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MAY 17 1985

Senator Joseph Strohl, Chairman
Radioactive Waste Review Board
921 Tenney Building
110 East Main Street
Madison, WI 53702

Dear Senator Strohl:

WM Record File

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WM Project: 84
Docket No. _____
PDR ☒
LPDR _____

Distribution:

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(Return to WM, 623-SS)

SUBJECT: TIMING OF IDENTIFICATION OF POTENTIAL ACCEPTABLE SITES AND
REGION-TO-AREA SCREENING METHODOLOGY

This is in response to the concerns raised in your letters of April 18 and May 3, 1985, respectively, regarding the timing of the identification of Potentially Acceptable Sites (PAS) and the CRP's Region-to-Area Screening Methodology. Before responding to these concerns, I would like to take this opportunity to thank the Board for their active participation in reviewing and commenting on the subject methodology. While the Board and DOE still have differences in opinion over the methodology, I believe that the interactions between DOE and the State of Wisconsin, as well as the involvement of the other 16 crystalline states, has resulted in both an improved methodology and an enhanced understanding of our respective positions.

Before responding to Point #'s 1 through 5, I must disagree with your statements that the language added on page 15 of the final SMD represents a major new policy decision by DOE. At this point in time, no decision has been made that DOE will not identify PAS based on region-to-area screening. The following cites the specific points raised in your letters along with our response.

Point #1: A major policy decision was included on page 15 of the final Region-to-Area Screening Methodology for the CRP; that is, "In the event that DOE elects to identify potentially acceptable sites (PAS) at the beginning of the area phase, the region-to-area screening process has also been designed to allow the results to be utilized as the basis for such identification in accordance with 10 CFR 960.3-2-1. ..."

The two areas of concern regarding this issue, as contained in your letter of April 18, 1985, are specifically addressed in Point #'s 2 and 3 below. While it is true that the draft of the SMD assumed that PAS would be

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identified if the requisite ten findings required by Appendix III of the Siting Guidelines (10 CFR 960) could be made, several states have always maintained that a reconnaissance field program should be conducted in advance of any identification of PAS (see, for example, p. A-16 of the draft SMD). This opinion was reiterated by at least one state in its review of the draft document (see p. A-38 of the final SMD). While DOE continues to believe that such an approach will not be necessary, the addition of the language in question merely reflects our awareness of this possibility, as well as the possibility that either the number of candidate areas or their size might cause DOE to determine that it would be inappropriate to identify PAS even if the necessary findings and determinations required by 10 CFR 960.3-2-1 could be made. The issue of the number of candidate areas appropriate for identification as a PAS also involves consideration of DOE's practical ability to eliminate or defer a PAS prior to site nomination; a situation which did not occur in the first repository program and which contributed to DOE having to issue a draft environmental assessment for each PAS. Furthermore, the addition of the language in question is reflective of the fact that while DOE might be able to meet the technical requirements of 10 CFR 960.3-2-1, such findings and determinations might be more suitably made after some field work was conducted.

Point #2 - This major policy decision apparently paves the way for DOE to conduct field work in the area phase without affording affected states protections, offered by the Nuclear Waste Policy Act (NWPA), that are triggered by an identification of PAS. Specifically, these protections are financial assistance [(Sec. 116(c))] and negotiations on a C&C agreement [(Sec. 117(c))] if a state so wishes.

Although it is true that the NWPA provisions regarding financial assistance [Sec. 116(c)] and C&C agreements [Sec. 117(c)] are triggered by the identification of a PAS, the possibility has always existed that DOE would not be in a position to identify PAS based on region-to-area screening if the findings and determinations required by 10 CFR 960.3-2-1 could not be made. Furthermore, this possibility was specifically communicated to representatives of the State of Wisconsin during the public negotiating session held in Wausau, Wisconsin, on February 16, 1984, concerning a proposed regional phase agreement between the State and DOE. Regarding the conduct of field work in the area phase without a C&C agreement, DOE has consistently advised the State that the execution of a written agreement, whether a Section 117(c) agreement, or an informal agreement under Section 2.2 of DOE's "Internal Guidelines for Implementing the Consultation and Cooperation Provisions of Section 117 of the Nuclear Waste Policy Act of 1982", is not a precondition to the conduct of field work. This issue was specifically addressed in Mr. Silbergleid's letter to Mr. McAvoy, dated January 5, 1984, which states in pertinent part:

"One additional major point of difference should be pointed out at this time. Proposed paragraph E. of Article I states that 'Any federal activities in the area phase will be covered by a separate written agreement between the State and DOE before those activities are commenced by DOE...'. This provision would preclude DOE from conducting field work in the Area Phase in accordance with the CRP

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planned schedule and could severely impact our ability to meet the Act's July, 1989, statutory date for nomination of candidate sites for characterization. DOE can not agree to accept such a limitation on its statutory obligation to conduct a second repository program. It should be pointed out that neither the Act nor Chapter 62, Wisconsin Laws of 1981 contains such a restriction on DOE's ability to proceed with its screening program. While we recognize that this proposed provision is reflective of the current policy of the Radioactive Waste Review Board, and are willing to discuss alternative language concerning this point, e.g., notification, coordination, etc., DOE is not willing to accept an absolute limitation on our ability to conduct field work prior to the execution of an Area Phase agreement." (Emphasis added)

As you are well aware, this difference resulted in the Board's decision to suspend negotiations over a regional phase agreement as communicated to me in your letter of July 19, 1984. Finally, as we discussed in August, 1984, DOE remains agreeable to negotiating an appropriate written agreement, whether informal or under the NWPA, at any time although DOE's position regarding the preclusion of field work in the absence of an agreement remains unchanged.

With respect to financial assistance, DOE has made available to Wisconsin, along with the other crystalline states, financial assistance even though not specifically required by the NWPA. DOE will continue to make this assistance available even if PAS were not identified as a result of region-to-area screening.

Point #3 - This major policy decision was contained in a final technical document, and therefore was not subject to public review and comment, which violates at least the spirit of the Administrative Procedures Act. At the very least, DOE could have placed this decision in the draft SMD, which would have allowed the affected public to comment prior to a final DOE decision.

As noted previously, DOE does not regard the language in question as a major policy decision. More to the point, however, is that DOE has attempted to be as open and frank as possible concerning its plans for the CRP. The language was not included in the draft SMD since the decision to include such language was not made until the final review of the document. Similarly, this was the reason that it was not discussed during the meeting with the states in Albuquerque on February 6, 1985, where the states were advised of other changes to the SMD. I would also emphasize that DOE has not made a decision that it will not identify PAS based on region-to-area screening but has only advised the states that such a decision is possible even if the requirements of 10 CFR 960.3-2-1 can technically be met. I assure you that your concerns over this possibility will be considered by DOE before any decision is actually made to exercise this option.

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Point #4 - We assume that this major policy decision was made due to the realization that the possibility exists that the screening methodology, developed by DOE, will produce in excess of the number of sites DOE wishes to designate as "potentially acceptable," and further field work would be necessary to make this determination.

If this is the case, you have no one to blame but yourself. We have told you of this possibility since February 15, 1984, and your office has continually rejected state efforts to include more disqualifying factors and screening variables in the process. Your attitude has been one of keeping the process as limited and vague as possible, which has the effect of keeping your options open. Now you have the potential of too many "options" and could find that your screening methodology did not do the job which it was intended.

As indicated in my response to Point #1, the possibility that region-to-area screening might result in more sites than DOE might choose to identify as PAS was one of the reasons for the addition of the language in question. However, this was not the sole reason as my response indicates. Furthermore, DOE remains convinced that the region-to-area screening methodology will accomplish its intended purpose. I must respectfully disagree that my office has attempted to keep the process as limited and vague as possible. The reasons why additional disqualifying factors and screening variables were not included in the methodology is documented in Appendix A to both the draft and final SMD. In making its decision regarding the possible inclusion of these factors and variables, DOE seriously considered all the comments of Wisconsin, as well as the other states. The fact that we disagreed regarding several specific points (e.g., addition of transportation as a screening variable) does not mean that we didn't listen or that we were only interested in a process which left DOE with "too many options".

Point #5 - Regardless of this new policy decision, Wisconsin's position is firm: DOE will not be permitted to conduct any field work in any phase of the CRP in Wisconsin without a negotiated agreement, C&C or otherwise, in place between the two parties. Again, we stand ready at any time to negotiate such an agreement with your office.

While we continue to understand Wisconsin's position, the position of DOE is equally clear and firm as indicated in my response to Point #2. DOE will not agree to any written agreement which precludes us from proceeding into the area phase without a subsequent written agreement. However, we remain convinced that an appropriate agreement can be worked out in advance and as indicated in Mr. Morgan's letter to Mr. Walsh, dated September 28, 1983, "the Department is eager to discuss the scope and content of a written agreement as prescribed under Section 117(c) of the Nuclear Waste Policy Act of 1982 (the Act) even though we would not be in a position to sign such an agreement until such time as a determination is made that a potentially acceptable site is located in the State of Wisconsin." As indicated in my response to Point #2, DOE remains ready to negotiate and execute an appropriate, informal agreement at any time.

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With respect to your letter of May 3, 1985, I understand the concerns raised on pages 1 and 2 of your letter regarding both the Siting Guidelines and the screening methodology. Regarding your concerns over the Siting Guidelines, including the incorporation of the methodology into the guidelines, I believe it inappropriate for me to comment given the existence of two lawsuits over the guidelines and Wisconsin's intervention in one of these lawsuits. Regarding your concerns over the methodology, i.e., Disqualifying Conditions, Step 2 Variable Definitions, Step 2 Variable Scales, and Omitted Step 2 Variables, the Department's position regarding each of these issues is set forth in Appendix A to either the draft or final SMD. However, I believe that two of the points raised (Point #'s 6 and 7 below) merit specific response. In addition, the state's letter of March 15, 1985, will be responded to separately since it relates to the Regional Characterization Reports.

Point #6 - Step 2 Variable Definitions. Rock and mineral resources apparently do not include fossil fuels...

In finalizing the SMD, the disqualifying condition, Deep Mines and Quarries (Section 5.1.5 (pages 85-88) specifically excluded singular or multiple boreholes for exploration of mineral resources from the definition of this disqualifying condition for purposes of Step 1 of the screening methodology. However, a coal mine meeting the 100 meter depth requirement would be included. Also, given the definition of the rock and mineral resources variable which is "strategic and unique mineral resources at a depth less than 100 meters (328 feet)", your assumption is correct. In evaluating candidate areas resulting from the application of Steps 1 through 3 of the screening methodology, the CRP will assess whether there is evidence that these fuels are present in the candidate areas and whether their presence would impact the selection of any given area.

Point #7 - Omitted Step 2 Variables. Transportation is the most important of these. Against the advice of virtually all the crystalline states, DOE has refused to include transportation as a Step 2 variable in the region-to-area screening. DOE's reason that "no adequate variable can be defined" makes no sense, because Wisconsin has provided DOE with detailed advice on how to define transportation access and where to obtain the necessary data. However, DOE thinks that transportation is significant enough to be unilaterally evaluated "as part of selection of candidate areas." This is totally unacceptable. If transportation is important for selection of candidate areas, as we have urged all along, then it should be treated like all the other variables in Step 2.

DOE is well aware of the states' position regarding the inclusion of transportation as a Step 2 variable. Notwithstanding Wisconsin's detailed advice on how to define the variable, DOE's position remains that no adequate variable can be defined to measure transportation considerations realistically at the regional phase given the number and size of rock bodies for which multiple considerations and assumptions would have to be incorporated in a consistent and meaningful approach. We do not believe that our decision to evaluate transportation (e.g., existing highway and rail networks) as part of the selection of candidate areas is either inconsistent with transporta-

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tion's noninclusion as a variable or one that the state should characterize as "totally unacceptable". The results of this evaluation, as well as any other evaluations conducted by DOE which impact the selection of candidate areas in accordance with Section 3.3.1 of the final SMD, will be documented in the draft Area Recommendation Report which will be subject to state review and comment before any final selection of candidate areas by DOE. We have repeatedly assured the states of this as well as assuring the states that any data which is utilized in the process, and which is not contained in the final Regional Characterization Reports, will be documented and made available to the states. Accordingly, Wisconsin will have ample opportunity to review DOE's proposed decision, including the rationale, before it is finalized.

Before proceeding to respond to your concerns regarding the weighting workshop as set forth in your May 3, 1985 letter, I would like to thank the Board for its decision to participate in the workshop process. I believe that participation is consistent with both the spirit and intent of the consultation process envisioned by the NWPA and is beneficial to both DOE and the involved states. In addition, I would like to point out that most of these concerns have been addressed by members of my staff in meetings with state representatives, including Wisconsin, as well as in the final SMD (including Section 3.2.3 of Appendix A) and my letter to Mr. Kleinhans dated April 11, 1985, regarding the States Weighting Workshop.

Point #8 - DOE has refused to provide states with the results of its own weighting workshop, held in November, 1984, prior to the states workshop to be held May 20-22, 1985. There is no justification for DOE to withhold this information, which the states as a whole have requested, and which directly relates to the subject of the workshop.

As stated in my letter to Mr. Kleinhans dated April 11, 1985, DOE believes that "the release of the suite of weights developed at the CRP workshop could influence the suite of weights to be developed in a manner that is counter-productive to the objectives of the weighting process. It is DOE's objective to elicit a suite of weights that represents a broad spectrum of unbiased opinion regarding the relative importance of screening variables". (Emphasis added.)

Point #9 - DOE has not demonstrated that differential weighting of the screening variables is necessary or technically desirable. The most convincing way to do this would be for DOE to provide the states with an equally weighted base case map, which was promised in Atlanta on October 4, 1984, but which DOE now refuses to provide prior to the states workshop.

I assume that the thrust of your concern is the need for weighting of screening variables. As stated in my letter of April 11, 1985, DOE believes that "weighting is necessary for the discrimination between rock in the selection of candidate areas". Furthermore, the CRP has completed development of the software that will be utilized in screening and by applying selected sets of CRP weights to the digitized draft data based contained in the Regional Characterization Reports has determined that weighting will be necessary to select candidate areas.

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Finally, as stated in my letter of April 11th, the CRP remains concerned that providing an equally weighted base case map prior to the workshop could bias the participants, alter the outcome of the workshop, and represent a departure from how the CRP workshop was conducted. In addition, we are still awaiting the responses of a majority of the states, including Wisconsin, to my letter of March 15, 1985, requesting input as to what an equally weighted base case map means. Until that is determined, DOE will not prepare such a map.

Point #10 - DOE has not demonstrated that, to the extent differential weighting is useful, the weights developed by the DOE workshop are inadequate. The most convincing way to do this would be for DOE to provide the states with the results of its weighting workshop. As noted, DOE refused to do this prior to the states workshop.

The weighting workshop process, including state participation, has been a key component of the proposed screening methodology from its inception more than two years ago. While DOE recognizes that state participation in this process is different from the role of reviewer of DOE documents, it surprises us that Wisconsin would now suggest that state participation is not necessary unless DOE demonstrates that its weights are inadequate. While we believe that the CRP suite of weights is adequate, we also recognize that each individual set of weights represents the relative views of each subgroup on the interrelationship of the various variables. Participation by the states in developing a suite of weights reflecting their various views in this manner is important and beneficial to the CRP. Furthermore, it is highly likely that given the diverse opinions of the 17 states, what may be adequate to one state may be considered inadequate to another. To the extent that states choose to review and comment on the CRP suite of weights, after they have received and compared them to the State suite, DOE is prepared to respond and/or discuss this matter in the future.

Before responding to Point #'s 11, 12, and 13, I must disagree with your conclusion that DOE has not adequately addressed your concerns. These concerns were specifically responded to on pages A-80, A-81, and A-82 of Appendix A to the final SMD. What is clear from the dialogue over these issues, as well as others, is that DOE and Wisconsin have certain fundamental disagreements over the weighting workshop process and the screening methodology. What is also clear is that both of us understand the reasons for these disagreements and our respective positions. In my opinion, this is a key aspect of the consultation and cooperation process envisioned by the NWPA, not that DOE or the states must always agree. It is the exchange of views and opinions, and careful consideration by both sides, that will help ensure that a solution to the national problem of safely isolating high level radioactive waste and spent fuel is found.

Point #11 - DOE has not adequately responded to our concern that the constraints imposed on weighting workshop participants will compromise the results. There is no justification for DOE's assertion that "participants must utilize a common list of variables in weighting or the validity of the product can be compromised." Just the opposite is true. A participant who believes that a variable not on the list, e.g., transportation, is more important than those

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on the list, has no way to register his/her actual value preferences. Imposing a common list of variables inherently biases the process.

DOE understands and recognizes your position on this issue. However, in designing the methodology, and particularly the role of weighting, DOE believes that only a standardized approach, using a common set of variables and scales, could be utilized to ensure that the CRP could identify coincidence by application of representative sets of weights to generate composite favorability maps, as well as the summary composite maps. The summary composite maps will be the key input to the selection of candidate areas. Since this entire process will be documented in the draft Area Recommendation Report which will be subject to state review and comment before any final selection of candidate areas, the states will have ample opportunity to comment on the validity of the entire process, including the role and importance of the weighting workshop.

Point #12 - DOE has not adequately responded to our comment that the weighting process may be less statistically valid for group than for individual preference ranking. DOE's approach may be "functional" in that it serves DOE's needs, but DOE has provided no documentation in support of the technical validity of the chosen approach. There is a large body of literature on multiattribute models for decision-making, and one of the key issues in the literature is the extent to which such models are appropriate in a group context. We noted that SMD does not cite any technical references in support of the weighting process to be employed at the states workshop.

It is true that DOE has not provided specific references which describe this process. Given this approach evolved over a two-year time period with direct and frequent state involvement, DOE stands behind the selected approach to weighting as one that is both technically defensible and functional in support of the region-to-area screening. CRP presented a description of the weighting process to all of the states during a three day workshop in Atlanta, Georgia, February, 1984. In addition, a further description of the weighting process is included in the final SMD. While there were many items raised by individual states during the February workshop regarding the weighting process ultimately selected by the CRP, the vast majority of states accepted the selected approach as a valid process to incorporate both CRP and state views on the relative importance of variable weights. Using individual preferences in screening would result in the CRP facing the almost insurmountable problem of which individual weights to use. The selected approach samples various relevant constituents and technical communities to develop representative weights that capture a broad spectrum of views while avoiding the problems of using individual weights.

Point #13 - DOE has not adequately responded to our comment that the process "is meaningless if DOE does not agree to be bound by the weighting process results." DOE reserves the right to area recommendations based on "other considerations."

In addition to the specific response to this concern which is contained on page A-82 of the final SMD, your attention is directed to the set of state comments and DOE responses contained on pages A-107 and A-112 of the final

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SMD. Most importantly, Steps 1 through 3 of the region-to-area screening process, including state participation in generating a suite of weights, is considered a key input to the selection of candidate areas. The process described in Section 3.3.1 of the final SMD is designed to be a confirmatory step with respect to the output from the application of Steps 1 through 3, as well as allowing DOE to determine whether the intent of the Siting Guidelines could be better met by considering regionality, diversity of rock type, and geohydrologic settings. As previously noted, this entire process will be documented in the draft Area Recommendation Report.

I hope that I have adequately addressed your concerns on the important issues which you have raised in your letters. Feel free to contact me to discuss those matters further if you so desire.

Sally A. Mann, Manager
Crystalline Repository Project Office

cc: J. Kleinhans, Wisc.
Radioactive Waste Review Board