DEC 5 1973

DOCKET NOS: 50-438 AND 50-439

APPLICANT: TENNESSEE VALLEY AUTHORITY (TVA)

FACILITY: BELLEFONTE NUCLEAR PLANT, UNITS 1 AND 2 (BNP)

SUMMARY OF MEETING HELD ON NOVEMBER 20, 1973, TO DISCUSS ALTERNATE INTAKE DESIGNS

On November 20, 1973, representatives of TVA met with the Regulatory staff and a staff consultant from Argonne National Laboratory to discuss alternate intake designs. On October 25, 1973, TVA responded to the staff's request for consideration of other intake designs which might be more ecologically attractive. This meeting was arranged to discuss the alternate intake designs and the associated safety considerations in TVA's October 25 response. The discussions included areas of interest to the Environmental Projects Branch 4, the Auxiliary and Power Conversion Systems Branch, the Site Analysis Branch, the Accident Analysis Branch, the Cost Benefit Branch and the Environmental Specialists Branch.

A list of attendees is enclosed.

Significant points discussed are summarized below:

1. Cost Benefit Evaluation - TVA indicated that the environmental costs described in their response would be lowered by properly considering the plant usage factor in the evaluation. In addition, TVA indicated that most of the environmental costs were due to shad fish whose value had been taken at 2 cents a fish which may be well over their worth. The staff indicated that it may be difficult to refine the environmental costs since they were based on only one days' worth of sampling data taken at Bellefonte (a sample of one).

2. Safety Considerations - In their evaluation TVA ruled out several alternate intake designs due to safety considerations. TVA explained that they would be concerned with siltation and blockage of the deep water intake designs (Alternates 4 and 5) in the event that the probable maximum flood would overtop the two upstream dams and the downstream dam and thus cause a drop in the water level after the flood. The staff expressed concern that this same problem could also affect the viability of the proposed intake design (Alternate 1).

LB

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DATE ➤						

The staff noted, however, that unlike Alternates 4 and 5, this concept has been used effectively at other facilities by properly considering the potential for siltation and blockage in the design of the intake. The staff agreed that Alternates 4 and 5 do not appear to be acceptable from the safety standpoint as shown, but suggested several changes that might make these designs acceptable. The staff also discussed another alternate intake design (intake embayment) that has been used in other plants.

3. Conclusions - The staff requested that TVA consider changes to Alternates 4 and 5 that would make them viable alternates from a safety standpoint and include modifications and the suggested intake embayment design in their cost benefit evaluation of intake alternates. The staff indicated that our DES would strongly recommend consideration of a deep water intake design for the Bellefonte Nuclear Plant. TVA indicated that they would respond and supply the additional information requested in the form of comments to the AEC's DES.

Original Signed

Don K. Davis, Project Manager
Pressurized Water Reactors Br. No. 4
Directorate of Licensing

Enclosure:
Attendance List

DISTRIBUTION:
Docket Files
AEC PDR
Local PDR
A. Giambusso
R. DeYoung
R. Boyd
RP AD's
RP BC's
TR AD's
TR BC's
R. Klecker
RO (4)
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ACRS (16)
RS (3)
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PWR-4 File
RP Reading
J. Kohler
C. Billups
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Form AEC-318 (Rev. 9-53) AECM 0240 GPO : C43 : 16 : 81468-1 445-678

ENCLOSURE 1

ATTENDANCE LIST

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