

DOCKET NUMBER
PROD. & UTIL. FAC. 50-327,330

RETURN TO REGULATORY CENTRAL FILES
ROOM 013

UNITED STATES OF AMERICA
ATOMIC ENERGY COMMISSION

In The Matter of
CONSUMERS POWER COMPANY
(MIDLAND PLANT UNITS 1 AND 2) }

Docket Nos. 50-329
50-330

FIRST SET OF INTERROGATORIES
OF CERTAIN INTERVENORS
DIRECTED TO DOW CHEMICAL COMPANY

Pursuant to part 2 of the Rules of Practice of the Atomic Energy Commission and the Atomic Energy Safety and Licensing Board's order permitting the serving of these Interrogatories and requiring their answer, Intervenors request the following Interrogatories be answered fully in writing and under oath by one or more persons or employees of Dow Chemical Company (hereinafter "Dow") who has personal knowledge thereof or is the closest to having personal knowledge thereof. If the Interrogatories are answered by more than one person, whether or not he verifies the answers, and whether or not he is an officer or employee of Dow, such person's name and title should be set forth together with an identification of which Interrogatories he is responsible for answering. To the extent it is applicable, and unless your answer specifically states otherwise, it shall be assumed that each of these answers applies equally to each of the proposed Midland Units 1 and 2.

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The Interrogatories below are to be considered your continuing obligation. Accordingly, after you have answered these Interrogatories, if additional information comes to your attention with respect to one or more of your Interrogatories or your answers thereto, then you are required to amend your answers to provide such additional information.

1.-232. You have received a set of Interrogatories addressed to the Applicant, Consumers Power Company. Those Interrogatories were designed to ascertain information which forms the basis for various opinions or conclusions or assertions contained within the Preliminary Safety Analysis Report for the proposed Midland Units ("PSAR"). Presumably you already have considered and have been privy to such information in the course of your evaluation of the proposed Midland Units or the drafting of your Petition to Intervene or, alternatively, you have not found it necessary or desirable to make such a review in connection with such evaluation or Petition. Accordingly, with respect to each Interrogatory asked of Applicant, if in your evaluation or during the preparation of your Petition to Intervene you have considered the information in whole or in part which is called for by each such Interrogatory, then answer that Interrogatory

to the extent of your knowledge as if specifically asked of you; alternatively, if any such Interrogatory calls for information which you have not considered in your evaluation or during the preparation of your Petition to Intervene, then you do not have to answer such Interrogatory, but in such case with respect to such Interrogatory and the information it calls for, state:

- (a) Why you did not find it necessary or desirable to consider such information in connection with your evaluation of the proposed Midland Units;
- (b) Why you did not find it necessary or desirable to consider such information in connection with the preparation of your Petition to Intervene; and
- (c) Do you intend to offer any evidence, written or oral, or introduce any documents in the course of the pending hearing with regard to any of the information called for by each such Interrogatory. If so, list the names and addresses of each person who will be called upon your behalf to offer testimony together with a summary of what each such person's testimony will be and also identify in detail each document or writing which you intend to introduce.

233. Unless otherwise covered by your answers to other Interrogatories (in which case specify such answers), state in detail the following:

- (a) The names, titles and positions of each person whom you presently plan to call upon to introduce oral or written testimony upon your behalf in the course of the pending hearing;
- (b) The area or areas which will be the subject of each such person's testimony; and
- (c) A description of each document or writing (as that term is defined in Interrogatory No. 311 below) which you intend to introduce in the course of the pending hearing in support of your Petition to Intervene or for any other purpose.

If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

234. With respect to your current supply of process steam and electricity, answer, describing in detail each fact, calculation and assumption thereof, the following:

- (a) What is the current cost of such process steam and electricity in ¢/lb./hr. and mills/kwh respectively;

- (b) What would be the cost of producing process steam and electricity if your present coal plants were remodeled to abate its current pollution effluent. Include within your answer a comparison of the schedule for completion of such remodeling with your belief as to the schedule for completion of the proposed Midland Units;
- (c) How long would it take to remodel your current plants to meet current and anticipated air pollution standards and what would be the capital costs; and
- (d) Would you support the construction of the proposed Midland Units if you could operate your present plants without regard to air pollution standards and if so, why.

If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

235. With respect to the process steam proposed to be produced by the proposed Midland Units, state:

- (a) What is the expected cost of such process steam and electricity in ¢/lb./hr. and mills/kwh respectively;

(b) What would be the cost of supplying process steam and electricity in ¢/lb./hr. and mills/kwh respectively using:

- (1) Coal;
- (2) Oil; and
- (3) Gas.

(c) What would be the capital cost of constructing a plant at the Midland site which could supply the necessary process steam and electricity using:

- (1) Coal
- (2) Oil; and
- (3) Gas;

and satisfying all associated pollution requirements. Describe in detail each fact, calculation and assumption upon which you base your answer.

If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

236. Describe in detail the basis upon which you conclude, if you do, stating each fact, calculation and assumption thereof, that you cannot remain competitive at your Midland location unless you obtain nuclear-produced process steam. If

in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

237. With respect to the variance issued to you by the Michigan Air Pollution Control Commission by which you are committed to shut down your present power plants upon the start of operation of the proposed Midland Units, when could these plants meet the air pollution requirements if the proposed Midland Units are not granted a construction permit. Additionally, on what date or upon what occurrence or circumstance would you exercise your contractual right, if any, with Consumers Power Co. to terminate your obligation to purchase process steam from the proposed Midland Units and/or to terminate your support of the proposed Midland Units. Include within your answer the date or occurrence beyond which if the proposed Midland Units are not (i) granted a construction permit, (ii) in the process of construction, (iii) constructed and (iv) in operation you would make alternate arrangements, describing such alternate arrangements. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

238. With respect to your consideration, if any, of each type of plant which could be built at the proposed Midland site to supply process steam and electricity, state what

analysis, if any, was performed by you, stating each fact, calculation and assumption thereof, to determine what type of plant would be best suited for such site. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

239. With respect to your waste burner, answer the following:

- (a) What is each material which is discharged as an effluent;
- (b) What is each material which is burned; and
- (c) What is the quantity of unburned material which is released to the atmosphere and what is the concentration and toxicity of each such compound.

If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

240. Describe in detail the types of monitoring equipment and systems which you employ or shall employ to detect and control the emission of chemicals into the atmosphere. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

241. Describe in detail each complaint from any source which you have received with respect to chemical releases, specifying the direction, time, type of chemical, source and resolution thereof. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of such other reference or attach a copy.

242. State the names and position of each Dow employee who has been given time off from his job or has been permitted as part of his employment with or without the approval of Dow to promote the proposed Midland Units. "Promotion" in this Interrogatory means other than technical work directly related to the design and construction of the proposed Midland Units. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

243. Describe and identify in detail the substance of each analysis, report and review, if any, of the proposed Midland Units and any part or operation thereof, made by Dow or on behalf of Dow. Include within your answer, the name, the position and the area of expertise of each person, firm and corporation who was consulted with or who worked on each such analysis, report and review. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

244. State the name, position and background of each full-time employee whom you employ whose position is in or whose area of expertise is nuclear technology. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

245. Describe and identify in detail, stating each fact, calculation and assumption, each Dow Biochemical Research Laboratory report which relates to, refers to or concerns the proposed Midland Units. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

246. Describe and identify in detail, stating each fact, calculation and assumption, each statement and report issued by the Dow Radiochemistry Laboratory which relates to, refers to, concerns or makes recommendations to the Dow Board of Directors with regard to the proposed Midland Units and/or Dow's participation therein whether as a user of process steam or otherwise. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

247. State each question and your answer thereto, if an answer was given, which were respectively received and made by you respecting your invitation to all Midland citizens concerned

about the proposed Midland Units to send questions to you. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

248. State the name of each federal, state and local unit of government, including each individual and his position, with whom you have had contact during your consideration of the proposed Midland Units. For each such contact, describe in detail the content of each conversation, letter and/or telegram. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

249. Describe in detail the content of the conversation which occurred between a Dow spokesman and a Detroit consultant to the Midland Planning Commission as reported by Bruce C. Brown in the Midland Daily News, January 29, 1971. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

250. Were all the Dow Board of Directors in favor of the proposed Midland Units. If not, list the name and substantive position of each such dissenting Director, including within your answer the basis of the Board's decision

to participate in any way in the proposed Midland Units. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

251. Unless completely set forth in your answer to Interrogatory number 243 above, describe and identify in detail each safety analysis, if any, which was done by you or by a consultant retained by you concerning the proposed Midland Units. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

252. With respect to your statement at page 4 of your Petition to Intervene that "for various reasons, Dow must develop a different source of process steam and electrical energy for its Midland location", describe in detail each such reason stating each fact, calculation and assumption thereof. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

253. Describe and identify in detail the variance granted to you by the Michigan Air Pollution Control Commission under which the Dow Midland Plants are presently operating. If in your answer you make reference to other than

textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

254. Describe in detail the basis, stating each fact, calculation and assumption, upon which you state at page 4 of your Petition to Intervene that "fossil-fuel costs are escalating so rapidly [and] Dow cannot remain competitive at its Midland location unless it substitutes nuclear-produced process steam." If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

255. Describe in detail, stating each fact, calculation and assumption, the basis upon which you state at page 5 of your Petition to Intervene that "Refusal to grant a permit to construct this proposed nuclear power plant ... may require Dow to minimize the future role of its Midland plant and to construct chemical plants in other areas of the country and the world where sources of energy are available which are economically and environmentally acceptable." If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

256. Describe in detail each event which led to the fire which burned through building 776-777 at the AEC's

Rocky Flats plant near Denver, Colorado, on May 11, 1969. State the magnitude of the off-site contamination which resulted from the plutonium which was burned. Describe in detail each fact, calculation and assumption upon which you base your answer. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

257. Describe in detail each affirmative and direct health benefit you contend, if you do, will be received from a person exposed to radiation from the proposed Midland Units. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

258. With respect to the operations of the Rocky Flats plant, did you store 1,400 55-gallon drums of machine cutting oil containing high concentrations of plutonium near the aforesaid plant. Did these drums corrode and allow their contents to contaminate the surrounding soils and wind. Describe in detail what events led to such storage, who approved the methods of storage and what is currently being done to dispose such waste and what is being done with the aforesaid leaking drums. Describe in detail each document, letter, telegram and conversation which is related to or which concerns this incident which is in your possession or control.

With respect to this incident would you discuss your understanding of the statement "...This would be a very serious thing if Dow was taking upon itself the burial of plutonium wastes without going through established procedures..." made by Rep. Chet Holifield in a discussion with members of the Rocky Flats Union, AEC, and others at the Joint Committee on Atomic Energy offices in Washington on April 10, 1970. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

259. With respect to your proposed use of process steam proposed to be generated by the proposed Midland Plant, describe in detail, stating each fact, calculation or assumption, how the following products could come in contact with radioactive contaminants of the process steam:

- (a) Aspirin and other pharmaceutical salicylates;
- (b) Glycerine;
- (c) Urethane polyols;
- (d) Flocculating agents;
- (e) Ion exchange resins;
- (f) Vaccines; and
- (g) Nutritional feed additives.

Also state in detail what procedures you contemplate to prevent each such contact and what procedures you contemplate in the event of such contact. If in your answer you make

reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

260. With respect to your statement at page 3 of your Petition to Intervene that you desire to assure that "the construction permit will issue and be in such form as to assure that stringent requirements for the quality of Dow's process steam will be met," state the following:

- (a) Do the words "stringent requirements" have any different meaning than the words "stringent standards" also used at page 3 of your Petition to Intervene and if so, state the difference; and
- (b) Describe what "form" the construction permit will have to issue so as to assure such stringent requirements.

If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

261. With respect to the statement at page 4 of your Petition to Intervene that the proposed Midland Units' site was selected by the fact that "the process steam to be supplied to Dow must be produced in proximity to its point of use," explain whether the aforesaid reason was the sole and

overriding consideration for the selection of the site of the proposed Midland Units. Include within your answer a listing of each other consideration, if any, which was made in connection with the selection of such proposed site and the weight given to each such other consideration as compared to the weight given to the purchase of process steam. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

262. Have you ever considered the cost and feasibility of locating the proposed Midland Units underground, and if not, why not. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

263. List each of the "relevant factors" which are encompassed in your use of those words at page 5 of your Petition to Intervene. With respect to each such relevant factor, describe in detail the analysis and substance of the review thereof made by you as stated at page 5 of your Petition to Intervene. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

264. List each alternative to a nuclear generating facility in Midland which you contend at page 5 of your Petition to Intervene that you have considered. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

265. With respect to your statement at page 6 of your Petition to Intervene that you are "uniquely affected by the planning and engineering of the proposed facility," state each step, procedure, test or experiment which you have taken in such regard in addition to those taken by Consumers Power Company and the Atomic Energy Commission. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

266. At page 6 in your Petition to Intervene you assert that Dow's interest in assuring "stringent requirements" could not be adequately represented by any other party to this proceeding. Please explain this statement including whether you mean that without your presence Consumers Power Company and/or the Atomic Energy Commission would not assert a position to meet requirements or standards as "stringent" as you wish them to. Include within your answer a description of each

conversation or writing (as that term is used in Interrogatory No. 311 below) which refers to, relates to or concerns any conversation you had with anyone wherein you insisted that standards or requirements with respect to the generation of the process steam should be or must be higher than had theretofore been planned, if you were to participate in the proposed Midland Units. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

267. With respect to your statements at pages 6 and 7 of your Petition to Intervene that you are concerned "about the timing of this project" and that your planning requires the availability of a nuclear facility "at the earliest practicable time," state in detail each concern you have about timing including relevant dates, and also state the date or dates which you have determined are "the latest practicable time" and the latest practicable time. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

268. Describe in detail the accident concerning radioactive material which took place at Dow Corning Company on or about December 22, 1970, which involved James Mathews,

Donald Nelson and Stanley McCann. Include within your answer whether all necessary alarm systems were working as designed and functioned accordingly thereto in connection with the accident; whether the men were wearing protective clothing before, during and after the accident; what procedures were followed, and how immediately they were followed, in connection with the health and safety of the men affected by the accident involving radioactive material. Also include within your answer a description of the resolution of the accident including whether or not Dow Corning was cited or investigated for an AEC license violation and whether or not Dow Corning was forced to reapply to the AEC to receive a license to handle the radioactive material in a "loose" state rather than a "contained" or "encased" state. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

269. Regarding the proposed Midland Units and their proximity to your Midland facilities, answer the following:

- (a) Does there presently exist a survey of the natural radiation background in the area including but not limited to your Chemical plant which will be affected by radiation releases of any magnitude from the proposed Midland Plants. If there is such a survey, then state the following:

- (i) When was the survey taken;
- (ii) The names and addresses of the persons, firms or corporations who participated in making the survey and analyzing its results.
- (iii) The scientific procedure followed in connection with the survey;
- (iv) The results of the survey in terms of total natural background of significant radionuclides in each significant geographic part of the total geographic area which was the subject of the survey, explaining in detail the reasons, if any, why the background radiation differed, if it did, from one geographic part to another in the total geographic area surveyed. Be sure to include in your answer the contribution to natural background from so-called man-made radiation such as, for example, radioactive fallout and radiation from other possible sources.
- (v) If any of your measurements vary at different times of the year, please state the differences and variances, and include within your answer the total annual

dose due to natural and man-made radiation, in terms of rems, which a person will receive each year in the area surveyed prior to the construction of the proposed Midland Units. State what differences, if any, in dose which will be received by a person in different geographic parts of the geographic area surveyed on a yearly basis subsequent to the proposed Midland Units.

- (b) If you have not made a survey of the natural background in anticipation of the construction of such proposed Midland Units, then answer the following:
- (i) Why have you not made such a survey and include within your answer whether or not you think it important to have such a survey prior to the construction of the proposed Midland Units in order to assess the effect, if any, upon persons living in the relevant area and working at your chemical plant from the contribution to radiation dose from the proposed Midland Units.
 - (ii) Did you ever discuss with any person, firm, corporation or federal and state

agency the possibility or desirability of making such a survey in connection with the proposed Midland Units and your support and evaluation thereof. If not, why not. If yes, then provide:

- (a) The names of such persons, firms, corporations or state or federal agencies;
 - (b) A listing of all correspondence had between them or among them which are in your possession or control;
 - (c) The dates of relevant conferences, conversations or discussions and the substance of each such conference, conversation or discussion.
- (iii) The PSAR indicates that the Consumers Power Company intends to make such a survey prior to completion of the Units. Do you contemplate that if a certain level of background radiation is demonstrated that you will request the Consumers Power Co. to modify the proposed Midland Units in some fashion or manner to account for that specific level and, if not, why not.
- (iv) Is there any level of natural radiation

background which would cast doubt upon the proposed Midland Units and your support and evaluation thereof. Explain your answer.

- (v) If there is no specific level of natural radiation background which would cause you to reconsider support for construction of the proposed Midland Units, then of what significance is the aforesaid background radiation survey.
- (c) Do you consider a survey of background radiation a necessary prerequisite to a decision to construct a nuclear power plant in a given area. If not, why not.
- (d) Is it true that you support the construction of the proposed Midland Units without regard to the results, of whatever nature, of the proposed background radiation survey. Explain your answer.
- (e) Do you intend, subsequent to the initial background radiation survey, to continue to make background radiation surveys of your plant on a regular basis. If not, why not; if so, then state the following:
 - (i) The procedures you will use in making such surveys.

- (ii) What level of increase in natural background radiation, if any, would cause you:
 - (a) To request curtailing of operations of the proposed Midland Units to account for such increase; and
 - (b) To request cessation of operations of the proposed Midland Units to account for such increase.

If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

270. Have you informed the persons living in the Greater Tri-City area, the persons living in Midland, Michigan, your employees who will work for you within the exclusion area and low population zone of the proposed Midland Units, the employees who will work at Dow Corning in Midland, Michigan, or any of them, of the following:

- (a) The amount of radiation each such person could receive from the proposed Midland Units;
- (b) The amount of total radiation each such person could receive considering contributions to radiation from any source; and
- (c) The possible consequences of danger of genetic and other diseases as a result of being exposed to radiation over a long period of time.

- (d) The possible synergistic effects of exposure to both radioactive and chemical pollutants.

In connection with your answer, unless it is no, state in detail how you have accomplished informing the various persons listed herein of such information. If your answer is no, state your basis for not having done so. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

271. Is it your position that there is absolutely no danger of any adverse effect over a 40-year period or any lesser period, to a person at the boundary of the proposed Midland Units as a result of being exposed on a continuing basis of radiation from the proposed Midland Units. Would your answer be any different considering the present relevant natural background of radiation and, if not, would your answer be any different if the present natural background of radiation had any increase in its concentration. If you feel you cannot answer this question yes or no, then state your answer in detail and terms of probabilities, including within your answer each fact, calculation and assumption upon which you base such probabilities. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

272. What steps have you taken to inform persons living in the Greater Tri-City area as to how each such person

can protect himself from receiving an overdose of radiation. What measures have you provided to determine whether any such person has or will receive an overdose of radiation, considering all radiation sources to which each such person will be exposed, and what steps have you taken to inform each such person how he would know if he had received an overdose of radiation at any given time from all sources. The phrase "overdose of radiation" is to be interpreted in this answer in two ways: first, it is to be assumed that an overdose of radiation is anything which at least doubles the natural background radiation; and second, an overdose of radiation also means more radiation than 170 millirems per year. Your answer should direct itself to answering the questions separately for each definition of overdose of radiation and should include all sources of radiation to which each such person will be exposed and not just that amount of radiation to be released from the proposed Midland Units, including but not limited to such things as periodic X-rays from dentists, doctors, etc. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

273. In connection with the operation of the proposed Midland Units, do you intend to constantly meter the amount of radiation, other than released from the proposed Midland Units, which the persons living in the Greater Tri-City area will

receive and, if so, state in detail how and in what fashion. Include within your answer whether you will attempt to require doctors, dentists and other health related facilities to keep a continuous record of patients' total exposure to radiation including but not limited to X-rays and background radiation from natural and man-made sources of radiation. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

274. Have you made any projections of the amount of down-time of the proposed Midland Units for any of the following categories:

- (a) Normal maintenance;
- (b) Fuel loading;
- (c) Abnormal maintenance such as, for example, turbine and generator failure which result in the proposed Midland Units having outages for significant periods of time such as, for example, 30 days or more; and
- (d) Involuntary shutdown due to accidents other than MHA's or LOCA's such as described in Section 14 of the PSAR.

If you have not made such projections, state why not. If you have made such projections, then set them forth in detail including each fact, calculation and assumption upon which you

have based your projection and include within your answer, although not meant in a limiting manner, the following:

- (a) How you will be supplied with processed steam in each of the above events; and
- (b) What amounts of financial loss, inability to market products and unemployment would be caused by each such shutdown and loss of ability to supply processed steam.

If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

275. In your contract with Consumers Power Company concerning the construction of and the generation of electricity and processed steam from the proposed Midland Units, state the following:

- (a) Are you contractually obligated to purchase such steam over a long period? If so, state the period and the method of payment; and
- (b) If the proposed Midland Units at any time deviate significantly from its schedule, existing as of December 1, 1970, for building and construction, does your contract with Consumers Power Company permit you to relieve yourself from any obligation to cooperate in the proposed venture of the proposed construction of the

Midland Units and make whatever other arrangements you wish for the purchase, if at all, of processed steam? If yes, then state in detail the rights and obligations of the parties with respect to such circumstances.

If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

276. What plans or projections are you aware of for selling or proposing to sell processed steam from the proposed Midland Units to other than yourself, whether or not such future user is presently situated in Midland, Michigan? If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

277. Has any consideration of any kind been given to the adding of additional units to the proposed Midland nuclear power station. If any such consideration of any kind has been given, then state the following:

- (a) Each fact and detail concerning additions to and expansions of the proposed Midland Units.
- (b) The projected dates and projected costs of such expansions or additions.
- (c) The name of each person, firm or corporation, including industrial concerns other than Dow, which you have communicated with or intend to communicate with in connection with such expansion or addition, including relevant dates and a listing and description of relevant documents; and
- (d) List and describe each document in your possession or your control dealing with the financial and economic questions of the proposed Midland Units, not including scientific questions, which are in existence to date beginning with the day of the first discussion within your organization dealing with the constructing and operating of the proposed Midland Units.

If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

278. Does your agreement or arrangement with the Consumers Power Company concerning the proposed Midland Units contemplate or involve ownership in any way of any of the pro-

posed Midland Units or part or interest thereof by you or any company which is related by stockholdings to you. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

279. Will you or any of your personnel be involved in any decision to shut down or scram the proposed reactors in light of the fact that such shutdown or scram will prevent, for a period of time, the sale of processed steam to you. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

280. Have you considered whether or not persons living or working in the Greater Tri-City area will become more susceptible to radiation danger or effects as a result of having been living or working in an industrial community such as Midland, Michigan, and having been exposed to pollutants of any kind over a long period, especially having been exposed to chemical and other toxic releases. Include within your answer whether you consider that radiation can be more or less harmful to a person who has been subjected to such conditions as presently exist in Midland, Michigan due to the operation of all of your facilities. If in your answer

you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

281. Have you taken into consideration with respect to the building of the proposed Midland Units, surveys or studies, if any, regarding the risks of emphysema and lung diseases in the Midland, Michigan area compared to other geographic parts of the State of Michigan in which there is no chemical or industrial waste discharged. If you have not made any such surveys, state why not. If you have, then state the nature, extent and results of your considerations. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

282. Have you taken into consideration in connection with the proposed Midland Units the results of any surveys or studies in Midland and surrounding counties dealing with incidence of leukemia, cancer and other radiation-induced diseases. If not, state why not; and if you have, state the nature, extent and results of your considerations. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

283. State how much money has been spent or is planned to be spent separately by you and Consumers Power

Company with respect to the promotion of the proposed Midland Units. For the purposes of this question, the term promotion is limited solely to efforts made to explain, influence or propagandize the public with respect to the need for and safe operation of the proposed Midland Units. Include within your answer whether you or Consumers Power Company contributed any funds in connection with the cost of a trip by certain persons, later to become members of intervenor Midland Nuclear Committee, to Oak Ridge, Tennessee, in 1970. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

284. State whether any officer or officers of Dow ever asked Consumers Power Company to contribute proportionately or to contribute any amount to the cost of the trip described in Interrogatory 283 above. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

285. In terms of your last fiscal year, state what percentage of your net income was spent upon research and development separately for nuclear power and all other areas and then state what percentage of your net income for your last fiscal year was spent, separately, for promotion of the use of electricity and for the promotion of the use of nuclear

power. Answer the same questions based upon projections for your next fiscal year. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

286. Do you contend that radioactive emissions which synergize with air and water pollutants will not result in any adverse health consequences to persons living in or near the Greater Tri-City area. If your answer is yes, list what data you have compiled in connection with your determination, specifying each fact, calculation and assumption upon which you base your answer. State in your answer if you have considered each of the various pollutants emitted by industries, including those emitted by you, in the Greater Tri-City area into the air and water. Also include within your answer separately for each chemical, radioactive and nonradioactive pollutant which you have considered, a detailed description, specifying each fact, calculation and assumption thereof, how any reaction, chemical or otherwise, may occur so as to:

- (a) Increase the overall toxicity of each such pollutant;
- (b) Produce other toxic substances; and
- (c) Yield substance or substances which are transferable through new pathways or at increased rates.

If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

287. Have you considered any accident or the maximum accident possible involving train shipments of chemicals or any other products passing on the C&O railroad tracks which pass through your plant which are adjacent or near to the site of the proposed plants. If not, why not. If you did so consider such train accidents, set forth the accident analysis in detail specifying each fact, calculation and assumption thereof. Include within your answer what consideration was given, if any, to a combination accident involving such train shipments and chemicals stored or manufactured by you. Also set forth whether you have given or intend to give any special consideration to preventive procedures and safeguards regarding high combustible chemicals such as butane, in light of their combustibility and if yes, then describe such procedures and safeguards. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

288. What alternatives do you contemplate to provide yourself steam power in the event of inability at any time to receive or purchase processed steam from the proposed Midland Units. Include within your answer a discussion of each accident, either at your plant or at the proposed Midland Units, which could occur, subsequent to operation, if any, of the proposed

Midland Units, from a total cessation of processed steam which would or might result in the cessation of such equipment as steam driven pumps and other storage and/or shipping equipment which rely upon steam for operation. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

289. In the event an accident of reactor origin is of "sufficient magnitude to produce the necessity of evacuation of the area surrounding the Dow-Consumer area," as is stated at page 2C-11 of the PSAR, who is responsible for making this decision and on what basis, written or oral, shall it be made? In addition, describe in detail the following:

- (a) The working agreement which is referred to on page 2C-11 of the PSAR between the City of Midland and you; and
- (b) The arrangements with state and local civil defense officials which you have made to handle such an event.

If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

290. Describe in detail the "Evacuation plans" which are referred to at page 2C-11 of the PSAR as "in existence" and which will cover "Midland Nuclear Plant Accidents and will cover

evacuation routes to be taken away from the plant." If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

291. Describe in detail the "Discussions" which "indicate no Dow Corning accident" could have a "possible effect on the Midland Nuclear Plant" as is stated at page 2C-11 of the PSAR. Include within your answer whether you believe such effects impossible and each fact, calculation and assumption upon which you base your belief. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

292. Describe in detail, stating each fact, calculation and assumption, the basis upon which you accept, if you do, that the "Officials of the City of Midland have indicated that the conveyance of automobile transporting the evacuated employees of the Dow and Dow Corning Companies to outside the City boundary could be accomplished within about one hour." If in your answer you make reference to other than textual (exclusive of footnote) material in the PSAR, then set forth completely the text of each such other reference or attach a copy.

293. Describe in detail, stating each fact, calculation and assumption, how each of the following coordinate so as to

prevent the traffic congestion which "would make evacuation impossible" as stated on page 2C-30 of the PSAR:

- (a) City Police;
- (b) Dow Safety Services;
- (c) City Fire Department;
- (d) Dow Fire Department;
- (e) Dow Corning Plant Protection;
- (f) Civil Defense;
- (g) Service Station; and
- (h) State Police.

If in your answer you make reference to other than textual (exclusive of footnote) material in the PSAR, then set forth completely the text of each such other reference or attach a copy.

294. State and describe each emergency and/or evacuation plan you have used or relied upon in developing emergency and/or evacuation plans in connection with the proposed Midland Units. Have any of such relied upon plans ever been put to a real emergency test within the last five years and if so describe in detail the emergency and the then evaluation of the effectiveness of the relied upon plans. If in your answer you make reference to other than textual (exclusive of footnote) material in the PSAR, then set forth completely the text of each such other reference or attach a copy.

295. With respect to the "site emergency plan" as

mentioned on page 2C-8 of the PSAR, answer the following:

- (a) Who is responsible for the development, reviewing and testing of the "site emergency plan";
- (b) What is the content of the "detailed written instructions and indoctrination of the designated civil and Dow Chemical Company authorities";
- (c) Who are the designated civil and Dow Chemical Company authorities and what are their respective positions within their own organizations; and
- (d) Does Consumers Power Company have authority over Dow to implement, if and when necessary, evacuation from Dow premises necessitated by an accident originating from the proposed Midland Units. If not, describe your role and its implementation in such a circumstance.

If in your answer you make reference to other than textual (exclusive of footnote) material in the PSAR, then set forth completely the text of each such other reference or attach a copy.

296. With respect to the proposed Midland Units and your support and evaluation thereof, state, assuming the occurrence at the site of the proposed Midland Units of a full scale accident as examined in WASH-740 for a single unit of the size of either of the proposed Midland Units, and describing in detail, each fact, calculation and assumption upon which you base your answer,

the following:

- (a) How much land would be contaminated and for how long a period of time;
- (b) How much property damage, in dollars, would occur;
- (c) How many pregnant women might be exposed to more than half a rem of radiation, if the accident occurred in each of the years 1980, 1990 and 2000 considering population projections for each of such years;
- (d) How many people might be exposed to at least 25 rems of radiation if the accident occurred in each of the years 1980, 1990 and 2000, considering population projections for each of such years;
- (e) How many cancer and leukemia deaths might one such accident cause;
- (f) Approximately how many genetic deaths and retarded children could result in later generations from one such accident;
- (g) Approximately how many extra cases of coronary heart disease and schizophrenia could result from one such accident.

What differences would there be to your answers if the accident occurred and the proposed Midland Units were 100 or more

feet underground. Also state whether these calculations have ever been made for this docket number or another docket number with similar circumstances and, if not, why not. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such reference or attach a copy.

297. With respect to the proposed Midland Units and your support and evaluation thereof, and to the substance and contents of the letter dated November 12, 1969, addressed to Chairman Seaborg by Joseph Hendrie of the Advisory Committee on Reactor Safeguards, within which Mr. Hendrie called attention to the existence of "urgent need for additional research and development" in safety features of the reactors already going into production, describe in detail, stating each fact, calculation and assumption, whether you believe such needed safety features are sufficient as are contemplated to be a part of the proposed Midland Units. If they are not, state why not, including whether you agree with the remarks of Mr. Hendrie. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such reference or attach a copy.

298. State whether your support for and your evaluation of the construction of the proposed Midland Units relies upon the efficiency of the Iodine Removal Spray System in light of Technical Information Document 14884. In connection with your

answer, state whether if any critical assumptions set forth in the PSAR concerning your Iodine Removal Spray System are proven unsound or unfounded, then whether you would not support the construction of the proposed Midland Units. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

299. State each fact, calculation and assumption, including the criterion and design philosophy or design basis upon which you would support the conclusion that "a system to mitigate the consequences of a vessel failure due to thermal shock following a Loss of Coolant Accident is not justified."

(PSAR) p. 4-15) In addition:

- (a) If your answer is based in whole or in part upon historical precedent, identify:
- (1) Each document which refers or relates to or demonstrates this precedent;
 - (2) Each oral communication which refers or relates to or demonstrates this precedent and give, regarding each such communication, the date and place 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.

(b) If your answer is based in whole or in part upon financial, economic or engineering factors, identify:

- (1) Each document which refers or relates to or demonstrates each such factor;
- (2) Each oral communication which refers or relates to or which demonstrates each such factor and give, regarding each such communication, the date and place 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.

If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

300. With respect to page 4-15 of the PSAR, state what quantitative and calculated influence the fact of proximate population density should have in the design of engineering safety systems contained in or proposed to be contained in the proposed Midland Units. Include within your answer what population density

would have to be present, in your opinion, for you not to support the proposed site. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

301. Regarding your support and evaluation of the design and performance of the pressure vessel as described in the PSAR Sections 3.2.2.1.7, 4.3.1., 4.3.1.1 and 4.3.9.1.1, and the possibility of adding systems to assure continued core cooling, state in detail:

- (a) What information is expected to become "available in the future to demonstrate" the necessity of such a system;
- (b) What information, if available, do you consider would require such a system; and
- (c) Why, if such a system will add to the integrity or safety of the engineering safeguards, you have not requested that such a system be included in the present design.

If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

302. With respect to the radioactive waste analysis of Section 11 of the PSAR, give an estimate, specifying each fact, calculation and assumption thereof, during normal operation of the proposed Midland Units of the following:

- (a) The quantity of each of the principal radio-nuclides expected to be released annually to unrestricted areas in liquid effluents;
- (b) The quantity of each of the principal radio-nuclides of the gases, halides and particulates expected to be released annually to unrestricted areas in gaseous effluents;
- (c) The range of maximum potential annual radiation doses to individuals and suitable samples of population groups in Midland and surrounding population areas or centers resulting from these releases; and
- (d) The quantitative percentage contribution to the total present background dose of the dose or doses set forth in (c) above.

If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

303. With respect to the statement in Section 3.3.3.3.3 on page 3-105 of the PSAR, state each experiment, test, fact, calculation and assumption upon which you support the conclusion, if you do, that "the information is essential for advancement of the art, but is not considered critical in the sense that all of the programs must be completed to insure safe operation." Also state what you understand to be "essential for advancement of the art, but not . . . critical . . ." to safety. If you do not support this conclusion state why not.

If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

304. Describe in detail each test, including each fact, calculation and assumption thereof, mentioned at page 12-2 of Amendment No. 8 of the PSAR which will be conducted to determine decontamination factors for each radionuclide on each piece of equipment which will be encountered by the process steam to be generated from the proposed Midland Units. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

305. With respect to item No. 12, pages 12-1 and 12-2 of Amendment No. 8 of the PSAR, describe in detail each piece of the machinery, its use and location, whether contained or to be contained in a Dow, Dow Corning or Consumers Power facility, which will come in contact with the process steam proposed to be generated from the proposed Midland Units. For each such piece of machinery describe in detail the expected rates of decontamination of each of the available radionuclides, their equilibrium concentration and the total radiation source each machine could become. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR,

then set forth completely the text of each such other reference or attach a copy.

306. With respect to item No. 12, pages 12-1 and 12-2 of Amendment No. 8 of the PSAR, describe in detail all products and/or uses of the process steam which may cause the beholder and/or user to be exposed to radiation originating in whole or in part from the process steam. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

307. What limits are or will be imposed upon your expansion plans beyond which would require a review or evaluation of such expansion upon the safety of the proposed Midland Units. If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, set forth completely the text of each such reference or attach a copy.

308. Regarding generation of processed steam for you, as described in Section 11 of the PSAR, answer the following, specifying each fact, conclusion, and assumption upon which you base your answer:

- (a) How many insoluble tertiary heat exchanger units are provided for in the high pressure steam section and how many of these are out of service under normal high pressure steam-load to Dow;

- (b) How many insoluble tertiary heat exchanger units are provided for in the low pressure steam section and how many of these are out of service under normal low pressure steam-load to Dow;
- (c) What is the normal gross gamma range in the tertiary steam supply system and at what gamma level will the tertiary steam supply system be shut down? Include within your answer to this sub-paragraph a statement of the specific procedures to be followed to accomplish this result; and
- (d) Specify each isotope and its level of radioactive concentration which is expected to be in the discharge monitor tanks and controlled discharge. At what level of radioactive concentration would you propose, if at all, to reprocess such radioactive waste.

If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

309. With respect to sabotage at the Dow plant which could or might affect the proposed Midland Units, answer the following:

- (a) What possible acts of industrial sabotage which could occur have you considered in the formulating of your procedures to prevent industrial sabotage;
- (b) Have you experienced industrial sabotage in any of your facilities, whether nuclear or otherwise, which give you experience in the formulation of preventive measures;
- (c) Have you made any studies with respect to industrial sabotage generally to determine whether your procedures are sufficient to prevent industrial sabotage and, if not, why not; and
- (d) State what consequences you believe could possibly occur for other than simple acts of industrial sabotage.

If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such other reference or attach a copy.

310. Separately for Applicant, Dow Chemical Company, Dow-Corning Company or any subsidiary of Dow Chemical or Dow-Corning, Babcock & Wilcox Company and Bechtel Corporation, state if they have ever been cited for or investigated about a violation or alleged violation, at any time, of the Atomic Energy Act, any of

its rules, regulations or orders, an Atomic Energy Commission license or any of its technical specifications or the rule, order, decree, regulation of any state or other federal agency or official having any manner of jurisdiction over any of their operations which are the subject of an Atomic Energy Commission license or other Atomic Energy Commission jurisdiction. If so, then:

- (a) Describe in detail each instance of each such citation or investigation;
- (b) List and identify in sufficient detail a description of each writing as defined in Interrogatory No. 311 below which is in your possession or control with respect to each such citation or investigation;
- (c) State and describe the resolution, if any, of each such citation or investigation; and
- (d) State what steps you have taken to prevent circumstances which led to each such citation or investigation from occurring again or occurring at the proposed Midland Units.

If in your answer you make reference to other than textual (exclusive of footnote) matter in the PSAR, then set forth completely the text of each such reference or attach a copy.

311. List and describe in sufficient detail so that it can be identified, each document which is in your possession or under your control which relates to, refers to or concerns any of the following:

- (a) Your participation in any way in the designing, constructing or operating of the proposed Midland Units;
- (b) Your evaluation of the proposed Midland Units regarding its siting, its designing, its construction, its safety or its proposed operation;
- (c) Financial aspects of the building, designing or constructing of the proposed Midland Units, including but not limited to the sale of processed steam, to anyone, for industrial purposes;
- (d) Your decision to approve of a participation in any way in the designing, constructing or securing of a construction permit for the proposed Midland Units; and
- (e) Any Interrogatory or answer to any Interrogatory filed herein.

As used within these Interrogatories, the word "writings" or words of similar import shall include all written, typed, printed and photostated matter, including photographs, duplicate

originals, carbon copies, Thermofax copies, photostatic copies and other copies thereof, including drafts thereof, in your possession, custody or control, written, made, delivered or received at any time up to and including March 22, 1971, including, without limiting the generality of the definition, all correspondence, telegrams, memoranda, minutes of meetings, client memoranda, account cards, leases, documents of title, receipts, cancelled checks, bank statements, records of telephone calls, summaries of meetings, agreements, contracts and notes, whether formal or informal.

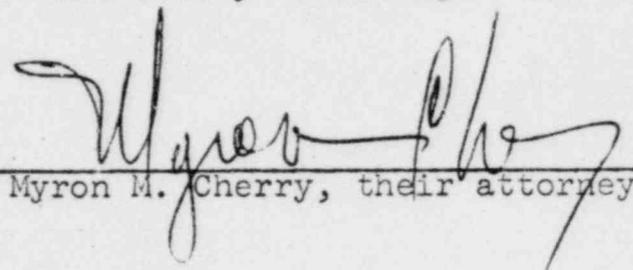
At your option, depending upon convenience to all other parties thereof, instead of answering this Interrogatory you may choose to follow either the suggestion made in a letter by Myron Cherry to all counsel dated March 8, 1971, or the more formal method of depositions under oath. If you do not so choose by notice to us within ten days after receipt of these Interrogatories, you shall be required to answer this Interrogatory.

Finally, this Interrogatory or any other alternative methods of identifying relevant writings are not intended to call for writings which are subject to a valid privilege; however, you shall be required to describe generally the

writings as to which you may claim privilege in order that opportunity for argument thereon may be had.

Saginaw Valley Nuclear Study Group
Citizens Committee for the Environ-
mental 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

By


Myron M. Cherry, their attorney

Dated: March 22, 1971.

BEFORE THE

UNITED STATES OF AMERICA
ATOMIC ENERGY COMMISSION

In the Matter of)
)
CONSUMERS POWER COMPANY)
(Midland Plant, Units 1 and 2)
_____)

Docket Nos. 50-329
50-330

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that copies of the attached INTERROGATORIES TO APPLICANT were mailed, postage prepaid, to the following law firms on the 22nd day of March, A.D. 1971:

RICHARD G. SMITH, ESQ.
SMITH & BROOKER, P. C.
730 Washington Avenue
Bay City, Michigan

LOWENSTEIN AND NEWMAN
1100 Connecticut Avenue, N. W.
Washington, D. C. 20036

Attorneys for Applicant
Consumers Power Company

I FURTHER CERTIFY that copies of INTERROGATORIES TO APPLICANT were mailed, postage prepaid, to the following individuals on the 23rd day of March, A.D. 1971:

ARTHUR W. MURPHY, ESQ.
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Licensing Board
Columbia University School of Law
Box 38, 435 West 116th Street
New York, New York 10027

Dr. DAVID B. HALL
Los Alamos Scientific Laboratory
P.O. Box 1663
Los Alamos, New Mexico 87544

THOMAS F. ENGELHARDT, ESQ.
U. S. ATOMIC ENERGY COMMISSION
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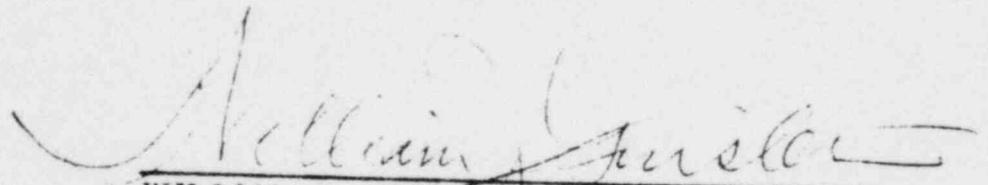
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STANLEY T. ROBINSON, JR.,
Chief, Public Proceedings Branch
Office of the Secretary of the
Commission
U. S. ATOMIC ENERGY COMMISSION
Washington, D. C.



WILLIAM J. GINSTER
Attorney for Mapleton Intervenors,

Dated: March 23, A. D. 1971.

BEFORE THE

UNITED STATES OF AMERICA
ATOMIC ENERGY COMMISSION

In the Matter of)
)

CONSUMERS POWER COMPANY)

(Midland Plant, Units 1 and 2))

Docket Nos. 50-329

50-330

INTERROGATORIES TO APPLICANT

TO: RICHARD G. SMITH, Esq.
SMITH & BROOKER, P. C.,
730 Washington Avenue
Bay City, Michigan

LOWENSTEIN AND NEWMAN
1100 Connecticut Avenue, N. W.
Washington, D. C. 20036

Attorneys for Applicant
Consumers Power Co.

PLEASE TAKE NOTICE that the following interrogatories are directed to the applicant, Consumers Power Co.:

1. Does Consumers Power Company and/or Dow Chemical Company have a present plan to make a future application to the Michigan Water Resources Commission to construct a dam across the Tittabawassee River for the purpose of creating a reservoir should a construction permit and/or operating license be granted by the AEC?
2. What components of gaseous effluents will be discharged into the atmosphere from the operation of the proposed plants?
3. Can the applicant absolutely guarantee that release of radioactive effluents (gases, steam and waste heat) into the air at the site of the proposed nuclear plants will not accumulate and be hazardous to human health?
4. Has the applicant made a detailed study of meteorological conditions in the Saginaw Valley for the past ten years?
 - a. If the answer to No. 4 is "yes", is such data available for inspection?
 - b. Under whose custody and control and where located?
5. Have any scientific calculations been made by the applicant as to the frequency and degree of fogging conditions which are likely to be created by the operation of the proposed plants, should a construction permit and/or operating license be granted by the AEC?


WILLIAM J. GINSTER,
Attorney for Mapleton Intervenors,

Dated: March 22, A. D. 1971.