

Docket Nos. 50-438
and 50-439

APR 20 1976

Tennessee Valley Authority
ATTN: Mr. Godwin Williams, Jr.
Manager of Power
830 Power Building
Chattanooga, Tennessee 37401

Gentlemen:

To provide verification of the satisfactory performance of fuel assemblies of new design, including the Babcock & Wilcox 17 x 17 design, such fuel assemblies will be subject to a fuel surveillance program. Surveillance inspections will be conducted at the first two power plants to use a new fuel design of a particular manufacturer.

Since your Bellefonte Nuclear Plant Unit No. 1 will be among the first to use the B&W Mark C 17 x 17 design, we request that you conduct such a surveillance program for the Bellefonte Unit No. 1 fuel. B&W has been informed of our intent in this matter by letter to Mr. K. Suhrke dated March 10, 1976.

The enclosure presents an acceptable fuel surveillance program for the B&W 17 x 17 fuel. You may adopt this program or propose an alternate program. This fuel surveillance program is similar to those that have been established for Westinghouse fuel at the Trojan and Diablo Canyon power plants.

Please inform us by letter of your plans for fuel surveillance by July 1, 1976. This information will be necessary for completion of our review of your application for an operating license. Details of the surveillance program should be submitted in the FSAR for the Bellefonte Unit No. 1 application.

Please contact us if you have any questions regarding this request.

Sincerely,

Karl Kniel, Chief
Light Water Reactors Branch No. 2
Division of Project Management

Enclosure:			DPM:LWR #2	DPM:LWR #2
OFFICE	17 x 17 Fuel Surveillance Program		WPike:cls	KKniel
SURNAME			4/ /76	4/ /76
DATE				

cc: Robert H. Marquis, Esq.
General Counsel
629 New Sprankle Building
Knoxville, Tennessee 37919

bcc: Mr. E. G. Beasley
Tennessee Valley Authority
307 U.B.A.
Knoxville, Tennessee 37902

Mr. T. Spink
Licensing Engineer
Tennessee Valley Authority
303 Power Building
Chattanooga, Tennessee 37401

DISTRIBUTION:

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bcc: JRBuchanan, NSIC
TBAbernathy, TIC

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

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Sincerely,


for Karl Kniel, Chief

Light Water Reactors Branch No. 2
Division of Project Management

Enclosure:
17 x 17 Fuel Surveillance Program

cc: Robert H. Marquis, Esq.
General Counsel
629 New Sprankle Building
Knoxville, Tennessee 37919

ENCLOSURE

17 X 17 FUEL SURVEILLANCE PROGRAM

To provide verification of the reliable performance of Babcock & Wilcox 17 X 17 fuel assemblies, a supplemental fuel surveillance program will be conducted at Bellefonte Nuclear Plant Unit No. 1. The program will consist of a visual inspection of all the peripheral rods in the initial core fuel assemblies as they are discharged into the spent fuel pool. Approximately one-third of the initial core fuel assemblies will be inspected during each of the first three refueling periods. The visual inspection will include observations for cladding defects, fretting, rod bowing, corrosion, crud deposition and geometric distortion.

The initial core loading will contain two precharacterized fuel assemblies in each of the three fuel zones of the core. Precharacterizations will establish baseline data that could be used to facilitate the evaluation of fuel performance, dimensional changes, or any anomalies that might be evident during the visual examination.

If any anomalies are detected during the visual examination, further investigation will be performed. Depending on the nature of the observed condition, the further examination could include appropriate surface, dimensional, or gamma inspections of the fuel assemblies. If the fuel assembly design enables reconstitution, individual fuel rods may also be examined. Under unusual circumstances, destructive examinations of a fuel rod may be required but this would not be accomplished on site or within the time of the refueling outage.

The NRC will be advised of the normal refueling schedule, and will be notified at least ten days in advance of any planned supplemental fuel surveillance inspections so that the staff may observe the inspections and the resultant evaluations of the fuel assembly performance. Following each such inspection and prior to reactor re-startup, an oral report of the results and conclusions of the inspection will be made to NRC. This will be followed within 30 days by a written report.