

In summary, Intervenors have moved into evidence all of Intervenors' Exhibits Nos. 3 - 77.^{1/} For reasons stated infra, the Staff objects to admission into evidence of Intervenors' Exhibits Nos.: 3, 4, 5, 6, 7, 10, 11, 22, 24, 25, 27, 28, 37, 41, 42, 43, 44, 45, 46, 47, 46R, 48, 49, and 59-77.

Intervenors' Exhibits

The Staff objects to Intervenors' Exhibit No. 3, a Dow Memorandum summarizing a Dow-Consumers Nuclear Project meeting dated July 15, 1975 (Tr. 1050) on the grounds of relevance.^{2/} The memorandum summarizes the project status as of mid-1975. Its probative value is suspect as the document is 2 years old. Furthermore, the relevance of any of the topics covered in the memorandum to the issues presently before this Board has not been established.

The Staff objects to Intervenors' Exhibit No. 4, a list of documents returned to the Licensee by the Intervenors (Tr. 1227), on the grounds of relevance. The list clearly has no probative value.

^{1/} The following Intervenors' Exhibits already have been admitted into evidence: Intervenors' Exhibit No. 29 (Tr. 2859), Intervenors' Exhibits Nos. 50 - 55 (Tr. 5308), and Intervenors' Exhibit No. 35R (Tr. 5929).

^{2/} As used in this Memorandum, "relevant evidence" has the meaning established by Rule 401 of the Federal Rules of Evidence.

The Staff objects to Intervenor's Exhibit No. 5, a Bechtel Power Corporation Memorandum dated June 2, 1975 (Tr. 1308), on the grounds of relevance.

The Bechtel report deals with the question of whether or not process steam could be supplied to Dow from Midland Unit No. 2. The Staff does not see the relevance of this question to the issues before the Board.

The Staff objects to Intervenor's Exhibit No. 6, a letter dated February 9, 1976 from L. Nute to J. Bacon (Tr. 1318), on the ground that the Exhibit is unduly repetitious and is not the best evidence. The record already contains evidence as to Dow's position as to when the Midland Units must commence a supply of reliable steam to Dow. See the testimony of Messrs. Temple and Orrefice in this proceeding. This Exhibit is therefore cumulative and repetitious. The best and most current evidence is the testimony of Temple and Orrefice.

The Staff objects to Intervenor's Exhibit No. 7, a Memorandum from G. Keeley to File dated March 4, 1976 (Tr. 1329), on the ground that it is not the best evidence. The memorandum summarizes Consumers Powers' views on the Dow contract as of January 9, 1976. As is obvious from the considerable number of meetings between Dow and Consumers since that date, as reflected in documents obtained in discovery, the representations made in this Exhibit can no longer be considered accurate.

Staff objects to Intervenors' Exhibit No. 10, entitled "Consumer Power Company Main System" (Tr. 1722), and Intervenors' Exhibit No. 11, entitled "Material to Dr. Timm" consisting of a computer printout series (Tr. 1723), on the grounds of relevance. Although questions were asked of Mr. Heins with regard to each of these Exhibits, at no time was the relevance to any of the issues in these proceedings established. Likewise, questions were asked of Mr. Bickel (Tr. 1875) with regard to Exhibit 11. Again, the record nowhere reveals the relevance of the Exhibit.

The Staff objects to Intervenors' Exhibit No. 22, a memorandum from E. Denton to W. Mosley dated August 10, 1976 (Tr. 2000), on hearsay grounds. The document consists of substantive economic conclusions reached by a person who was not presented at the hearing for cross-examination on his conclusions. The expertise of the author of the document has never been established. The document does not fall within any of the hearsay exceptions recognized under the Federal Rules of Evidence. See Rule 803. The proper role for such a document is for use in cross-examination which is the use to which it was put by Intervenors' Counsel. The substantive nature of this document, along with the failure to establish the expertise of the author and a lack of opportunity to cross-examine upon its conclusions, warrants this Board's ruling the document inadmissible on hearsay grounds.

The Staff objects to Intervenors' Exhibit No. 24, a memorandum from J. Temple to J. Leathers dated June 30, 1976 (Tr. 2150), on the grounds of relevance. The memorandum presents Mr. Temple's personal views of

certain individuals and reflects his personal attitudes towards Consumers Power Company. These personal reflections are of no relevance in this proceeding. Relevance and probative worth attach only to the Dow corporate position.

The Staff objects to Intervenors' Exhibit No. 25, the notes of L. Nute entitled "Meeting with Consumers Power Company" on September 21, 1976 (Tr. 2395), on the grounds of relevance. The notes indicate that the meeting was a briefing session where Consumers Power briefed Dow on the status of the Aeschliman remand and the suspension proceedings to take place before this Board. The notes contain no information which could assist this Board in reaching a decision on the suspension question before it.

The Staff object to Intervenors' Exhibit No. 27, the notes of L. Nute entitled "Meeting With Consumer Power Company" on September 24, 1976, (Tr. 2436), on the grounds that these notes are not the best evidence and that the notes are cumulative. The relevance of the notes lies in establishing the environment in which Dow reached its corporate position with regard to continued support for the Midland facility. Mr. Orrefice testified on the subject in this proceeding and so has offered the best evidence in this regard. The Nute notes are hearsay and can only be confusing at worst, or cumulative and repetitious at best, and they should not be admitted into evidence.

The Staff object to Intervenors' Exhibit No. 28, a Memorandum from H. Graves to R. Youngdahl dated April 24, 1975 (Tr. 2825), on the ground that the document does not offer the best evidence. The information provided in the registration statement is nearly two years old and cannot be of assistance to this Board in reaching a decision on the questions before it. On the Dow issues discussed in the statement, the record in this proceeding provides the best evidence of the Dow-Consumers relationship and the current status of that relationship.

The Staff objects to Intervenors' Exhibit No. 37 consisting of certain handwritten notes dated 10/21/76 authored by R.J.C. and attached to the direct testimony of Dr. Richard J. Timm, on the grounds of relevance and on the additional ground that it confuses the record. The note indicates that a computer run was made which considered purchase power at a capacity factor of 90%. As was brought out by the cross-examination of Dr. Timm, the 90% capacity factor figure was never used in the computer runs supporting the testimony of Consumers Power in this proceeding. Rather a capacity factor of 70% was used. (Tr. 5866). This particular handwritten note has no relevance and confuses the record and should not be admitted into evidence. See Federal Rules of Evidence, Rule 403.

The Staff objects to Intervenors' Exhibits 41 to 45, namely, "Oregon's Energy Future - First Annual Report", Oregon Department of Energy, January 1, 1977; "Future Electricity Prices in Oregon: A Cost-Based Analysis", Oregon

Department of Energy, February 1977; "Energy Demand Forecasting Model for Oregon," Oregon Department of Energy, February 1977; "Demographic and Economic Forecase for Oregon", Oregon Department of Energy, February 1977; and "Energy Consumption and Related Data in Oregon: Some Historical Perspectives", Oregon Department of Energy, February 1977 (Tr. 3806-07) on the ground of relevance. These documents were simply identified by Intervenors' Counsel on the record and their relevance to this proceeding has never been established. The proper role for such documents would either be as references in Dr. Timm's testimony to establish whatever points he wished to establish, or as a tool for cross-examination, which was the use to which Intervenors' Exhibit No. 41 was put by both licensee and Staff in cross-examining Dr. Timm. But to admit these documents into evidence absence a particularized showing of relevance would unduly burden the record. See, Federal Rules of Evidence, Rule 403.

The Staff objects to Intervenors' Exhibit No. 46, (Tr. 3272) and Intervenors' Exhibit No. 47 (Tr. 3274), newspaper articles on the grounds of hearsay. Although hearsay is admissible in administrative proceedings, the Staff is of the view that newspaper articles do not rise to the level of credibility which would warrant the Board overruling a hearsay objection and admitting them into evidence. The proper use of such newspaper articles

again is a tool for cross-examination of witnesses which is the use to which they were put by Intervenors' Counsel.^{3/}

The Staff objects to Intervenors' Exhibit No. 46R, a revision of Intervenors' Exhibit No. 46, entitled "Cost of Alternatives (Millions of dollars)" (Tr. 6179) generally on the ground that copies were not provided to the parties. The Rules of Practice before the Commission, specifically 10 CFR §2.743(f), require that no exhibit be received into evidence until the original and two copies are offered and a copy furnished to each party. At the hearing session on May 13, 1977, the Staff specifically requested that it be provided with copies of all documents that Intervenors intended to move into evidence. (Tr. 6215). Until such time as the Staff receives a copy of this particular Exhibit, it objects to its admission for failure to comply with the rule referred to above. The Staff reserves all other objections on the admissibility of the document until it has had an opportunity to view it.

The Staff objects to Intervenors' Exhibit No. 48, a letter from R. Timm to M. Cherry dated February 9, 1977 (Tr. 4256), on the grounds of relevance. The letter summarizes conversations between Dr. Timm and various personnel

^{3/} It should be noted that two exhibits numbered 46 have been marked for identification in this proceeding by Intervenors. One is the Exhibit No. 46 referred to above. The other Exhibit No. 46 is attached to the testimony of Dr. Richard J. Timm and is entitled "Cost of Alternatives (Millions of Dollars)." This Exhibit has been revised by Intervenors and re-labeled Intervenors' Exhibit No. 46R (Tr. 6179).

for the Licensee relating to document identification and questions concerning the testimony of Dr. Timm. The letter in effect summarizes informal discovery and is clearly irrelevant to any of the issues before this Board in the suspension proceeding.

The Staff objects to Intervenors' Exhibit No. 49, Memorandum to File from G. Heins dated October 5, 1976 (Tr. 4370), on the grounds of relevance. The document summarizes information sent to the Nuclear Regulatory Commission at the request of Dr. Feld who is the Staff analyst examining various issues relating to this suspension proceeding. The document identifies the normal interchange of information which takes place when a Staff conducts its review and has no relevance to any of the issues in this proceeding.

The Staff objects on a number of grounds to Intervenors' Exhibits numbered 59 - 77 which exhibits were identified by Intervenors' Counsel at Tr. 6201-6210. First, the Staff views the offer of these documents as untimely. Intervenors represented that their direct case would consist of the testimony of Dr. Richard J. Timm. Offering a substantial number of exhibits at the conclusion of Dr. Timm's testimony is therefore untimely. Second, it should be noted that the documents were proffered by Intervenors' Counsel without a sponsoring witness, so no foundation has been laid for the

admission of the documents and no opportunity has been given for cross-examination.^{4/} For these reasons, the Staff generally opposes the admission of these documents into evidence.

At the hearing, the Staff reserved further objections to the admission of Exhibits Nos. 59 - 77 into evidence until copies of the documents were provided. (Tr. 6215). By letter dated May 27, 1977, from Mr. Cherry to the Board, copies of these Exhibits were provided to all the parties. The Staff will now indicate its further specific objections to these Exhibits.

The Staff objects to Exhibit No. 59^{5/} on the ground of relevance. The document deals with the Quanicassee Nuclear Power Plant and the reasons for its cancellation. The relevance of those events to the issues before this Board has not been established.

The Staff objects to Intervenors' Exhibits Nos. 60, 61, 73, 75 and 77, on the ground of relevance.^{6/} These Exhibits deal with the preparation of

^{4/} The Staff does not challenge the authenticity of any of the documents offered. The parties have stipulated that documents produced through discovery are authentic. However, there has been no stipulation with regard to foundation, contrary to the suggestion made by Mr. Cherry on the record. (Tr. 6203).

^{5/} Intervenors' Exhibits Nos. 59-77 were fully identified on the record by Intervenors' Counsel. (Tr. 6201-6210) The Staff will not repeat the specific identifications here.

^{6/} Intervenors' Exhibit No. 77 also embraces the "Outline For 9/24/76 Meeting at Dow" which Intervenors have already offered once as Intervenors' Exhibit No. 9.

the Temple testimony, an issue which does not bear on the suspension question before the Board. That issue has been briefed separately in this proceeding by all parties on December 30, 1976. The Board has before it all the documents it requires to rule on the question. The record in this proceeding should not be cluttered with documents which do not bear on the suspension issue.

The Staff objects to Intervenors' Exhibit No. 61 as it lacks any probative worth. The document is apparently offered to suggest that energy conservation should be an issue in this proceeding. This is precisely one of the issues being litigated.

The Staff objects to Intervenors' Exhibits Nos. 62, 63, 64, 65, 66, 67, 68, 69, 70, 72 and 74 on the ground that the Exhibits do not provide the best evidence.^{7/} The best evidence in this proceeding relating to the Dow-Consumers dispute is the testimony given by Messrs. Temple and Orrefice. The record should not be cluttered by secondary evidence which can only tend to confuse the issues.

The Staff objects to Exhibit No. 76 on the ground of relevance. The Exhibit details the recent tendon sheath misplacement at the Midland site

^{7/} The Staff assumes all of these documents relate to the Dow-Consumers dispute although no reason is stated for Intervenors' offer of Exhibits Nos. 65, 66, 67 and 68. Also, Exhibit No. 74 is offered for an additional reason related to "fuel analysis". (Tr. 6207). The Staff's copy provided by Mr. Cherry is illegible and it continues to reserve objections to this Exhibit until a legible copy is received.

and relates to quality assurance, an issue not before this Board. This issue is being actively pursued by the Office of Inspection and Enforcement and does not relate to the suspension issue before the Board.

Board Exhibits

The Staff moves that Board Exhibit No. 3 (Tr. 1748) be admitted into evidence.^{8/} This Exhibit is entitled "Presentation to Michigan Air Pollution Control Commission" dated January 18, 1977. The Exhibit presents the Dow position as to how Dow could comply with Michigan Air Pollution Control Commission standards in the post-1980 time period. Dow is presently operating its process steam facilities under a Consent Order which expires July 1, 1980. The question of Dow's ability to generate steam from its present facilities in the post-1980 time frame has been raised in this proceeding. The issue has relevance for if Dow cannot rely on its present facilities for the generation of steam in the post-1980 period, this would stimulate Dow to undertake construction of new facilities thereby obviating Dow's need for process steam from the Midland Units. Board Exhibit No. 3 indicates positive action by Dow to place it in a position to continue to rely on its present steam generating facilities in the post-1980 period and, for this reason in the Staff's view, it is relevant and should be admitted into evidence in this proceeding.

^{8/} The Staff previously sought to move Board Exhibits 1, 2 and 3 into evidence (Tr. 5190). Board Exhibits 1 and 2 have already been admitted into evidence. (Tr. 293).

Response to Staff's Interrogatories

For the same reasons as outlined above with regard to Board Exhibit No. 3, the Staff feels that certain responses by Dow to Staff interrogatories are relevant and should be admitted into evidence in this proceeding. Specifically, the Staff moves into evidence Response 1.k of "Dow's Further Responses to Interrogatories" served February 28, 1977 with its accompanying Exhibits A and B. This response provides a further update of Dow's position before the Michigan Air Pollution Control Commission regarding the post-1980 time period. Similarly, as the Staff's interrogatories to Dow are of a continuing nature, Dow again updated Response 1.k in its "Supplemental Responses to Interrogatories", dated March 29, 1977, and related Exhibit A. In the Staff's view, these two interrogatory responses supplement Board Exhibit No. 3 and indicate the most current status of Dow's efforts to comply with Michigan Air Pollution Control Commission standards with its present facilities in the post-1980 time period. As this issue has been raised in the proceeding, the Staff feels that these responses are relevant and are necessary to complete the record. The Staff moves that these responses and the related Exhibits be admitted into evidence.

Staff Exhibits

The Staff has had 8 exhibits marked for identification. Staff Exhibits Nos. 1, 2, and 3 deal with the ACRS letter dated November 18, 1976 and have been admitted into evidence. Staff Exhibit No. 4 is the "General Agreement Between Consumer Power Company and the Dow Chemical Company" and Section 3 of that Exhibit has been admitted into evidence. The Staff does not seek to have Exhibits 5 through 8 admitted into evidence.

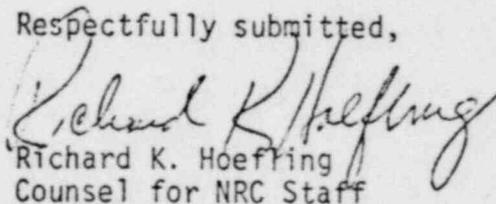
The Staff does, however, wish to have marked for identification as Staff Exhibit No. ^{9/} a document entitled "Enrichment Policies" presented by William A. Voigt, Jr., Director, Division of Uranium Resources and Enrichment, U.S. Energy Research and Development Administration at the Atomic Industrial Forum Fuel Cycle Conference on April 25, 1977. On Thursday, May 12, 1977 when cross-examining Dr. Timm, the Staff asked Dr. Timm a series of questions having to do with uranium tails assay (Tr. 5978-5984). The Staff reserved the right to submit appropriate documents to show what the present and projected tails assay for the Oak Ridge gaseous diffusion plants were. Staff's Exhibit No. 9 for identification is offered to show that the tails assay behavior projected by Dr. Timm is in error. The Staff moves that its Exhibit No. 9 be admitted into evidence in this proceeding.

^{9/} A copy of Staff Exhibit No. 9 is attached to this pleading which constitutes service upon the Board and all parties. By separate correspondence, three copies will be provided to the court reporter.

Conclusion

The Staff has indicated which exhibits offered into evidence in this proceeding by Intervenors it objects to. The Staff has further moved that Board Exhibit No. 3 and that certain specified interrogatory responses be admitted into evidence. The Staff has offered for identification Staff Exhibit No. 9 and has moved that that Exhibit be admitted into evidence.

Respectfully submitted,



Richard K. Hoeffing
Counsel for NRC Staff

Dated at Bethesda, Maryland
this 2nd day of June, 1977.

ENRICHMENT POLICIES

William R. Voigt, Jr., Director
Division of Uranium Resources and Enrichment
U. S. Energy Research and Development Administration

at

Atomic Industrial Forum
Fuel Cycle Conference '77

Kansas City, Missouri

April 25, 1977

I appreciate the opportunity here today of speaking to a group that is so acutely sensitive to the critical issues facing the front-end of the light water reactor fuel cycle. As you are all aware, President Carter's April 20 energy message noted that although the United States will eventually make extensive use of solar and other non-controversial energy sources, it will have to rely, for at least the next two decades, on the conventional sources now at hand: oil, natural gas, coal, nuclear power, and hydroelectric power. To support the front end of the needed nuclear fuel cycle, President Carter further noted that the U.S. will expand its uranium enrichment capacity and will resolve the uncertainties about the extent of domestic uranium resources. Bob Nininger, of my staff, has talked to you briefly this morning about the U.S. uranium resources and supply situation, as ERDA sees it. What I want to discuss with you now is the U.S. uranium enrichment situation.

The cornerstone of all our enrichment planning is construction of additional enrichment capacity. This additional capacity is essential to permit ERDA to accomplish two major objectives:

First, to allow long-term operation of our enrichment complex in a manner which conserves our limited uranium resources and to permit continued operation of near optimum nuclear fuel production economics. ERDA plans to continue the current 0.20 percent transaction tails assay through at least the early 1980's (no increase earlier than calendar year 1981); but in any case will not increase the transaction tails assay above 0.25 percent. In this way, we will be able to maintain enrichment customer transactions close to the economic optimum tails assay and provide a reasonable attainable market increase for the uranium mining industry.

The second major objective of the additional capacity is to permit the U.S. to again open the enrichment services contract order book. President Carter announced in his April 20 energy message that the U.S. is prepared to enter into negotiations for new contracts for enrichment services. With respect to foreign sales, he said that legislation would be proposed to Congress that will guarantee the sale of enrichment services to any country which agrees to comply with the United States' non-proliferation objectives. In this way, he would seek to restore confidence in our ability and willingness to supply enriched uranium services in the world market. The additional enriched uranium capacity will provide a means by which we will be able to offer new enrichment services contracts.

President Carter also took the April 20 energy message as the means to announce the decision to use centrifuge technology for the additional enriched uranium production plant, rather than the proven gaseous diffusion technology. An ERDA review of the demand for enrichment services has indicated that with projected slippages in demand and an adequate enriched uranium stockpile, the provision of additional increments of enrichment capacity can be delayed for a few years. This delay, coupled with the state of the development and engineering of the centrifuge technology, which Ewin Kiser will describe for you in the subsequent talk, permits us to choose this energy conserving and more operationally flexible technology for the next increment of enrichment capacity, as well as for later capacity additions. Since the gas centrifuge plant will use less than 7 percent of the electrical power required for a gaseous diffusion plant, the gas centrifuge technology provides the means of conserving on the order of 2600 MWe. This more efficient utilization of energy eliminates the need to otherwise build 3900 MWe of dedicated electrical generating plants, including reserves, that are needed for a gaseous diffusion plant and permits dependence upon system power for the modest energy needs.

While no final decision has been made, prudence and planning flexibility suggest that we should at least preserve the possibility that future increments of U.S. enrichment capacity could be carried out entirely by the private sector. Therefore, we have initially structured the centrifuge enriched uranium plant project to provide for three private participants to be involved. Private participation in our program would have the opportunity to provide inputs to the ERDA/Architect-Engineers for the process and process building designs and would construct and operate three of the four process modules, under ERIA contracts. The plan, as we currently envision it, would provide for the initial centrifuge module to be constructed and operated without private industry involvement in order to provide ERDA with the assurance that it must have for achieving early production goals while also establishing a reference which can guide the private participant's efforts on the remaining modules.

We expect that the three subsequent modules will be constructed by the private participants in a sequential manner. ERDA would exercise overall management responsibility through the private participant, for the construction and operation of these three production modules. However, each of the three private participants would be contracted to have direct responsibility for the management of specific design and construction activities associated with, as well as, operation of a specific module.

We have recently requested five participants in our Industrial Access Program who have demonstrated the interest and capability for centrifuge enrichment to provide us with their detailed evaluation of the feasibility

of ERDA's concept and to provide comments on major program considerations that ERDA may have overlooked. We would expect that the resultant ERDA Centrifuge Enriched Uranium Plant would provide for direct industry participation in the utilization of gas centrifuge technology in a manner that would provide the experience necessary for them to provide follow-on enrichment capacity without government assistance, if that were to be deemed desirable in the future.

Recognizing that some U.S. and foreign utilities have become contractually overcommitted for their enrichment needs because of slippages in reactor schedules, reductions in generating capacity requirements, and for other reasons, ERDA will not offer an open season like we did in 1975, but will consider providing contract relief on a case-by-case basis. Utilities will be given the opportunity to demonstrate to ERDA that they are facing a severe consequence because of their enrichment services contracts with ERDA. We will assess the various customer situations against certain criteria on a case-by-case basis to determine the manner and degree to which contract adjustments might be provided. The basis for those determinations and the criteria to be used are under development.

With respect to ERDA again opening the enrichment services contract order book, we are currently reviewing the contracting terms and conditions to determine whether greater flexibility may be offered in contracting for additional services. This review is concentrating on three major factors:

First, our national non-proliferation objectives aimed at reducing or preventing the spread of nuclear explosive capabilities, including the cooperation of other supplier nations;

Second, the government's desire not to preclude the evolution of a private enrichment industry in the U.S.; and

Third, the desirability of maintaining a reasonable balance between enriched uranium supply commitments and actual demand for such fuels.

The final decisions on whether the contract terms and conditions need to be changed and if so to what must await the outcome of this overall review.

The extent to which ERDA is willing to accept enrichment services contracts is also currently being reviewed. The ultimate contracting capability that ERDA can support will depend on many interrelated factors. These factors include the timing of the transaction tails assay change, the degree to which the transaction tails are increased, the desired enriched uranium stockpile level, the schedule or availability of additional enrichment capacity level, and the degree to which the U.S. and foreign utilities seek and are provided with contracting relief.

To recapitulate what I have said here today:

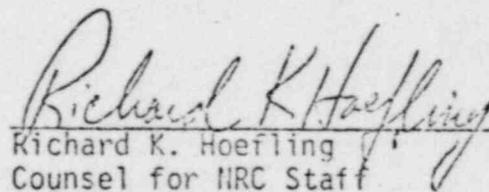
- President Carter's April 20 energy message puts increased importance on the front-end of the light water reactor fuel cycle's ability to support the essential nuclear energy option in the U.S.
- The additional enriched uranium capacity will permit continued efficient operation of ERDA's enrichment complex, provide a reasonably achievable market for the uranium mining industry, and enable ERDA to meet a number of future requirements for enrichment services.
- Gas centrifuge technology has reached the stage of development and engineering such that it has been chosen for the next and subsequent increments of enrichment capacity, essentially due to its energy-conserving and more operationally flexible capabilities.

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