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SUBJECT: Responds to B60530 request for addl info to complete review
 of B60116 proposed Tech Spec amend to allow use of sleeving
 methods for repair of defective steam generator tubes.

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June 27, 1986

Mr. Harold R. Denton, Director
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U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. John F. Stolz, Project Director
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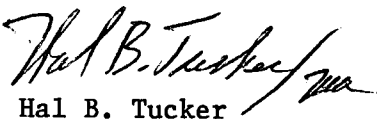
Subject: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287

Dear Sir:

By letter dated January 16, 1986 Duke Power Company (Duke) submitted a proposed technical specification amendment for Oconee Nuclear Station to allow the use of sleeving method for repair of the defective steam generator tubes. Supplemental information was provided by a letter dated April 18, 1986.

By letter dated May 30, 1986 the NRC staff requested additional information to complete their review of the subject proposed amendment. Please find attached Duke's response to your request for additional information.

Very truly yours,


Hal B. Tucker

MAH:slb

Attachment

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Duke Power Company
Oconee Nuclear Station
Response to the NRC Letter Dated May 30, 1986
Request for Additional Information
Steam Generator Tube Sleeve Program

Request 1

"Provide the basis for the area dose rate estimates indicated in Section 4.4 of Exhibit B to your January 16, 1986 letter requesting an amendment to the Oconee Facility Operating License and revision to the Technical Specification concerning the steam generator tube sleeving program."

Response 1

Section 4.4 of BAW-1823P, Revision 1, includes the statement: "The following typical dose rates for areas around the OTSG head were used:

1" from tubesheet	25 R/hr
18" from tubesheet	18R/hr
centerline of manway	2.4 R/hr
3 ft. outside manway	400 mr/hr
low background area	30 mr/hr
outside staging area	10 mr/hr"

These typical dose rates are based upon observations at the three Oconee units during 1985. Should a specific site be found to have significantly different dose rates, the estimated exposures may be adjusted based upon personnel time spend in each area.

Request 2

"Only "no contingency" steam generator tube sleeving operational dose estimates are provided. Provide a table with the operational dose estimates including conservative estimates of contingencies expected in the sleeving operation. Include the same detail provided on Page 4-6 of Exhibit B."

Response 2

The attached table includes the tabulated data from page 4-6 of BAW-1823P, Revision 1, but it has been expanded to include personnel time spent in the various areas and a conservative estimate which includes allowances for expected contingencies in the sleeving operation.

Request 3

"Provide a discussion of your training program to be provided to the workers involved in the steam generator tube sleeving operations utilizing the provisions of Regulatory Guide 8.27, 8.19, and 8.13 as guidance, or outline an equivalent training program."

Response 3

All workers involved in steam generator tube sleeving operations will have prior training in radiation protection. They will generally be transient workers with a background of training in the more general areas of radiation protection supplemented by on-site plant-specific training and special training in a full-scale mockup of the steam generator.

All Babcock & Wilcox (B&W) field service personnel involved in tube sleeving operations will have received "General Employee Training in Radiological Protection" (GET-RP). This training consists of six one-hour lessons consisting of lectures, handouts, demonstrations, and a written examination. The GET-RP Lesson Plan requires that the following topics be covered:

1. Federal regulations and guidelines
2. General site requirements and responses to alarms
3. Principles of exposure control to personnel
4. General contamination control procedures and requirements
5. General requirements for respiratory protection

Tube sleeving personnel will also receive Duke Power's Oconee Nuclear Station Training. This training consists of two eight-hour lessons which cover the following topics:

1. Health Physics
2. Safety
3. Security
4. Emergency
5. Quality Assurance
6. Regulatory Guide 8.29

All B&W field service personnel involved in tube sleeving operations will have received training in a full-scale mockup of the upper head of the steam generator. This training will be tailored to the various areas of responsibility associated with the installation, operations, and removal of the remote tooling for sleeve installation.

The combined general, on site, and mockup training program incorporates all applicable provisions of Regulatory Guides 8.27, 8.19, and 8.13.

Projected Exposures for Major Sleeving Activities

Activity (Batch of 20 Sleeves)	Area Dose Rem/hr	<u>No Contingency</u>		<u>Conservative</u>	
		Elapsed Time, hr:min:sec	Estimated Dose, Manrem	Elapsed Time, hr:min:sec	Estimated Dose, Manrem
Flare tubes	2.40	0:00:25	.017	00:45	.030
	.40	0:17:30	.117	00:30	.200
	.03	0:27	.014	00:30	.015
		0:45	.148	1:00:45	.245
Insert Sleeves	2.40	0:11:10	.447	00:15	.600
	.40	0:44	.293	00:50	.333
	.03	2:51	.085	3:00	.090
		3:46	.825	4:05	1.023
Upper Roll	2.40	0:01	.040	01:30	.060
	.40	0:11:40	.078	00:15	.100
	.03	1:13:20	.037	1:30	.045
		1:26	.155	1:46:30	.205
Lower Roll	2.40	0:01:30	.060	02:00	.080
	.40	1:05:30	.437	1:15	.500
	.03	5:47	.173	7:00	.210
		6:54	.670	8:17:00	.790
EC Examination	2.40	00:01	.040	01:30	.060
	.40	00:14	.093	:20:	.133
	.03	00:33	.017	1:00	.030
		0:48	.150	1:21:30	.223
Containment Support	.01	24:00:00	.480	36:00	.720
Total 20 sleeves			2.428		3.206
per sleeve avg.			0.121		0.1603