

UNITED STATES OF AMERICA
BEFORE THE NUCLEAR REGULATORY COMMISSION

In the Matter of

PROPOSED RULEMAKING ON THE STORAGE
AND DISPOSAL OF NUCLEAR WASTE

Docket No. PR 50-51

TESTIMONY ON BEHALF OF THE STATE OF WISCONSIN
REGARDING THE STATEMENT OF POSITION OF THE UNITED
STATES DEPARTMENT OF ENERGY IN THE MATTER OF
PROPOSED RULEMAKING ON THE STORAGE AND DISPOSAL OF
NUCLEAR WASTE (WASTE CONFIDENCE RULEMAKING) DOE/NE-
0007 (15 APRIL 1980) BY DR. JOHN E. KELLY.

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INTRODUCTION

Two themes run through the history of the nation's development of a waste management policy. The first, still widely prevalent, is that technological expertise is alone sufficient to solve the waste management problem. The second is that the consideration of nontechnological problems is not only irrelevant, but in many cases is actually a hindrance to technological progress.

Environmental Survey of the Reprocessing and Waste Management Portions of the LWR Fuel Cycle, A Task Force Report, William P. Bishop and Frank J. Miraglia, Jr., eds. (Nuclear Regulatory Commission, NUREG-0115, October 1976), Appendix D.

The Statement of Position of the United States Department of Energy(1) does not adequately deal with the social, political, and institutional aspects of radioactive waste management. The Statement grants the importance of nontechnical issues in achieving a timely solution to the waste management problem, and thus demonstrates some progress in understanding the nature of the problem. The Statement, however, lacks substance and specificity in sections dealing with nontechnical issues.

There is no evidence that DOE has undertaken research on nontechnical issues to the degree to which it has conducted technical research. Rather, the Statement says, "To demonstrate the Department of Energy's ability to understand and address the social, political, and institutional aspects of waste management, the Department's program plans and management structures are presented."(2) With the possible exception of the State Planning Council, however, the program

plans contain no concrete proposals, and management structures consist merely of diagrams and charts lacking substance and meaning. The Department has thus made little progress toward understanding and addressing the nontechnical issues which it now recognizes as crucial to the timely implementation of a waste management program.

The Statement thus fails to achieve its stated purpose in this rulemaking procedure. There is no reason to have confidence in DOE's ability to understand and address social, political, and institutional issues, and thus no reason to have confidence in its ability to find a timely solution to the waste management problem. The fact that DOE believes that a program lacking substance and specificity in nontechnical areas can provide reason for confidence further erodes the very sense of confidence it seeks to achieve.

In this testimony, we examine the Statement's treatment of social, political, and institutional issues and demonstrate its incompleteness in these respects. In order to be constructive in our criticism, we present the results of our recent survey of Wisconsin attitudes toward radioactive waste management (see Appendix 1). We apply our survey results to social, political, and institutional issues which the Statement fails to address, and we thus show how social science research can lead to better understanding of the issues and provide guidance to the waste management process.

Political and Institutional Issues

The Statement

The Statement's sections on political and institutional issues are characterized by singular faith in the State Planning Council and abundant use of the future tense. Given DOE's recent failure to inform, much less consult, the State Planning Council regarding research plans for Wisconsin, this faith hardly seems justified. With the Statement's primary operational component thus negated, vague references to what DOE will do hardly instill confidence that state and local governments will be informed, much less consulted, during the siting process. The Statement thus fails to appreciate the political realities and institutional necessities of waste management, and this failure gives reason to reject DOE's assertion that it can develop a timely solution to the problem.

The State Planning Council was created by the President on the recommendation of the Interagency Review Group. (3) The IRG Report calls for a process of consultation and concurrence between states and the federal government in selecting sites for a waste repository, and offers the State Planning Council as an instrument in this process. Neither the consultation and concurrence process nor the role of the State Planning Council, however, are well-defined in the IRG Report. The Statement nonetheless refers to the Council and the consultation and concurrence process as examples of DOE's program for involving state and local governments in the siting process.

DOE's recent failure to inform and consult the State Planning Council regarding its research plans for Wisconsin support suspicion that the federal government is either incapable of effectively involving state and local governments or insincere in its promises to do so, or both. Ms. Mary Louise Symon, Wisconsin representative to the State Planning Council, was assured by the Department of Interior that Wisconsin was not being actively considered as a site for a high-level radioactive waste repository, only to learn through the news media that DOE is beginning tests to assess areas in Wisconsin. As Ms. Symon points out in her letter to Governor Riley, Chairman of the State Planning Council (Appendix 3), this contradiction between the Department of Interior's words and DOE's actions indicate that "there is little coordination between federal agencies, contrary to the President's Executive Order." In light of this lack of coordination Ms. Symon also says, "If DOE persists in unilateral action, the State Planning Council might as well be dissolved now to save time, energy and money."

DOE's failure to use the State Planning Council as promised in the Statement is compounded by the vagueness of the consultation and concurrence process to which the Statement similarly appeals as evidence of its current program. The Statement refers to a workshop on consultation and concurrence organized by the Battelle Human Affairs Research Centers.(4) The workshop, however, raised more questions than it answered about consultation and concurrence.

The Workshop Proceedings contain summary remarks which question the very meaning of the term "concurrence," saying, "It is regrettable that the term concurrence was ever conceived." (5) This is another example of how the Statement appeals to illusory evidence to support its assertions. It appears as though DOE is unaware of the results of the workshop which it considers as a demonstration of its effectiveness.

Contradiction between the Statement and reality regarding the State Planning Council and the consultation and concurrence process undermine confidence in DOE's promises to establish additional mechanisms for state and local involvement in the siting process. For example, the Statement says,

At this stage (location and detailed site characterization studies), more direct contact between the Department and local officials and citizens will be established while maintaining communication channels with state government officials. Local information will be provided through many types of communication media. A Department representative may be assigned to specific locations to provide a source of information to local communities. (6)

Not only are such promises difficult to believe; they also lack substance. One is left to wonder how contact will be established. Which local officials and citizens will be contacted? How will they be selected? What type of information will be presented and by whom? Who will prepare the information? DOE's cavalier attitude toward the

considerable communication problem it faces may stem from the fact that it views communication as a one-way process in which it disseminates information to citizens who, after consuming it, unavoidably come around to the DOE position. If this is the case, as suggested by the Statement, then DOE is misguided. If this is not the case, then the Statement should describe the process by which state and local concerns are conveyed to DOE and, more importantly, specify how that information will be considered in the decision-making process. This requires more than diagrams with input arrows. It requires, to the same degree as technical issues, detailed plans based on research and experience. The Statement's summary remarks epitomize DOE's reliance upon unsubstantiated claims in areas where concrete examples are required.

In summary, a process is being developed that provides for cooperative Federal, State, and local government decision-making with respect to identifying candidate sites and selecting one for a license application. (7)

The Statement lacks evidence that such a process is, in fact, being developed, and DOE's performance thus far indicates that the existing components are not working. If the Statement lacked data and contained such misapprehension in its treatment of the technical aspects of waste management, DOE itself would probably admit that confidence in its ability to solve the waste problem is unjustified.

Survey Results

Our survey of Wisconsin residents addressed political and institutional issues regarding the roles of the state, local, and federal governments in management. We found that most people have little confidence in the federal government, and they want the state and local governments to play a more active role than that presented in the Statement. These findings indicate that DOE will encounter stiff opposition if it proceeds according to the plan presented in the Statement, so be it vague and insubstantial.

Regarding the waste problem, most (93%) do not think the problem has been solved, but 50% think it can be solved in fifteen years or less. Many people (14%), however, think it will take more than fifteen years to solve the problem, and 28% think the problem cannot be solved. Most people (76%) agree that the government is not moving fast enough in solving the problem, but some (13%) think that it is moving about right.

These findings indicate that most people will believe DOE's time frame for resolving the problem and would like to see the government get on with the job. But there is a considerable group which will challenge DOE's assertion that it can solve the problem. This group should not, however, be dismissed as hopeless naysayers. Most people (54%) do not believe that the federal government is concerned with what local citizens think about having a waste repository in their

community. If those who oppose DOE are disregarded, this feeling that the government doesn't care will be confirmed. Opponents should thus be considered as helpful adversaries who will challenge DOE to prove its ability and will thus promote credibility in the process.

Confidence in the federal government is quite low. Few (6%) consider the federal government to be the most reliable source of information about nuclear waste, just 2% more than those who consider friends and acquaintances to be the most reliable source. The news media and university scientists are considered more reliable -- 28% and 24%, respectively -- with environmental groups third -- 15%. This finding suggests that DOE's attempts to directly inform citizens will meet with low credibility. As an alternative, information should be distributed to the news media which can be expected to exercise the objectivity in reporting which has earned it the trust of the people. State and local governments also should be given the resources to employ university scientists to inform them, and DOE should inform environmental groups of its plans. DOE should not, under any circumstances, undertake an information campaign which in any way appears to be a public relations or propaganda program. For this will only lower its credibility and undermine its attempt to truly inform local citizens.

An active state role in waste management has widespread support among Wisconsin residents. Most people (80%) agree that the state government should have the power to prevent the

construction of a waste repository in Wisconsin. More specifically, 85% believe the state should play an active role in choosing the location; 86% for state licensing; 86% for state regulation; and 79% for an active state role in day-to-day operation of a repository. This suggests that the role of the State Planning Council and the consultation and concurrence process are less than what Wisconsin residents would like for their state government. The DOE position will thus fall short of expectations. Unless a more active role for the state can be developed, citizen opposition can be expected to be strong.

Wisconsin residents also want more local power in the siting process. Most people (71%) believe that local citizens should have the power to prevent the construction of a waste repository in their community. This indicates that federal preemption as mentioned in the Statement will meet with stiff opposition. Most people (69%) would actively express their opinion about a repository by either signing a petition (30%), contacting an elected representative (22%), participating in a demonstration (11%), or committing civil disobedience (6%). Many would only vote in a referendum (26%), and a few (4%) would do nothing. Many (47%), however, would not move away if a repository were built in their community; many of these volunteered that they would not move only because they have no place to go or lack the financial means to relocate. Some (10%) said they would definitely move; 14% probably would move; and 29% possibly would move. This indicates that siting

a repository in a community, especially without local consent, could cause out-migration of up to 53% of the population. This would constitute an unacceptable socioeconomic impact which is not mentioned in the Statement. DOE must take a more realistic look at the possible consequences of federal preemption before seriously considering it as an option. Furthermore, additional means for local participation in the siting process must be developed. Simply informing local government representatives and citizens is not sufficient. Rather, a local plebiscite may be necessary, but there is no evidence that DOE has seriously considered this or other options.

Despite widespread consensus about the power of state and local governments, there is no consensus as to who should own and operate a waste repository. The federal government, a public utility, and the state government were selected as the appropriate owners and operators by nearly equal numbers -- 24%, 23%, and 22%, respectively. The Statement, however, does not consider these options. Given the fairly even support for the three options above, DOE should review its decision as to ownership and operation of waste facility and present in its revised Statement evidence of consideration of each option, supported by research, on both public support for and the feasibility of the alternatives to unilateral federal ownership and operation.

Social Issues

The Statement

Despite claims to the contrary, the Statement does not address social issues. It does, however, admit that "it is possible that unanticipated or unresolved issues of concern at the State or local level could cause prolonged perturbation in the schedule." (8) Given DOE's obvious lack of research on social issues, every issue of concern is going to be "unanticipated," and given its failure to address social issues, state and local concerns probably will go unresolved until conflict arises. DOE attempts to excuse itself from responsibility for addressing social issues by saying, "Because social concerns are less easily predicted, less confidence can be placed in assessment of their impacts on the repository program." (9) While it is true that social concerns are difficult to predict, it is even more difficult to predict them without conducting research. Nontechnical issues resemble technical issues in this respect: without data, prediction is difficult if not impossible. So if and when social concerns do cause "perturbations in the schedule," it will be DOE's own fault for not addressing the issues rather than the fault of citizens for harboring concern about their health and safety and that of their children and future generations.

Our view of the Statement is supported by the Report of the Hearing Board Of Hearings Conducted for the Department of Energy on its Draft Generic Environmental Impact Statement.(10) The Board says,

The significance of social concerns and their political influence is apparent in the testimony of witnesses ranging from the pro-nuclear to the anti-nuclear. Witnesses emphasized, and the Board concurs, that the degree to which human concerns are taken into account could result in the success or failure of any waste management plan.

The (Draft Environmental Impact) Statement, however, deals inadequately with the humanistic effects ... detail is lacking on how participation by State and local governments and the public takes place ... In summary, humanistic considerations and consequences require much more sophisticated development and more social imagination.(11)

Unfortunately, there is no substantive difference between the DEIS and the Statement of Position in this regard. There is thus no reason to be optimistic that DOE can develop a waste management program in a timely fashion as required.

Survey Results

Our survey of Wisconsin residents addressed social issues. We found that social concerns are shared by those both favoring and opposing commercial nuclear power. We found that most people are concerned about the possible human health effects and environmental pollution which might be caused by a waste repository. Most people consider intangible benefits less important than the material benefits which may derive from a repository, and believe in parochialism and equity in the distribution of risks and benefits.

In regard to commercial nuclear power, Wisconsin residents favor additional nuclear power plants in the United States a little less than the national average in this post-Three Mile Island period. A Harris survey in August, 1979, indicated that 56% favor and 37% oppose building more plants in the U.S. (12) In our survey, 50% favor and 44% oppose more nuclear plants in the U.S. When asked about more nuclear plants in Wisconsin, support decreases to 41% and opposition increases to 55%. When asked about more plants in their community, support further decreases to 29% and opposition increases to 69%. These findings indicate that people are less opposed to nuclear power in general than to a nuclear power plant close to their homes.

Residents of Manitowoc County, host area of the Point Beach reactors, are more favorable toward nuclear power than the sample as a whole. In Manitowoc, 61% favor and 34% oppose more plants in the U.S. compared to 50% favor/44% oppose for the sample; 52% favor and 43% oppose more plants in Wisconsin compared to 41% favor/55% oppose for the sample; and 37% favor and 62% oppose more plants in their community compared to 29% favor/69% oppose for the sample. These differences between residents of a nuclear host community and nonhost communities congrue with previous surveys. The differences are the result of a reduction of perceived risk through familiarity and reduction of cognitive dissonance. It is noteworthy, however, that the differences are insignificant when it comes to having a nuclear power plant in the community.

Support for nuclear power is correlated with the perceived need for more electric generating plants in Wisconsin. Most people (61%) see the need for more electric plants in the next ten years; 28% do not. Of those who see the need for more electric plants, 55% favor and 45% oppose more nuclear power plants in general. Of those who do not see the need for more electric plants, 11% favor and 89% oppose more nuclear plants. Since the perceived need for additional electric plants is commonly associated with attitudes toward growth, this finding indicates that people who favor growth also favor nuclear power, and inversely, those opposed to growth also oppose nuclear power.

The relationship between attitudes toward nuclear power and attitudes toward radioactive waste are complex. A few generalizations are possible: pro-nuclear people are a little more optimistic about solving the waste problem and a little less opposed to a waste repository than are anti-nuclear people, but pro-nuclear and anti-nuclear people held similar values in regard to perceived risks and benefits, equity, parochialism, and the roles of state and local governments.

Most people (93%) believe the nuclear waste problem has not been solved. The differences between pro- and anti-nuclear people in this regard are insignificant. In regard to how long it will take to solve the problem, however, 34% of the pro-nuclear people think it will take five or ten years, while 24% of the anti-nuclear people think it either will take more

than fifteen years or can't be solved. Pro-nuclear people are thus more optimistic about solving the waste problem than are anti-nuclear people.

A more direct link between nuclear power and nuclear waste is provided by the question of whether people would favor building more nuclear power plants when the waste problem is solved. Most people (59%) said they would favor more plants; 15% said maybe; and 15% said no. Most pro-nuclear people, of course, said they would favor more plants. Among anti-nuclear people, 46% said they would favor more plants and 21% said maybe. This indicates that the waste problem definitely is a primary reason why people oppose nuclear power and that solving the waste problem will increase support for nuclear power.

There is less support for a waste repository than for nuclear power plants. Some people (33%) favor a repository in Wisconsin, but most (62%) oppose it. This compares with the 41% favor/55% oppose for more nuclear plants in Wisconsin. Fewer people (22%) favor a repository in their community, and most (74%) oppose it. This compares with the 29% favor/69% oppose for a nuclear power plant in the community. This indicates, and cross-tabulations prove, that some pro-nuclear people oppose a waste repository.

Correlations between attitudes toward nuclear power and a waste repository bode well for nuclear power but foreshadow persistent opposition to a waste repository. Assuming the waste problem can be solved, nuclear power will gain the

support of many people who are now anti-nuclear. Siting a waste repository, however, will incur opposition from both anti-nuclear and some pro-nuclear people. Close examination of the favor/oppose questions which were asked on a four-point scale -- strong favor, mildly favor, mildly oppose, strongly oppose -- indicates that many people move along the nuclear power scale one point in opposition to a waste repository. Commercial nuclear power thus temporarily bears the burden of the unsolved waste problem, while waste management may permanently bear the opposition to nuclear power. There is a ring of Catch-22 in that solving the waste problem will increase support for nuclear power which may increase support for a waste repository which, of course, is necessary to solve the waste problem in the first place.

The relationship between nuclear power and waste repository attitudes provides some guidance to the siting process. Given the higher level of support for nuclear power in host communities and the correlation between nuclear power and waste repository attitudes, it is reasonable to assume that a host community would be more likely to accept a waste repository than a nonhost community. This is supported by a lower level of opposition to a waste repository in Manitowoc County, a host community, than in the whole sample. In Manitowoc County, 33% favor and 62% oppose a waste repository in their community compared with 23% favor and 73% oppose in the whole sample. Manitowoc residents look on a repository in

Wisconsin even more favorably than the whole sample. About half favor (45%) and oppose (48%) a repository in Wisconsin compared to 33% favor and 62% oppose for the whole sample.

The concept of siting a waste repository in a host community is further supported by the question of safety. Though Wisconsin residents generally perceive a waste repository as not so safe (48%), only 35% of Manitowoc residents agree. Most Manitowoc residents (57%) think a repository is either very or somewhat safe, compared to 46% for the whole sample. Siting a repository in a host community may thus encounter less opposition on the safety issue which is a primary social concern for both waste management and nuclear power.

The safety question is also correlated with support for nuclear power. Most people (82%) who strongly favor nuclear power believe a waste repository to be very safe or somewhat safe, and 72% of those who strongly oppose nuclear power believe a repository to be not so safe. Among those who mildly favor or oppose nuclear power, however, the correlation does not hold. It is among these mild opinion holders that the shift down the scale from pro-nuclear to anti-repository occurs. The perception of greater safety in a host community and among strong proponents of nuclear power thus may stem from familiarity and reduction of cognitive dissonance applied to nuclear facilities in general.

Despite their differences, pro- and anti-nuclear people hold similar views of the risks of a waste repository. When given a list of possible risks and asked to name their first and second most important concerns, most people (71%) said human health effects concerned them most. Among second most important concerns, environmental pollution and fires and explosions ranked first and second -- 39% and 20%, respectively. Lower property values, transportation accidents, adverse economic impacts, and danger of sabotage were much lesser concerns.

These findings raise an important question about the Statement. Health effects and environmental pollution are greater concerns than such material impacts as lower property values and adverse economic impacts. Yet the Statement addresses only material socioeconomic impacts and ignores concerns about health and environment. The Statement also addresses, however briefly, the danger of sabotage and transportation accidents, both of which are lesser concerns. DOE is obviously not in touch with social reality. We therefore suggest that DOE undertake research to determine the nature and magnitude of social concerns and revise its Statement accordingly. Until such research is conducted and the results are incorporated in the waste management plan, there is little reason to have confidence in DOE's ability to solve the waste problem in a timely manner.

In regard to the possible benefits deriving from a waste repository, there is little difference between pro-and anti-nuclear people. When given a list of possible benefits, less dependence on foreign oil was selected most often (45%) as the most important benefit. For second most important, the material benefits of more jobs, lower taxes, and cheaper electricity were selected most often -- 26%, 21%, and 17%, respectively. While selection of the material benefits is understandable, the perception of a waste repository as leading to less dependence on foreign oil bears some analysis. It seems reasonable to assume that people see a waste repository as a means of opening the way for more nuclear power plants and thus decreasing dependence on oil as a source of needed electricity. This argument is supported by the perceived need for more electric plants and the willingness to favor more nuclear plants when the waste problem is solved.

These findings also speak to the Statement. People may agree with the President that nuclear waste is a national issue and that a waste repository is a necessary part of our nation's energy independence strategy. If this is the case, DOE's pitch for local acceptance in the name of national duty is on the mark. It may be, however, that people are simply so concerned about U.S. dependence on foreign oil that they would be willing to consider anything which might decrease it. This latter view is supported over the former view by a high degree of parochialism.

Parochialism leads Wisconsin residents to believe that a waste repository in Wisconsin should be for Wisconsin wastes only. Most people (71%) hold this view. Few (7%) believe it should be a regional repository; fewer (5%), a national repository; and even fewer (2%), an international repository. Furthermore, when asked if a repository for medical wastes only would be more or less acceptable or the same, response rates were 33%, 12%, and 47%, respectively. But when asked about a repository for military wastes only, the response rate shifted to 12%, 36%, and 44%, respectively. Evidently the humanitarianism of accepting medical wastes does not translate into the nationalism of accepting military wastes.

These findings point out another deficiency in the Statement. DOE has not addressed the issue of parochialism, nor has the question of whether a waste repository will be for military as well as commercial wastes been decisively addressed. Our results indicate that public acceptance will be greatly affected by these issues, and DOE should therefore consider the possible options in its revised Statement.

The equity issue will also be important in the siting process. Most people (55%) think that people who use electricity from a nuclear power plant should also accept a nuclear waste repository; 35% do not hold this view of equity. This finding further supports the concept of siting a repository in a nuclear plant host community. When asked who should pay for waste disposal, most (67%) said the owners of

the plants; some (13%) said the federal government and some (10%) said the consumers who used the electricity from the plants. The Statement does not address this aspect of equity in its economic sections, but the issues of who pays will inevitably be raised in the siting process. Furthermore, it seems reasonable to assume that people are concerned about who appears to pay as well as who actually pays for waste disposal since the difference between the owners of nuclear plants and consumers is spurious when it comes to paying for operating expenses.

The siting process was directly addressed by another question. We asked people what would be most important to them in making their decision if a waste repository were proposed for their community. In order of importance, information from university scientists, a feeling that you have a say in how things are done, and assurances from the government were selected most often. The promise of payments to your community were less important.

These findings point out the critical need for more specificity in the Statement. A detailed plan for providing communities with the resources to employ university scientists to advise them must be presented, and a mechanism for citizen participation in the decision-making process must be developed and tested before the Statement can be considered sufficient to justify confidence. Further, DOE must develop a method for assuring people that their health and environment will be

protected. This requires more than public hearings and official correspondence as described in the Statement. Unless DOE undertakes serious research on these issues as it has done for technical issues, its waste management program is bound for trouble in the siting process. Even if it does diligently undertake these tasks, the siting process will not be without conflict, but at least a serious effort to address social concerns will have been made rather than the charade offered by the Statement.

CONCLUSIONS

When we testified in a similar proceeding before the Nuclear Regulatory Commission in 1977, nontechnical issues were totally divorced from technical issues. We argued that this dichotomy was counter-productive because nontechnical issues are as, if not more important than, technical issues in determining whether and when waste disposal can be accomplished. We also argued that the Commission had failed to provide a satisfactory forum for the consideration of nontechnical issues.

We now find ourselves in a proceeding which appears more receptive to our concerns. We have at least reached the point where nontechnical issues are considered in conjunction with technical issues. Nontechnical issues, however, are given short shrift in the DOE Statement. The progress toward a comprehensive waste management plan, though heartening to those who desire a timely solution to the problem, is thus more appearance than reality.

All is not lost, however. Awareness of the problem, as the adage goes, is half the solution. If DOE will now proceed to develop and implement a research plan for the nontechnical issues, as it has done for the technical issues, real progress can be made. We may even hope that DOE will learn from its previous errors in technical research and realize that, when it comes to sound research, quicker is not better. To achieve a thorough understanding of the social, political, and institutional issues of waste management will take time. And though time appears to be a scarce commodity, taking the time to conduct the necessary research will reduce rather than expand the timeframe for waste disposal.

We have presented the results of our modest survey to demonstrate that social science research can improve the understanding of social, political, and institutional issues. Our results indicate that most people share DOE's desire for a timely solution to the waste problem. Their concerns are not prohibitive but rather protective.

But the central issue goes beyond specific concerns. People are concerned about social change. They do not oppose change. Rather, they want to be a part of it. They want to feel as though they have a say in how things are done. They need to know that they have the power to prevent it even if they have no desire to exercise that power. If DOE will recognize that a waste repository represents substantial social change to a community, even if it does not cause immigration, out-migration, infrastructure impacts and the rest,

then it will find social concerns more comprehensible. But understanding does not equal the ability to manage social concerns. Managing social change may be a contradiction in terms. But understanding the nature and magnitude of social concerns will make it easier for DOE to deal with those concerns in a constructive manner. And DOE will find community concerns can also be constructive criticism rather than simply "perturbations in the schedule."

REFERENCES

1. Statement of Position of the United States Department of Energy, 15 April 1980. Hereafter the Statement.
2. Ibid., p. I-9.
3. Report to the President by the Interagency Review Group on Nuclear Waste Management, March 1979.
4. Statement, p. III-26.
5. Reiser, Rock, et al., eds., Consultation and Concurrence, Workshop Proceedings, January 1980.
6. Statement, p. III-29.
7. Ibid., p. III-61.
8. Ibid., p. III-31.
9. Ibid., p. III-87.
10. Report on the Hearing Board of Hearing Conducted for the Department of Energy on its Draft Generic Environmental Impact Statement, February 1980.
11. Ibid., pp. 11-12.
12. Louis Harris & Associates, August 1979.

APPENDIX I

Survey Method

Six communities in three counties were surveyed. The survey population was selected to provide comparative data on resident attitudes under the following conditions:

- *Nuclear power plant host community in which expanded spent fuel storage and equipment decommissioning are pending issues (Manitowoc County).

- *Nonhost community (Shawano and Waushara Counties).

- *Community which qualifies as a waste repository site under the generic criteria for granite and in which waste disposal has been the source of public controversy (Waushara County).

- *Qualified community in which waste disposal has not been the source of public controversy at the time of the survey (Shawano County).

- *Unqualified community (Manitowoc County).

The counties are predominantly rural, with populations slightly older and incomes slightly lower than the state medians. The survey population nonetheless provides a reasonably representative sample of Wisconsin residents.

The survey sample consisted of 10% of the largest county (Manitowoc) and 15% of the smaller counties (Shawano and Waushara), for a total of 426. Interviewees were randomly

selected from telephone directories. The sample was evenly distributed across educational level and family income.

The survey was conducted by telephone between 10:00 a.m. and 9:00 p.m., May 20 through June 9, 1980. Eight interviewers placed 1382 calls and completed 407 surveys. Interviewer performance was monitored, and the results showed no significant differences among interviewers.

The telephone method resulted in a higher percentage of female (58%) than male (42%) interviewees. Consequently, individual incomes were lower than family incomes. The sample reflected the older median age of the survey population, with 21% of the interviewees 60 years old or older. Though the uneven distribution by sex is reflected in less favorable attitudes toward both nuclear power and a waste repository, the uneven age distribution does not appear significant.

The Wisconsin Attorney General's Office commissioned Dr. John E. Kelly to design the survey and analyze the results. Dr. Kelly was given complete autonomy in both the design and analysis. The survey instrument was pilot tested in New Hampshire and Wisconsin, and several questions had to be deleted to shorten the interview to an acceptable length -- between 15 and 20 minutes. The survey was conducted by the Attorney General's Office. Except for two questions which used an experimental format, the results indicate no problem with the survey instrument.

BOARD OF SUPERVISORS

County of Dane

COURT HOUSE - MADISON, WISCONSIN 53709



May 5, 1980

The Honorable Richard W. Riley
Governor of South Carolina
State House
Columbia, SC 29211

Dear Governor:

It is incredible that the Department of Energy chooses to implement policy through the mass media rather than appropriate authority. The newspaper article indicates that the department will be testing feasibility for a high level nuclear waste depository in Wisconsin (see enclosed). The State was not notified and the Planning Council was unaware that this was being done. DOE continually expresses the need for state involvement, but the Governor of Wisconsin and the Governor's Committee on Radioactive Waste Disposal and I, as a member of the Planning Council, were not informed of the decision to make the study. We had to read about it in the newspaper. This undermines any confidence that I had in DOE's stated purpose. This action jeopardizes DOE's credibility concerning the concept of consultation and concurrence.

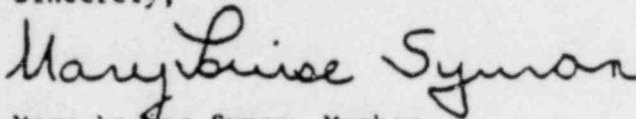
I had been assured by Joan Davenport, Department of the Interior, that Wisconsin was not actively being considered as a high level waste site. Apparently, there is little coordination between the federal agencies, contrary to the President's Executive Order. If DOE is going to conduct such an exercise, notice should have been given to the State Planning Council members and the Governor's office. How can DOE expect cooperation when policy matters are conducted through the mass media rather than through the appropriate channels? This situation has brought about much public concern, not only regarding where the testing will be conducted, but also regarding my position with the Governor and the Governor's Radioactive Waste Disposal Committee. There is absolutely no justification for conducting business this way. I can see no way to rectify this situation.

POOR ORIGINAL

The Honorable Richard W. Riley
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From now on, the State Planning Council and Executive Heads of State Government must be informed of all intentions and procedures involving radioactive waste disposal. If DOE persists in unilateral action, the State Planning Council might as well be dissolved now to save time, energy and money. I hope public and state government confidence in the process has not been irreparably damaged.

Sincerely,



Mary Louise Symon, Member
State Planning Council of Wisconsin

MLS:seb

cc: State Planning Council Members and Alternates

POOR ORIGINAL

APPENDIX 3

Qualifications of Dr. John E. Kelly

Dr. Kelly is Assistant Professor of Communication and Systems Research at the Complex Systems Research Center, University of New Hampshire, Durham, N.H. 03824. He received his Ph.D in American Civilization (1976) from Brown University and his B.A. (1971) from the University of North Carolina at Chapel Hill. Before joining the UNH faculty in 1978, he was a Marine Policy Fellow at the Woods Hole Oceanographic Institution (1976-1978). He has written on communications theory, public opinion and social change, and decision-making in science and public policy.