DOCKET NUMBER
PROD. & UTIL. FAC. 50-346

UNITED STATES OF AMERICA
ATOMIC ENERGY COMMISSION

1-12-71

In the Matter of	)	
	)	Docket No. 50-346
THE TOLEDO EDISON COMPANY	)	
AND THE CLEVELAND ELECTRIC	)	
ILLUMINATING COMPANY	)	INTERROGATORIES TO APPLICANTS
	)	
(Davis-Besse Nuclear Power	)	
Station)	)	

* * * *

Living In a Finer Environment, Irwin I. Oster, Ph.D., and William E. Reany hereby propound the following interrogatories to be answered under oath by the appropriate person or persons designated by the applicants:

1. Name and address of the company supplying the fuel elements for the reactor.

2. What is the amount of U235 in the "slightly enriched" uranium oxide fuel elements.

3. Has any study been made of the use of 90% enriched fuel in order to avoid frequent fuel loadings. If so, what are the results of that study.

4. Is there a commercial nuclear power plant operating at the present time with the same power output that is anticipated for Davis-Besse. If so, do you have records of their operating experiences.

5. If the answer to question 4 is negative, is there such a plant presently under construction.

6. Is there a commercial nuclear power plant operating at the present time which has the same heat output as that anticipated for Davis-Besse.

7. If the answer to question 6 is negative, is there any

such plant presently under construction.

8. What is the largest nuclear reactor in operation at the present time.

9. If any personnel of the applicant has worked in the reactor mentioned in the answer to the preceding question, how many man hours of experience at peak operating capacity have been accumulated by such personnel and identify such personnel.

10. Are any Class I components other than those described in 1.8-1 AEC Questions to be designed and/or fabricated in whole or in part in a foreign country. If so, which ones, by whom, and are they required to meet ASME specifications.

11. How reliable in terms of past operational experience are your estimates for normal concentrations of radionucleides referred to in the response in AEC Question 2.4 and further described in PSAR 11.1.1.3.

12. Is it possible to assure the integrity of the reactor containment if 3% meltdown of the CORE occurred. What consequences would such meltdown have on radioactive emissions from the plant.

13. What would be the public health effect of a maximum accident assuming the rupture of a single primary water storage tank referred to in 2.4-3 of the AEC Questions.

14. What is the cost of installing in the Davis-Besse plant the Westinghouse Rad Waste System removing Kr 85 as a gas and tritium in liquid form.

15. At exactly what level of "excessive" radiation does the radiation monitor trip closing the two downstream isolation valves in series in the station's discharge system.

16. At exactly what level of "excessive" radiation do the safeguards on the venting of gaseous emissions from the plant take effect.

17. What is the concentration expected after one year in fish, water fowl, and humans within a five mile radius surrounding the plant in the Western basin of Lake Erie considering the total reconcentration of radioactive releases from all sources from the Davis-Besse plant.

18. Has an independent analysis been done of the total exposure anticipated from normal operation of all reactors including Davis-Besse at the time Davis-Besse is in operation. If so, what are the qualifications of the individuals who performed this analysis and what are the results.

19. Has the type of analysis described in Question 18 been made for the year 2014. If so, what are the results.

20. What is the exact total release in terms of gallons of each radionucleide liquid concentrated discharge in the lake for each 24-hour period under anticipated normal operation.

21. What are the natural background levels of concentration for each radioactive substance that Davis-Besse will eventually release.

22. What release of radioactivity could be expected if the primary storage tank and borated water storage tank became dislocated due to the soil liquefaction which is mentioned in the PSAR.

23. What construction has already been done on the reactor vessel intended for Davis-Besse.

24. Who would bear the burden of costs already incurred if the applicant does not receive its construction permit. Customers? Stockholders? Who has made this decision?

25. Are the specifications as far as materials and manner of fabrication for construction by Bechtel and Babcock & Wilcox fixed as stated in the PSAR or can changes be made as the construction proceeds.

26. In whom does responsibility for quality control during construction phases reside.

27. What are the qualifications of the inspectors who will carry out the quality control referred to in the preceding question.

28. To what extent has the applicant actually calculated how much damage to persons and property will result from the emergencies which may occur and where are the results of such calculations located.

29. Will the local fire department be instructed in handling fires involving radioactive elements. If so, who will give such instructions.

30. Has there been a determination whether hospitals in the area are capable of handling a nuclear emergency. If so, state name of hospital and number of available beds.

31. Prior to the date of the initial loading of fuel, will the public within a radius of at least 50 miles from the plant be instructed in measures to be taken under emergency conditions. If

so, have instructions applicable to the specific Davis-Besse plant area been prepared.

32. What other media will be used to disseminate the information referred to in question 31.

33. In terms of radiation emission, what is the maximum possible damage to the mechanism controlling the entire core operation which might occur if a penetrating missile (resulting from the activities in the restricted areas -- 25 mm armor piercing projectiles should strike components of the facility other than those under the shield building dome.

34. With respect to each type of radiation monitoring equipment, state the manufacturer's name and whether the equipment will be movable or stationary.

35. Which personnel of those referred to in figure 12-3 of the PSAR will be supervising the monitoring activity and which personnel will actually perform such activity.

36. If such personnel are not shown in figure 12-3, who are

37. If there is an accident and radiation is still contained within the plant, which of the above named personnel will do the radiation monitoring.

38. Which of the above named personnel will do radiation monitoring if there is an escape of radiation from the plant.

39. How will the proficiency of the plant personnel be evaluated so as to assure the safe operation of Davis-Besse.

40. Will records on background and operating levels of radiation be available for public examination. If so, where?

41. For what distance will the signal referred to in 12.4.1.1 of the PSAR be audible?

42. What are the anticipated procedures for assuring compliance with maximum average dose rates described in 11.2.1 of the PSAR.

43. How will dosage to personnel and plant visitors be monitored, and how frequently?

44. How will maximum levels of exposure to radiation as stated in 11.2.21 of the PSAR be limited under accident conditions.

45. How does the reactor coolant system minimize the release to the reactor building of fission products that escape the primary barrier (fuel cladding) referred to on page 4-1, Volume 2, PSAR.

46. Why is the reactor vessel the only component considered exposed to a significant level of neutron irradiation and the only component subject to material radiation damage?

47. What is considered a significant level of material radiation damage (to reactor coolant system.)

48. How small of a leak and in what time interval will a leak from the reactor coolant system into the containment can be detected by methods a,b, and c, on page 4-14, Volume 2, PSAR.

49. What is the "significant" margin available for deterioration of seals before the resultant increase in leak rate in weld closures of the containment vessel or attached penetration sleeves becomes unacceptable.

50. At what levels of radiation do radiation monitors on the reutrn line to the component cooling water pumps give warning signal.

51. How will personnel exposure time be limited so that the integrated doses to operating personnel do not exceed limits of 10 CFR 20.

52. Are ASME standards more stringent than any other standards on specifications of the reactor and associated structures compnnents.

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CERTIFICATE OF SERVICE

I hereby certify that I have this 12th day of January, 1971 mailed copies of the foregoing Interrogatories to Applicants, to Gerald Charnoff, Esq., Attorney for Applicant, at Shaw, Pittman, Potts, Trowbridge & Madden, 910 17th Street, N.W., Washington, D.C. 20006; to Thomas S. Engelhardt of the AEC Regulatory Staff, Washington D.C. 20545; to Russell Z. Baron, Esq., Attorney for the Coalition for Safe Nuclear Power, at Brannon, Ticktin, Baron & Manzini, Cleveland, Ohio; to Jerome Kalur, Esq., Attorney for Glenn Lau, at National City Bank Bldg., Cleveland, Ohio; and by hand delivery to Wilson Snyder, Esq., Attorney for Toledo Edison Company, Fuller, Seney, Henry & Hodge, 800 Owens-Illinois Building, Toledo, Ohio.

Beatrice K. Bleicher