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US NRC

(63FR12040)

To SECT for docketing, 6/2/98

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David L. Meyer, Chief Rules and Directives Branch '98 JUN -3 P1:46 Division of Administrative Services Office of Administration United States Nuclear Regulatory Commission Washington, D.C. 20555-001

Dear Mr. Meyer,

The following comments are in reference to Docket Number PRM-72-4, Prairie Island Coalition's petition for rulemaking. The form and content of C.U.R.E.'s comments have been primarily shaped by the NRC public communication documents from the NRC Strategic Assessment and Rebaselining initiative as well as the documents available on *Public Involvement in the Nuclear Regulatory Process* available on the NRC website. C.U.R.E. is a grasssroots citizen group which advocates for responsible nuclear waste storage. We have found the NRC documents clear and useful. They have aided our understanding about how the public can be more involved in nuclear waste policy and regulation.

Misunderstanding of public concern often results of from a failure to recognize that it is the <u>long-term</u> risks and costs associated with nuclear waste storage that are primary to citizens. The interests associated with this temporal perspective are quite different than those that are central to the utility or even to regulating agencies. Issues of maintenance, monitoring, management and funding, health and safety - all look different from a long-term perspective. It is imperative that the 'long term' begins to be more effectively factored into cost-benefit, health and safety, risk and performance standards.

C.U.R.E. supports rulemaking that will facilitate greater regulatory coherence between commercial reactor operation, decommissioning and storage; also within the nuclear waste storage framework. Uncertainties increase risk. We feel that the purpose and effect of this particular rulemaking should be to reduce the uncertainties surrounding degradation, loading and transfer of nuclear wastes and should provide for the development of contingency analysis of the interaction between storage timelines, technologies and degradation factors. NRC should use the full extent of resources available to the agency from public, professional, governmental and industry sources.

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In addition, C.U.R.E. encourages NRC to shift from a 'confidence' based to risk-informed and performance-based analysis and decision making in waste storage regulation. In its committment to the best and most efficient use of public resources NRC should consider ways of bringing the public into partnership, as it has found ways to partner with the industry in efforts to fulfill its mission. We hope to see an increased use of non-adversartial models such as those mentioned as part of NRC's "enhanced participatory rulemaking", We hope that NRC will consider building into its rulemakings, avenues for public input that enhance rather than drain the resources of the agency.

Please include this letter and the questions which follow our comments in your on line service. It is not necessary to include the body of our comments or the appendix which we developed in response to your SDI paper on Public Communications Initiatives.

Thank you, ma funtice alle

Kristen Eide-Tollefson for C.U.R.E.

I can be reached at 612-331-1430 or (612) 345-5488

5/25/08

Communities United for Reponsible Energy • p.o.box 130 Frontenac, MN 55026 Following is a list of questions that members of C.U.R.E. helped to develop for a related forum, around the questions of degradation and its impact on unloading, transfer, transportation and storage strategies. We hope that this rulemaking will either address these questions or bring us closer to being able to address them.

Thank you

1) For such purposes is it desirable that a distinction be made by NRC regarding standards for the integrity of cladding in:

1) storage and

2) any transfer of materials in case of emergency or need to transport the fuel.

2) Under what circumstances could failure of integrity of the cladding affect safety?

1) What is the potential for criticality

a) under long term storage conditions,

b) in combination with transfers of fuel in case of

accident, cask breach or for transportation.

2) How might a disintegrated state of the fuel affect worker exposure during transfers under circumstances referred to above?

3) How could disintegrating cladding produce unanticipated conditions or temperatures in otherwise normal storage conditions?

a) What might these conditions be?

4)What are the factors that could produce criticality conditions? 5)How will these be anticipated, addressed, planned for?

NRC analysis NRC rulemaking Utility regulation

3) Will DOE accept degraded fuel at a permanent repository? How will this concern be investigated? How will NRC responsibilities for not only short, but long term Health and a) How will DOE determine condition of materials prior to acceptance and/or transportation of fuel? b) What criteria for 'acceptable' condition of fuel might DOE have; or could NRC recommend? c) If fuel is not 'acceptable' what will happen? In addition, C.U.R.E. encourages NRC to thift from a 'confidence' based to risk-informed and performance-based analysis and decision making in waste storage regulation. In its committment to the best and most efficient use of public resources NRC should consider ways of bringing the public into partnership, as it has found ways to partner with the industry in efforts to fulfill its mission. We hope to see an increased use of non-adversartial models such as those mentioned as part of NRC's "enhanced participatory rulemaking", We hope that NRC will consider building into its rulemakings, avenues for public input that enhance rather than drain the resources of the agency.

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REQUEST FOR RULEMAKING BASED UPON NEC DOCUMENTATION OF AGENCY'S STRATEGIC ASSESSMENT OF REGULATORY ACTIVITIES:

The request for rulemaking outlined in Docket No.PRM-72-4 Prairie Island Coalition, Receipt of Petition for Rulemaking was based, in part, upon citizen review of NRC documentation of its Strategic Planning Framework - Strategic Assessment and Rebaselining project (September, 1996-). It was inspired by NRC's acute observation of the exacerbating effects of public mistrust upon the many uncertainties of nuclear waste management. This rulemaking petition is a specific response to NRC's inquiry into the agency's role: "how it may be able to effect change to reduce the uncertainties". It is, in some sense, a test of NRC's willingness and ability to effectively engage specific uncertainties of persistent public concern: the relationship of degradation to the ability to safely unload, transfer, transport and store nuclear waste.

This rulemaking is needed to provide a direct connection between NRC requirements and concerns about fuel integrity, and the procedures necessary for monitoring, retrieving, repairing, maintaining, as well as assuring effective and safe tranfer and transportation of dry cask storage systems. The responsiveness of regulators and utilities to public demands for procedural and technical integrity will be of increasing importance to the success of interim storage strategies. In order to maintain the bases of its regulatory authority* ensure that the uncertainties of storage term and technologies do not undermine the long or short term public health and safety, and maintain and promote public trust and confidence. C.U.R.E. encourages NRC to proceed with this rulemaking.

The stakes seem high for communities and public interest groups who are monitoring the viability of various storage schemes. Without mechanisims that provide standards for ongoing research, development, maintenance, refitting and backfitting and of the necessary technologies, current storage sites face the specter of becoming defacto 'permanent' storage sites. Especially in a dergulated environment they could find themselves underfunded and ill-prepared to meet any long term storage challenge. These concerns further suggest the necessity of addressing certain strategic challenges, fundamental to the dirg cask storage enterprise:

*NRC ability to guarantee decommissioning and restoration of sites.

*Can public concern regarding the uncertainties of degradation, retrieval, and unloading of spent nuclear fuel in dry storage casks, be effectively addressed without considering a broader analysis of the interactive contingencies of containment materials, term of storage, monitoring, transfer and transportation technologies? If not at the federal level, where will such essential analysis be carried out?

*Can such an analysis be effective without applying rigorous and scientifically based risk and performance base standards, such as are applied to the technical details of nuclear operations? Can the extensive materials testing and research done during the period of reactor development of the 1970's be utilized in the further development of storage technologies?

*Given the fact that the nuclear fuel storage enterprise is, in effect, a vast experiment, what kind of rules, proceedings and standards will ensure that :

1) the public is protected from physical, psychological or economic exploitation (key: public participation);

2) regulation can keep up with changing circumstances; regulation will be able to meet the challenges of decommissioning and waste storage in a deregulated environment;

3) funding will continue to be available for the long term challenges of responsible nuclear waste management.

Since this rulemaking request arose, in part, from observations made upon NRC's strategic assessment papers, some of these observations will be incorporated into our comments on the petition for rulemaking submitted by Prairie Island Coalition. References will be to the goals and strategies sections in the introductory and background pieces. We will not be referring to the options outlined in the strategic assessment issue papers unless it is to clarify our own comments. This rulemaking request and comment also utilized NRC document: *Public Involvement in the Nuclear Regulatory Process* available at nrc.gov/OPA/gmo/tip/publicin.htm#intro.

These comments are submitted by C.U.R.E. Communities United for Responsible Energy, is comprised of citizens from Florence Township, Lake City and surrounding communities in Southeastern Minnesota. We have been involved in nuclear waste issues since February of 1995 when NSP announced that it had chosen alternative sites in Goodhue County for Prairie Island Waste, as directed by the 1994 Minnesota Legislature. C.U.R.E.'s mission is advocating for responsible long and short term management of nuclear waste. C.U.R.E. also advocates for increasing the role of public participation in permitting and policymaking proceedings that involve nuclear waste management. (Please see Appendix I & II)

C.U.R.E.'s advocacy of NRC rulemaking on the petition at hand, is based upon the following convictions:

I. Nuclear fuel will degrade; so will containment materials.

II. Public fears are not irrational.

III. Environmental isolation for nuclear wastes should continue to be a priority.

IV. The goal is -socially, environmentally, technically, economicallyresponsible nuclear waste management.

V. Successful regulation requires a balance of interests, of long and short term goals.

VI. Technical advances alone will not 'solve' the problem.

VII.. The national nuclear waste predicament requires that both the public and the industry become more accountable; NRC is currently in the best position to facilitate.

VIII. We need to create innovations in public policy and government regulation that will allow for timely integration of new information, and best utilize the resources of all stakeholders in order to meet the long term demands of responsible nuclear waste management.

C.U.R.E.'S EXPERIENCE OF UNCERTAINTY FACTORS IN NUCLEAR WASTE SITING AND QUESTIONS OF LONG TERM MANAGEMENT

During the Minnesota Environmental Quality Board Citizen Site Advisory Task Force process, the citizens involved grappled with a number of the fundamental uncertainties of nuclear waste storage. They made a recommendation to the state agency that a timeline be developed as part of a scoping mechanism. This timeline was intended to evalute items of potential "impact" such as cost, transportation, health and safety risks.

"The timeline is intended to 'scope' both known and ,as yet, unknown dimensions of potential impacts of the storage of

high level nuclear radioactive waste "for an unknown duration".

The subcommittee preparing the recommendation required that the timeline extend to at least 1,000 years or @ 1/10 the half life of radioactive materials that must be isolated.

"This (1,000 year) extension should include, at least, a charting of the information about the known and conjectured effective life of radioactive and containment materials: transformations decay etc." - Legislative and Regulatory Review in appendix to <u>Report of the Site Advisory Task Force</u> Goodhue County Dry Cask Storage Alternate Site Project January, 1996

A contingency analysis of fuel and containment degradation along a timeline was an essential feature of the scope. Despite Task Force recommendations to MEQB, we found that it is hard to create such an analysis at the state level. Pressures from the industry not to deal with problems that may draw public attention or concern on nuclear waste storage issues is strong at all levels. While this is understandable, carried too far, cooperation with such resistance constitutes a betrayal of the public trust and makes regulating agencies less effective than they need to be to meet challenges that do not answer to political pressures, such as the physical realities of fuel and materials decay. Without the development of contingency analyses, the unavoidable uncertainties of long term nuclear waste storage are certain to create hazards to public health and safety over the long term. Without such information, technical waste management research and development will become prohibitively expensive as it tries to cope with management strategies that are insufficiently informed about the basic materials that they are utilizing.

NRC HAS IMPORTANT ROLE IN REDUCING UNCERTAINTIES:

The uncertainties of long term storage and utility, state and national storage schemes are a prime source of pubic concern and distrust. The DSI 6 paper on *High-Level Waste and Spent Fuel* suggests that NRC has considered the presibility that greater clarity and proactive initiative on its part could play a significant role towards reducing uncertainties and enhancing progress (p. 14). Indeed, from the public perspective, there may be no other road to resolution. NRC should focus upon opportunities to engage issues that can, if handled properly, serve to reduce pivotal uncertainties. This rulemaking provides an excellent opportunity to bring clarified NRC Strategies, goals and principles to bear upon the persistant public concerns represented in PIC's petition.

CONFIDENCE BASED DECISION MAKING INADEQUATE:

The strategies of 'confidence' based decision making upon which NRC has heavily relied in what it sees as 'lower risk' (non-operations) regulatory catagories, tends to dismay and infuriate a public which is struggling to responsibly inform itself, and grapple with complicated and technical details. Decisions which rely upon 'confidence' (in past 'confidence decisions'; in utility and technological ingenuity etc.) will not assuage public concern. Avoidance has not been effective. Reassurance has not been effective. Discounting of public fears and concerns provokes frustrated reactivity.

APPLYING RISK-INFORMED, PERFORMANCE-BASED REGULATION: In discussing its philosophy of "Risk-Informed, Performance-Based Regulation" in Strategic Assessment Issue Paper DSI-12, the staff considers the application of this philosophy in materials handling/waste disposal situations (e.g. as in this rulemaking). For the purpose of this and other nuclear waste handling and storage standard development and rulemaking procedures, NRC's suggestion that it apply higher standards of a risk and performance based model that have formerly been reserved for nuclear operations, is highly advisable. The need for a more systematic way to deal with long term, economically viable nuclear waste management strategies, is critical. NRC's rolc is key.

The value of regulatory coherence is central to a satisfactory application of any model. Regulatory coherence would itself contribute a great deal to reducing the 'uncertainty' which surrounds nuclear waste management issues. The public participation and communication initiatives should be involved in the application of risk/performance models in order to ensure that a more stable, systematic and effective regulatory environment is the result. We hope that this rulemaking will provide an opportunity for using risk-based and cost-benefit criteria to engage the areas of public concern articulated in PIC's petition.

Properly applied risk-informed and performance-based models is likely to radically improve public perception of "reliabiliy" in NRC decisionmaking - as defined in NRC's Principles of Good Regulation. In addition, since the public can be counted on to identify specific issues in the waste conundrum that most need addressing, public pressure can be a resource, helping NRC to identify priorities in regulatory activity, while enhancing its credibility as an agency that is responsive to public concern. The purpose of utilizing such models should be to more effectively engage, not to avoid, issues where public perception of risk is persistant. For the purpose of applying risk-informed, performance-based models to the ongoing creation of standards and rules for nuclear waste storage:

1) NRC's "Defense in Depth" policy may need to be adjusted to the specific concerns of long term isolation of nuclear wastes from the natural and human environments. Such an application of the Defense in Depth philosophy to long term nuclear waste management must consider as primary catagories of analysis:

a) The natural as <u>necessary degradation</u> of both fuel and containment materials

b) <u>The timeline</u> along which such degradation may either increase and/or eventually reduce the hazards of exposure, release etc.

2) Industry resistance to the application of such models and standards should be balanced by serious consideration of items which the public has identified as an area of risk and concern. Economic &/or regulatory incentives might be engaged to encourage the cooperation of the industry.

3) **Timelines for long-term and short-term** considerations should be built into all risk and performance assessments. One source of misunderstanding of public risk perception is the failure to recognize the concerns that arise for the public over the <u>long-term</u> health and safety effects of nuclear waste maintenance & storage.

4) The differences between the cost and benefit interests of the industry and the public should, by extension, be clearly articulated in any cost and benefit analysis. The agency need not become immediately entangled in the perception that it must take one side or another, but should engage a variety of investigative strategy.

PUBLIC CONCERN WITH LONG TERM 'COSTS'

The public bas a primary concern about the long term viability of storage models. There bas the public is especially concerned about the natural course of degradation, and the funding of monitoring, maintenance and technical systems that will assure long term isolation of nuclear wastes from the natural and human environments. The long term 'costs' to the public are more difficult to evaluate than the short term business strategies that drive the industry. Because of NRC's mission, to "ensure adequate protection of the public health and safety" it is essential that the agency find ways to evaluate and effectively incorporate long term 'costs' and 'benefits' into their analyses.

6.

THE PUBLIC AS A RESOURCE:

C.U.R.E. does not have technical expertise to apply to this rulemaking, although it is committed to engaging the technical issues that are identified and elaborated by the petitioner and NRC. What we do bring to bear on the rulemaking process is our own experience in dry cask storage issues and a number of hard won insights about what kinds of processes are more or less effective in creatively engaging the public as a resource in nuclear waste storage issues. We feel that greater public involvement and accountability will be crucial to any effective nuclear waste storage strategies. Appendix I contains a selection of our comments upon DSI 14, the NRC strategic assessment issue paper on Public Communication Initiatives. The essence of these observations is that, given NRC's description of the regulatory climate and resource limitations it seems time to shift NRC's perspective on public participation to recognize the public as a significant resource factor. NRC descriptions of "unhanced participatory rulemaking" is an excellent example of engaging public participation to increase the range of insights, information and resources available to the NRC in decisionmaking.

CONSIDER NON-ADVERSARIAL AVENUES FOR PUBLIC INPUT CURRENTLY AVAILABALE ONLY BY PETITION: We hope that, along with this rulemaking, NRC will consider that the rapidly changing nature of nuclear waste management issues calls for avenues of public input other than the petition format. We understand that the processing of 2206 petitions is perceived as a burden and a distraction to NRC staff, who are already overwhelmed.

 When public issues arise, how can NRC use resources already in place such as the public liason resources of the Office of The General Counsel or the OPA to engage public interest and debate?
How could the skills of the NRC be extended to more easily accomodate "enhanced" public participation by such methods as it has used in "enhanced participatory rulemaking"?
When does NRC utilize "enhanced participatory rulemaking"?
When does NRC utilize "enhanced participatory rulemaking?
Is there any other structured public feedback mechanism that NRC could put into place that would allow NRC to respond from a less adversarial perspective, and engage public concern as a resource? Could this be put into place as part of a rulemaking?

5) How can a clear and realistic articulation of differing interests enhance pubic trust and increase clarity in NRC decisionmaking & communication?

7.

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APPENDIX I:

CURE COMMENTS ON: DSI 14- Public Communication Initiatives

The Public as partners in regulatory concerns and process NRC increasingly depends upon the entities, primarily utilities, that it regulates as partners in the regulatory process. However, because of the nature of radioactive materials, it is federal, state and local governments and the public who will bear the ultimate risks, costs, responsibilities and impacts of nuclear industry operations. They will bear any burdens not assessed to or planned for by the utilities for many generations to come. It is therefore appropriate, if not incumbent upon the NRC to review its relationship with the public in light of this fundamental fact, and to distribute its own resources to adequately protect long-term as well as short-term public interests and concerns.

It is to the advantage of the NRC as well as the public that the public be fully informed and involved; its concerns adequately developed and considered, and public interest and expertise recognized as a resource. Only opportunities for genuine public participation will strengthen public support and trust in NRC. NRC acknowledges this in the review of the BRC policy process where it lists, as "one of the principle lessons learned", to "provide an opporunity for public involvement at a time and in a manner that makes clear to all that they have the ability to influence the outcome".

Support for Commission's preliminary views.

The Commission recommends that NRC "place a priority on early identification of public concerns and methods for public interaction in making regulatory decisions that are likely to generate substantial public interest or concern"...In addition, the Commission recommends that "NRC interpret the term "public" in its broadest sense, understand who our various publics are, and focus on what they need in order to facilitate interaction and dissemination of information."

We would like to see NRC address potential mutual benefits of public participation in the regulatory processes in its public policy statements. Regulation of the management, ownership, and funding of nuclear generation and waste operations is a crucial factor in the health and safety of present and future generations. NRC's strategic assessment and rebaselining project should take a proactive approach, in general, towards short and long term planning. While NRC may consider that it is more difficult to assess public interests than utility interests, NRC should recognize that there is no better ally than the public itself in identifying public concerns. Right use of public interest and expertise, wil, increase rather than deplete NRC resources.

Support for interactive models of public communication The issue paper correctly identifies several of the factors that will significantly increase the importance of public communication in NRC regulatory activities:

"As deregulation heightens competition, the population of regulated facilities ages, and the waste disposition policy remains unresolved, public attention to NRC regulatory matters will continue and may increase". (p. 7, paragraph 3)

However, it fails to adequately consider public participation as a resource in its portrayal of costs and benefits. The title of the paper [public communication rather than public participation] indicates the non-interactive bias current in NRC public policy. We support an interactive model for public communication and participation.

NRC should regard public participation as a resource

The definition of "public" put forward by the Commission in its preliminary views is excellent. However, the definition of "public resources" reflected in the paper is one sided and shortsighted. When NRC speaks its "fundamental obligation" to attend "to costs and benefits of approaches to public communication" (Discussions, III, p. 13), it clearly refers to the agency's obligations regarding efficient use of public monies and agency resources. This notion of costs and benefits fails to recognize citizen expertise and interest as a 'benefit' and a 'resource' to the government and its agency in the execution of its responsibilities to the 'public interest' and general welfare. A slight but significant shift of perspective can clear the path of some of the obstacles that NRC sees as a limiting its options to involve the public meaningfully in its activities. A shift in perspective towards genuine public participation, that NRC has begun to take, both clarifies and justifies NRC resource committment to public communication initiatives.

Consider public as a cost effective atlernative for "nonagency" sources of information and methods of distribution (p.16)

CURE: WHO ARE WE AND WHAT ARE WE UP TO?

For many years, the state of Minnesota, its public interest groups and the communities surrounding NSP's Prairie Island plant, have committed substantial resources trying to anticipate and respond to a rapidly changing environment on nuclear issues. We have struggled together and with each other to address a myriad of issues and items of public concern, generated by approximately 25 years of nuclear power operations in the state. These include the disposition, management and transporation of nuclear wastes; public health, safety, social and environmental impacts; and more recently, deregulation, industry merger, decommissioning and the economics of the nuclear industry.

A substantial amount of public participation and expertise has been one of the positive byproducts of this struggle. But another effect that this struggle has had upon the state is the alienation of communities, the embitterment of the legislative process, deepening wounds and division between the public interest and nuclear industry concerns, charges of environmental racism, and the fear and sense of persecution that have been an unintended but everpresent attendant of nuclear power throughout the nation. Our small community in the Southeastern corner of Goodhue County was one of the more recent, but not the last, to be afflicted. We responded to the crisis in 3 ways.

1) EQB CITIZEN SITE ADVISORY TASK FORCE. Citizens from surrounding communities were nominated to the State Environmental Quality Board's Citizen Advisory Task Force. The EQB task force was supported by the state agency and produced a fairly extensive record as well as the report which was submitted to the agency in February, 1996. The Task Force thoroughly reviewed the history of nuclear waste management in the sota and read all the pertinant documents. Task Force members their report to lobby the legislature and agencies, urging them to effectively address the public concerns raised in their process. While the Task Force recommendation was not to establish an alternate site, it took responsibility for the implications for Prairie Island and made several recommendations.

2) FLORENCE TOWNSHIP, as local government body, held informational meetings, formed township task forces, and raised and appropriated monies for legal defense. We used the crisis, after an initial round of divisiveness, to educate and sensitize the larger community to the concerns of our neighbors in Red Wing and Prarie Island. We used our experience to encourage greater accountability to public concerns in nuclear waste permitting and policymaking processes. We suddenly found that our 'back yards' extended far beyond the borders of the township: from Prairie Island, downriver and now- to Utah. While the site may change, the fundamental issues have not.

3) C.U.R.E. (Communities United for Responsible Energy). Citizens from Florence Township and Lake City formed a citizen's group. The focus of our mission statement was, and still is, the responsible (long/short term) management of nuclear waste. C.U.R.E has been active in the legislative process over the last 3 years and has submitted numerous public comments: to the EQB, the PUC, the DPS and the NRC. C.U.R.E has worked with a wide range of other public interest groups to promote responsible nuclear waste management at the state and federal levels. C.U.R.E. is a member organization of Prairie Island Coalition.