five (5) more years. Therefore, we hereby grant exemption for ANO-1 from the requirement for a continuing in-vessel material surveillance program as set forth in Appendix H to 10 CFR 50 for an additional five years from the date of this letter.

In accordance with 10 CFR 50.12, we have determined that this exemption is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest. We have also determined that this exemption does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the exemption involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with this action.

A Notice of Exemption, which is being forwarded to the Office of the Federal Register for publication, is enclosed.

Sincerely,

Original signed by

Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation

Enclosure:
Notice of Exemption

cc w/enclosure:
See next page

*See previous NRC 318 for concurrence.

OFFICE	ORB#4:DL	ORB#4:DL	C-ORB#4:DL	C-MEB:DE	AD:OR:DL	QELD	D:DL
SURNAME	RIngram*	G.H. King/cb	JStoiles	WHazelton*	TNovak*	Jones*	DE Eisenhut
DATE	4/23/82	4/30/82	4/30/82	4/22/82	4/28/82	4/26/82	4/30/82

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-2-

in any significant environmental impact. Having made this determination, we have further concluded that the exemption involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with this action.

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No objection to letter's notice

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SURNAME	R.Ingram*	G.Wising/cb	JStolz*	WHazelton*	TNovak	<i>ones</i>	DEisenhut...
DATE	4/23/82	4/24/82	4/23/82	4/22/82	4/18/82	4/26/82	4/ /82

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DATE ▶	4/23/82	4/22/82	4/22/82	4/22/82	4/ /82	4/ /82	4/ /82

Arkansas Power & Light Company

cc w/enclosure(s):

Mr. John R. Marshall
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Little Rock, Arkansas 72203

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Arkansas Tech University
Russellville, Arkansas 72801

Honorable Ermil Grant
Acting County Judge of Pope County
Pope County Courthouse
Russellville, Arkansas 72801

Regional Radiation Representative
EPA Region VI
1201 Elm Street
Dallas, Texas 75270

Mr. John T. Collins, Regional Administrator
U. S. Nuclear Regulatory Commission, Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

UNITED STATES NUCLEAR REGULATORY COMMISSIONARKANSAS POWER AND LIGHT COMPANYARKANSAS NUCLEAR ONE, UNIT 1DOCKET NO. 50-313NOTICE OF EXEMPTIONOPERATION WHILE IRRADIATING REACTOR VESSELSURVEILLANCE SPECIMENS AT DAVIS-BESSE UNIT NO. 1(APPENDIX H TO 10 CFR 50)

The Nuclear Regulatory Commission (the Commission) has granted an Exemption to the Arkansas Power and Light Company (the licensee) for Arkansas Nuclear One, Unit No. 1 (located in Pope County, Arkansas), from the requirement for a continuing in-vessel material surveillance program as set forth in Appendix H to 10 CFR 50. The Exemption is effective for a period of five years from the date of issuance.

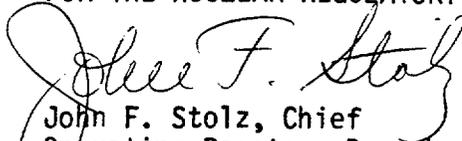
In granting this Exemption, the Commission determined that it is authorized by law and will not endanger life or property or the common defense and security, and is otherwise in the public interest. The Commission also determined that granting this Exemption will not result in any significant environmental impact and that pursuant to 10 CFR § 51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this action.

For further details, see (1) the licensee's request by letter dated April 2, 1982, and (2) the Commission's letter to the licensee dated April 30, 1982. These items can be reviewed at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C. 20555 and at the Arkansas Tech University, Russellville, Arkansas.

A copy of item (1) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 30th day of April 1982.

FOR THE NUCLEAR REGULATORY COMMISSION



John F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing