UNITED STATES OF AMERICA ATOMIC ENERGY COMMISSION

In the Matter of	Docket No	. 50-329
CONSUMERS POWER COMPANY	Docket No	
(Midland Plant)		

INTERROGATORIES TO SAGINAW VALLEY

NUCLEAR STUDY GROUP, CITIZENS COMMITTEE

FOR THE ENVIRONMENTAL PROTECTION OF MICHIGAN,

SIERRA CLUB, UNITED AUTO WORKERS OF AMERICA,

TROUT UNLIMITED, WEST MICHIGAN ENVIRONMENTAL

ACTION COUNCIL, INC., ENVIRONMENTAL LAW

SOCIETY OF THE UNIVERSITY OF

MICHIGAN LAW STUDENTS

Please take notice that Consumers Power Company (hereinafter referred to as "Applicant"), hereby demands that Saginaw Valley Nuclear Study Group, Citizens Committee for the Environmental Protection of Michigan, Sierra Club, United Auto Workers of America, Trout Unlimited, West Michigan Environmental Action Council, Inc., Environmental Law Society of the University of Michigan Law Students (sometimes referred to as University of Michigan Environmental Law Society) answer under oath, by January 21, 1971, the written interrogatories set forth below.

As used in these interrogatories, the terms "document" and "writing" and variants thereof include each book, record, memorandum, item of correspondence, minute, report, study, analysis, stenographic transcript, code, criterion, statute, regulation, graph, chart, transcription, drawing, and other

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writing of any kind; the requirement that a document or writing be identified means that the identification should be in a manner suitable for use in a subpoena and should include specification of the nature of the document or writing and the date, author or sender, addressee (if any) or recipient, distributees, and title (if any) thereof; the requirement to state, describe, identify, set forth, relate or specify means to do so completely, with full particularity, and in all details.

With respect to each of these interrogatories, if you do not have knowledge or information sufficient to provide a complete answer, you should so state and answer the interrogatory as fully as your knowledge and information allow.

- With respect to each concern, contention and allegation in paragraph 22 of your Petition to Intervene dated November 12, 1970 (hereinafter "your petition"),
 - (a) If it is based on any document or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
- 2. Set forth each and every respect in which the location of the Midland reactors violates the guidelines set forth in TID 14844, 10 C.F.R. Part 100 and a detailed statement explaining the basis for each such asserted violation.

- 3. Describe the alleged "synergistic and counter-productive effects of various systems used to control the release of iodine", referred to in paragraph 23(d) of your petition and explain in detail the basis for your belief that such effects would occur.
- 4. Set forth in detail the alleged problems (referred to in paragraph 23(e) of your petition) "that would be encountered if both Midland reactors were to have simultaneous maximum hypothetical accidents" and explain in detail the basis for your belief that such problems would be encountered.
 - With respect to each allegation in paragraph 23 of your petition,
 - (a) If it is based on any document or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
 - 6. In explanation of paragraph 24 of your petition,
 - (a) Identify the "critical safety related systems" referred to in said paragraph.
 - (b) State each and every respect in which the PSAR is incomplete and inadequate.

- (c) State what additional information is necessary in order to determine whether construction of the proposed design will be consistent with the health and safety of the public.
- 7. With respect to each allegation in paragraph 24 of your petition,
 - (a) If it is based on any document or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
 - 8. In explanation of paragraph 25 of your petition,
 - (a) Identify the components and engineering of safeguards referred to in the first sentence of said paragraph.
 - (b) Identify the procedures for inspection and replacement of critical components which you deem inadequate.
 - (c) State each and every respect in which you contend that the aforesaid procedures are inadequate.
 - (d) Set forth in detail the procedures which you believe would be adequate for the purposes attempted to be served by the procedures identified in your answer to part (b) of this interrogatory.

- With respect to each allegation in paragraph 25 of your petition,
 - (a) If it is based on any document or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
- 10. In explanation of paragraph 26 of your petition, set forth each and every respect in which the quality control and quality assurance procedures and programs described in the PSAR are inadequate, incomplete and unacceptable to assure that the Midland Plants will be built in conformance with the design as set forth in the PSAR.
- With respect to each allegation in paragraph 26 of your petition,
 - (a) If it is based on any document or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.

- 12. In explanation of the second sentence of paragraph 27 of your petition,
 - (a) Identify each of the non-nuclear but related safety aspects of Dow Chemical Company's operation with respect to which you contend inadequate safe-guards exist to protect against a cut-off of the source of steam in the event of a shutdown of the nuclear plant.
 - (b) State each and every respect in which the aforesaid safeguards are inadequate.
 - (c) State in detail what safeguards would be adequate for this purpose.
- 13. With respect to each allegation in paragraph 27 of your petition,
 - (a) If it is based on any document or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
 - 14. In explanation of paragraph 28 of your petition,(a) Identify the corrosive gas or gases referred to therein.

- (b) Trace the sequence of events by which instrumentation and electronic control systems in the proposed nuclear plants might be affected.
- (c) Identify the safety measures which might thereby be made inoperable.
- 15. With respect to each allegation in paragraph 28 of your petition,
 - (a) If it is based on any document or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
- 16. With respect to each allegation in paragraph 29 of your petition,
 - (a) If it is based on any document or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.

- 17. (a) State each and every respect in which the design and intended operation of each or any system or major component part proposed to be used in the proposed plants is unsatisfactory or objectionable.
- (b) Identify each document upon which your answer to part (a) of this interrogatory is based.
- (c) If your answer to part (a) of this interrogatory is based in whole or in part on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
- 18. With respect to each allegation in paragraph 31 of your petition,
 - (a) If it is based on any document or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
- 19. With respect to each allegation in paragraphs 32 through 35 of your petition,
 - (a) If it is based on any document or documents, identify each such document.

- (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
- 20. With respect to each concern, contention and allegation in paragraphs 36 through 40 of your petition,
 - (a) If it is based on any document or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
- 21. (a) Set forth each and every deficiency which you believe exists in the technical qualifications and quality control and quality assurance procedures of the vendors of the major component parts of the proposed plants.
- (b) Identify each document upon which your answer to part (a) of this interrogatory is based.
- (c) If your answer to part (a) of this interrogatory is based in whole or in part on oral communication, state the dates and places thereof, the identity (by name, address, by whom

employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.

- (d) State the manner in which each alleged deficiency listed in your answer to part (a) of this interrogator; could be satisfactorily remedied.
- 22. With respect to each allegation in paragraphs 42 through 44 of your petition,
 - (a) If it is based on any document or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
 - 23. With respect to paragraph 47 of your petition,
 - (a) Identify each and every nuclear plant radioactive waste system, either in production or on which production is planned, which prevents any radioactivity in any form from being emitted into the environment.
 - (b) State the name and address of the manufacturer of each such system.
 - (c) Describe the basic design concepts of each such system.

- 24. With respect to each allegation in paragraph 47 of your petition,
 - (a) If it is based on any document or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
 - 25. In explanation of paragraph 48 of your petition,
- (a) State what the effects on the public would be of radiation waste products in the event of the occurrence of the contingencies referred to in said paragraph 48.
- (b) Set forth in detail the basis for your belief that these effects would occur in the event of said contingencies.
- (c) Identify each document upon which your answers to parts (a) and (b) of this interrogatory are based.
- (d) If your answers to parts (a) and (b) of this interrogatory are based in whole or in part on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.

- 26. With respect to each allegation in paragraph 49 of your petition,
 - (a) If it is based on any document or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
- 27. (a) State what dangerous illnesses and injuries will occur from radioactive effluents reaching man from the Midland Plants and comingled in whole or in part with chemical effluents from the Dow Chemical Company plant, and identify the effluents and state the manner of their comingling.
- (b) State in detail the basis for your belief that the illnesses and injuries listed in your answer to part (a) of this interrogatory will occur from radioactive effluents reaching man from the Midland Plants and comingled in whole or in part with chemical effluents from the Dow Chemical Company Plant.
- (c) Identify each document upon which your answers to parts (a) and (b) of this interrogatory are based.
- (d) If your answers to parts (a) and (b) of this interrogatory are based in whole or in part on oral communication, state
 the dates and places thereof, the identity (by name, address, by

whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.

- 28. (a) State each and every respect in which Applicant's radiation monitoring system is insufficient and incomplete adequately to monitor radiation both in normal operation of the proposed plants as well as during those moments after a maximum hypothetical accident.
- (b) Identify each document upon which your answer to part (a) of this interrogatory is based.
- (c) If your answer to part (a) of this interrogatory is based in whole or in part on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
- 29. (a) Describe in detail the "completely remote control and other sophisticated monitoring systems" referred to in the last sentence of paragraph 51 of your petition, and set forth the names and addresses of their manufacturers.
- (b) Identify each document upon which your answer to part (a) of this interrogatory is based.
- . (c) If your answer to part (a) of this interrogatory is based in whole or in part on oral communication, state the dates and places thereof, the identity (by name, address, by whom

employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.

- 30. (a) State in detail what an "adequate meteorological survey" of the type referred to in paragraph 52 of your petition would consist of and the reasons why such a survey is necessary for the purpose referred to in said paragraph.
- (b) Identify each document upon which your answer to part (a) of this interrogatory is based.
- (c) If your answer to part (a) of this interrogatory is based in whole or in part on oral communication, state the dates and places thereof, the identity (by hame, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
- 31. With respect to each allegation in paragraph 54 of your petition,
 - (a) If it is based on any document or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.

- 32. With respect to each allegation in the second sentence of paragraph 58 of your petition,
 - (a) If it is based on any document or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
- 33. With respect to each allegation in paragraph 60 of your petition,
 - (a) If it is based on any document or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
- 34. Identify the letter referred to in paragraph 61 of your petition.
- 35. With respect to each allegation in paragraph 61 of your petition,
 - (a) If it is based on any document or documents, identify each such document.

- (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
- 36. With regard to the fear of a continuing decrease in Midland's population as a result of the building of the proposed plants expressed in paragraph 62 of your petition,
 - (a) If it is based on any document or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
- 37. With respect to each allegation in paragraph 63 of your petition,
 - (a) If it is based on any document or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved

therein, and the complete substance of what was said by and to each person.

- 38. (a) Set forth each and every "higher and better use or purpose" of the type referred to in paragraph 63 of your petition which you know of and explain why it would be higher and/or better.
- (b) Identify each document upon which your answer to part (a) of this interrogatory is based.
- (c) If your answer to part (a) of this interrogatory is based in whole or in part on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
- 39. With respect to each allegation in paragraph 64 of your petition,
 - (a) If it is based on any doc ment or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
- 40. With respect to each allegation in paragraph 65 of your petition,
 - (a) If it is based on any document or documents, identify each such document.

- (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
- 41. (a) State what effect, if any, the proposed plants will have on the recreational activities described in paragraph 65 of your petition.
- (b) Identify each document upon which your answer to part (a) of this interrogatory is based.
- (c) If your answer to part (a) of this interrogatory is based in whole or in part on oral communication, state the dates and placed thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
 - 42. In explanation of paragraph 68 of your petition,

 (a) Specify each and every respect in which you contend that the water quality of the Tittabawassee River will be further depreciated and degraded by

the operation of the Midland nuclear plants.

(b) Specify each and every respect in which the analysis and consideration of the imposition of the Midland plants under NEPA have been inadequate.

- 43. With respect to each allegation in paragraph 68 of your petition,
 - (a) If it is based on any document or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
 - 44. In connection with paragraph 69 of your petition,
 - (a) Describe in detail "the peculiar atmospheric conditions" referred to therein.
 - (b) Describe in detail the evaporation and fogging problems and other atmospheric effects which you contend will occur as a result of the daily operation of the proposed plants' cooling ponds.
 - (c) Set forth each and every respect in which you contend that the consideration given to the evaporation, fogging and other atmospheric effects pursuant to NEPA, referred to in said paragraph 68, has not been adequate.
 - (d) Identify each document upon which your answers to parts (a), (b) and (c) of this interrogatory are based.

- (e) If your answers to parts (a), (b) and (c) of this interrogatory are based in whole or in part on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
- 45. With respect to each allegation in paragraph 70 of your petition,
 - (a) If it is based on any document or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
- 46. (a) State in detail what effect you believe the proposed plants will have upon the growth of industries in Midland and in the greater metropolitan Tri-City area.
- (b) Identify each document upon which your answer to part (a) of this interrogatory is based.
- (c) If your answer to part (a) of this interrogatory is based in whole or in part on oral communication, state the dates

by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.

- 50. With respect to each allegation in paragraph 73 of your petition,
 - (a) If it is based on any document or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
- 51. With respect to each allegation in the first sentence of paragraph 74 of your petition,
 - (a) If it is based on any document or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.

- 52. In connection with paragraph 75 of your petition, state and explain each and every respect in which the standards for the construction and operation of a nuclear power plant denominated "experimental" are less stringent than those denominated as "commercial" reactors.
- 53. (a) State each and every respect in which approval by the Commission of the location of the proposed plants would be in contravention of the criteria set forth in its regulations.
- (b) Identify each document upon while your answer to part (a) of this interrogatory is based.
- (c) If your answer to part (a) of this interrogatory is based in whole or in part on oral communication, state the dates and places thereof, the identity (by name, address, by whom acting) of each person involved therein, and the complete substance of what was said by and to each person.
- 54. With respect to each allegation in the first two sentences in paragraph 77 of your petition,
 - (a) If it is based on any document or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.

- '55. With respect to each allegation in paragraph 78 of your petition,
 - (a) If it is based on any document or documents, identify each such document.
 - (b) If it is based on oral communication, state the dates and places thereof, the identity (by name, address, by whom employed, with what group or organization affiliated and for whom acting) of each person involved therein, and the complete substance of what was said by and to each person.

January 7, 1971.

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