

RELATED CORRESPONDENCE

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

DOCKETED
USNRC

'85 JUL 30 11:01

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

OFFICE OF SECRETARY
OF THE BOARD
WASHINGTON, D.C.

In the Matter of)

KERR-McGEE CHEMICAL CORPORATION)

(Kress Creek Decontamination))

Docket No. 40-2061-SC
ASBLP No. 84-502-01-SC

KERR-McGEE RESPONSE TO THE
STATE'S MOTION TO COMPEL CERTAIN DISCOVERY
RESPONSES

On July 3, 1985, the State of Illinois ("State") filed a motion seeking an order to compel Kerr-McGee Chemical Corporation ("Kerr-McGee") to respond more fully to portions of five interrogatories filed by the State in the above-captioned proceeding. Kerr-McGee hereby answers the State's motion and urges that it be denied in its entirety.

It is appropriate at the outset to put this discovery dispute in its factual context. The State initially filed 36 complex interrogatories, many of which included multiple subparts, and six requests for the production of documents. Kerr-McGee filed a 48-page response to this discovery request, and either forwarded copies of all non-privileged responsive documents that had not previously

8507310024 850726
PDR ADOCK 04002061
C PDR

DS03

been produced^{1/} or offered to produce documents for inspection at a place to be agreed upon by the parties.^{2/} The State then submitted a letter raising various questions and issues as to thirteen of the responses to interrogatories and as to certain Kerr-McGee responses to the document requests. Letter from A. Rapkin to R.A. Meserve (April 15, 1985) (Exhibit A to the State's Motion). Kerr-McGee responded in an eight-page single-spaced letter in which it either explained its position as to each point raised by the State or provided further information. Letter from R.A. Meserve to A. Rapkin (May 28, 1985) (Exhibit B to the State's Motion). Attached to the letter were several additional documents for which Kerr-McGee had previously claimed a privilege, but which it subsequently had determined to produce. On May 28, 1985, Kerr-McGee also filed a 10-page supplemental response to certain of the interrogatories and requests for documents.^{3/} Despite the State's extravagant language, e.g., Motion at 12-13, Kerr-McGee's good faith in responding to discovery is

1/ Over the past year, Kerr-McGee has produced approximately 1.5 million pages of documents for inspection by the State.

2/ The State requested access to a voluminous collection of engineering drawings and maps. Request Nos. 2 and 3. Inspection of these drawings by the State and the Staff subsequently took place in Oklahoma City. The State also requested access to certain sampling data. Request No. 6. On very short notice and at substantial inconvenience, Kerr-McGee assembled the documents and arranged to allow the State to inspect them in West Chicago on April 30. The State subsequently cancelled the inspection and has never sought to reschedule it.

3/ Kerr-McGee attaches the entirety of its response, letter, and supplemental response as Exhibits 1 through 3.

amply demonstrated by this history and by the fact that the State can find only portions of five interrogatories with which it can raise even a colorable challenge to Kerr-McGee's response.

INTERROGATORY 1

This interrogatory requests that Kerr-McGee identify studies relating to remedial action at "Kress River" and to the costs of such actions. In its response, as supplemented, Kerr-McGee ultimately identified five documents, and produced two documents and a portion of a third. Kerr-McGee claimed a work-product privilege as documents it did not produce (the so-called "Still memoranda"). Kerr-McGee also indicated that expert consultants had been hired during the course of litigation to perform work with regard to possible remedial action and costs, but declined to identify any studies by such experts in light of the special discovery rules governing experts, the work-product privilege, and 10 CFR § 2.740(b)(2).

Although the documents identified and produced by Kerr-McGee provide extensive information as to the matters raised by the interrogatory,^{4/} the State attacks Kerr-McGee's failure to produce the Still memoranda and to provide information concerning its experts. First, the State claims that because Kerr-McGee has produced some materials relating to

^{4/} The State claims for the first time in its motion to compel that it did not receive certain of these documents. Motion at 11. These documents will be forwarded to the State.

remedial action, Kerr-McGee "has waived any and all privileges it may have had with respect to other documents in its possession addressing the same subject matter." Motion at 7. Second, the State asserts that the Still memoranda relate to the facts, and hence are not protected from disclosure. Id. at 8-9. Finally, the State claims that there is "no authority" for withholding information as to litigation-related experts and, even if there were, disclosure should be ordered. Id. at 9-11. Each of these arguments is flawed.

Before turning to the State's assertions, however, we must note that although the State seeks an order directing that Kerr-McGee "properly answer" the interrogatory, Motion at 1, the gravamen of the State's argument is not that Kerr-McGee has failed to answer, but rather that it has not produced the Still memoranda. Thus, the relief the State seeks as to the Still memoranda is unwarranted -- these memoranda were adequately identified -- and its arguments are completely irrelevant to the requested relief.

A. Alleged Waiver

The documents at issue were produced by Kerr-McGee staff or outside experts at the direction of counsel in order to prepare for litigation. The State concedes that the work-product immunity attaches to at least some of these documents. See Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-82-82, 16 N.R.C. 1144, 1162 (1982) (document protected by work-product doctrine if prepared by a person working at the direction of an attorney and in

anticipation of litigation). The State alleges, however, that because certain documents -- an outline for a discussion with the NRC staff,^{5/} and studies by three outside consultants -- have been produced, Kerr-McGee has waived its privilege to withhold other documents on the same subject matter. Motion at 7.

Waiver of the work-product doctrine can occur, however, only if the document for which protection is sought has itself been actually disclosed to opposing counsel and his client. In Duplan Corp. v. Deering Milliken, Inc., 540 F.2d 1215 (4th Cir. 1976), the Fourth Circuit considered whether the subject-matter-waiver rule can apply to material protected by the work-product doctrine.^{6/} The court adopted the district court's cogent analysis:

If one work product document is either voluntarily or inadvertently produced from either terminated or pending litigation, where does the waiver end? If a subject matter waiver of a work product immunity claim is recognized as a doctrine of law, harsh results will

^{5/} The State's Motion attributes authorship of the outline to Dr. Still. It does so by stating: "Presumably this latter document [the outline] is one of several which employee Edwin L. Still prepared 'in preparation for meetings with the NRC subsequent to the issuance of the December 1981 [cleanup] order.'" Motion at 6 (quoting Exhibit 2, at 2). From that point on, the State refers to the outline as the "Still Discussion Outline." By imposing an assumption of common authorship of the documents, the State evidently seeks to strengthen its waiver claim.

^{6/} Although the Federal Rules of Civil Procedure do not apply directly to practice before the Nuclear Regulatory Commission, judicial interpretations of the Federal Rules

necessarily follow, conceivably causing wholesale production of all work product documents from either a terminated or a pending lawsuit whenever production of any work product document is considered a waiver. The net effect of such a rule would result in great reluctance to produce any work product documents for fear that it might waive the immunity as to all similar documents.

Id. at 1222 (emphasis in original). Accordingly, the court rejected the broad subject-matter waiver sought by the State here. Id. The commentators concur in the rejection of the subject-matter-waiver doctrine in cases involving the work-product immunity. 8 C. Wright & A. Miller, Federal Practice & Procedure § 2024, at 209 (1970).

The correct view is that production of documents subject to the work-product immunity "waives the work-product protection as to items actually disclosed" Grumman Aerospace Corp. v. Titanium Metals Corp., 91 F.R.D. 84, 90 (E.D.N.Y. 1981) (emphasis added). Thus, the production of the discussion outline and certain expert reports does not waive the immunity for all documents relating to risks posed by Kress Creek and the ramifications of a cleanup. The State's argument must be rejected.

Footnote cont'd

serve as guidance for interpreting a similar or analogous NRC discovery rule. Cincinnati Gas & Electric Co. (Wm. H. Zimmer Nuclear Power Station, Unit 1), LBP-82-47, 15 N.R.C. 1538, 1542 (1982); accord, Detroit Edison Co. (Enrico Fermi Atomic Power Plant, Unit 2), LBP-78-37, 8 N.R.C. 575, 581 (1978); Toledo Edison Co. (Davis-Besse Nuclear Power Station), ALAB-300, 2 N.R.C. 752, 760 (1975).

B. Protection for "Facts" under the Work-Product Doctrine

Perhaps in recognition of the weakness of its first argument, the State also contends that the Still memoranda are not protected by the work-product doctrine. The basis for this argument is an asserted distinction between "facts" and "trial strategy or conclusions of counsel". Motion at 8. The State asserts that only the latter are protected by the doctrine.

Again, however, the rule that the State urges is unsupported. As the Supreme Court observed:

[T]he [work-product] doctrine is an intensely practical one, grounded in the realities of litigation in our adversary system. One of those realities is that attorneys often must rely on the assistance of investigators and other agents in the compilation of materials in preparation for trial. It is therefore necessary that the doctrine protect material prepared by agents for the attorney as well as those prepared by the attorney himself.

United States v. Nobles, 422 U.S. 225, 238-39 (1975), quoted in Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-82-82, 16 N.R.C. 1144, 1159 (1982). Of course, the investigations by agents of counsel must often encompass the collection of facts. Thus, in Long Island Lighting, the Board held that to be protected from discovery by the work-product doctrine, "a document must be both prepared by an attorney, or by a person working at the direction of an attorney, and prepared in anticipation of litigation." 16 N.R.C. at 1162. The Still memoranda fall within that

category: they were prepared on the instructions of counsel in response to the NRC's initial issuance of an Order to Show Cause. The State's supposed exception to the work-product doctrine for material containing "facts" finds no support in the Board's decisions or, to our knowledge, in any other caselaw. Indeed, because the factual information on which an attorney has sought advice will reflect his mental processes and conclusions with regard to the case, the distinction the State would draw undermines the very purpose of the work-product doctrine.^{7/}

C. Business Experts

The State asserts that Kerr-McGee "offers no authority" in support of its position that it need not disclose the work or identity of an expert prior to his identification as

^{7/} The Board has recognized a distinction between "ordinary" work product and "opinion" work product. The Board observed:

Ordinary work product, which does not include the mental impressions, conclusions, legal theories or opinions of the attorney (or other agent), may be obtained by an adverse party upon a showing of "substantial need of the materials in preparation of this case and that he is unable without undue hardship to obtain the substantial equivalent of the materials by other means." 10 C.F.R. § 2.740(b)(2). Opinion work product is not discoverable, so long as the material was in fact prepared by an attorney or other agent in anticipation of litigation, and not assembled

a witness. Incredibly, the State "submit[s] that there is none." Motion at 9.^{8/} But, the existing authority squarely supports Kerr-McGee's position that all such information is protected. Fed. R. Civ. P. 26(b)(4); Carolina Power & Light Co. and North Carolina Eastern Municipal Power Agency (Shearon Harris Nuclear Power Plants, Units 1 and 2), LBP-83-27A, 17 N.R.C. 971, 978 (1983); Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), LBP-83-17, 17 N.R.C. 490, 497 (1983). And, contrary to the State's assertion, this authority was presented to the State as justification for withholding the information. Exhibit 2 at 3. The State seems to believe that its argument is best advanced by ignoring the adverse authorities that have been submitted to it.

In evident recognition that information as to experts was properly withheld by Kerr-McGee, the State submits that there is "good cause" to justify access to information as to experts here. Motion at 9-11. First, the State seems to argue that costs are the only real issue in the case, and hence Kerr-McGee must be compelled to provide

Footnote cont'd

in the ordinary course of business, or pursuant to public requirements unrelated to litigation.

Long Island Lighting, 16 N.R.C. at 1162. Obviously, both types of work-product can include "facts."

^{8/} It should be noted that the State makes this assertion despite full briefing of precisely this issue in connection with the motions to quash in the license-amendment proceeding.

information on the matter. Motion at 9-10. A brief review of this Board's orders would reveal to the State, however, that there are many other issues that must be resolved. See, e.g., Memorandum and Order (Ruling on Kerr-McGee's Motion for Reconsideration), 6-7 (Mar. 22, 1985). Moreover, Kerr-McGee has provided extensive information to the State concerning the costs of cleanup. See Motion at 12 ("Kerr-McGee spent pages [in response to Interrogatory 1] telling us about the information it has developed concerning costs . . . of remedial action."); id. Exh. C. And the case cited by the State in support of its contention that privileged information relating to central issues must be disclosed, United States v. Nysco Laboratories, Inc., 26 F.R.D. 159 (E.D.N.Y. 1960), was decided ten years before the amendment of Rule 26 to include special protection for the identity and opinions of nonwitness experts. See Fed. R. Civ. P. 26(b)(4), Advisory Committee Note to 1970 Amendment. In fact, the Advisory Committee cited Nysco in explaining that the amendment was to correct the "problems suggested by a relatively recent line of authorities."

Second, the State asserts that "the issue of costs is peculiarly within Kerr-McGee's knowledge." Motion at 10. If this is so, it is solely because Kerr-McGee has undertaken efforts to explore the issue. Because the State has not even asked Kerr-McGee for information concerning some of the items it views as uniquely within Kerr-McGee's knowledge, see State Motion to Compel in the Rare Earths Proceeding at 5-6, it is in no position to argue that it cannot obtain the

data through normal discovery.

Third, the State asserts that Kerr-McGee is "far better situated financially" than the State to consult with expert witnesses.^{9/} In short, the State hopes to get a free ride on Kerr-McGee's diligence in preparing for the hearing. This is exactly the conduct the drafters of the expert witness rule sought to prevent.¹⁰ See Fed. R. Civ. P. 26, Advisory Committee Note. It is hardly good cause for disclosure -- much less the "exceptional circumstances" required by Rule 26(b) (4).^{11/}

INTERROGATORY NO. 4

This interrogatory inquires about the offsite clean-up program undertaken by Kerr-McGee. The motion seeks an order that Kerr-McGee respond to a portion of the interrogatory, which deals with the applicability of the cleanup criteria to Kress Creek.

In responding to this part of the interrogatory, Kerr-McGee stated:

Kerr-McGee does not believe that cleanup of Kress-Creek and the West Branch of

^{9/} This claim is dubious because the State has available to it (and has used) the resources of the entire State government and its constituent agencies.

^{10/} Cf. Hickman v. Taylor, 329 U.S. 495, 516 (1947) (Jackson, J., concurring) ("Discovery was hardly intended to enable a learned profession to perform its functions either without wits or on wits borrowed from the adversary").

^{11/} "Exceptional circumstances" are those under which it is "impracticable for the party seeking discovery to obtain

the DuPage River is required because of the immeasurably small health and environmental risks posed. Consequently, the current gamma exposure rates are acceptable, and development of cleanup criteria is unnecessary. If remedial action is nevertheless required, further study will be necessary to determine what, if any, gamma exposure rates or pCi/g levels would provide appropriate cleanup criteria given the particular characteristics of the thorium-bearing materials involved and the costs and benefits of remedial action.

Although the State claims that the answer reflects "disingenuousness" and lectures that "[l]itigation is not a game," Motion at 12-13, it fails to explain why the Kerr-McGee

Footnote cont'd

facts or opinions on the subject by other means." *Marine Petroleum Co. v. Champlin Petroleum Co.*, 641 F.2d 984, 989, 996 (D.C. Cir. 1980). One court gave two examples of exceptional circumstances that might justify disclosure:

(a) Circumstances in which an expert employed by the party seeking discovery could not conduct important experiments and test[s] because an item of equipment, etc., needed for the test[s] has been destroyed or is otherwise no longer available. If the party from whom discovery is sought had been able to have its experts test the item before its destruction or nonavailability, then information obtained from those tests might be discoverable.

(b) Circumstances in which it might be impossible for a party to obtain its own expert. Such circumstances would occur when the number of experts in a field is small and their time is already fully retained by others.

Ager v. Jane C. Stormont Hospital & Training School for Nurses, 622 F.2d 496, 503 n. 8 (10th Cir. 1980) (quoting A. Sacks, reporter to Advisory Committee). The State has simply not met its "heavy burden in demonstrating the existence of exceptional circumstances." *Id.* at 503.

answer is not fully responsive. The circumstances in the Creek are obviously different from those in the residential areas, and, although Kerr-McGee does not believe that any cleanup of the Creek is warranted, if cleanup is required Kerr-McGee states that further study is necessary to define appropriate criteria. As the Appeal Board noted in Pennsylvania Power & Light Co. and Allegheny Electric Cooperative, Inc. (Susquehanna Steam Electric Station, Units 1 and 2) , ALAB-613, 12 N.R.C. 317, 334 (1980), "[a]ssuming truthfulness of the statement, lack of knowledge is always an adequate response." And in Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), LBP-82-116, 16 N.R.C. 1937, 1945 n.3 (1982), the Board reiterated: "a truthful 'don't know' response is not sanctionable as a default in making discovery."

In sum, Kerr-McGee asserts that there is no need to decontaminate Kress Creek. If decontamination is nevertheless ordered, the "appropriate" level will be determined by this Board. There is no basis for requiring Kerr-McGee, by way of interrogatory, to specify that level.

INTERROGATORY 12

This interrogatory asks Kerr-McGee to describe the "level, degree, or type of risk" that constitutes a "significant risk." In response, Kerr-McGee provided an extensive answer, including citations to a memorandum of law filed in this proceeding, the Staff's letter concerning the risks presented by tailings in the Creek, and a decision of the United States Supreme Court discussing the matter. The State argues, however,

that Kerr-McGee must define "at what point a risk becomes significant in comparison to other risks." Motion at 14 (emphasis deleted). It asks that Kerr-McGee explain the meaning of "significant risk" either in "numerical terms or other plainly descriptive terms." Id.

In fact, the answer provides exactly the descriptive and numerical information that the State claims it needs. Contrary to the State's inaccurate summary, Kerr-McGee asserted that significance must be assessed by comparison "to the risks associated with daily living -- such as driving a car." And the Staff's letter provides the numerical data requested by the State as to such risks. The response to this interrogatory is fully sufficient.

INTERROGATORY NO. 20

This interrogatory asks Kerr-McGee to identify persons with knowledge of monetary costs or environmental or health impacts of remedial action at Kress Creek. The State challenges Kerr-McGee's failure in responding to identify certain nonwitness experts. But, as discussed above, the Board's decisions make clear that Kerr-McGee need not disclose the identities of such experts. See pp. 8-11, supra. The State's assertion that there is no discovery rule permitting Kerr-McGee to withhold the identities of these persons is simply incorrect.

The State also seizes on the last sentence of Kerr-McGee's answer and, wrenching it out of context, maintains that Kerr-McGee has said "that no person has knowledge of costs and impacts." Motion at 15. But the response simply

states that because the nature, method, and scope of any specific remedial action that may be ordered have not yet been defined, no person has knowledge of the costs and risks associated with such specific action. It is obviously correct to observe, as Kerr-McGee did, that since no specific action has been ordered, no one has knowledge of the costs and risks associated with that specific action.

INTERROGATORY NO. 36

This interrogatory asks that Kerr-McGee identify the persons who answered each interrogatory. In its initial answer, Kerr-McGee identified eight persons who responded to the interrogatories. After the State requested that Kerr-McGee identify which individual(s) responded to each interrogatory, Kerr-McGee filed a supplemental response to explain that the answers were prepared by consultation among the group. Hence, any allocation of specific responsibility for answers would be unduly burdensome and essentially meaningless. Indeed, such allocation might well prove misleading.

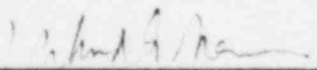
Kerr-McGee notes that the State will have the opportunity to depose these eight individuals and may ask them specifically what information they contributed to the interrogatory responses. As the State has noted, litigation is not a game; the State's insistence that Kerr-McGee respond to its interrogatories "point by tedious point,"^{12/} appears to be the sort of approach to discovery that the State elsewhere condemns.

^{12/} Duke Power Company, 16 N.R.C. at 1950.

CONCLUSION

The State's arguments in support of its motion ignore NRC precedent and common sense. Its arguments on waiver of privilege, the extent of the work-product immunity, and the disclosure of the identity of nonwitness experts are contrary to Commission and judicial precedent. The State's attempt to find fault with Kerr-McGee's responses evidences the sort of hair-splitting and logic-chopping that make discovery tedious and burdensome. The motion should be denied.

Respectfully submitted,



Peter J. Nickles
Richard A. Meserve
Covington & Burling
1201 Pennsylvania Avenue, N.W.
P.O. Box 7566
Washington, D.C. 20044
(202) 662-6000

Attorneys for Kerr-McGee
Chemical Corporation

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of
KERR-MCGEE CHEMICAL CORPORATION
(Kress Creek Decontamination)

)
) Docket No. 40-2061
) Source Material License
) No. STA 583
) ASLBP No. 84-502-01 SC
)

RESPONSE BY KERR-McGEE CHEMICAL
CORPORATION TO THE STATE'S FIRST
SET OF INTERROGATORIES AND REQUEST
FOR PRODUCTION OF DOCUMENTS

Pursuant to 10 C.F.R. §§ 2.740b and 2.741, and in accordance with the "Prehearing Conference Memorandum and Order" of the Atomic Safety and Licensing Board dated September 7, 1984, Kerr-McGee Chemical Corporation ("Kerr-McGee") responds to the People of the State of Illinois' ("State's") First Set of Interrogatories and Request for Production of Documents as set forth below.

I.

Interrogatories

General Objections and Responses

1. A number of the interrogatories propounded by the State call for detailed information regarding events and facts occurring more than thirty years ago. The documentation for such events is sparse and, in some cases, is in deteriorated condition unsuitable for copying. In the years since particular operations were terminated, or the plant as

8504480211
54 pp.

a whole ceased operation, many documents relevant to these interrogatories may have been lost or pursuant to standard company document retention policies destroyed. Kerr-McGee's responses were prepared with the assistance of individuals who worked at the West Chicago facility during some of the periods it was in operation. Kerr-McGee also has consulted engineering drawings, some of which are in deteriorated condition. The responses herein are made to the best of Kerr-McGee's present knowledge based upon the foregoing sources of information.

2. Kerr-McGee objects to those interrogatories that purport to require Kerr-McGee to perform studies or other calculations or to create engineering drawings or other documents in addition to or unrelated to work already performed in connection with the subject matter of this proceeding. The rules of interrogatory discovery in this proceeding, like the discovery rules under Rule 33 of the Federal Rules of Civil Procedure, do not require that the responding party perform such studies or create such additional or unrelated material.

3. Kerr-McGee objects to the blanket instruction to identify all documents "pertinent" to each interrogatory answer, as being burdensome, unproductive, and not reasonably calculated to lead to the discovery of admissible evidence. Kerr-McGee has already produced for the State's

inspection 1.5 million pages of documents relevant to this proceeding, and the State conducted a detailed search of those documents, copying some 30,000 pages. In these circumstances, Kerr-McGee cannot reasonably be obligated to search among those documents a second time in order to identify documents that may be "pertinent" in some respect -- undefined -- to the State's most recent of several sets of interrogatories. See Kerr-McGee's General Objections and Responses to Document Requests, infra.

4. A number of the State's interrogatories call for responses previously supplied, in whole or in part, in the Response by Kerr-McGee Chemical Corporation to the Nichiren Shoshu Temple's First Set of Interrogatories and Request for Production of Documents (Kress Creek), dated March 1, 1985, in the Response By Kerr-McGee Chemical Corporation To The NRC Staff's First Set of Interrogatories And Request For Production of Documents (Kress Creek), dated February 1, 1985, and in the Response By Kerr-McGee Chemical Corporation To The People of the State of Illinois' First Set of Interrogatories And Request For Documents (West Chicago Rare Earths Facility), dated September 15, 1984. The foregoing Responses will be referred to herein as "KM Response To Temple Int. (Kress Creek), No. __," "KM Response To Staff Int. (Kress Creek), No. __," and "KM Response to State Int. (West Chicago), No. __," respectively.

Interrogatories

Interrogatory No. 1

1. Identify all studies, estimates, surveys, and calculations, whether formal or informal, draft or final, made by or for Kerr-McGee or its predecessors concerning

a) remedial action at Kress River or any portions thereof;

b) costs of such action.

Response to Interrogatory No. 1

a) See Kerr-McGee Response to Temple Int. (Kress Creek) No. 6. Kerr-McGee has not made, nor has it had made, formal studies, estimates, surveys and calculations concerning remedial action at Kress Creek and the West Bank of the DuPage River. Kerr-McGee has made, or has had made, informal studies, estimates, surveys and calculations related to what would be involved were remedial action necessary or required. These informal efforts have been based primarily on radiological data reported in U.S.

Government sponsored reports including:

1. Thorium Residuals in West Chicago, Illinois, N.A. Frigerio, T.J. Larson and R.S. Stowe, NUREG/CR-0413, September 1978.
2. Radiological Survey of Kress Creek, West Chicago, Illinois; Final Report, Oak Ridge Associated Universities, P.W. Frame, J.D.

- Berger, W.O. Helton, C.W. Kuechle, S.E.
Tench, C.F. Weaver, R.D. Condra; November
1981.
3. Comprehensive Radiological Survey of Kress
Creek, West Chicago Area, Illinois; Final
Report, Oak Ridge Associated Universities,
P.W. Frame, February 1984.
 4. Letter to A. Bert Davis, USNRC Region III,
from David Kee, USEPA Region V, regarding EPA
analysis of Kress Creek, January 29, 1981.
 5. An Aerial Radiological Survey of West
Chicago, Illinois; (Date of Survey:
September 1977) by EG&G Energy Measurements
Group, EGG-1183-1730, August 1978, by P.K.
Boyns, W.A. Frankhauser, T.J. Hendricks, G.R.
Shipman for USNRC.
 6. Letter from S.G. Burns, NRC, to N.T. Proto,
Esq., with attachments, Sept. 14, 1984.
 7. Letter from G. Rice to R. Cunningham, NRC,
February 22, 1983.

Kerr-McGee has not verified the data contained in
the foregoing reports, and reserves the right to challenge
the data and conclusions contained therein. However, on the
basis of data contained within the foregoing reports,
various informal and preliminary estimates have been made

with regard to hypothetical dose and risk calculations, and the location, volume and distribution of thorium-bearing material that might be involved in a remedial action plan. These informal and preliminary estimates are found in the following documents, which are being withheld on grounds of attorney-client and or work product privilege.

1. Evaluation of Techniques for Removal of Thorium Residuals from Lower Kress Creek, letter report from Woodward-Clyde to Kerr-McGee, 1981. (Protected document No. 2692.)
2. Kress Creek Cleanup -- Cost Estimate; Kerr-McGee memorandum, W.J. Shelley to E.T. Still, March 22, 1982.
3. Selective Decontamination of Kress Creek Banks, Kerr-McGee memorandum with three attachments, E. Still to G. Rice, April 26, 1982.
4. Kress Creek Comments, E. Still to G. Rice, E. Goltra, B. Shelley, G. Sinke, February 23, 1982.

Kerr-McGee has performed and is performing work with regard to possible remedial action in Kress Creek. Documents relating to such work are subject to attorney-client and work product privileges, or are being withheld

as the ongoing work of litigation experts pursuant to Rule 26(b)(4) F.R.Civ.P., as applicable to this proceeding.

b) See response to part (a) above. No final or definitive estimate of the cost of remedial action involving Kress Creek has been performed because the need for remedial action has not been demonstrated; and, assuming arguendo some remedial action will nevertheless be required, the extent and method of such action has not been defined.

Interrogatory No. 2

a) Identify all documents relating to meetings or communications of any kind with

(i) U.S. Environmental Protection Agency or its contractors

(ii) City of West Chicago or its contractors

concerning the offsite "hot spot" cleanup begun by Kerr-McGee in 1983.

b) Identify all other documents relating to said cleanup.

Response to Interrogatory No. 2

See Kerr-McGee Response to Temple Int. (Kress Creek) No. 11. Documents relating to the off-site "hot spot" cleanup have been furnished to the State on February 28, 1985, by copy of the letter dated February 28, 1985, from J.L. Rainey, KMCC, to Basil G. Constantelos, EPA Region V. See also:

- (1) Letter dated March 27, 1984, from B.G. Constantelos, Director, Waste Management Division, EPA Region V, to J.L. Rainey, KMCC President.
- (2) Letter dated April 13, 1984, from G.B. Rice, KMCC Executive Vice President, to Kerry Street, EPA Region V.
- (3) Letter dated April 24, 1984, from M. Hedglon, KMCC Attorney, to Babette J. Neuberger, EPA Region V.
- (4) Letter dated July 24, 1984, from B.G. Constantelos, Director, Waste Management Division, EPA Region V to J.L. Rainey, KMCC President.
- (5) Letter dated August 6, 1984, from G.B. Rice, KMCC Executive Vice President, to B.G. Constantelos, EPA Region V.
- (6) Letter dated August 6, 1984, from Mayor E.G. Rennels to V. Adamkus, EPA Region V.
- (7) Letter dated August 20, 1984, from R.G. Page, Chief, Uranium Fuel Licensing Branch, USNRC, to B.G. Constantelos, Director, Waste Management Division, EPA Region V.

- (8) Letter dated September 5, 1984, from I.L. Denny, Manager, Special Projects, to Babette Neuberger, USEPA Region V.
- (9) Letter dated October 12, 1984, from Valdas V. Adamkus, Regional Administrator, EPA Region V, to J.L. Rainey, President, KMCC.
- (10) Letter dated November 1, 1984, from Peter J. Nickles, to Babette J. Neuberger, Assistant Regional Counsel, EPA Region V.
- (11) Letter dated November 19, 1984, from Babette J. Neuberger, EPA Region V, to Peter J. Nickles.
- (12) Letter dated December 10, 1984, from Peter J. Nickles, to Babette J. Neuberger, EPA Region V.
- (13) Letter dated January 7, 1985, from Babette J. Neuberger, EPA Region V, to Peter J. Nickles.
- (14) Letter dated January 17, 1985, from Peter J. Nickles, to Babette J. Neuberger, EPA Region V.
- (15) Letter dated February 5, 1985, from Peter J. Nickles, to Babette J. Neuberger, EPA Region V.

- (16) Letter dated February 12, 1985, from Basil G. Constantelos, EPA Region V, to J.L. Rainey, KMCC.
- (17) Letter dated February 28, 1985, from J.L. Rainey, KMCC, to Basil G. Constantelos, EPA Region V.

Interrogatory No. 3

Describe in detail the manner and nature of said "hot spot" cleanup.

Response to Interrogatory No. 3

See Kerr-McGee Response to Temple Int. (Kress Creek) No. 11. The manner and nature of the hot spot cleanup campaign is described in "Program Outline -- Off Site Thorium Removal," dated July 25, 1984, and in materials furnished to the EPA, with a copy to the State, on February 28, 1985. See response to Interrogatory No. 2 above.

Interrogatory No. 4

- a) To what level are the offsite "hot spots" being decontaminated? (Answer in pCi/g and uR/hr.)
- b) What is the rationale for decontaminating the "hot spots" to the level specified in answer to Interrogatory 4(a)?
- c) If thorium-contaminated areas at Kress Creek and West Branch DuPage River were to be cleaned up, would the level specified in answer to Interrogatory 4(a) be appropriate for application at Kress Creek and West Branch DuPage River? If not, why not?

Response to Interrogatory No. 4

a) Areas identified with an external gamma exposure rate of 35 uR/hr or greater at 1 meter above the surface are removed until background external gamma exposure rates are reached. Criteria based on pCi/g are not being used.

b) The thorium removal program in the residential areas is a voluntary Kerr-McGee effort, and Kerr-McGee is going forward with removal to the cited levels despite its view that significant risks are not posed by current levels. The gamma level was set so as to assure satisfaction of 10 C.F.R. Part 20.

c) Kerr-McGee does not believe that cleanup of Kress-Creek and the West Branch of the DuPage River is required because of the immeasurably small health and environmental risks posed. Consequently, the current gamma exposure rates are acceptable, and development of cleanup criteria is unnecessary. If remedial action is nevertheless required, further study will be necessary to determine what, if any, gamma exposure rates or pCi/g levels would provide appropriate cleanup criteria given the particular characteristics of the thorium-bearing materials involved and the costs and benefits of remedial action.

Interrogatory No. 5

If the answer to Interrogatory 4(c) is no, what would be the appropriate level(s) for decontamination of Kress Creek and West Branch DuPage River? (Answer in pCi/g and uR/hr.) Explain the rationale for your answer to this interrogatory.

Response to Interrogatory No. 5

See response to Interrogatory No. 4c.

Interrogatory No. 6

a) What is the total volume of material removed from the offsite "hot spots" thus far, and how much has such removal cost (i) Kerr-McGee and (ii) City of West Chicago?

b) What is the projected total remaining volume of material to be removed from the offsite "hot spots," and how much will such removal likely cost (i) Kerr-McGee and (ii) City of West Chicago?

Response to Interrogatory No. 6

a) Best available estimates indicate that a total of approximately 14,000 cubic yards has been removed from off-site residential areas and transported to the facility. The work of surveying, excavation, and packaging has cost Kerr-McGee approximately \$731,000. Kerr-McGee lacks information sufficient to provide a response to the interrogatory concerning costs borne by the City of West Chicago.

b) Kerr-McGee currently estimates that an additional 10,000 cubic yards will be removed from West Chicago residential areas and approximately 10,000 cubic yards might be removed from nearby residential areas in

DuPage County. Given the cost to Kerr-McGee for the first 14,000 cubic yards, these remaining excavations would cost approximately \$500,000. Kerr-McGee lacks information sufficient to respond to the interrogatory concerning costs to be borne by the City of West Chicago.

Interrogatory No. 7

a) Are human health hazards, whether short-term or long-term, posed by the thorium contamination at Kress Creek or West Branch DuPage River? If so, describe such hazards.

b) Explain the rationale for your answer to Interrogatory 7(a) (even if the answer is 'no').

Response to Interrogatory No. 7

a) Kerr-McGee does not believe that a measurable health hazard is posed by the presence of thorium-bearing materials in Kress Creek and the West Branch of the DuPage River.

b) No health hazard has ever been demonstrated to be associated with exposures to low levels of radiation such as could be possible from the thorium-bearing materials at some locations along the banks of Kress Creek. Extensive studies of populations who live in areas where the natural background radiation exposure is many times higher than any potential exposure at Kress Creek show no health effects attributable to radiation. See, e.g., Hickey, et al., "Low

Level Ionizing Radiation and Human Mortality: Multi-regional Epidemiological Studies," 40 Health Physics 625 (1981); High Background Radiation Research Group (China), "Health Survey in High Background Radiation Areas in China," 209 Science 887 (1980); and Gopal-Ayengar, et al., "Evaluation of Long-Term Effects of High Background Radiation on Selected Population Groups on the Kerala Coast," in Peaceful Uses of Atomic Energy, Vol. 11, Proc. 4th Int'l Conf. Peaceful Uses of Atomic Energy, at 31-51 (1972). Moreover, there is no pathway for exposure for any materials contained within the creek sediments; the only potential pathway for exposure due to materials along the bank is external gamma radiation. Given the level of gamma exposure rate along the banks and reasonable assumptions about occupancy times, the potential gamma exposure increment to an individual is within the variation of background exposure across the United States.

Interrogatory No. 8

a) Are any hazards to plant or animal life, whether short-term or long-term, posed by the thorium contamination at Kress Creek and West Branch DuPage River? If so, describe such hazards.

b) Explain the rationale for your answer to Interrogatory 8(a) (even if the answer is 'no').

Response to Interrogatory No. 8

a) Kerr-McGee does not believe that any hazard to plant or animal life, long or short term, is posed by the

presence of thorium-bearing materials in Kress Creek and the West Branch of the DuPage River.

b) The consensus of the expert scientific community, based upon extensive study and evaluation, is that if man is adequately protected against radiation risk, then other living things, i.e., plant and animal life, are sufficiently protected. See ICRP Publication 26, p. 3 (1977).

Interrogatory No. 9

Describe in detail any adverse environmental impacts that might reasonably be expected to result from performing remedial action at thorium-contaminated areas of Kress Creek and West Branch DuPage River.

Response to Interrogatory No. 9

See Kerr-McGee Response to Interrogatory No. 1 above. As described in the answer to Interrogatory No. 1(b), a remedial action plan for areas of Kress Creek and the West Branch of the DuPage River where thorium-bearing materials are present has not yet been established. If such a plan is developed and executed, adverse environmental impacts may be expected to vary depending upon the approach employed. No detailed study has been made of these probable adverse environmental impacts.

However, Kerr-McGee currently believes that any extensive cleanup program which may be necessary to achieve the radium-in-soil levels stated in the Order to Show Cause

would involve considerable disruption to the creek and river and to the surrounding environment, which may present immediate and long-term risks. Large portions of the creek and river bed and banks would have to be dredged and replaced with filler, a process which may cause further dispersion of contaminants. The creek may have to be re-routed during cleanup, access roads may have to be built, and heavy machinery may have to be utilized. The cleanup process will thus involve disruption of surrounding private property and pose potential risks to workers and nearby property owners. In addition, such an intrusive program would be likely to involve some disturbance to the surrounding ecosystem, as plant and animal life will inevitably be destroyed during dredging operations and creek re-routing. Finally, risks may be posed by the transportation and disposal of contaminants.

A less extensive cleanup program would pose proportionately fewer disturbances and risks of the sort described above. Kerr-McGee maintains that, in light of these potential risks, the costs of cleanup, and the absence of significant risks presented by the creek and river at present, remedial action is inappropriate and should not be required. To the extent such action is required, the risks associated with cleanup can be reduced

by requiring a less extensive cleanup program than one that would be necessary to achieve the radium-in-soil levels stated in the Order to Show Cause at all locations along the creek and river.

Interrogatory No. 10

Can the impacts described in answer to Interrogatory 9 be minimized or eliminated by engineering or other means? If so, describe such means.

Response to Interrogatory No. 10

See Kerr-McGee Response to Interrogatory No. 9.

Interrogatory No. 11

Identify the persons who would execute remedial action at Kress Creek and West Branch DuPage River if Kerr-McGee undertook such action.

Response to Interrogatory No. 11

Kerr-McGee has not selected the organizations or personnel that would execute such remedial action if such action were to be required.

Interrogatory No. 12

What level, degree, or type of risk constitutes a "significant risk" as that phrase is used in Averment 10 of Kerr-McGee's Amended Answer And Demand For Hearing?

Response to Interrogatory No. 12

Kerr-McGee objects to Interrogatory No. 12 to the extent that it calls for a legal conclusion. Without waiving this objection, Kerr-McGee refers the State to Kerr-McGee Chemical Corporation's Memorandum in Response to

the Board's Questions in this proceeding, filed January 17, 1985, at 26-30. In addition, Kerr-McGee refers to the Supreme Court's ruling in Industrial Union Department v. American Petroleum Institute, 448 U.S. 607, 642 (1980), where the Court states:

"There are many activities that we engage in every day -- such as driving a car or even breathing city air -- that entail some risk of accident or material health impairment; nevertheless, few people would consider these activities 'unsafe'". . . .

"[Before enforcement action is appropriate, the agency must] make a threshold finding that a place . . . is unsafe - in the sense that significant risks are present." . . . (emphasis added).

The risk comparison chart developed by the NRC Staff, see Letter from S.G. Burns, NRC, to N.T. Proto, Esq., Sept. 14, 1984, attachment, demonstrates that the risks posed by Kress Creek are not significant when compared to other risks associated with daily living -- such as driving a car. The significance of a risk must be determined in relation to such other risks.

Interrogatory No. 13

a) With respect to Averment 11 of Kerr-McGee's Amended Answer And Demand For Hearing, describe the appropriate methodology for analyzing the "actual risk to the health and safety of the public" from cleaning up Kress Creek and West Branch DuPage River.

b) What is your rationale for the methodology described in answer to Interrogatory 13(a)?

c) Identify all documents relating to the methodology described in answer to Interrogatory 13(a).

d) Has Kerr-McGee conducted an "analysis of the actual risk to the health and safety of the public" from cleaning up Kress Creek and West Branch DuPage River? If so, describe the date and methodology of such analysis, the persons who participated in it, and its results.

e) If Kerr-McGee has not conducted an "analysis of the actual risk to the health and safety of the public" from cleaning up Kress Creek and West Branch DuPage River, does Kerr-McGee believe any such risk exists? If so, describe the risk and your basis for believing it exists.

Response to Interrogatory No. 13

See Kerr-McGee Response to Int. Nos. 1, 9.

Kerr-McGee has undertaken only informal and hypothetical assessments of the risks posed by cleanup, and has not yet developed any "methodology" for a formal and final assessment. Since the instant Order to Show Cause was issued, Kerr-McGee has initiated further studies of this matter, but the results of those studies are not final and documents relating thereto are currently protected by the work-product and/or attorney-client privileges, or are being withheld as the ongoing work of litigation experts pursuant to Rule 26(b)(4) F.R.Civ.P., as applicable to this proceeding. The degree of risk to the health, safety, and environment associated with cleanup will vary according to the remedial action, if any, that is required.

Interrogatory No. 14

a) With respect to Averment 12 of Kerr-McGee's Amended Answer And Demand For Hearing, describe the appropriate methodology for analyzing the "risk of harm to the environment" from cleaning up Kress Creek and West Branch DuPage River.

b) What is your rationale for the methodology described in answer to Interrogatory 14(a)?

c) Describe all documents relating to the methodology described in answer to Interrogatory 14(a).

d) Has Kerr-McGee conducted an "analysis of the risk of harm to the environment" from cleaning up Kress Creek and West Branch DuPage River? If so, describe the date and methodology of such analysis, the persons who participated in it, and its results.

e) If Kerr-McGee has not conducted an "analysis of the risk of harm to the environment" from cleaning up Kress Creek and West Branch DuPage River, does Kerr-McGee believe any such risk exists? If so, describe the risk and your basis for believing it exists.

Response to Interrogatory No. 14

See Kerr-McGee Responses to Int. Nos. 1, 9, and 13.

Interrogatory No. 15

a) With respect to Averment 13 of Kerr-McGee's Amended Answer And Demand For Hearing, describe the appropriate methodology for analyzing the "costs and benefits of remedial action, including the impacts upon the [affected] communities and individuals."

b) What is your rationale for the methodology described in answer to Interrogatory 15(a)?

c) Describe all documents relating to the methodology described in answer to Interrogatory 15(a).

d) Has Kerr-McGee conducted an "analysis of the costs and benefits of remedial action, including the impacts upon the [affected] communities and individuals"? If so, describe the date and methodology of such analysis, the persons who participated in it, and its results.

e) If Kerr-McGee has not conducted an "analysis of the costs and benefits of remedial action, including the impacts upon the [affected] communities and individuals," does Kerr-McGee believe that the costs would outweigh the benefits? If so, why?

Response to Interrogatory No. 15

See Kerr-McGee Response to Interrogatory Nos. 1, 9 and 13. As more fully described in Kerr-McGee Chemical Corporation's Memorandum in Response to the Board's Question, filed in this proceeding on January 17, 1985, remedial action cannot be undertaken at Kress Creek unless it is established that the economic and environmental costs associated with cleanup bear a reasonable relationship to the benefits expected to be derived. Kerr-McGee's position is that because the risks presented by Kress Creek are not significant, remedial action cannot be required as a threshold matter, and further analysis of the relationship between costs and benefits is therefore unnecessary.

Should it be determined, contrary to Kerr-McGee's view, that the risks presented by Kress Creek are significant, then the relationship between costs and benefits must be explored. Although strict cost-benefit analysis is not required, the relationship between costs --

both economic and environmental -- and expected benefits, if any, must be examined and found to be reasonable.

The appropriate "methodology" for such analysis is dictated by both common sense and the legal requirements discussed in the Kerr-McGee Memorandum, supra. Because Kerr-McGee does not believe Kress Creek presents the threshold level of risk necessary to require cleanup regardless of the cost and benefit relationship and has hence not developed a remedial action plan, it has not yet engaged in formal cost and benefit calculations. Kerr-McGee currently believes that the costs of any remedial action would not stand in reasonable relationship to the alleged benefits derived from cleanup, because the risk to be averted by cleanup is insignificant. See Kerr-McGee Responses to Int. Nos. 9 and 12.

Kerr-McGee has retained a consultant to do the work on this matter, but final results have not yet been received and all documents pertaining to the study are protected by work product and/or attorney-client privileges, or are being withheld as the ongoing work of litigation experts pursuant to Rule 26(b)(4) F.R.Civ.P., as applicable to this proceeding.

Interrogatory No. 16

Has Kerr-McGee or its predecessors made any inquiries or any studies, whether formal or informal, concerning the (i) human health impacts and (ii) other environmental impacts of the thorium contamination at Kress Creek and West Branch DuPage River? If so, what were the dates of such inquiries or studies, who participated in them, and what were their results?

Response to Interrogatory No. 16

See Kerr-McGee Response to Int. Nos. 1, 7, and 8.

In addition, Kerr-McGee has retained a consultant to study the data reported by ORAU from the viewpoint of the possible human health impacts and environmental impacts of the thorium contamination in Kress Creek. All documents pertaining to this study are protected by the work-product and/or attorney-client privileges, or are being withheld as the ongoing work of litigation experts pursuant to Rule 26(b)(4) F.R.Civ.P., as applicable to this proceeding.

Interrogatory No. 17

Has Kerr-McGee or its predecessors made any inquiries or studies, whether formal or informal, concerning the (i) human health impacts and (ii) other environmental impacts of the offsite "hot spots" Kerr-McGee and the City of West Chicago are presently cleaning up? If so, what were the dates of such inquiries or studies, who participated in them, and what were their results?

Response to Interrogatory No. 17

Kerr-McGee has not conducted any studies of the human health impacts or other environmental impacts of the off-site "hot spots" currently being removed.

Interrogatory No. 18

Is Kerr-McGee aware of any studies concerning (i) human health impacts and (ii) other environmental impacts associated with uranium or thorium milling activities? If so, identify all such studies.

Response to Interrogatory No. 18

Kerr-McGee objects to Interrogatory No. 18 as being unduly broad and burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. Without waiving such objections, Kerr-McGee states that it is aware of many studies that have been conducted concerning possible human health and environmental impacts associated with uranium or thorium milling activities. Kerr-McGee is generally familiar with the conclusions such studies have reached although it does not claim to know every study reported nor the details of every study. Kerr-McGee is not aware of any such studies that have not been distributed to the public through Government reports, symposia proceedings or other publications. Thus, any study known to Kerr-McGee is equally available to the State. Kerr-McGee is therefore not required by Rule 33 F.R.Civ.P., as applicable to this proceeding, to compile or produce such studies.

Without waiving such objection, Kerr-McGee notes that it is generally familiar with the following studies available to the public: Reports of annual conferences on mill tailings held at the Colorado State University in Fort

Collins, Colorado; NRC and EPA studies on mill tailings, including the GEIS and the FEIS on uranium milling standards, public comments by the mining industry during EPA and NRC consideration of mill tailings regulations, studies by the Battelle Pacific Northwest Laboratories, the EPA Las Vegas Laboratory, and Argonne National Laboratory, including a comprehensive ANL epidemiological study of West Chicago thorium workers. An interim report, "Mortality Among Male Workers at a Thorium Processing Plant," A. P. Polednak, A.S. Stehney, and H.F. Lucas, Health Physics, Volume 44, Supplement 1, pages 239-251, 1983, is the most recent interim report produced as a result of this last study.

Moreover, Kerr-McGee is not aware of any study, including those listed, indicating that significant human health or environmental impacts are associated with uranium or thorium milling activities in circumstances comparable to Kress Creek. To the contrary, these studies have failed to demonstrate adverse impacts at levels greatly in excess of those found along Kress Creek.

Interrogatory No. 19

a) Identify all the costs and all the benefits, regardless whether such costs and benefits can be quantified in monetary terms, associated with remedial action at Kress Creek and West Branch DuPage River.

b) Identify, whether in monetary or other terms, the costs and benefits identified in answer to Interrogatory 19(a).

Response to Interrogatory No. 19

See Kerr-McGee Responses to Interrogatory Nos. 1, 7, 8, 9, 12-15.

Interrogatory No. 20

Identify all persons with knowledge of the a) monetary costs, and b) environmental and health impacts or risks associated with remedial action at Kress Creek and West Branch DuPage River.

Response to Interrogatory No. 20

See Kerr-McGee Response to Interrogatory No. 19.

Interrogatory No. 21

Show on an engineering drawing the location of all storm sewer and waste line connections on the site and along or near its periphery (both past and present). For each such sewer and connection, state whether it is past or present and the precise time periods when it was in existence or use. The drawing requested by this interrogatory, like the drawings requested by Interrogatories 22-25, should be to scale, and the scale and geographic coordinates should be indicated.

Response to Interrogatory No. 21

See General Objection Nos. 1 and 2. Without waiving such objections, Kerr-McGee states that some or all of the requested information is contained in existing engineering drawings. Some of these documents are old and in deteriorated or faded condition and cannot be duplicated. Upon request, Kerr-McGee will make these documents available for the State's inspection at a time and place to be arranged. See generally KM Response to Temple Int. (Kress Creek) Nos. 1, 2; KM Response to Staff Int. (Kress Creek) No. 18; KM Response to State Int. (West Chicago) No. 2.

Interrogatory No. 22

Show on an engineering drawing the precise location of all waste disposal and storage piles, ponds, and facilities at the site (both past and present). For each such pile, pond, and facility, state whether it is past or present and the precise time periods when it was in existence or use.

Response to Interrogatory No. 22

See General Objections Nos. 1 and 2. Without waiving such objections, Kerr-McGee states that some or all of the requested information is contained in existing engineering drawings. Some of these documents are old and in deteriorated or faded condition and cannot be duplicated. Upon request, Kerr-McGee will make these documents available for the State's inspection at a time and place to be arranged. See generally KM Response to Temple Int. (Kress Creek) No. 1; KM Response to Staff Int. (Kress Creek) No. 8; KM Response to State Int. (West Chicago) No. 2.

Interrogatory No. 23

Show on an engineering drawing the location of all storm sewer inlets (both open and closed, past and present) on the site and along or near its periphery. For each such inlet, state whether it is open or closed, past or present, and the precise time periods when it was in existence or use.

Response to Interrogatory No. 23

See General Objection Nos. 1 and 2. Without waiving such objections, Kerr-McGee states that some or all of the requested information is contained in existing engineering drawings. Some of the documents are old and in

deteriorated or faded condition and cannot be duplicated. Upon request, Kerr-McGee will make these documents available for the State's inspection at a time and place to be arranged. See generally KM Response to Staff Int. (Kress Creek) No. 18; KM Response to State Int. (West Chicago) No. 2.

Interrogatory No. 24

Show on an engineering drawing the location of all surface drainage courses such as ditches or swale (both past and present) on the site and along or near its periphery. For each such drainage course, state whether it is past or present and the precise time periods when it was in existence or use.

Response to Interrogatory No. 24

See General Objection Nos. 1 and 2. Without waiving such objections, Kerr-McGee states that some or all of the requested information is contained in existing engineering drawings. Some of the documents are old and in deteriorated or faded condition and cannot be duplicated. Upon request, Kerr-McGee will make these documents available for the State's inspection at a time and place to be arranged. See generally KM Response to Staff Int. (Kress Creek) No. 8; KM Response to State Int. (West Chicago) No. 2.

Interrogatory No. 25

Show on an engineering drawing the location of all culverts and connections with subsurface drainage systems (both past and present) on the site and along or near its periphery. For each such culvert or connection, state whether it is past or present and the precise time periods when it was in existence or use.

Response to Interrogatory No. 25

See General Objection Nos. 1 and 2. Without waiving such objections, Kerr-McGee states that some or all of the requested information is in existing engineering drawings. Some of the documents are old and in deteriorated or faded condition and cannot be duplicated. Upon request, Kerr-McGee will make these documents available for the State's inspection at a time and place to be arranged. See generally KM Response to Staff Int. (Kress Creek) No. 18; KM Response to State Int. (West Chicago) No. 2.

Interrogatory No. 26

At page 29 of its Response to the Staff's First Set of Interrogatories Kerr-McGee states:

Facility Storm Water

"The West Chicago factory site has a drainage network which diverts surface water to large concrete holding basins. Releases of surface runoff water from these storage basins have been made to the City's storm sewer. These releases are sampled and analyzed for Gross Alpha, Gross Beta, SO_4 , F, Cl, Conductivity, pH, Total Dissolved Solids (TDS) and Total Suspended Solids (TSS). If Gross Alpha activity is greater than 15 pCi/l, then Ra-224, RA-226, RA-228, Th-230, Th-232 and U-238, analyses are performed. The storm water handling system has been modified in the past several years to include three large holding tanks for batch releases. Water pumped into these tanks is sampled and analyzed prior to release."

a) Describe the "draining network" in detail, since its installation until the present.

b) For how long has the "drainage network" been in existence in its present form?

c) When was the "drainage network" installed?

d) Identify all persons with knowledge of the "drainage network" from its installation until the present.

e) What is and has been the residence time for stormwater in the "holding basins"?

f) What is the design storm used in constructing the "holding basins"?

g) If the "holding basins" have changed over time, describe those changes, with particular reference to stormwater residence time and design storm, and the dates when those changes were made.

h) Identify by street location "the City's storm sewer" into which "[r]eleases of surface water from these storage basins have been made."

i) Over what time periods, with what frequency, and in what amounts have "[r]eleases of surface water from these storage basins ... been made to the City's storm sewer"?

j) Prior to installation of the "drainage network"

(i) what was direction and pattern of surface water drainage at the site?

(ii) into which storm sewers or surface drainage courses did surface water drain at the site? (Identify such storm sewers or drainage courses by street location.)

k) Does the "drainage network" now, and did it from the time of installation, provide treatment for all stormwater at the site?

Response to Interrogatory No. 26

See generally KM Response to Temple Int. (Kress Creek) Nos. 1 and 2, and other Kerr-McGee Responses listed

therein; KM Response to Staff Int. (Kress Creek) Nos. 8, 18, 19, 22 and 24; KM Response to State Int. (West Chicago) No. 2.

a) The drainage network consists of the exposed process drainage trenches existing in all buildings prior to their demolition which connects with a central yard drain and discharges into the sump under Building 14. During operations at the site, liquids collected in the sump were pumped to the disposal site and were released to the infiltration ponds. In approximately 1976 a pipeline was installed to allow overflow from the sump to pass to the storm sewer on Factory Street. In 1982 the drainage network in its present form was installed. Collected fluid can now be pumped into sumps under Building 9 if it exceeds the capacity of the Building 14 sump. The fluid can then be pumped into one of three holding tanks near Building 12 where it is tested before being released to the storm sewer.

b) The "drainage network" in the present form was put into place in October 1982, and so has existed for over two years.

c) See answers to "(a)" and "(b)" above.

d) Kerr-McGee objects to this subpart of Interrogatory No. 26 as being overbroad and burdensome, in that it calls for the identification of all persons with "knowledge" of the pertinent facts, without offering a

practicable definition of the term "knowledge." Without waiving such objection, Kerr-McGee states that the persons most knowledgeable as to the subject matter are Scott Munson, Walter Harris and Ivan Denny. See response to Interrogatory No. 36, infra.

e) Kerr-McGee has had no occasion to determine the "residence time" for stormwater in the holding basins.

f) Kerr-McGee did not "construct" the holding basins, but rather made use of existing basins located on the site that had initially been used for other purposes. Kerr-McGee lacks information sufficient to describe what design storm, if any, was used when the holding basins were constructed.

The current drainage network was engineered by Catalytic, Inc. at the request of Kerr-McGee and included a calculation of the maximum storm run-off capacity of the system design. This calculation showed that the storage volumes available in the system would provide holding capacity for a 25-year, 1-hour storm. The relevant documents from Catalytic, Inc., are being produced.

g) Kerr-McGee is not aware of any structural modifications to the holding basins since their installation.

h) The city storm sewer at the corner of Factory Street and Brown Street receives the release of collected storm water.

i) Water was released from the holding tanks on several occasions during December of 1982. The dates and the volumes of the releases may be tabulated as follows:

<u>Date</u>	<u>Volume (gallons)</u>
12/6/82	21,000
12/7/82	21,000
12/7/82	49,000
12/8/82	21,000
12/8/82	21,000
12/8/82	49,000

There have been no releases since December of 1982.

Kerr-McGee is aware, however, that releases occurred on several occasions prior to December 1982. Kerr-McGee will produce any non-privileged documents concerning the time periods, frequency, and amounts of such releases when they are located.

j) Prior to the demolition of the buildings, roof drains directed storm run-off water into the storm sewer along Factory Street. Other surface water drainage in the Factory area drained to the sump under Building 14.

Surface water falling in non-production areas was, until the construction of the incinerator in 1983, permitted to flow over the natural topography in the normal drainage pattern east to Factory Street or south along the railroad track.

k) Treatment for all collected storm water has been provided from the time of installation of the holding tanks.

Interrogatory No. 27

a) Describe the methods for unloading ore at the site during the entire time the site was in operation. Include details on railroad car unloading procedures, including use of any temporary staging areas. Describe any changes in these methods and when such changes occurred.

b) Describe the methods for loading process waste or ore into trucks or other vehicles for transportation off site. Describe any changes in these methods and when such changes occurred.

c) Describe any dust suppression methods which may have been utilized during loading and unloading of process waste or ore at the site and the time periods during which such dust suppression methods were used.

Response to Interrogatory No. 27

a) See General Objection No. 1. Without waiving such objection, Kerr-McGee states that, in the period 1936 to 1953, monazite sand was received in 110 pound net burlap bags in box cars. Bags of monazite were manually transferred from the box car to a truck and taken to a storage area in the southwest corner of Building 5. The bags were thereafter unloaded into a transfer hopper which was carried by a crane to reaction kettles in Building 5.

In the period 1953 to approximately 1955, monazite ore was received in 110 pound net polyethylene-lined burlap bags in box cars. The cars were generally unloaded at the railroad siding dock in the southwest corner of Building 9.

Bags were placed on pallets, and trucked to storage in former Buildings 17 and 18. From Buildings 17 and 18, the material was trucked to the southwest corner of Building 9, the bags opened and dumped into the feed hopper of a bucket elevator and conveyed to the fourth floor of Building 9 for processing. The bucket elevator was installed in 1955. Prior to its installation, pallets of bagged monazite were trucked to freight elevators at the north end of Building 9 and moved by forklift truck to processing on the fourth floor of Building 9.

From 1955 to approximately 1970, bagged monazite was stored in Building 12, and the pallets were moved by forklift truck to the bucket elevator in Building 9.

Bastnasite ore was received in bags in box cars in the period 1955 to the late 1960's, and the palletized bags were stored in Building 12 until required for use. On removal from Building 12, the bags were carried by forklift to Building 4A where they were opened and the ore dumped into the feed hopper of a roasting furnace for the start of the ore processing.

b) No ore was transported for storage off-site. In the period 1952 to approximately 1954, truck movement of ore to Buildings 17 and 18 was via Weyrauch Street in West Chicago. After about 1954, this movement was via an

easement on the Elgin, Joliet and Eastern Railway along the west side of the property.

In the time period from the late 1930s to approximately 1945, byproduct calcium sulfate from the manufacture of hydrofluoric acid was moved in bulk in dump trucks to Reed-Keppler Park where it was used as fill, at the request of the City of West Chicago.

Solid wastes from plant operations in the period 1953 to the early 1970s were placed in steel tote boxes and moved by truck or forklift truck to the disposal site. The tote boxes were unloaded at the disposal site.

c) Dust suppression was not required for process wastes, since all of these were wet filter cakes which contained enough moisture to prevent dusting.

Monazite ore used in the period 1936 to 1953 was in the form of washed sand, and contained insignificant amounts of fines. No dust suppression methods were used in that time period. Monazite received in the period 1953 and later was generally produced by flotation processes and contained fines. These were controlled by a dust collector serving the feed and discharge ends of the bucket elevator in Building 9.

Interrogatory No. 28

At page 20 of its Response to the Staff's First Set of Interrogatories Kerr-McGee states:

"Catch basins at ground level adjacent to the loading docks at the southwest corner of Building 9 were also connected to the city storm sewer. The connection was filled in about 1974."

- a) When was the "catch basin" constructed?
- b) When was Building 9 constructed?
- c) Were all process wastes removed from the area of present Building 9 prior to commencing the construction of the "catch basin"?
- d) If the answer to Interrogatory 28(c) is no, describe any methods utilized to prevent waste material from entering the "catch basin."

Response to Interrogatory No. 28

- a) 1952 or 1953.
- b) 1952 to 1953.
- c) Yes.
- d) Not applicable.

Interrogatory No. 29

Describe the methods Kerr-McGee and its predecessors used for collecting and analyzing samples of surface waters, storm sewers, floor drains, sumps, and outfalls. If these methods have changed over time, describe the changes and when they took place.

Response to Interrogatory No. 29

Methods used in monitoring radioactivity in liquids are described in the West Chicago Health Physics Manual, which has been produced. See also KM Response to Staff Int. (Kress Creek) Nos. 24, 25; KM Response to State Int. (West Chicago) No. 6.

Interrogatory No. 30

Identify all persons who have collected samples of surface waters, storm sewers, sumps, floor drains, and outfalls, and state the time periods during which each such person collected samples.

Response to Interrogatory No. 30

Persons who have collected samples of liquids leaving the West Chicago site have been the staff of the Health Physics Group at West Chicago. No specific person is assigned to this work and the work has therefore been done by all the individuals on the staff listed below at various times since 1979:

Kerr-McGee Personnel

	<u>Dates</u>
Dodd, R.	06/13/83 to 08/09/83
Gilmour, M.	12/15/80 to 02/05/82
Krippel, M.	01/12/81 to Present
Lambert, K.	07/20/81 to Present
Marynew, E.	04/19/82 to Present
Munson, S.	10/01/79 to 10/01/83
O'Brien, K.	03/22/82 to 03/22/85
Polz, K.	04/01/81 to 09/23/83
Rumick, M.	01/03/84 to Present
Smith, N.	04/26/82 to Present
Swanson, M.	03/02/81 to 04/25/83
Tuttle, C.	07/09/84 to Present

RMC Techs

Cave, M.	11/01/84 to 02/01/85
Hassel, K.	11/01/84 to Present
Kotvan, R.	11/01/84 to Present
Line, J.	11/01/84 to Present

Interrogatory No. 31

Identify all personnel of Kerr-McGee and its predecessors who participated in formulating or deciding upon the methods Kerr-McGee and its predecessors have used for collecting and analyzing samples of surface waters, storm sewers, floor drains, sumps, and outfalls.

Response to Interrogatory No. 31

See General Objection No. 1. Kerr-McGee lacks sufficient information to identify all personnel of its predecessors engaged in such activity. Kerr-McGee personnel participating in formulating or deciding on the methods for collecting and analyzing samples of liquid outfall are W.J. Shelley, J.C. Stauter, E.T. Still, M. Krippel, S.C. Munson and Garet Van de Steeg.

Interrogatory No. 32

In its Amended Answer And Demand For Hearing Kerr-McGee "denies each and every allegation, characterization, conclusion of law and inference of fact of the first unnumbered paragraph of Part II [of the Show Cause Order]" Describe the factual basis for your denial of the first two sentences of that paragraph, namely, the allegations that:

Over the years, a portion of the wastes of the plant site have been disposed of by being discharged into Kress Creek ... either via a storm sewer or a drainage ditch. The wastes entered the creek at a point about 0.7 Km south of the Kerr-McGee site.

Response to Interrogatory No. 32

Kerr-McGee does not have sufficient information to determine whether, or if so how or when, any thorium-bearing materials from the plant site were "disposed of by being discharged" into Kress Creek.

Interrogatory No. 33

In its Amended Answer And Demand For Hearing, Kerr-McGee "denies each and every allegation, characterization, conclusion of law and inference of fact of the second, third and fourth paragraphs of Part III [of the Show Cause Order]"

a) Describe the factual basis for your denial of the second paragraph of that Part, namely, the allegations that:

A comprehensive, radiological survey of Kress Creek has now been performed by ORAU under contract to NRC. ... This survey indicated that lands adjacent to Kress Creek and the West Branch of the DuPage River are contaminated with thorium and with daughter products of the thorium decay chain essentially in secular equilibrium. Soil contamination levels and direct levels of radiation were found to be relatively constant throughout the length of Kress Creek, and to extend downstream along the West Branch of the River.

b) Describe the factual basis for your denial of the third and fourth paragraphs of that Part, namely the allegations that the Oak Ridge study found:

The average concentrations of total thorium (Th-232 & Th-228) at 1 meter from the edge of the creek at various depths were: 26.1 pCi/g (picocuries per gram) at the surface; 40.2 pCi/g at 15 cm depth; 38.9 pCi/g at 30 cm depth; 28.9 pCi/g at 60 cm depth; and 18.7 pCi/g between 60 and 90 cm. The soil concentrations decreased with increasing distance from the creek. The highest level of total thorium measured in a sample was 555 pCi/g, with a number of other samples exceeding 200 pCi/g. Many of the highest levels were detected in areas near the storm sewer outfall, and hence constitute a potential source of continuing contamination for locations further downstream.

Direct levels of radiation measured at 1, 5, 10, and 25 meters from the edge of the creek and 1 meter above ground surface averaged 28, 25, 21 and 14 uR/hr (microroentgen per hour) respectively. However, radiation levels greater than 100 uR/hr were detected in several locations. Normal background radiation levels in this area averaged 8.6 uR/hr.

Response to Interrogatory No. 33

a) Kerr-McGee objects to this interrogatory on the ground that it mischaracterizes the Amended Answer. Kerr-McGee admitted in its Amended Answer, subject to proof, "that certain studies have been conducted . . ." The ORAU study speaks for itself, and Kerr-McGee objects to any summary or characterization thereof. Kerr-McGee has not yet had an opportunity to conduct discovery with respect to the ORAU study, and accordingly lacks sufficient knowledge or information to admit particular findings of the study.

b) See Kerr-McGee Response to Int. No. 33(a), supra.

Interrogatory No. 34

Do the documents produced in response to the following document request constitute all documents responsive to that request?

Response to Interrogatory No. 34

Subject to the General Objections and other objections stated herein, all responsive documents have been produced or will be produced or made available for inspection shortly, except those documents subject to an attorney-client or work product privilege, or documents subject to the rules on expert discovery.

Interrogatory No. 35

Identify all expert witnesses whom Kerr-McGee expects to call at hearing, the subject matter on which each is expected to testify, a summary of the grounds for each opinion, and all documents on which each such opinion is based.

Response to Interrogatory No. 35

Kerr-McGee has not yet identified the experts whose testimony it plans to offer at the hearing. Kerr-McGee will provide supplemental responses to Interrogatory No. 35 at the time such expert witnesses are identified.

Interrogatory No. 36

Identify (a) the person(s) who provided the answers to these interrogatories, designated by interrogatory number, and (b) the custodian(s) of the documents produced and the person(s) who participated in preparing or assembling said documents.

Response to Interrogatory No. 36

Kerr-McGee objects to Interrogatory No. 36 as overly burdensome and not reasonably calculated to lead to the discovery of admissible evidence. Without waiving such objection, Kerr-McGee states that the individuals listed below participated in the preparation of the responses contained herein.

<u>Name</u>	<u>Present or Last Known Business Address</u>
Ivan Denny	P.O. Box 25861 Oklahoma City, OK 73125
Walter Harris	P.O. Box D West Chicago, IL 60185
Mark Krippel	P.O. Box D West Chicago, IL 60185
Howard Kremers	245 Roosevelt Rd. Bldg. 5, Unit 36 West Chicago, IL 60185

Scott Munson	P.O. Box 25861 Oklahoma City, OK 73125
William J. Shelley	P.O. Box 25861 Oklahoma City, OK 73125
John Stauter	P.O. Box 25861 Oklahoma City, OK 73125
Edwin Still	P.O. Box 25861 Oklahoma City, OK 73125

II.

Document Requests

General Objections and Responses

1. Kerr-McGee objects to the request to produce all documents "related" to responses to particular interrogatories, as being vague, overbroad, and burdensome, and accordingly not reasonably calculated to lead to the discovery of admissible evidence. Kerr-McGee has already produced for the State's inspection 1.5 million pages of documents relevant to this proceeding, many of which may be "related" to particular interrogatories in the State's Kress Creek First Set. Kerr-McGee has also produced to EPA on February 28, 1985, with copies to the State, substantial files and records related to the so-called "hot-spot" cleanup to which several of the State's interrogatories are directed. Kerr-McGee is not obligated to conduct a second search among those documents, or to produce those documents a second time.

2. Kerr-McGee will produce for the State's inspection, as well as for the inspection of other parties to this proceeding, all non-privileged documents not subject to the rules on expert discovery that have been (i) identified in response to any interrogatory or (ii) referred to or relied upon by Kerr-McGee in preparing its response to any interrogatory.

3. Kerr-McGee objects to the request to produce documents to the extent it calls for the production of widely distributed public documents already well-known to and in the files of the State. Such documents include the Kerr-McGee Stabilization Plan, the FES, and studies by Oak Ridge Associated Universities and Frigerio et al., among others.

4. Kerr-McGee objects to the request to produce documents to the extent it calls for the production of documents subject to attorney-client or work product privileges, or subject to the rules on expert discovery in Rule 26(b)(4) F.R.Civ.P., as applicable to this proceeding.

5. See General Objections and Responses to Interrogatories, supra.

Document Requests

Request No. 1

All documents related or responsive to each of the foregoing interrogatories, including all documents identified in answer thereto, and state to which interrogatory each such document relates or responds.

Response to Request No. 1

Subject to the General Objections and Responses set forth above, Kerr-McGee will produce copies of all documents identified in, or referred to or relied upon in answering, such interrogatories. Kerr-McGee will make a reasonable effort to identify the interrogatory to which individual responsive documents relate.

Request No. 2

All engineering diagrams or drawings related to the "drainage network" referred to at page 29 of Kerr-McGee's Response to the Staff's First Set of Interrogatories. These diagrams or drawings should cover the "drainage network" from its installation until the present.

Response to Request No. 2

Subject to the General Objections and Responses set forth above, Kerr-McGee will produce originals of all responsive engineering diagrams or drawings at a time and place to be agreed upon among the parties.

Request No. 3

Topographic maps of the site from the time operations began until the present. These maps should have an approximately one-foot contour interval.

Response to Request No. 3

Subject to the General Objections and Responses set forth above, Kerr-McGee will produce any responsive documents at a time and place to be agreed upon by the parties.

Request No. 4

Construction drawings for all cutting and filling at the site.

Response to Request No. 4

See General Objections and Responses No. 4.

Request No. 5

Map indicating precise locations for all storm sewer sampling Kerr-McGee or its predecessors have ever done, including Location No. 13 (which was missing from the map provided in response to the Staff's discovery request).

Response to Request No. 5

Kerr-McGee objects to Request No. 5 in that Location No. 13 is not a storm sewer sampling point. Location No. 13 is a sampling point in the sump under Building 14.

Request No. 6

All data, and summaries of such data, and all studies concerning such data, from sampling of effluent from the site, surface water, floor drains, storm sewers, sumps, and outfalls.

Response to Request No. 6

Subject to the General Objections and Responses set forth above, Kerr-McGee will produce responsive documents.

James L. Rainey
President
Kerr-McGee Chemical Corporation
123 Robert S. Kerr Avenue
Oklahoma City, OK 73125

State of Oklahoma
County of Oklahoma

Subscribed and sworn to before me on this ____ day
of _____, 1985.

Notary Public

My Commission Expires: _____

As to Objections:

Peter J. Nickles
Richard A. Meserve
Covington & Burling
1201 Pennsylvania Ave., N.W.
P.O. Box 7566
Washington, D.C. 20044

Attorneys for Kerr-McGee
Chemical Corporation

Dated: April 1, 1985

COVINGTON & BURLING

1201 PENNSYLVANIA AVENUE, N. W.

P. O. BOX 7566

WASHINGTON, D. C. 20044

(202) 662-6000

WRITER'S DIRECT DIAL NUMBER

(202) 662-5304

May 28, 1985

FONTAINE C. BRADLEY
EDWARD BURLING, JR.
HOWARD G. WESTWOOD
CHARLES A. HORSKY
JOHN T. SAPIENZA
JAMES H. MCGLOTHLIN
ERNEST W. JENNES
EDWIN S. COHEN
COUNSEL

JOHN SHERMAN COOPER
OF COUNSEL

TW: 710 662-0005 (CB WSH)
TELEX: 88-693 (COVLING WSH)
TELECOPIER INFORMATION:
(202) 662-6280
CABLE: COVLING

DANIEL M. GRISSON
STANLEY L. TENKO
JAMES C. MCAT
JOHN W. DOUGLAS
HAMILTON CAROTHERS
RALPH W. WILSON
ROBERT S. OWEN
EDGAR F. CZARRA, JR.
WILLIAM H. ALLEN
DAVID B. ISBELL
JOHN S. JONES, JR.
PAUL R. DUKE
PHILIP A. STANSBURY
CHARLES A. MILLER
PETER BARTON HUTT
HERBERT OYM
JOHN VANDERSTAR
HARRIS WEINSTEIN
JOHN B. DENNISTON
PETER J. NICKLES
JONATHAN D. BLAKE
CHARLES E. SUFFON
ROBERT N. SATLER
S. EDWARD BRUCE
DAVID M. BROWN
PAUL J. TAGLIABUE
ANDREW W. SINGER
DAVID H. HICKMAN
RUSSELL H. CARPENTER, JR.
NICHOLAS W. PELS
THEODORE L. GARNETT
DANA T. ACKERLY
JOHN M. VINE
JOHN THOMAS SMITH II
JOHN P. RUPP
CLAUSEN ELY, JR.
RICHARD F. KINGHAM
ROBERT M. SUSSMAN
MICHAEL R. LEVY
GEORGE B. REID, JR.
THOMAS S. WILLIAMSON, JR.
JOHN R. BOLTON
JOANNE B. GROSSMAN
MICHAEL HEWNER
GREGORY M. SCHMIDT
HARRY L. SHNIDERMAN
DON V. HARRIS, JR.
WILLIAM STANLEY, JR.
WEAVER W. DUNNAN
EDWIN M. ZIMMERMAN
JEROME ACKERMAN
HENRY P. SAILER
JOHN H. SCHAFER
ALFRED J. MOSER
JOHN LEMOYNE ELLICOTT
DAVID E. MCGIFFERT
H. EDWARD DUNKELBERGER, JR.
BRUCE MEADDOO CLAGETT
RICHARD A. BRADY
ROBERT E. O'MALLEY
EUGENE I. LAMBERT
NARRA A. WEISS
HARVEY M. APPLEBAUM
MICHAEL S. HORNE
CHARLES F. C. RUFF
MICHAEL BOUDIN
BINGHAM B. LEVERICH
ALLAN TOPOL
VIRGINIA G. WATKIN
RICHARD O. COPAKEN
CHARLES LISTER
PETER D. MOSCOFF
WESLEY S. WILLIAMS, JR.
CORIS D. BLAZEK
WILLIAM C. IVARSON
S. WILLIAM LIVINGSTON, JR.
JAMES R. ATWOOD
COLLEEN S. HICKS
EUGENE D. GULLAND
O. THOMAS JOHNSON, JR.
EUGENE A. LUDWIG
PATRICIA A. BARALD
REEVES C. WESTBROOK
THEODORE VOORHEES, JR.
JEFFREY G. MUELLE
PAUL J. BERMAN
WILLIAM P. SKINNER
GEORGE M. CHESTER, JR.
RICHARD A. MESERVE

Ms. Anne Rapkin
Assistant Attorney General
Environmental Control Division
100 W. Randolph Street
13th Floor
Chicago, Illinois 60601

Re: Kerr-McGee Chemical Corporation (Kress Creek
Decontamination), Dkt. No. 40-2061-SC,
ASLBP No. 84-502-01-SC

Dear Anne:

This letter is written in response to your April 15, 1985, letter concerning Kerr-McGee's responses to the People's first discovery request in the Kress Creek proceeding. Your letter requests that Kerr-McGee clarify or amend its responses to certain interrogatories or explain its reasons for responding as it has. The information provided below is intended to satisfy your request. This letter follows the format of your April 15 letter.

Interrogatory 1

Before turning to your comments, we must supplement our response. Kerr-McGee has recently discovered three other responsive documents relating to hypothetical remedial action at Kress Creek. We have decided to withdraw our previous privilege claims for these documents, and they are attached hereto.

a) You have requested that Kerr-McGee provide certain information to substantiate its privilege claims for documents identified on p. 6 of its response. With respect to the first document listed (the "Woodward-Clyde report"), such supplemental information is unnecessary, as Kerr-McGee has

Ms. Anne Rapkin
May 28, 1985
Page 2

decided to produce the document along with this letter. In addition, our privilege claim for the second listed document is withdrawn; it has already been produced.

With respect to the third listed document, which contains three attachments, Kerr-McGee has decided to produce the third attachment since it was previously made available to the NRC staff.

With respect to the remainder of the third listed document and the fourth listed document, Kerr-McGee maintains that these documents are protected by the work-product privilege. In addition, Kerr-McGee's further review of its files has located another privileged document relating to possible remedial action at Kress Creek. Thus, the responsive privileged documents as to which Kerr-McGee now asserts a work-product privilege are as follows:

1. Selective Decontamination of Kress Creek Banks; Kerr-McGee Memorandum plus first two attachments; E. Still to G. Rice, 4/26/82.
2. Kress Creek Comments; Kerr-McGee Memorandum, E. Still to G. Rice, E. Goltra, B. Shelley, G. Sinke, 2/23/82.
3. Kress Creek, Kerr-McGee Memorandum, E. Still to G.B. Rice, 2/11/82.

These documents were all generated shortly after December 18, 1981, when the NRC Staff issued an order concerning possible remedial action at Kress Creek. Each of these documents was prepared by E. Still in consultation with Gerald Charnoff, an attorney who was then advising Kerr-McGee, and in preparation for meetings with the NRC subsequent to issuance of the December, 1981 order. They were prepared during an NRC investigation and in anticipation of further litigation, and each concern the development of possible proposals to present to the NRC during the course of these proceedings. The documents contain technical information developed to support Kerr-McGee's position that Kress Creek poses insignificant risks and should not be disturbed by remedial action, comments on such information that reflect the opinion of the author and Kerr-McGee's counsel, and discussions of strategy for upcoming NRC meetings. All of this information was developed under the supervision of Mr. Charnoff. To the best of Kerr-McGee's knowledge, these documents have been shown only to the limited number of Kerr-McGee personnel involved in the Kress Creek

Ms. Anne Rapkin
May 28, 1985
Page 3

matter and to attorneys advising Kerr-McGee, including Mr. Charnoff, Mr. John Rhinelander, and present counsel. Kerr-McGee maintains that these documents are absolutely protected by the work-product privilege and by 10 C.F.R. § 2.740(b)(2). Kerr-McGee does not know at this time whether anyone who will testify at a hearing in this case will rely on any of these documents or on work done in connection with these documents.

You also ask Kerr-McGee to identify the documents specified in the carry-over paragraph of pages 6-7 of Kerr-McGee's response. Those documents are the three privileged documents listed above, documents produced herewith or already produced in this proceeding, and documents generated by expert consultants hired during the course of litigation to perform studies of possible remedial action at Kress Creek. With respect to the last category of documents -- the documents generated by expert consultants -- Kerr-McGee maintains that all such documents are governed by the special discovery rules pertaining to experts that have not been identified as trial witnesses. See Fed. R. Civ. P. 26(b)(4)(B); Carolina Power & Light Co. and N. Carolina Eastern Municipal Power Agency (Shearson Harris Nuclear Power Plant, Units 1 and 2), LBP-83-27A, 17 NRC 971, 976-80 (1983); Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), LBP-83-17, 17 NRC 490, 495-97 (1983). Under these rules, Kerr-McGee is not required at this time to provide any further information pertaining to these documents. In addition, Kerr-McGee maintains that these documents are protected by the work-product privilege and by 10 C.F.R. § 2.740(b)(2).

b) The People have requested that Kerr-McGee specify what responsive information or documents exist concerning the costs of remedial action at the Creek. As Kerr-McGee's response indicates, definitive cost estimates have not yet been performed -- and indeed are not yet possible -- because the nature and extent of required remedial action, if any, has not yet been defined. Other than documents recently prepared by experts hired during the course of litigation and documents which have been or are now being produced, the only document known to contain a discussion of cost issues is: Selected Decontamination of Kress Creek Banks, Kerr-McGee Memorandum plus first two attachments, E. Still to G. Rice, 4/26/82. That document is privileged for the reasons discussed above.

With respect to documents prepared by experts hired during the course of litigation to study cost issues, Kerr-McGee maintains that such documents are governed by Fed. R. Civ. P. 26(b)(4)(B) as applicable to this proceeding, and that Kerr-McGee is not required at this time to provide any further

information pertaining to these documents. Kerr-McGee further maintains that documents prepared by such experts are protected by the work-product privilege and by 10 C.F.R. § 2.740(b)(2).

Interrogatory 4

a) As explained in Kerr-McGee's response, off-site areas with an external gamma exposure rate of 35 uR/hr or greater at one meter above the surface are removed until background external gamma exposure rates are reached. Frigerio et. al., Thorium Residuals in West Chicago, Illinois at 2 (1978), reports that background external gamma exposure rates in the West Chicago area generally range between 14 and 25 uR/hr. At most off-site areas targeted for remedial action, Kerr-McGee removes contaminated material until the targeted portion of the property reveals gamma radiation at or below 15 uR/hr at one meter above the surface. At a few targeted areas located in the immediate vicinity of the site, where background levels are higher than 15 uR/hr, Kerr-McGee removes contaminated material until these higher background levels are reached.

b) The gamma level referred to in Kerr-McGee's response to subpart (b) is 35 uR/hr. Offsite areas with external gamma exposure rates at this level or below easily satisfy the criteria established by 10 C.F.R. Part 20. If a survey of an offsite property reveals gamma radiation above 35 uR/hr at one meter above the surface, remedial action is triggered and contaminated material is voluntarily removed until background gamma levels are reached on that specific portion of the property. As an additional margin of safety, Kerr-McGee routinely initiates remedial action if an offsite area reveals gamma radiation above 30 uR/hr at one meter.

c) Kerr-McGee maintains that its response to subpart (c) is adequate.

Interrogatory 10

In response to the People's interrogatory regarding "engineering or other means" that will minimize or eliminate adverse impacts associated with cleanup of the Creek, Kerr-McGee refers to its response to Interrogatory 9. In the last paragraph of that response, Kerr-McGee expresses its view that remedial action is inappropriate. Obviously, one means of eliminating adverse impacts associated with cleanup is to leave the Creek in its current condition. Further, as Kerr-McGee there states, "the risks associated with cleanup can be reduced by requiring a less extensive cleanup program than one that would be necessary to achieve the radium-in-soil levels stated in the Order

Ms. Anne Rapkin
May 28, 1985
Page 5

to Show Cause at all locations along the Creek and river." Beyond this, until the nature, scope and method of required remedial action, if any, are determined, Kerr-McGee is unable to say what specific "engineering or other means" might be used in conjunction with such a program to reduce adverse impacts associated with that program.

Interrogatory 12

Kerr-McGee maintains that its response to Interrogatory 12 is adequate.

Interrogatory 13

Kerr-McGee has produced, or is producing herewith, all documents relating to the "actual risks" to health and safety and to the environment from cleaning up Kress Creek except for one privileged document and documents prepared by outside experts hired during the course of litigation. The privileged document discussing this issue is Selected Decontamination of Kress Creek Banks, Kerr-McGee Memorandum plus first two attachments, E. Still to G. Rice, 4/26/82. The basis for Kerr-McGee's claim of privilege with respect to this document is described in our comments concerning Interrogatory 1(a) above.

The "further studies of this matter" referred to in Kerr-McGee's response are being performed by experts hired during the course of litigation. For the reasons explained in our comments concerning Interrogatory 1(a) above, these documents are being withheld pursuant to Fed. R. Civ. P. 26(b)(4)(B), as applicable to this proceeding, and Kerr-McGee is not required at this time to provide any further information pertaining to these documents. In addition, Kerr-McGee maintains that these documents are protected by the work-product privilege and by 10 C.F.R. § 2.740(b)(2).

Interrogatory 14

Kerr-McGee's response to your questions concerning Interrogatory 14 is identical to our response to your questions concerning Interrogatory 13 above.

Interrogatory 15

Kerr-McGee has produced, or is producing herewith, all documents responsive to this interrogatory except for the three privileged documents listed in our comments concerning Interrogatory 1(a) above and documents prepared by experts hired during the course of litigation. The basis for Kerr-

Ms. Anne Rapkin

May 28, 1985

Page 6

McGee's privilege claims is explained in our comments concerning Interrogatory 1(a), as are our reasons for withholding information about documents prepared by experts.

Interrogatory 20

Other than outside experts hired during the course of litigation, whose work product and identity are being withheld pursuant to Fed. R. Civ. P. 26(b)(4)(B) as applicable to this proceeding, and persons identified on p. 6 of our response or in the documents produced herewith, Kerr-McGee is unaware of persons that have engaged in cost calculations or studies of the health impacts or risks associated with remedial action. Kerr-McGee notes that at this time, no person has "knowledge" of the costs and risks associated with remedial action because the nature, method, and scope of such action, if any, have not yet been defined.

Interrogatory 26

i) The documents relating to releases from the holding tanks were mailed to the People along with Kerr-McGee's responses or have been made available for inspection in West Chicago. In addition, one recent document responsive to this interrogatory is produced herewith.

k) Treatment has been provided only for collected stormwater.

Interrogatory 29

The sampling methods described in the Health Physics Manual have been used by Kerr-McGee personnel beginning in October, 1979, up to the present. The Manual was prepared in 1981 at the request of the NRC, and simply sets forth the sampling methods that had been used since October, 1979.

Kerr-McGee's knowledge of the sampling methods used prior to October 1979 is very incomplete. Kerr-McGee has no knowledge of sampling that may have occurred prior to 1945. Attached is a memorandum reflecting one employee's unaided recollection of the sampling methodology that may have been applied for some periods prior to 1973. Kerr-McGee has not been able to verify the accuracy of these recollections concerning sampling by reference to documentation.

For the period between 1973 and October, 1979, Kerr-McGee has no knowledge that routine surface water, storm sewer, floor drain, sump or outfall sampling was conducted. With respect to spot sampling that may have occurred during

Ms. Anne Rapkin

May 28, 1985

Page 7

this period, if any, Kerr-McGee has no knowledge of the methods that may have been used.

Interrogatory 30

For some portion of the period from 1945 to 1973, Mr. Ed Maryniw recalls having collected samples, although Kerr-McGee has not been able to verify his recollection by reference to documentation. For the period from 1973 to October, 1979, Kerr-McGee is unaware of the identity of individuals, if any, who may have conducted sampling.

Interrogatory 31

According to Mr. Maryniw's recollection, for portions of the period from 1945 to 1973, sampling was performed under the supervision of, in chronological order, Drs. Kremers, Woyski, Healy and Silvernail and Mr. G. Sinke. These individuals may have participated in formulating the sampling methodology used during their tenure, although Kerr-McGee has not been able to verify their involvement by reference to documentation. Kerr-McGee has no knowledge of individuals, if any, who may have supervised and/or defined the methodology for sampling that may have occurred between 1973 and October, 1979.

Interrogatory 36

Each response to the People's interrogatories was prepared as a result of consultation among a number of people, each of whom has been identified. An attempt to allocate the answers to specific individuals would be unduly burdensome and essentially meaningless.

Document Request General Objection No. 1

Without waiving its objection, Kerr-McGee states that all documents responsive to this request were either mailed to the People along with Kerr-McGee's interrogatory responses, produced in connection with the Rare Earths proceeding, made available for the People's inspection in Oklahoma City on May 15 and 16, 1985, produced herewith, or made available for upcoming inspection in West Chicago.

Document Request General Objection No. 4

All responsive privileged documents have either been identified herein or identified with markers placed in files previously inspected or to be inspected in West Chicago.

COVINGTON & BURLING

Ms. Anne Rapkin

May 28, 1985

Page 8

Document Request No. 4

Without waiving its objection, Kerr-McGee states that all documents responsive to this request were either produced in connection with the Rare Earths proceeding or made available for the People's inspection in Oklahoma City and in West Chicago, with the exception of privileged documents and those protected by Fed. R. Civ. P. 26(b)(4)(B) as applicable to this proceeding. All privileged documents responsive to this request have been identified with markers placed in files either previously inspected or made available for inspection.

Sincerely,

Richard A. Meserve

cc: Stephen H. Lewis, Esq.
John C. Berghoff, Jr., Esq.
Thomas J. McDaniel, Esq.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)

Kerr-McGee Chemical Corporation)

(Kress Creek Decontamination))

Docket No. 40-2061-SC
ASLSP No. 84-502-01-SC

SUPPLEMENTAL RESPONSE BY KERR-McGEE CHEMICAL CORPORATION
TO THE STATE'S FIRST SET OF INTERROGATORIES AND
REQUEST FOR PRODUCTION OF DOCUMENTS

On April 1, 1985, Kerr-McGee Chemical Corporation ("Kerr-McGee") filed its Response to the State's First Set of Interrogatories and Request for Production of Documents (hereinafter "Kerr-McGee Response"). Kerr-McGee believes that its Response is adequate and that its objections to the State's interrogatories are well founded. At the State's request, however, Kerr-McGee has agreed to file supplemental responses to provide further clarification or supplementation to its responses to certain of the interrogatories propounded by the State. The general and specific objections set forth in the Kerr-McGee Response are hereby incorporated in this supplemental response.

Supplemental Answer to Interrogatory No. 1

a) With respect to the first two listed documents and the third document (third attachment only) on p. 6 of the

~~8505310094~~
1288

Kerr-McGee Response, Kerr-McGee has withdrawn its privilege claims and these documents have been produced.

With respect to the remainder of the third listed document and the fourth listed document on p. 6 of its Response, Kerr-McGee maintains that these documents are protected by the work-product privilege. In addition, Kerr-McGee's further review of its files has located another privileged document relating to possible remedial action at Kress Creek. Thus, the responsive privileged documents as to which Kerr-McGee now asserts a work-product privilege are as follows:

1. Selective Decontamination of Kress Creek Banks; Kerr-McGee Memorandum plus first two attachments; E. Still to G. Rice, 4/26/82.
2. Kress Creek Comments; Kerr-McGee Memorandum, E. Still to G. Rice, E. Goltra, B. Shelley, G. Sinke, 2/23/82.
3. Kress Creek, Kerr-McGee Memorandum, E. Still to G.B. Rice, 2/11/82.

The basis for Kerr-McGee's privilege claims with respect to these documents is set forth in a letter dated May 28, 1985, from R.A. Meserve to A. Rapkin, pp. 3-4.

The documents specified in the carry-over paragraph of pages 6-7 of the Kerr-McGee response are: the three privileged documents listed above, documents produced in this proceeding, and documents generated by expert consultants hired during the course of litigation to perform studies of possible remedial action at Kress Creek. With respect to the last category of documents -- the documents generated by expert

consultants -- all such documents are governed by the special discovery rules pertaining to experts that have not been identified as trial witnesses. See Fed. R. Civ. P. 26(b)(4)(B). In addition, these documents are protected by the work-product privilege and by 10 C.F.R. § 2.740(b)(2).

b) Definitive cost estimates have not yet been performed -- and indeed are not yet possible -- because the nature and extent of required remedial action, if any, has not yet been defined. Other than documents recently prepared by experts hired during the course of litigation and documents which have been produced, the only document known to contain a discussion of cost issues is: Selected Decontamination of Kress Creek Banks, Kerr-McGee Memorandum plus first two attachments, E. Still to G. Rice, 4/26/82. That document is privileged for the reasons set forth in a) above.

With respect to documents prepared by experts hired during the course of litigation to study cost issues, Kerr-McGee maintains that such documents are governed by Fed. R. Civ. P. 26(b)(4)(B) as applicable to this proceeding, and that Kerr-McGee is not required at this time to provide any further information pertaining to these documents. Kerr-McGee further maintains that documents prepared by such experts are protected by the work-product privilege and by 10 C.F.R. § 2.740(b)(2).

Supplemental Response to Interrogatory No. 4

a) As explained in the Kerr-McGee Response, off-site areas with an external gamma exposure rate of 35 uR/hr or

greater at one meter above the surface are removed until background external gamma exposure rates are reached. Frigerio et. al., Thorium Residuals in West Chicago, Illinois at 2 (1978), reports that background external gamma exposure rates in the West Chicago area generally range between 14 and 25 uR/hr. At most off-site areas targeted for remedial action, Kerr-McGee removes contaminated material until the targeted portion of the property reveals gamma radiation at or below 15 uR/hr at one meter above the surface. At a few targeted areas located in the immediate vicinity of the site, where background levels are higher than 15 uR/hr, Kerr-McGee removes contaminated material until these higher background levels are reached.

b) The gamma level referred to in the Kerr-McGee Response to subpart b) is 35 uR/hr. Offsite areas with external gamma exposure rates at this level or below easily satisfy the criteria established by 10 C.F.R. Part 20. If a survey of an offsite property reveals gamma radiation above 35 uR/hr at one meter above the surface, remedial action is triggered and contaminated material is voluntarily removed until background gamma levels are reached on that specific portion of the property. As an additional margin of safety, Kerr-McGee routinely initiates remedial action if an offsite area reveals gamma radiation above 30 uR/hr at one meter.

Supplemental Response to Interrogatory No. 10

One means of eliminating adverse impacts associated with cleanup is to leave the Creek in its current condition.

Further, as Kerr-McGee states in response to Interrogatory No. 9, "the risks associated with cleanup can be reduced by requiring a less extensive cleanup program than one that would be necessary to achieve the radium-in-soil levels stated in the Order to Show Cause at all locations along the Creek and river." Beyond this, until the nature, scope and method of required remedial action, if any, are determined, Kerr-McGee is unable to say what specific "engineering or other means" might be used in conjunction with such a program to reduce adverse impacts associated with that program.

Supplemental Response to Interrogatory No. 13

Kerr-McGee has produced all documents relating to the "actual risks" to health and safety and to the environment from cleaning up Kress Creek except for one privileged document and documents prepared by outside experts hired during the course of litigation. The privileged document discussing this issue is Selected Decontamination of Kress Creek Banks, Kerr-McGee Memorandum plus first two attachments, E. Still to G. Rice, 4/26/82. The basis for Kerr-McGee's claim of privilege with respect to this document is set forth in Supplemental Response to Interrogatory 1 a) above.

The "further studies of this matter" referred to in the Kerr-McGee Response are being performed by experts hired during the course of litigation. For the reasons explained in Supplemental Response to Interrogatory No. 1 a) above, these documents are being withheld pursuant to Fed. R. Civ.

P. 26(b) (4) (B), as applicable to this proceeding, and Kerr-McGee is not required at this time to provide any further information pertaining to these documents. In addition, Kerr-McGee maintains that these documents are protected by the work-product privilege and by 10 C.F.R. § 2.740(b) (2).

Supplemental Response to Interrogatory No. 14

See Supplemental Response to Interrogatory No. 13.

Supplemental Response to Interrogatory No. 15

Kerr-McGee has produced all documents responsive to this interrogatory except for the three privileged documents listed in Supplemental Response to Interrogatory No. 1 a) above and documents prepared by experts hired during the course of litigation. The basis for Kerr-McGee's privilege claims is explained in Supplemental Response to Interrogatory No. 1 a), as are Kerr-McGee's reasons for withholding information about documents prepared by experts.

Supplemental Response to Interrogatory No. 20

Other than outside experts hired during the course of litigation, whose work product and identity are being withheld pursuant to Fed. R. Civ. P. 26(b) (4) (B) as applicable to this proceeding, and persons identified on p. 6 of the Kerr-McGee Response or in documents recently produced, Kerr-McGee is unaware of persons that have engaged in cost calculations or studies of the health impacts or risks associated with remedial action. Kerr-McGee notes that at this time, no person has

"knowledge" of the costs and risks associated with remedial action because the nature, method, and scope of such action, if any, have not yet been defined.

Supplemental Response to Interrogatory No. 26

i) The documents relating to releases from the holding tanks were mailed to the State along with the Kerr-McGee Response or have been made available for inspection in West Chicago. In addition, one document responsive to this interrogatory was recently mailed to the State.

k) Treatment has been provided only for collected stormwater.

Supplemental Response to Interrogatory No. 29

The sampling methods described in the Health Physics Manual referred to in the Kerr-McGee Response have been used by Kerr-McGee personnel beginning in October, 1979, up to the present. The Manual was prepared in 1981 at the request of the NRC, and simply sets forth the sampling methods that had been used since October, 1979.

Kerr-McGee's knowledge of the sampling methods used prior to October 1979 is very incomplete. Kerr-McGee has no knowledge of sampling that may have occurred prior to 1945. The State was recently provided a memorandum reflecting one employee's unaided recollection of the sampling methodology that may have been applied for some periods prior to 1973. Kerr-McGee has not been able to verify the accuracy of these

recollections concerning sampling by reference to documentation.

For the period between 1973 and October, 1979, Kerr-McGee has no knowledge that routine surface water, storm sewer, floor drain, sump or outfall sampling was conducted. With respect to spot sampling that may have occurred during this period, if any, Kerr-McGee has no knowledge of the methods that may have been used.

Supplemental Response to Interrogatory No. 30

For some portion of the period from 1945 to 1973, Mr. Ed Maryniw recalls having collected samples, although Kerr-McGee has not been able to verify his recollection by reference to documentation. For the period from 1973 to October, 1979, Kerr-McGee is unaware of the identity of individuals, if any, who may have conducted sampling.

Supplemental Response to Interrogatory No. 31

According to Mr. Maryniw's recollection, for portions of the period from 1945 to 1973, sampling was performed under the supervision of, in chronological order, Drs. Kremers, Woyski, Healy and Silvernail and Mr. G. Sinke. These individuals may have participated in formulating the sampling methodology used during their tenure, although Kerr-McGee has not been able to verify their involvement by reference to documentation. Kerr-McGee has no knowledge of individuals, if any, who may have supervised and/or defined the methodology for sampling that may have occurred between 1973 and October, 1979.

Supplemental Response to Interrogatory No. 36

Each response to the People's interrogatories was prepared as a result of consultation among a number of people, each of whom has been identified. An attempt to allocate the answers to specific individuals would be unduly burdensome and essentially meaningless.

Supplement to Document Request General Objection
and Response No. 1

Without waiving its objection, Kerr-McGee states that all documents responsive to this request were either mailed to the People along with the Kerr-McGee Response, produced in connection with the Rare Earths proceeding, made available for the People's inspection in Oklahoma City on May 15 and 16, 1985, provided along with a letter dated May 28, 1985, from R.A. Meserve to A. Rapkin, or made available for upcoming inspection in West Chicago.

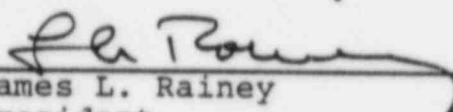
Supplement to Document Request General Objection
and Response No. 4

All responsive privileged documents have either been identified herein or identified with markers placed in files previously inspected or to be inspected in West Chicago.

Supplement to Response to Request No. 4

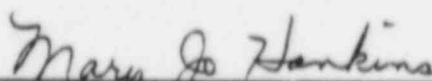
Without waiving its objection, Kerr-McGee states that all documents responsive to this request were either produced in connection with the Rare Earths proceeding or made available for the People's inspection in Oklahoma City and in West

Chicago, with the exception of privileged documents and those protected by Fed. R. Civ. P. 26(b)(4)(B) as applicable to this proceeding. All privileged documents responsive to this request have been identified with markers placed in files either previously inspected or made available for inspection.


James L. Rainey
President
Kerr-McGee Chemical Corporation
123 Robert S. Kerr Avenue
Oklahoma City, Oklahoma 73125


State of Oklahoma
County of Oklahoma

Subscribed and sworn to on this 28th day of MAY,
1985.


Notary Public

My Commission expires: April 15, 1989

As to objections:


Peter J. Nickles
Richard A. Meserve

COVINGTON & BURLING
1201 Pennsylvania Avenue, N.W.
P.O. Box 7566
Washington, D.C. 20044

Attorneys for Kerr-McGee
Chemical Corporation

Dated: May 28, 1985

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
)	
KERR-McGEE CHEMICAL CORPORATION)	Docket No. 40-2061-SC
)	ASLBP No. 84-502-01-SC
(Kress Creek Decontamination))	
)	

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing
Supplemental Response by Kerr-McGee Chemical Corporation to the
State's First Set of Interrogatories and Request for Production
of Documents have been served by first-class mail, postage
prepaid, on this 28th day of May, 1985, as follows:

John H. Frye, III, Esq.
Chairman
Atomic Safety and Licensing Board Panel
U.S. Nuclear Regulatory Commission
1717 H Street, N.W.
Washington, D.C. 20555

Dr. James H. Carpenter
Atomic Safety and Licensing Board Panel
U.S. Nuclear Regulatory Commission
1717 H Street, N.W.
Washington, D.C. 20555

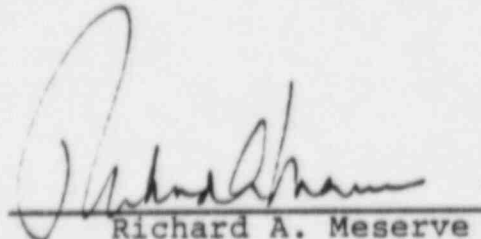
Dr. Peter A. Morris
Atomic Safety and Licensing Board Panel
U.S. Nuclear Regulatory Commission
1717 H Street, N.W.
Washington, D.C. 20555

Chief, Docketing & Service Section (3)
Office of the Secretary
U.S. Nuclear Regulatory Commission
1717 H Street, N.W.
Washington, D.C. 20555

Anne Rapkin, Esq.
William J. Barzano, Jr., Esq.
Russell R. Eggert, Esq.
Office of the Attorney General
State of Illinois
100 West Randolph Street
Chicago, Illinois 60601

Steven Seiple, Esq.
Illinois Department of Nuclear
Safety
1035 Outer Park Drive
Springfield, Illinois 62704

Stephen H. Lewis, Esq.
Lillian Cuoco, Esq.
Office of the Executive Legal Director
Nuclear Regulatory Commission
1717 H Street, N.W.
Washington, D.C. 20555


Richard A. Meserve

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

KERR-McGEE CHEMICAL CORPORATION

(Kress Creek Decontamination)

)
)
) Docket No. 40-2061-SC
) ASLBP No. 84-502-01-SC
)
)
)

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing
Kerr-McGee Response to the State's Motion to Compel Certain
Discovery Responses have been served by first-class mail, postage
prepaid (or by Express Mail as indicated by asterisk), on this
26th day of July, 1985, as follows:

John H. Frye, III, Esq.
Chairman
Atomic Safety and Licensing Board Panel
U.S. Nuclear Regulatory Commission
1717 H Street, N.W.
Washington, D.C. 20555

Dr. James H. Carpenter
Atomic Safety and Licensing Board Panel
U.S. Nuclear Regulatory Commission
1717 H Street, N.W.
Washington, D.C. 20555

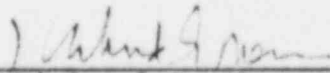
Dr. Peter A. Morris
Atomic Safety and Licensing Board Panel
U.S. Nuclear Regulatory Commission
1717 H Street, N.W.
Washington, D.C. 20555

Chief, Docketing & Service Section
Office of the Secretary
U.S. Nuclear Regulatory Commission
1717 H Street, N.W.
Washington, D.C. 20555

Anne Rapkin, Esq.*
William J. Barzano, Jr., Esq.
Russell R. Eggert, Esq.
Office of the Attorney General
State of Illinois
100 West Randolph Street
Chicago, Illinois 60601

Steven Seiple, Esq.
Illinois Department of Nuclear
Safety
1035 Outer Park Drive
Springfield, Illinois 62704

Stephen H. Lewis, Esq.
Lillian Cuoco, Esq.
Office of the Executive Legal Director
Nuclear Regulatory Commission
1717 H Street, N.W.
Washington, D.C. 20555



Richard A. Meserve