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Daniel R. Muller, Assistant Director for Environmental Projects

RESPONSES TO AGENCY COMMENTS - DAVIS BESSE 1 DES

Plant Name: Davis Besse, Unit 1
Licensing Stage: OL
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Responsible Branch: EPB-1
Project Manager: H. Thompson
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Agency Comments
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Enclosed are the Radiological Impact Section's proposed responses to agency comments on the Davis-Besse 1 DES.

These comments were prepared by T. Essig, RIS/RAB.

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for Harold R. Denton, Assistant Director
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Enclosure:
As stated

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Responses to Agency Comments
Davis Besse 1 DES

1. ERDA (p. 5-14)

The values of Thompson, et.al. are concentration factors (not a dose assessment model) and were used in the radiation dose assessment in the DES. It is our position that the Thompson reference contains data which are reasonable values to use in lieu of site-specific data.

2. HEW #1

The applicant will be directed to include snapping turtles in the radiological environmental monitoring program under the category "wildlife" in Table 6.4.

3. DOI #11

Lake bed sediments will be included in the operational monitoring program, because as is indicated in Section 6.5.2 (p. 6-8), "The applicant plans essentially to continue the preoperational program during the operating period." Table 6.4 (p. 6-10) further indicates that bottom sediment samples will be included in the program. The sampling locations include indicator and control locations and should be sufficient, in our view, to indicate any significant buildup of radioactivity due to plant operation.

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4. OEP #6

- a) We recommend the following response to the comment relative to considering how radioactive effluents are quantitatively distributed in the environment:

The quantitative distribution of radionuclides in the environment has been considered by the Staff and is implicit in all of the radiological impact estimates in Section 5.7. This distribution is accomplished through the use of hydrologic and atmospheric dilution factors.

- b) We recommend the following response to the comment relative to estimating radionuclide concentrations on land areas and on vegetation:

Estimates of radionuclide concentrations on vegetation are implicit in the estimates in Section 5.7. Such concentrations are due entirely to radioiodine deposition since, based on the source term in Table 3.3, radioiodine is the only species which will deposit on vegetation to any extent and will in turn be consumed by animals and humans. Doses from concentrations on land areas of the radionuclides in Table 3.3 have been found on a generic basis to be too small to warrant further consideration, and hence, have not been considered in the Davis Base DES.

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- c) We recommend the following response to the comment relative to the buildup of radionuclides in the environment:

The buildup of radionuclides in the environment has been considered in the dose estimates in Section 5.7 in that all radionuclides were assumed to be at equilibrium levels in the environment. The dose from radionuclides in sediment was specifically evaluated (recreational use of shoreline - DES Table 5.2) and was based on the anticipated buildup after 40 years of plant operation.

5. OEP #7 (2)

Fish and terrestrial wildlife will be included in the radiological environmental monitoring program, as indicated in Table 6.4 (pp. 6-10 and 6-11, respectively).

6. JLC #5

The NRC Staff (and its predecessor, the AEC) has significantly increased its review effort relative to occupational exposures since the design of Indian Point-1. This effort was brought into focus with the publication of Regulatory Guide 3.8, "Information Relevant to Maintaining Occupational Radiation Exposure As Low As Practicable (Nuclear Reactors)." The Staff's review effort has resulted in increased attention by

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the nuclear industry to occupational radiation exposure in
both the design and operation of nuclear plants.

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