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JUL 13 1978

MEMORANDUM FOR: Voss A. Moore, Jr., Assistant Director for Environmental Projects, DSE

FROM: Brian K. Grimes, Assistant Director for Engineering and Projects, DOR

SUBJECT: PROPOSED ENVIRONMENTAL TECHNICAL SPECIFICATIONS FOR MONTICELLO NUCLEAR GENERATING PLANT

PLANT NAME: Monticello Nuclear Generating Plant
DOCKET NUMBER: 50-263
RESPONSIBLE BRANCHES: EP-1; ESB; ORB-3
DSE PROJECT MANAGER: S. Bajwa
DOR PROJECT MANAGER: R. Bevan
TAC NUMBER: 7587

We have reviewed the proposed Monticello non-radiological environmental technical specifications (ETS) and have found that they are inconsistent with the FES findings in several important areas. While it is not necessary that the two be consistent, it is necessary that the inconsistencies be evaluated as to environmental impact and the conclusion reached that the findings of the FES are not invalidated by the changes. This evaluation and conclusion should be prepared as an Environmental Impact Appraisal (EIA) supporting the proposed ETS. We cannot make a judgment on the acceptability of these ETS and, in particular, the inconsistencies without having the EIA. We req[illegible]t that an EIA be prepared and circulated for technical review with the [illegible] [illegible]raft ETS.

In [illegible] [illegible]y and conclusions section of the FES, requirements are recommen[illegible] [illegible] incorp[illegible]ated in the license for the protection of the environment. [illegible] [illegible]oposed ETS do not adopt these recommendations. Furthermore, our [illegible] [illegible] the licensee's annual reports indicated that the licensee's monito[illegible] programs generally did not address these areas; thus, implementation of appropriate monitoring programs, as suggested in the FES, may be needed before final conclusions can be drawn. Under a contract from NRC, Battelle-Pacific Northwest Laboratory (PNL) reviewed the licensee's annual reports and found many significant problems with their monitoring programs which supports our finding that it may not be feasible to do an adequate impact appraisal with the information available to justify some of the inconsistencies between the proposed ETS and the FES. Some of these inconsistencies, however, may be justifiable from a generic standpoint as the

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state-of-the-art of impact prediction has greatly improved since the FES was originally written. A thorough review and environmental analysis should be made to determine exactly which areas may require further monitoring, and these monitoring programs should be included in the draft ETS.

Enclosure 1 outlines specific areas of the FES that should be addressed in the environmental impact appraisal, along with a discussion of problems that are likely to be encountered in doing these appraisals. We will coordinate with DSE in this evaluation as necessary.

In addition to assuring we are discharging our NEPA responsibilities, we are concerned that failure to follow up on FES recommendations could make us vulnerable in any hearing situation associated with the FTOL issuance.

/S/

Brian K. Grimes, Assistant Director
for Engineering and Projects
Division of Operating Reactors

Enclosure:
As stated

cc: V. Stello
D. Eisenhut
G. Knighton
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RETYPED PER B. GRIMES - SEE ATTACHED YELLOW FOR PREVIOUS CONCURRENCES *

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DATE	6/2/78	6/2/78	6/2/78	6/3/78	7/13/78	7/13/78

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We have reviewed the proposed Monticello non-radiological environmental technical specifications (ETS) and have found that they are inconsistent with the FES findings in several important areas. While it is not necessary that the two be consistent, it is necessary that the inconsistencies be evaluated as to environmental impact and the conclusion reached that the findings of the FES are not invalidated by the changes. This evaluation and conclusion should be prepared as an Environmental Impact Appraisal (EIA) supporting the proposed ETS. It is impossible to make a judgment on the acceptability of these ETS and, in particular, the inconsistences without having the EIA to review. We request that an EIA be prepared and circulated for technical review with the latest draft ETS.

In the summary and conclusions section of the FES, requirements are recommended to be incorporated in the license for the protection of the environment. The proposed ETS do not adopt these recommendations. Furthermore, our review of the licensee's annual reports indicated that the licensee's monitoring programs generally did not address these areas; thus, it may be impossible to do an acceptable evaluation in these areas without implementing appropriate monitoring programs as suggested in the FES. Under a contract from NRC, Battelle-Pacific Northwest Laboratory (PNL) reviewed the licensee's annual reports and found many significant problems with their monitoring programs which supports our finding that it may be impossible to do an adequate impact appraisal with the information available to justify some of the inconsistencies between the proposed ETS and the FES. Some of these inconsistencies, however, may be justifiable from a generic standpoint as the state-of-the-art of impact prediction has greatly improved since the FES was originally written. A thorough review and environmental analysis should be made to

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determine exactly which areas may require further monitoring, and these monitoring programs should be included in the draft ETS.

Enclosure 1 outlines specific areas of the FES that should be addressed in the environmental impact appraisal, along with a discussion of problems that are likely to be encountered in doing these appraisals. We will coordinate with DSE in this evaluation as necessary.

Brian K. Grimes, Assistant Director
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DATE	6/ /78	6/ 2 /78	6/ /78	6/13 /78	6/ /78	6/ /78

Enclosure 1

Items that should be discussed in an Environmental Impact Appraisal Supporting Issuance of FTOL for Monticello Nuclear Generating Plant

In the Summary and Conclusions section of the FES, p. iii, Item No. 7, it states that "after weighing the environmental, economic, technical and other benefits of the Monticello Nuclear Generating Plant against environmental costs and considering available alternatives, it is concluded that the action called for is conversion of the provisional operating license to a full term operating license for the facility subject to the following conditions for protection of the environment." These five conditions are listed below along with comments as to how they should be handled in the environmental impact appraisal.

7 (a) "The Applicant shall operate the plant in such a manner that the maximum temperature of the river, as a result of plant operation, does not exceed 90°F over more than one-half the surface width of the river at any time." The NPDES Permit allows discharges during April through October of 95°F. The appraisal must either assure that this 95°F discharge limit will not cause the 90°F FES limit to be exceeded, perhaps through a hydrologic evaluation, or must describe the impact that will occur with the 95°F limit, and show that it is either insignificant or show that it does not change the cost-benefit analysis. Our brief review of the annual reports indicated that the licensee did not perform a study addressing this question. It appeared that most of the monitoring transects were located too far downstream to answer this question. Furthermore, the model they developed is apparently inadequate. Battelle-Pacific Northwest Laboratory reviewed it* (p. 60) and concluded that "in general, the model predictions are not representative of the river surface thermal distribution." If an

appropriate analysis cannot be made addressing this question, whether by means of the hydrologic approach, modeling approach, or some other approach, a monitoring program should be included in the ETS to obtain the necessary information and, as in the handling of Oyster Creek ETS, LCOs should be imposed in this area.

7(b) "The Applicant shall obtain data to ascertain whether or not corrective action need be taken to reduce the possible loss of biota due to the intake structure." We have reviewed the licensee's results and discussions in the annual reports. While it appears that there are enough data available on fish impingement, the licensee did not compare these data to information on fish populations and fishing catch results to ascertain whether the impact levels are acceptable. Such a comparison is an important part of answering this question and should be part of the environmental impact appraisal. If the historical impingement rate is not acceptable from the impact standpoint when projected into the future, modifications to the proposed ETS should be made as appropriate. If further monitoring were required as a result of high predicted impact, data from other river-located plants may help in designing a monitoring program.

7(c) "Planned plant shutdowns shall b programmed such that the rate of water temperature reduction will not cause excessive fish kills in the discharge canal." The NPDES Permit does not have a limit on rate of temperature change of discharge water. In such cases, it is current practice to impose such a condition as an LCO, or, by means of the evaluation, to show that such a limit is not necessary and that this conclusion of the FES is no longer valid.

We have briefly reviewed the licensee's annual reports in this area and have found that they do not specifically address this question, nor may the data be available in them to do so. In the Battelle-Pacific Northwest Laboratory review of the licensee's data* (p. 121), they stated that "the river population estimates .... are both poor and inappropriate (displaced too far in time) to use as an aid in estimating cold shock effects. Thus, it appears that some further action by NRC is necessary in this area. The available data should be reviewed and this review should be included in the environmental impact appraisal along with the basis supporting the proposed action. Imposing LCOs along with a monitoring program may be the appropriate action in this area.

7(d) "The Applicant shall define a comprehensive environmental monitoring program for inclusion in the Technical Specifications which are acceptable to the Staff for determining environmental effects of plant operation." Battelle-Pacific Northwest Laboratory reviewed this report* and concluded that (p. 53), in general, the impacts predicted in the Environmental Statement have not been verified by the data collected from the monitoring programs. They also stated that "If more consideration was given to a sampling design that is statistically oriented, ... then answers to predicted FES impacts could possibly be attained through a highly quantitative Environmental Technical Specification." The Battelle study was completed in November 1976 so data from the last few years of monitoring were not reviewed. The basis for their conclusions should be addressed in the appraisal. As the licensee's analysis does not verify the FES findings, an analysis should be provided with the appraisal which does, or appropriate montioring programs should be included in the FES.

7(e) "If other harmful effects or evidence of irreversible damage are detected by the monitoring programs, the Applicant will provide an analysis of the problem and a proposed course of action to alleviate the problem." The monitoring programs in the proposed ETS should be evaluated to determine whether they are adequate to detect such effects. Our review of them indicates that the proposed programs may be inadequate for this purpose. The appraisal should describe the areas for which the monitoring is adequate to detect possible irreversible damage caused by plant operation, and areas where the monitoring programs should be improved to provide a minimum level of monitoring in areas where possible irreversible damage may occur in the distant future.

In addition to these conditions described in the summary and conclusions, there are recommendations made throughout the FES. Those which are not being implemented through the proposed ETS program should be discussed in the EIA and bases for their omission should be presented.

* Evaluation of Monticello Nuclear Power Plant, Environmental Impact Predictions, Based on Monitoring Programs. Battelle-Pacific Northwest Laboratories, November 1976. BNWL-2150.