

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Alan S. Rosenthal, Chairman
Dr. John H. Buck



SERVED AUG 15 1979

In the Matter of)

TENNESSEE VALLEY AUTHORITY)

(Hartsville Nuclear Plant,
Units 1A, 2A, 1B and 2B))

) Docket Nos. STN 50-518
) 50-519
) 50-520
) 50-521

Messrs. Leroy J. Ellis, III, and Robert B. Pyle, Nashville, Tennessee, for William N. Young, et al., intervenors.

Messrs. Herbert J. Sanger, Jr., General Counsel, Lewis E. Wallace, Deputy General Counsel, Alvin H. Gutterman and W. Walter LaRoche, Knoxville, Tennessee, for the Tennessee Valley Authority, applicant.

Messrs. William D. Paton and L. Dow Davis for the Nuclear Regulatory Commission staff.

MEMORANDUM AND ORDER

August 14, 1979

(ALAB-558)

Our decision last month in this construction permit proceeding^{1/} called upon the applicant and the NRC staff to file supplemental memoranda addressed to a question raised

1/ ALAB-554, 10 NRC __ (July 11, 1979).

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by the intervenors William N. Young, et al., on their appeal from the Licensing Board's approval^{2/} of the construction of the facility's discharge diffuser at a specific proposed location upstream from a bed of an endangered specie of mussels.^{3/} The question related to a plan, agreed to by the parties below, for monitoring the impact upon the mussels of diffuser construction. With one modification, that plan had been approved by the Board and its text set forth in an attachment to the Board's decision. LBP-78-35, supra fn. 2, 8 NRC at 517, 523-26.^{4/} Notwithstanding their prior acceptance of the plan, the intervenors insisted before us that it should be further modified to provide assurance that dredging activities in the course of diffuser construction would not result in the deposition on the mussel bed of sediment of more than 1/4 inch in thickness.

In lieu of submitting a memorandum on the appropriateness of the adoption of this "1/4-inch aggregate deposition standard", the staff has supplied us with a stipulation which has been

^{2/} LBP-78-35, 8 NRC 513 (1978).

^{3/} Lampsilis orbiculata, commonly known as the pink mucket pearly mussel.

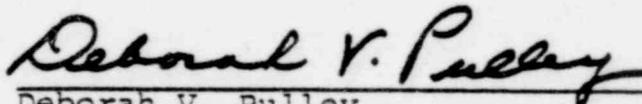
^{4/} The staff was directed to incorporate the substance of the plan in the Hartsville construction permits. 8 NRC at 523.

executed by counsel for all of the parties to the proceeding. The stipulation calls for significant additions to that portion of the monitoring plan approved by the Licensing Board which is captioned Diffuser Excavation Period. See ALBP-78-35, supra, 8 NRC at 525-26.

On an examination of the proposed revision, we conclude that it constitutes a satisfactory resolution of the issue of the effects of diffuser construction activities on the mussels. Accordingly, we hereby direct that the Hartsville construction permits be amended to reflect that revision^{5/} and, on this basis, grant judgment to the applicant on the issue.^{6/} In doing so, we bring to an end our appellate review in this proceeding except for the generic radon matter which still remains open. See ALAB-554, supra fn. 1, 10 NRC at __, fn. 2.^{7/}

It is so ORDERED.

FOR THE APPEAL BOARD


Deborah V. Pulley
Secretary to the
Appeal Board

^{5/} The text of the Diffuser Excavation Period portion of the monitoring plan, as thus revised, is set forth in an appendix to this opinion.

^{6/} In ALAB-554, supra fn. 1, we entered judgment in the applicant's favor on the issue, also raised by the intervenors' appeal, of operational effects on the mussels.

^{7/} Any question relating to an alternative downstream location for the discharge diffuser is now moot. 1116 00

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APPENDIX

As provided in the foregoing opinion, and in accordance with the stipulation of the parties, the Diffuser Excavation Period portion of the monitoring plan to be employed in connection with discharge diffuser construction (see 8 NRC at 525-26) is amended to read as follows:

Diffuser Excavation Period

1. Prior to initiation of the dredging activity, the Permittee shall give three weeks written notice of the planned construction schedule to the NRC Staff, the Intervenor, the U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency and the State of Tennessee.
2. Sedimentation traps will continue to be placed at the same stations used in the prediffuser excavation period. The traps will be returned twice per 8-hour dredging crew working shift (once after 4 hours and once after 8 hours) during excavation of approximately the first 1,000 cubic yards of material. Additional sedimentation traps will be placed at the same stations to provide a measure of the aggregate (total) deposition of silt which results from the construction activity during the excavation period. Applicant will determine the depth of sediment deposited in the traps. If one-quarter inch or more aggregate sediment is found to have been deposited in at least two sample traps, dredging will be stopped. Dredging may be resumed if later observation of sediment traps

shows that the aggregate sediment deposition has been reduced to less than one-quarter inch. Before using any artificial means to remove the sediment, Applicant will obtain the concurrence of the Department of Interior.

3. Turbidity levels of the river above and below the dredging activities will be measured at 1-meter depth intervals from surface to the bottom and averaged over the water column to document changes in natural turbidity levels resulting from these activities. Samples will be taken hourly during excavation. Natural turbidity levels of record as defined in the Hartsville Nuclear Plant's ER will be the feedback criteria for regulating the rate of instream dredging. Maximum documented levels of turbidity are 85 ppm (JTU).
4. Measurement of light intensity in the water column will be performed with a submarine photometer both above and below the dredging activities. Measurements will be made hourly during excavation. A 50 percent reduction in the depth of 0.1 percent of the light transmission at some selected point at the mussel bed relative to an upstream location (above the dredging activities) will be the feedback criteria for instituting corrective mitigative actions.

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5. Should the aggregate silt deposition or turbidity levels or light penetration data indicate a need for mitigative action, the inspector will report his findings and make his recommendation to the project environmental engineer, who will present these findings and recommendations to the project manager. The project manager will make the decision on the mitigative actions to be taken, i.e., to slow down or halt construction.
6. Dissolved oxygen, pH conductivity, and temperature profiles will be made at upstream and downstream locations to document any perturbations of these parameters.
7. During blasting activities, mussels will be placed by scuba divers at established intervals from the area of the blasting to determine if mussels on the Dixon Island bed are harmed by shock waves from these activities. No threatened or endangered species will be used.
8. Within 30 days after completion of the dredging activity, the Permittee shall submit to the NRC Staff a summary report of the results of the monitoring plan with copies to the Intervenors, the U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency and the State of Tennessee.

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