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Secretary of Energy Advisory Board
Washington, DC 20585

June 30, 1993

**MEMORANDUM FOR MEMBERS OF THE SEAB TASK FORCE ON
RADIOACTIVE WASTE MANAGEMENT**

FROM:

Frances Musgrove
FRANCES MUSGROVE

SUBJECT: LOCATION OF MEETING

Attached you will find a copy of the agenda and meeting location:

National Wildlife Federation
Kimball Conference Room
1400 16th Street, NW
Washington, DC 20036

Telephone Number (202) 328-5067

Fax Number (202) 939-3460

If you have any questions, please contact me on (202) 586-7070.

Attachments

**EIGHTH MEETING OF THE
SEAB TASK FORCE ON RADIOACTIVE WASTE MANAGEMENT**

JULY 7, 1993

**The National Wildlife Federation
Kimball Conference Room
Washington, D.C.**

9:00 - 10:30 AM	Public Comments on Revisions to Draft Final Report
10:30 - 10:45 AM	BREAK
10:45 - 12:00 PM	Public Comment Continued
12:00 - 1:00 PM	LUNCH
1:00 - 4:00 PM	Task Force Deliberations
4:00 PM	Adjourn

SEAB TASK FORCE ON RADIOACTIVE WASTE MANAGEMENT

**Dr. Daniel Metlay
Task Force Director, Designated Federal Officer
U.S. Department of Energy
1000 Independence Ave., SW
Washington, D.C. 20585
202-586-7092**

**EARNING PUBLIC TRUST AND CONFIDENCE:
REQUISITES FOR MANAGING RADIOACTIVE WASTE**

**FINAL REPORT OF THE
SECRETARY OF ENERGY ADVISORY BOARD
TASK FORCE ON RADIOACTIVE WASTE MANAGEMENT**

JUNE, 1993

**PROPOSED FINAL VERSION
SUBJECT TO TASK FORCE APPROVAL**

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PART TWO (TO BE SUPPLIED LATER)

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PART THREE (TO BE SUPPLIED LATER)

COMPILATION OF MATERIALS PREPARED FOR
AND BY THE TASK FORCE

NOTE TO READERS:

Since the Task Force issued its Draft Final Report in December 1992, it has solicited comments on it in a number of ways. A letter was sent to over 400 people who had expressed interest in the Department's radioactive waste management activities, a notice was placed in the *Federal Register*, the morning session of the January 1993 meeting of the full Secretary of Energy Advisory Board was given over to discussion of the draft, and Task Force members and staff presented the effort at several professional meetings.

Based on all of those sources of feedback as well as further reflection by the Task Force, revisions were made to the draft. This document indicates what changes were made. ~~Text that appears in this font represents passages that will be deleted from the final report.~~ *Text that appears in this font represents passages that were added to the draft.*

A companion volume, indicating how each formal comment was addressed, is being released at the same time as this Proposed Final Version.

The Draft Report was released a month before the President Clinton took office and Hazel O'Leary was confirmed as Secretary of Energy. The Task Force has not attempted to monitor changes brought about by the new administration, thus, its descriptions may be somewhat dated. It believes, however, that the underlying logic of its arguments remain valid.

FOREWORD

The DOE culture has evolved from a heavy emphasis on achieving [nuclear materials] production goals, made within an atmosphere of collegial secrecy, that problems relating to the environment, safety, and health (ES&H) have not only been backlogged to intolerable levels but, in effect, have been hidden from public view until recently. We are now paying the price for this long-term cultural misdirection...[We] need, therefore, to create a culture in which people are eager to uncover and to share both good and bad news; to correct root causes to those problems and to be proud in doing so.

Statement of Admiral James D. Watkins appearing as nominee for Secretary of Energy before the Senate Committee on Energy and Natural Resources (1989)

Recognizing that continual and candid self-assessment is a prerequisite for serious reform and that institutionalizing those reforms is a constant challenge, former Secretary Watkins and the Secretary of Energy Advisory Board concluded that it would be valuable to consider what steps the Department could take to increase public trust and confidence. This report represents the unanimous views of a Task Force appointed to answer that question.

The panel adopted from the beginning two fundamental operating principles. The first was that it would conduct itself in a manner that inspired trust and confidence among the broad range of stakeholders, Departmental personnel and contractors with whom it would have to interact. This meant, at a minimum, that its activities had to be transparent to all those who inquired about what it was doing. It also meant that it would take proactive steps to inform as many potentially interested parties as possible of its existence and undertakings. The Task Force leaves to others the assessment of how well it succeeded in accomplishing those objectives. It can, however, attest to the fact that at least trying to build trust and confidence carries with it tremendous transaction costs including extensive informal consultations, negotiations over *difficult* appropriate meeting venues, and continual attention to details that have an annoying tendency to be overlooked.

The second operating principle was that this effort could not rest on mere opinion -- albeit one that was founded in the wide experiences of its members. Instead, the Task Force undertook an extensive analytical exercise designed to learn not only relevant ~~bits of~~ information about the two waste management programs but also to understand the theoretical and empirical foundations for designing trust-evoking organizations. It carried out as well original research of its own. One consequence of this operating principle is that the group can, and in Part 2 of this *Report*, does trace out explicitly the logic, evidence, and assumptions that it used to reach its conclusions. Those who disagree, then, will be able to identify precisely where their views diverge from those of the Task Force.

The recommendations advanced by the panel are themselves a bit unusual. They are not simply choices on a menu; rather they represent the Task Force's recipe for what the Department should do to strengthen public trust and confidence; they are threads of roughly comparable importance that make up a fabric. This does not mean that Departmental decision-makers must implement them all; there will clearly be situations when other considerations have to take precedence. But DOE leaders need to realize that each time they choose not to adopt a recommendation or choose to do so in a way that is half-hearted or superficial, they are likely to erode further public trust and confidence.

Finally, the Task Force would be remiss if it did not comment on its reaction to the charge given it by former Secretary Watkins. Most members, when recruited to serve, expressed surprise that the leader of any large organization -- let alone one that operates in as politically charged an environment as the Department of Energy -- would ask a group of independent individuals to address such a potentially sensitive issue as strengthening public trust and confidence. With that surprise came skepticism that the effort could maintain its independence. To his credit, Watkins never directed either the Task Force or its supporting staff on what areas to cover or what issues to avoid. All the members of this panel appreciate his willingness to let it travel along the paths of its choice.

EXECUTIVE SUMMARY

The Task Force on Radioactive Waste Management was created in April 1991 by former Secretary James D. Watkins, who asked the group to analyze the critical institutional question of how the Department of Energy (DOE) might strengthen public trust and confidence in the civilian radioactive waste management program. The panel met seven times over a period of 21 months and heard formal presentations from nearly 100 representatives of state and local governments, non-governmental organizations, and senior DOE Headquarters and Field Office managers. The group also commissioned a variety of studies from independent experts, contracted with the National Academy of Sciences and the National Academy of Public Administration to hold workshops on designing and leading trust-evoking organizations, and carried out one surveys of parties affected by the Department's radioactive waste management activities and a second one of DOE employees and contractors. What follows is a summary of the logic and the conclusions upon which the unanimous recommendations of the Task Force are based.

PUBLIC TRUST AND CONFIDENCE AS A CRITICAL INSTITUTIONAL ISSUE

On a pragmatic level, public trust and confidence is generally essential for agencies to carry out effectively missions assigned to them. More fundamentally, however, trust and confidence makes a central contribution to the sustaining the legitimacy of public organizations within the American system of governance. That contribution derives from a democratic ideology that demands that public institutions operate in a transparent manner, that they adopt processes that not only permit but encourage broad segments of the population to participate, and that no segment finds itself permanently a "loser" in policy controversies.

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MAJOR FINDINGS

Although the Task Force recognized that there might be particular instances that run contrary to a given finding, it believed that the conclusions set forth below represent strong central tendencies.

- Despite some progress over the last four years, there is widespread lack of trust in DOE's radioactive waste management activities. That distrust is not irrational, nor can it be discounted merely as a manifestation of NIMBY.
- This distrust will continue for a long time, will require sustained commitments from successive Secretaries of Energy to overcome, and will demand that DOE act in ways that are unnecessary for organizations that have sustained trust and confidence.
- Measures to strengthen public trust cannot simply be appended to on-going activities. They must be an outgrowth of an agency-wide recognition that most *choices* have consequences for institutional trustworthiness.

- Organizational restructuring is not likely to affect the level of public trust and confidence the Department enjoys. Rather what is required is a full commitment from senior managers of the Department and its contractors coupled with improved institutional capacity to design, implement, and evaluate measures for strengthening trustworthiness.

- The Office of Civilian Radioactive Waste Management (OCRWM) is caught up in interlocking vicious cycles that cross-pressure it and seriously reduce its ability to take some steps that might strengthen public trust and confidence.

- OCRWM has a relatively constricted view of what is required to restore trustworthiness; it has not implemented any consistent approach to doing so; and has rarely considered explicitly the consequences of its actions for public trust and confidence.

- The institutional context within which the Office of Environmental Restoration and Waste Management (EM) operates presents opportunities for developing institutional trustworthiness.

- EM has a broader conception of what is need to build trustworthiness and has set in place an elaborate structure for doing so. It has not demonstrated, however, that it can sustain trustworthiness as it grapples with highly contentious issues nor has it developed a strategy for managing constraints that might create vicious cycles for it as well.

RECOMMENDATIONS

The group advanced an elaborate set of detailed, specific recommendations, which cannot be easily summarized or distilled in an Executive Summary. Instead, the *design basis* for them are presented below.

INTERACTIONS WITH EXTERNAL PARTIES

When an agency is the initiator of programs that could be seen as levying more potentially harmful effects than benefits on citizens and communities, it should commit itself to:

- Early and continuous involvement of State and/or local advisory groups as well as national advisory bodies on which a broad range of stakeholders (including, but not limited to the nuclear industry, electric utilities, public utility commissions, potential host states, communities, and tribes, environmental and public interest groups) are represented. That involvement would be characterized by frequent contact, complete candor, rapid and full response to questions, and assistance in increasing the technical and oversight skills of the community;

- Carrying out commitments unless modified through an open process established in advance;

- Active, periodic presence of very high level agency leaders making them visible and accessible to citizens and their representatives;
- Unmistakable agency and program residential presence in the locality that contributes its energies to community affairs and pays through appropriate mechanisms its fair share of the tax burden;
- Assuring the availability of negotiated benefits for the community along with the resources to host and corridor communities that might be needed to detect and respond to unexpected costs; and
- Consistent and respectful efforts to reach out to state and community leaders and to the general public for the purpose of informing, consulting, and collaborating with them about the technical and operational aspects of Department activities.

INTERNAL OPERATIONS AND PROGRAMMATIC CHOICES

When the various segments of the public gain access to programs, they should discover internally activities taking place that increase institutional trustworthiness not decrease it. The higher the potential hazard associated with those activities, the more critical is their proper conduct. In general, the agency should commit itself and require its contractors to:

- Maintain a high level of professional and managerial competence, continually honed by rigorous training.
- Reward honest self-assessment that permits the organization to get ahead of problems by identifying them, airing them, and resolving them before they are discovered by outsiders.
- Establish and meet reasonable technical performance measures and schedule milestones that are consistent with a project's *intrinsic* scientific requirements.
- Institutionalize responsibility for promoting and protecting the internal viability of efforts to sustain public trust and confidence throughout the organization.
- Develop tough internal processes that include stakeholders for reviewing and discovering actual operating activity.

The specific suggestions offered by the Task Force have a somewhat different character than those that normally appear in advisory committee reports. They are not simply choices on a menu; rather they represent the panel's recipe for what the Department should do to strengthen public trust and confidence; they are threads of roughly comparable importance that make up a fabric. Furthermore, the panel is not prepared to say that its suggestions are *sufficient* for increasing institutional trustworthiness. It does believe, however, that if they are adopted they can provide a sufficient basis for DOE to show that it is *worthy of trust*. For some affected

parties that is of little consequence. For others, it may be too little value bought at too high a price. And for still others, it may be critical.

EARNING PUBLIC TRUST AND CONFIDENCE: REQUISITES FOR MANAGING RADIOACTIVE WASTE

INTRODUCTION

This Task Force was established in April 1991 by then-Secretary of Energy James D. Watkins.¹ He asked the group to recommend measures the Department might take to strengthen public trust and confidence in the civilian radioactive waste management program.² From the start he understood that the trustworthiness of the Department was an issue that transcended any one particular activity. Thus in September 1991, Watkins not only formally expanded the scope of the Task Force's work to include the environmental restoration and defense waste management program, but he also encouraged the group to develop its recommendations so that they would be broadly applicable within DOE.³

The Task Force wishes to make clear how it has interpreted Watkins' charge. He did not issue a mandate for an overall program review, let alone a management audit or a blueprint for redirecting organizational resources. Consequently the group has strictly concentrated on the narrow -- albeit quite important -- issue of public trust and confidence, and it has tried not to stray from that focus. Thus some potentially critical and even defining programmatic issues will not be addressed in the pages below unless they carry clear and direct implications for institutional trustworthiness.

PERSPECTIVE

The Department of Energy is a conglomerate, having responsibilities that are as disparate as basic scientific research and nuclear weapons production. It is part of the Executive Branch, yet it must take into account the diverse -- and often conflicting -- wishes of legislators. It operates in multiple, complex political environments populated by actors whose intensely held interests are frequently at odds. ~~It is, in short, like most other federal bureaucracies.~~ ***Thus it is like most other federal bureaucracies in many -- but certainly not all -- respects.*** And with those organizations (and many other institutions), it shares the persistent demand of finding ways to carry out its functions while retaining and sustaining the trust and confidence of the public.

¹ The members of the Task Force are listed in Appendix A.

² The Task Force's initial Terms of Reference is reproduced in Appendix B.

³ The former Secretary's request is found in Appendix C.

About efforts as dissimilar as designing equitable tax packages to certifying pesticide residues for fruits and vegetables to crafting new forms of regional compacts, a frequent and common refrain of distrust, suspicion, and alienation is heard. The roots of those complaints may be found in the Vietnam War's credibility gap or in the actions of individuals who betray their oaths of office. But regardless of origin, their impact is cumulative; and it is being felt. It is no coincidence, for example, that last year the governors of the two largest states in the Midwest took as a theme of their inaugural addresses the need to restore public trust and confidence in government. Yet, as the data in Figure 1 suggest, sustaining it may be a constant struggle.⁴

Unlike issues such as the state of the economy or national security, there is neither a central organizational focus nor a clearly defined constituency for addressing questions of public trust and confidence.

By default, responsibility falls to each institution to engage the matter as it sees fit. Some agencies do nothing or simply pay lip-service. Their inaction rarely exacts a direct toll, for the public's concern about trustworthiness is like white noise that is almost indistinct and fades away over time. Ironically, those organizations that try genuinely to struggle with the issue of trust expose themselves to the greatest risks. *Often* their established patterns of external support and internal processes are disrupted and *must have to be* recreated and reconstructed.

Ultimately what is at stake is not well reflected in the calculation of immediate rewards and sanctions. Lack of public trust and confidence is more than just a shibboleth uttered by losers of policy controversies. Rather it is the foundation upon which the peculiarly American structure of governance rests. In the final analysis, it is the critical manifestation of the consent that lies at the heart of our declaration of independence. Although the relationship is by no means straight forward or uncomplicated, a high level of trust and confidence buttresses the legitimacy of action in the public sphere. Conversely, a low level erodes that legitimacy and calls into fundamental question the bond between those who govern and those who are governed.

TRENDS IN CONFIDENCE IN US INSTITUTIONS

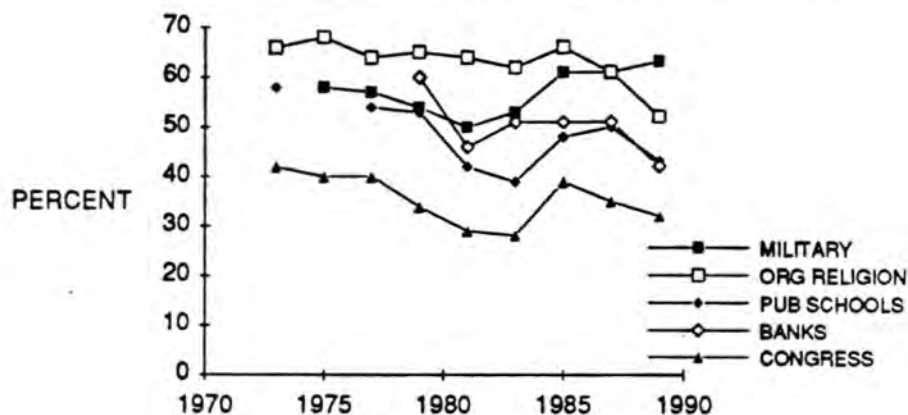


Figure 1

⁴ Data based on published Gallup Polls.

The Task Force is cognizant of the imperatives and dictates arising from the calculation of immediate rewards and sanctions. Balancing strongly conflicting interests, maintaining coalitions that are only tenuously joined, and somehow weighing the requirements of one complex program or initiative against another can especially tax the skill and patience of those policy-makers who are sincerely committed to sustaining a high level of public trust and confidence. In presenting this report to the Secretary, the Task Force recognizes the far-reaching changes implied by its findings and recommendations, and it realizes that implementing them may further tax the skill and patience of the Department's leaders who have to manage the fundamental changes in institutional culture already set in motion. But as DOE makes a transition to a post-Cold War environment, the alternative to what the group suggests may be even less appealing.

RADIOACTIVE WASTE MANAGEMENT

~~It is fitting that Secretary Watkins asked the Task Force to focus its attention on strengthening public trust and confidence in the Department's varied programs for managing radioactive waste. For these are the activities where the issue is especially ripe, they are also the ones where the challenges for sustaining trustworthiness are the most compelling.~~ *The Department's varied programs for managing radioactive waste are especially appropriate for considering the question of trust because they are the ones where the challenges and time spans for sustaining trustworthiness are arguably the most compelling.* A brief description of those activities and, more importantly, a distillation of what constitutes their programmatic cores is necessary to properly set the stage for what follows.

DOE has traditionally organized its radioactive waste management activities on the basis of who owns the material. Efforts connected to waste created by commercial nuclear power plants are the responsibility of the Office of Civilian Radioactive Waste Management (OCRWM). Activities associated with waste generated in the course of producing, fabricating, and testing nuclear weapons are the responsibility of the Office of Environmental Restoration and Waste Management (EM).⁵

An extraordinarily varied range of efforts fall under the rubric of radioactive waste management within the Department of Energy. Examples include

- Stabilizing uranium mill tailings piles;

⁵ One important exception to this division of labor arises from a 1985 decision by President Reagan to "co-mingle" in a single geologic repository high-level waste from the defense program with high-level commercial waste. Consequently OCRWM will establish criteria for accepting EM's solidified material.

- Solidifying high-level waste from the *now-defunct* Nuclear Fuels Services' reprocessing operation in West Valley, New York or from the reprocessing carried out at the Hanford Reservation and the Savannah River Site;
- Providing ~~expanded~~ storage facilities for spent fuel from commercial reactors;
- Cleaning up the environmental damage caused by the production of nuclear weapons material;
- Designing, financing, building, obtaining permits for, and operating facilities for disposing of different types of wastes; and
- *Developing a transportation system to move wastes from the place they were created to the place they will be stored or disposed of.*

This diversity, of course, creates a corresponding diversity of interests and constituencies. Some stakeholders are involved across the board; others concentrate on specific undertakings that are particularly salient to them.

COMMERCIAL RADIOACTIVE WASTE MANAGEMENT

In 1970, the Atomic Energy Commission (AEC) promulgated a rule apportioning responsibility for the back-end of the nuclear fuel cycle -- reprocessing and waste management.⁶ Private firms could own fuel reprocessing plants. But they had to solidify their high-level liquid waste within five years of its generation; no later than five years afterwards, they had to transfer the material to a repository for disposal. Over the objections of some small companies but with little formal supporting analysis, the Commission concluded that only the federal government could design, build, own, and operate the repository. Although excursions regularly have taken place through an alphabet of temporary storage initiatives, the core mission, *in principle*, of OCRWM and its predecessors has remained constant: *to site a repository and to demonstrate that the facility is capable of isolating from the environment specified fractions of the extremely toxic high-level waste and spent nuclear fuel for long periods of time.*

Strategies for selecting sites acknowledge either implicitly or explicitly that the location ultimately chosen has to pass *both* through a filter that takes into account the technical characteristics associated with the site *such as regional hydrology and host-rock type* and through a filter that takes into consideration non-technical factors *such as a community's familiarity with nuclear power operations and facilities*. One interagency analysis noted nearly fifteen years ago that the order in which the filters are applied may not be critical *as long*

⁶ 10 Code of Federal Regulations 50, Appendix F.

as they are not applied in biased or arbitrary fashion. "In principle equally suitable sites should emerge from either approach."⁷ Although the broad outline of that argument remains valid today, the specifics of how the filters are designed and how they are weighted relative to each other have continued over the years to make the siting process problematic. Indeed, the accompanying figure graphically illustrates just how difficult the task of readying a repository has proven to be. Over the years, the emphasis given each of the filters by DOE and its predecessor agencies has varied. Finding the proper balance, however, has proven quite difficult.

In an attempt to expedite the program *programmatic progress*, legislation was enacted in 1987 that instructed the Department to characterize -- determine its suitability for a repository -- Yucca Mountain in Nevada. OCRWM developed in a bottom-up fashion a nine volume, 6200 page blueprint for investigating that site. Extensive surface testing began in July 1992, and subsurface exploration is likely to commence in the spring *construction of an underground Exploratory Studies Facility started in April, 1993*. According to its latest estimates, OCRWM will need to spend at least \$4 billion more over the next eight to nine years to complete its \$6.2 billion scientific evaluation of the site.

If, based on the Department's recommendation, the President believes that site is suitable, and if the state of Nevada does not object or if its objections are overridden by Congress, DOE will then apply to the Nuclear Regulatory Commission (NRC) to construct a repository. That license will only be granted if there is "reasonable assurance" that the engineered and geologic barriers that comprise the repository system will meet or exceed the radionuclide release requirements set by the Environmental Protection Agency (EPA). The EPA standards, however, have been in a state of flux since 1987 when key elements were overturned in court.⁸ *The situation was further clouded by a provision of the 1992 Energy Policy Act that compels EPA to promulgate promptly new standards consistent with the findings and guidance of a congressionally mandated National Academy of Sciences' study.⁹*

In support of its core mission to develop a repository, OCRWM is engaged in two other major efforts. First, it is working with the Nuclear Waste Negotiator to identify and reach a voluntary agreement with one or more localities or Indian tribes to host for a Monitored Retrievable Storage (MRS) facility. The MRS could receive spent nuclear fuel rods from utilities pending their ultimate disposal. As of January 1993, no such agreement had been

⁷ Interagency Review Group on Nuclear Waste Management, *Subgroup Report on Alternative Technological Strategies for the Isolation of Nuclear Wastes*, TID-28818 (Draft), 1978, p. 81.

⁸ *Natural Resources Defense Council v. U.S. EPA*, 824 F.2d 1258 (1st Cir. 1987).

⁹ Energy Policy Act of 1992, Section 801(a)(1). The Act also instructed the EPA to apply those new standards only to a potential repository at Yucca Mountain. The possibility therefore exists that the Department's repository for transuranic wastes in New Mexico will have to meet a different protective level.

arrived at. DOE has taken the position that, if a voluntary host cannot be found, a federal process for selecting a MRS site might be initiated.¹⁰

Second, OCRWM is laying the groundwork for a transportation system that would carry radioactive waste from the place it is generated to a MRS and to a repository. This effort involves the design of casks and containers, the selection of potential routes, and, in consultation with states, local governments, and Indian tribes, the development of response procedures to handle accidents or other emergencies.

ENVIRONMENTAL RESTORATION AND DEFENSE WASTE MANAGEMENT

At the height of World War II, new towns sprang up virtually overnight in obscure locations such as Oak Ridge, Tennessee, Richland, Washington, and Los Alamos, New Mexico. Each made a unique and historic contribution to the design and development of the weapons dropped on Hiroshima and Nagasaki. From that small nucleus of communities blossomed a large and widely scattered complex dedicated to manufacturing and maintaining the country's nuclear arsenal. Events of the past few years reinforce the general impression of how well those who manned and ran the complex actually performed the tasks assigned by a nation confronted with an external threat.

But the exigencies of war -- both hot and cold -- compounded by yesterday's understanding about the biological effects of radioactive material and yesterday's sensibility about the fragility of the environment meant success came with a stiff price. By-products from the production reactors sit in tanks and storage pools, their final disposition uncertain. And it is an inescapable fact that the weapons complex is profoundly polluted by myriad varieties of hazardous waste, mixed waste, and radioactive waste. Established in 1989, as part of former Secretary Watkins' Ten-Point Initiative, EM has relieved the complex' landlord, Defense Programs (DP), of the clean-up responsibility. In principle, the core mission the new unit assumed can be stated succinctly: *to reduce to socially acceptable levels the risks posed by the wastes and the contamination generated in the course of producing and fabricating nuclear weapons.*¹¹

The simplicity of this description by no means reflects the challenges that lie ahead, especially with respect to minimizing the gap between what it has been charged to do and what it ends up doing. *Since its creation in 1989*, the EM program has grown explosively both in assigned *or reassigned* functions and in funding to the point where it now spends over \$6 billion per year --

¹⁰ See letter from James D. Watkins to J. Bennett Johnston, December 17, 1992.

¹¹ *Unlike the disposal of high-level waste, there are no national standards for establishing an acceptable level of risk posed by the contamination in DOE's weapons complex. The Resource Conservation and Recovery Act and the Comprehensive Environmental Response, Compensation, and Liability Act provide a framework for making social decisions on this question. Other approaches, such as the Hanford Future Land Use dialogue may also lead to a specification of socially acceptable levels of risk.*

nearly one dollar out of every four appropriated to DOE. It has taken over the sprawling Hanford Reservation in Washington, where the nuclear age began, as well as the Feed Materials Production Center in Ohio, where uranium was fabricated into fuel rods that were irradiated in production reactors. Soon EM will become the landlord at Rocky Flats, where the nuclear triggers or pits for weapons were forged. It has negotiated compliance agreements with regulatory authorities and agreements-in-principle to facilitate state oversight of EM activities.

EM's activities can be sorted into three major categories. The first, environmental restoration, is perhaps the most visible of the organization's efforts. Over the next few decades, EM will have to identify the extent of the damage inflicted upon the environment at DOE installations, develop new technologies for mitigating that damage, ~~convert various waste streams to forms suitable for storage, treatment, and disposal, site, construct, and operate numerous facilities, and decontaminate and decommission defense complex facilities that are no longer needed.~~ All of those efforts must be carried out as two broad, but intertangled, normative debates rage over the appropriate level of environmental restoration and the ability and willingness of the country to spend the vast resources needed to achieve that appropriate level.

Progress on environmental restoration in the field has been slow. EM has begun the lengthy and arduous process of assessing the level of contamination at the more than 3700 waste sites that fall within its domain. Several dozen remedial actions have been undertaken; approximately twenty have been completed. Expedited cleanup has commenced at three sites at Hanford. *Indeed, overall, given the quite substantial amount of money that has been spent in this portion of the EM program, there are very few tangible signs that the situation has markedly improved over the last four years.*

The second set of activities involve the management of large quantities of defense radioactive wastes. Tanks holding liquid wastes at Hanford, Savannah River, and West Valley must be constantly monitored to ensure that they neither leak or set off uncontrollable chemical reactions. EM is also responsible for treating that material and for constructing facilities to solidify it at each of those locations. In carrying out its charge, EM has encountered substantial problems. It has not been able to stabilize the chemical brew stored in at least one tank at Hanford. The solidification facility at Savannah River has fallen far behind its schedule for start-up and has been plagued by serious cost overruns. And construction of its sister plant at Hanford has been delayed several times.

The third set of activities involve the siting, construction, and operation of treatment, storage, and disposal facilities as well as developing a transportation system to move, if necessary, the material from where it is generated. By far the most prominent of these activities are the ones connected with the construction of a repository -- christened the Waste Isolation Pilot Plant (WIPP) -- to demonstrate safe geologic disposal of transuranic (TRU) waste produced in the defense complex. Authorized by Congress in 1979, WIPP is located outside of

Carlsbad, New Mexico.¹² After some initial setbacks and political controversy, the first shaft was sunk in July 1981. Surface facilities, initial storage areas, and test alcoves were completed in 1989.¹³ The planned operations demonstration, however, did not start at that time because expanded safety and environmental requirement had not yet been met. These were finally satisfied in October 1991. Yet shipping waste to WIPP from defense complex sites was postponed for a year until Congress could agree on land withdrawal legislation.¹⁴

That act authorized the emplacement of no more than 1100 drums of waste for testing purposes. In addition, more than 120 separate requirements had to be satisfied. Many of those involve new regulatory and oversight responsibilities by other federal agencies. EPA, for instance, must review the Department's plans for conducting tests at WIPP and determine through a formal rulemaking process whether the experiments will yield data that is "directly relevant to a certification of compliance with applicable regulations."¹⁵ Furthermore, EPA, not DOE, will determine whether those standards are met.¹⁶ If WIPP can be shown to comply with applicable regulations, emplacement of waste for disposal can begin sometime around the year 2000. After a quarter-century period of loading the repository, the underground openings will be sealed. As of fiscal year 1993, approximately \$1.5 billion has been appropriated for WIPP; the project's life-cycle costs are estimated at more than \$6 billion.

COMMON CHOICES AND TENSIONS

Although their activities differ considerably in the specifics, the OCRWM and EM programs are linked by common social choices that create common tensions. These are intrinsic to what are in principle the programs' core missions, existing independently of how they are organized or implemented.

VALIDATING ALTERNATIVES

Both waste management programs intend to design and deploy technological systems to carry out their core missions. Some portions of those systems are well-understood. Others represent first-of-the-kind undertakings, which by their very nature are subject to considerable uncer-

¹² DOE National Security and Military Applications of Nuclear Energy Authorization Act of 1980, Section 213.

¹³ By 1992 extensive series of underground storage rooms had been excavated.

¹⁴ WIPP Land Withdrawal Act, Public Law 102-579.

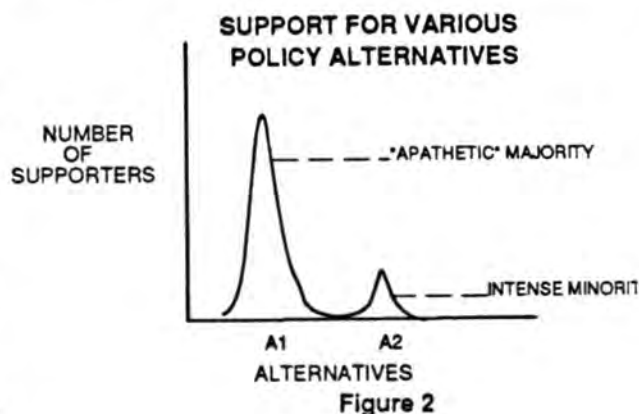
¹⁵ WIPP Land Withdrawal Act, Section 5(a).

¹⁶ WIPP Land Withdrawal Act, Section 8(d).

tainty. Scientific investigations can reduce the degree of ambiguity, but it is unlikely that they can eliminate it entirely. *For example, both programs recognize that release rates of radionuclides or hazardous material from a repository designed in a particular manner cannot be predicted with complete precision.* Thus, *inherent in the process of validating the consequences of technical alternatives will involve lies a social judgment on how much uncertainty can be tolerated and whether that level has in fact been reached. That social judgment will likely be made in one or more regulatory arenas where affected parties have the right to participate. The possibility that this judgment might be rendered through legislation, however, cannot be ignored.*

DETERMINING ACCEPTABLE TRADE-OFFS

Both waste management programs have to resolve difficult value trade-offs. These include, but are hardly limited to, the level of risk, geographical distribution of risk (as, for example, reflected in siting decisions), cost, schedule commitments, and the benefits derived *not only* from undertaking the enterprises that create the waste *but also from treating, storing, or disposing of it.* Balancing those disparate factors would be an intimidating task under the best of circumstances. But what makes it even more daunting is the combination of how support is distributed for any given value and the strong correlation among them all. *As a result, when two alternatives are being considered, public and group reaction likely will be bi-modal as the accompanying figure suggests. In particular, decisions to site unwanted facilities will often evoke an intense response on the part of those immediately impacted. Consequently, as Figure 2 suggests, a relatively apathetic majority -- who live elsewhere -- might favor the siting proposal (A1) while the committed minority might strongly favor siting the facility anywhere else (A2). In the American political system, adoption of alternative A1 (or A2 for that matter) is by no means a foregone conclusion.*¹⁷



¹⁷ In the American political system, adoption of alternative A1, the one preferred by the majority, is by no means a foregone conclusion when an intense minority favors alternative A2. See Robert Dahl, *A Preface to Democratic Theory*, (Chicago: University of Chicago Press, 1956).

PROBLEM-SOLVING STRATEGIES

Problem-solving strategies vary depending on (1) how well established the connection is between actions and the outcomes they engender and (2) how much agreement there is on what the value trade-offs implicit in an outcome should be.¹⁸ Figure 3 below illustrates four simplified combinations and indicates appropriate strategies corresponding to each. Three are familiar; the fourth, which, in the Task Force's view, ought to attach to radioactive waste management, has no name. Various students of organization call it "heuristic," "inspirational," or "charismatic;" *but they cannot readily associate it with any well-identified, over-arching problem-solving strategy.* This absence of a well-specified, over-arching problem-solving strategy failure is more than just an intellectual curiosity. It suggests that *there may be a mismatch between the characteristics of at least some of the radioactive waste management problems that must be solved and the strategies available to solve them.* As Figure 3 indicates, the best DOE managers will need *may be able to do is* to oscillate between a trial-and-error approach for managing uncertainty and a bargaining approach for obtaining agreement. To the extent that the two approaches produce inconsistent policies and outcomes, problem-solving in this domain will likely not be effective. *Importantly, should they adopt a strategy of calculation akin to what might be used in building a bridge, the likelihood of effective problem-solving declines considerably.*

		PROBLEM SOLVING STRATEGIES	
		DEGREE OF UNCERTAINTY ABOUT OUTCOMES	
		LOW	HIGH
AGREEMENT	VALUE	CALCULATION Bridge building	TRIAL AND ERROR Educational reform
	TRADE-OFFS		
DISAGREEMENT	VALUE	BARGAINING Farm subsidies	???? Radioactive waste management
	TRADE-OFFS		

Figure 3

PUBLIC TRUST AND CONFIDENCE

Public trust and confidence is one of those concepts -- like fairness or justice -- that is comprehended intuitively but escapes crisp and concise definition. As a result, its value in policy discourses and debates has depreciated as it has been appropriated for rhetorical appeals and arguments. The discussion below indicates more precisely what the Task Force takes the concept to mean; for now, however, a brief consideration of the salience of public trust and confidence is in order.

¹⁸ James D. Thompson and Arthur Tuden, "Strategies, Structures and Process of Organizational Decision," in James D. Thompson *et al.*, (eds.), *Comparative Studies in Administration*, (Pittsburgh: University of Pittsburgh Press, 1959).

THE IMPORTANCE OF PUBLIC TRUST AND CONFIDENCE

In the opening pages of this report, the Task Force described the central contribution that trust and confidence makes to the legitimacy of public organizations within the American system of governance. That contribution derives from a democratic ideology that demands that public institutions operate in a transparent manner, that they adopt processes that not only permit but encourage broad segments of the public to participate, and that no segment finds itself permanently a loser in policy controversies.

On a more pragmatic level, trust and confidence are generally essential for effectively carrying out activities in the public sphere. The genius of American government -- checks and balances, division of powers, federal structure -- is that it provides innumerable opportunities for opponents to delay, frustrate, and otherwise block what others call progress. A reservoir of trust and confidence is, of course, no guarantee that intense interests will accept unpalatable initiatives, but it does increase the likelihood that they will view matters in as favorable a light as possible. Moreover, a high level of trustworthiness *is like money in the bank as it* provides a public organization with the leeway or slack it needs to operate *effectively*. Lapses, if not forgiven, are understood. Actions are not constantly challenged. Complex arrangements and internal assumptions do not always have to be justified.

In the realm of radioactive waste management problem-solving, public trust and confidence is especially *safient critical* because of the high degree of technical expertise required for understanding, participation, and sound decision-making. In validating alternatives, there must be trust that uncertainties are resolved in an unbiased fashion. There must also be confidence that activities will be implemented in good faith. In determining acceptable trade-offs, there must be trust that the full range of values and alternatives has been taken into consideration and that the interests of all have been recognized even if they are not accommodated.

This analysis is *These conclusions are* not novel; it *they* simply reiterate once again a theme that has been articulated for nearly two decades. The first systematic Administration-wide study of radioactive waste management noted: "It is important to the development and implementation of any technology that public concerns be identified and addressed to the fullest extent possible."¹⁹ A report by the Office of Technology Assessment made the point even more emphatically: "[D]istrust may, indeed, be the single most complicating factor in the effort to develop a waste disposal system that is acceptable technically, politically, and socially."²⁰ Independent scholars and analysts concur. Wrote one, "The struggle over nuclear

¹⁹ *Subgroup Report*, p. 48.

²⁰ Office of Technology Assessment, *Managing the Nation's Commercial High-Level Radioactive Waste*, OTA-O-171, (Washington: Government Printing Office, 1985), p. 95.

waste policy has gone on so long that the mutual suspicions that divide the familiar players run deep and are likely to persist."²¹

But those comments do not explicitly recognize that it is the intrinsic properties of DOE's core radioactive waste management missions that reenforce and intensify the importance of trust. As Figure 4 suggests, the time horizon -- how long it takes for an activity to occur -- and the clarity of feedback about their success or failure significantly affects the requisite level of trustworthiness that is required for various activities. Those that take place quickly require less than those that must be carried out over long periods. When the time horizons of an activity are short and feedback about success or failure is clear, trust and confidence, while clearly desirable, is less essential. For example, states, localities, and Indian tribes can enter into binding agreements concerning transportation of radioactive wastes through their jurisdictions. Even as they trust, they can verify -- and act -- to safeguard their interests.

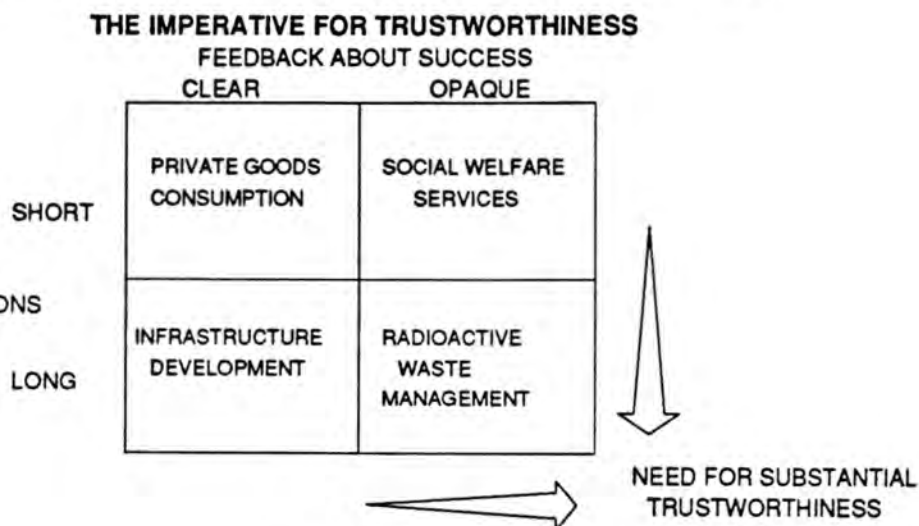


Figure 4

Conversely, when the time horizons of an activity are long and feedback about success or failure is ambiguous, there is no viable substitute for trust. Our political, legal, and social mechanisms for securing accountability are generally inadequate to the task. Yet For example, even if all goes as planned, the first high-level waste repository will be closed by our great- great- grandchildren.²² Yet whether a disposal facility is performing as anticipated may be hard to ascertain. Cataclysmic disruptions are likely to be discovered, but more subtle failure modes may very well escape detection until the level of release becomes unacceptably evident. And it is quite conceivable that the defense complex clean-up will require the

²¹ Luther Carter, *Nuclear Imperatives and Public Trust: Dealing with Radioactive Waste*, (Washington: Resources for the Future, 1987), p. 427.

²² Congress gave the Secretary of Energy the responsibility to forever prevent human intrusion into a repository any activity at the site that poses an unreasonable risk of breaching the repository's engineered or geologic barriers or increasing the exposure of individual members of the public to radiation beyond allowable limits. National Energy Policy Act of 1992, Section 801(c).

exclusion of the public from some areas for extended but yet undetermined times. *Yet it will be difficult to determine whether future generations are exposed to harmful levels of radiation. It may depend on the unpredictable reliability of extended institutional controls.* Similarly, activities that have clear feedback indicators demand less trust and confidence than those that possess only opaque ones. Thus, as the chart above suggests, both factors reinforce the inescapable view that radioactive waste management cannot succeed. *In a very concrete sense, then, it is unlikely that solutions will be found to managing radioactive waste absent a solid foundation of public trust and confidence.*

This analysis becomes even more compelling when a series of questions is raised about the consequences of not maintaining institutional trustworthiness. Will the changes that will inevitably arise in technical and operational plans be shared candidly so that binding legal agreements and contracts might be renegotiated? Will considerable discretion continue to be delegated to and will status continue to be conferred on scientific and technical practitioners? Will political power have to be relied upon indefinitely to promote technical programs? Will the normal processes for ensuring scientific and technical excellence function effectively?

Notwithstanding the critical importance of earning and sustaining public trust and confidence, the Task Force does not advocate maximizing institutional trustworthiness at the expense of all other goals. There may be occasions when choices must be made that lead to diminished trust. Yet the panel believes that, in the long run, increased trustworthiness makes deadlines easier to meet, facilitates the resolution of technical disputes, and reduces unexpected surprises from the political environment. The Task Force, however, does not underestimate the power of a short run perspective to discount the importance of long run considerations and to create an unsubstantiated impression that building trust is incompatible with other objectives.

THE MEANING OF PUBLIC TRUST AND CONFIDENCE

Notwithstanding its frequent use, the term "public trust and confidence" has rarely been defined with any great precision.²³ For some, the concept is taken to mean a belief in the competence and integrity of the object of one's faith. To be trustworthy, then, is to be reliable, reliable in doing what is "right," right in the sense of both technical competence and meeting normative expectations. Others rely on a fiduciary conception of trust; and still others see trust as the

²³ *The panel can state at the outset what connotations it does not associate with the concept. Public trust and confidence is not the same as the largely discredited notion of "public acceptance" nor is it a rubric for carrying out a public relations campaign.*

supplement to contracts that is the necessary condition for markets to operate efficiently or perhaps even to operate at all.²⁴

Individuals who represent organizations that deal with the Department's radioactive waste management programs were asked in a survey to indicate in their own words what they understood the concept to mean.²⁵ What was striking was the fact that nearly one-third had a difficult time articulating an answer. Those who did, however, overwhelmingly focused on "honesty and believability." Other important attributes connected with trust and confidence included "acting in the public's best interests," "keeping commitments," and "technical competence."

A different perspective on the meaning of the concept can be obtained by examining how individuals' level of confidence in DOE is associated with various beliefs about the organization. There is remarkable consistency. As indicated in Figure 5 below, virtually the same attributes are strongly connected with the notion of institutional confidence, regardless of whether the entire sample is analyzed or whether subsamples of state and local officials or environmental/public interest group representatives are considered.²⁶

ATTRIBUTES OF CONFIDENCE

ATTRIBUTE	FULL SAMPLE		STATE/LOCAL OFFICIALS		ENVIRONMENTAL GROUP REPRESENTATIVES	
	RANK	CORRELATION	RANK	CORRELATION	RANK	CORRELATION
DOES THE RIGHT THING	1	0.74	2	0.62	1	0.68
MAKES IMPARTIAL DECISIONS	2	0.68	4	0.60	4	0.61
TELLS THE WHOLE TRUTH	3	0.68	1	0.63	2	0.64
GIVES EVEN-HANDED TREATMENT	4	0.65	3	0.60	---	---
DOES NOT DISTORT FACTS	5	0.64	---	---	3	0.63
KEEPS PROMISES	6	0.63	---	---	6	0.58
ACTIONS CONSISTENT W/ WORDS	7	0.61	5	0.59	7	0.55
PROVIDES INFORMATION	8	0.60	6	0.51	5	0.58
--- LESS THAN .50						

Figure 5

²⁴ For a more complete discussion of these overlapping notions of trust and confidence, see Part Two of this Report. The reader should also consult the two papers written for the Task Force that are reprinted in Part Three of this Report: Jack Citrin, "Political Trust and Risky Policy" and Craig Thomas, "Public Trust in Organizations and Institutions: A Sociological Perspective".

²⁵ These surveys were commissioned by the Task Force and were administered by the Social and Economics Research Center at Washington State University. Details about the surveys can be found in Part Two of this Report.

²⁶ The sample of industry representatives, tribal leaders, and labor unionists was too small to be analyzed reliably.

Perhaps most intriguing are the attributes that are ~~not~~ associated with institutional confidence in the Department of Energy. *Most intriguingly, some attributes were not related at all to levels of confidence in DOE.* For example, among the entire sample and subsample of state and local officials and environmental *group* and public interest representatives, ~~there is absolutely no relationship between confidence and a belief that DOE waste management programs are~~ *confidence is not associated with views about whether or not DOE waste management programs were* "too influenced by politics." Nor among state and local officials is there much connection between confidence and their opinions about the quality of the Department's scientific work. For environmental/public interest group representatives, there is only a very modest association between confidence and ~~a belief that~~ opinions about whether or not DOE "rarely acknowledges the mistakes it makes" ~~as well as with the attitudes that it or "listens to~~ concerns raised by people like them."

Based on the popular and academic literature, the comments presented to the Task Force at its meetings, and the survey data, the group adopts the following terminology:

PUBLIC: This refers to the range of ~~outside~~ *non-governmental* groups and associations, state, local and tribal governments, and individuals that have a potential or actual interest in the Department of Energy's radioactive waste management programs. The term is used synonymously with stakeholders.²⁷

TRUST: The belief that those ~~upon whom one depends will act~~ *with whom one interacts will behave* in a manner that takes into account the *one's* interests of the relatively dependent partner, even in situations where that partner is not in a position to evaluate and/or thwart a potentially negative course of action.

CONFIDENCE (in a partner): Exists when the partner is *those with whom one interacts* are able to empathize with one's interest, are competent to act on that knowledge, and are willing to go to considerable lengths to interact in good faith and to keep its commitments.

TRUSTWORTHY: Meriting both the trust and confidence of others.

These definitions permit the relationship between "trust," "confidence," and "policy agreement" to be clarified. There does not appear to be any logical or necessary connection between trust and confidence. It is quite possible for one individual or organization to trust

²⁷ It should be noted that transportation routes from the places where the waste was generated to places where it will be stored and disposed of have not been specified. Thus there are many groups, governments, and individuals who have not had the occasion to consider themselves stakeholders.

but to have no confidence in another. It is also possible, but less likely, for one individual or organization to have confidence in but not trust another.

The relationships are more complex when it comes to policy agreement. To the extent that it reflects a commonality of interests, agreement generally leads to trust (although not necessarily confidence). And by the same token, if there is trust or confidence, agreement is much more likely to follow (although it is hardly guaranteed). Yet, the converse may not necessarily hold. Policy disagreement does not preclude the development of trust and, just as importantly, trust does not preclude disagreement. The key to sustaining trustworthiness in the face of dissensus lies in a mutual understanding by the parties that neither seeks actively to thwart the interests of the other and that neither wants the other to be a permanent loser in policy disputes.

TRUST AND CONFIDENCE IN THE DEPARTMENT OF ENERGY'S RADIOACTIVE WASTE MANAGEMENT PROGRAMS

Individuals who represent organizations that deal with the DOE's radioactive waste management programs were also asked to respond to the standard Gallup institutional confidence question modified to include the Department's headquarters, its field offices, and its contractors. The results displayed in Figure 6 confirm the more impressionistic evidence that the Task Force has gathered. Although DOE contractors and field offices were viewed overall more positively than DOE headquarters, not only was that difference small but all three elements did quite poorly.

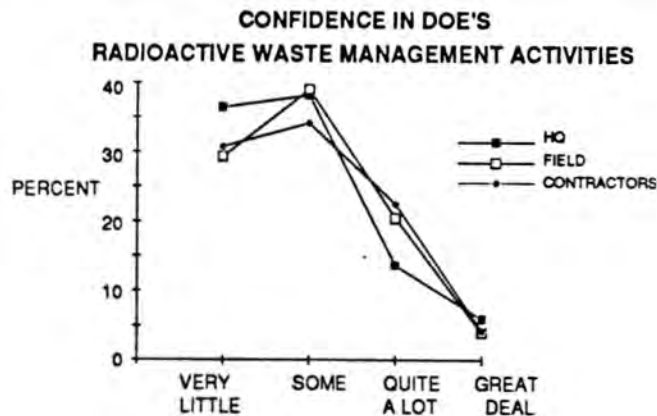


Figure 6

There are, however, some important differences among the major stakeholders as Figure 7 shows. State and local officials do not see DOE as a partner that merits much confidence. The views held by representatives of industries that interact with the two waste management programs are somewhat surprising. Their lack of confidence is pronounced; they are no more supportive than the government officials interviewed. Environmental community and representatives of public interest groups, however, are by far the most critical of the Department, and the distribution of their views is the most skewed.

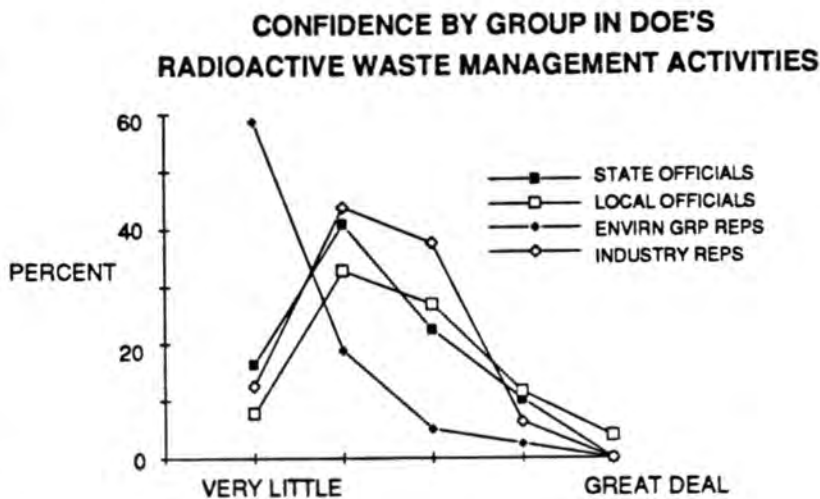


Figure 7

Although these numbers provide little solace for DOE policy-makers and senior managers, they are not quite as bleak as they appear on the surface. The data displayed in Figure 8 suggest that DOE has recently reversed what was generally recognized as a continuing and substantial decline in confidence. Nearly three-quarters of those questioned indicated that the Department waste management programs merit at least as much confidence as they did four years ago. *The biggest gains in public trust and confidence came from individuals who dealt solely with the EM program; trust among OCRWM stakeholders rose more modestly. There were, however, important difference across the respondents. Among state and local*

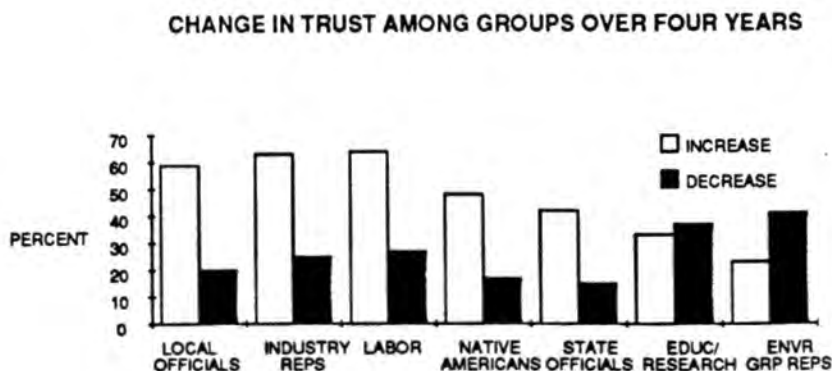


Figure 8

officials, labor unionists, representatives of business associations, and tribal leaders who reported changes in their level of trust, two-thirds accorded DOE greater trust now than in the past. *Once again, the environmental community and representatives of public interest groups* Yet some important stakeholders markedly departed from the prevailing pattern demonstrating progress earning public trust and confidence. *Leaders of educational and research organizations were just as likely to report increased as decreased trust. Representatives of environmental groups indicated that their level of distrust had substantially decreased over the last four years.*

Although one could undoubtedly point to exceptions and qualifications, this data suggests that DOE is generally confronted with the task of recovering trust rather than just sustaining it. This distinction goes beyond terminology; it has practical implications for measures the Department will need to take. In particular, if the agency's leaders want to restore public trust and confidence, they will have to commit greater amounts of energy and resources, over a longer period of time, and expect less in the way of progress than if they were trying to maintain an already acceptable level of trustworthiness. In effect, they will have to re-create and reestablish relationships that have become, over time, extremely dysfunctional. To believe that there is some other magical shortcut that will accomplish that end is unrealistic. To believe that "doing more of the same" only better will accomplish that end is equally unwarranted.

TRUST AND POWER

One of the most important factors that color relationships is whether power among the parties is distributed roughly equally or unequally. In the former circumstance, trust is not essential, especially when the interaction involves short time horizons and clear feedback measures. Each party is in a position to protect its interests either in the absence of trust or if the trust relationship breaks down. Nonetheless, trust is useful. It reduces transaction costs, facilitates interactions, and preserves discretion. In the latter circumstance, the trust relationship is more critical for the dependent or less powerful party. At the same time, maintaining it is more tenuous because the more powerful party may believe that its interests will not be affected if trust breaks down.

But the distribution of power is rarely stable. An example that is especially relevant to discussions about radioactive waste management illustrates this point clearly. Although the Department has traditionally held the upper hand with respect to oversight by state governments of the defense complex, that situation changed dramatically with the passage of the Federal Facilities Compliance Act. DOE now finds itself hoping that the states can be trusted to take its interests into account as they exercise their new regulatory authorities.

The lesson to be learned here is that the Department of Energy cannot afford to view trust as a luxury; later if not sooner its ability to carry out programs will depend on how well it has

developed relationships of trust with many parties, some of whom are, for the moment at least, relatively weak. To re-create and reestablish relationships with those publics in particular, DOE, as the stronger party, should be prepared to run some risks. It will have to be willing to offer accommodations that, in some sense, it need not extend. For instance, it may, on its own volition, restructure the distribution of power in some areas. By doing so, it recasts the interaction to make trust less essential, but it also opens the way for agreement on "confidence-building" measures that can ultimately lead to greater mutual trust.

OBSERVATIONS AND FOUNDATIONS

Early in its deliberations, the Task Force sponsored two workshops. The first was organized by the National Academy of Sciences who brought together a number of scholars from disciplines such as sociology and administrative theory. They were asked to consider contributions the social sciences might make to thinking about the problem of strengthening institutional trustworthiness. The second was conducted by the National Academy of Public Administration which invited a dozen managers of organizations.²⁸ They identified from their experience best practices for sustaining public trust and confidence. Those conversations coupled with insights obtained from individuals who spoke at the Task Force's meetings helped to guide the group to the intellectual framework that follows.²⁹ A discussion of first principles, the elements that form the lens through which the Task Force viewed its charge, is an appropriate starting point.

FIRST PRINCIPLES

A sense of responsibility to the Secretary and to those interested enough to read this obliges the Task Force to state as explicitly as possible the logic and the evidence that led it to the Recommendations contained in this *Report*. These first principles, however, are not subject to either analytic or empirical confirmation; rather they represent underlying beliefs that either were brought to the table or were crystallized at it. They are akin, therefore, to axioms in geometry; alter them and the conclusions may change radically.

²⁸ The proceedings of the two workshops along with the papers produced by participants are reprinted in Part Three of this *Report*.

²⁹ At its seven public meetings, the Task Force spoke with over 100 members of the public, representatives of non-governmental organizations, State, local, and tribal governmental officials, and representatives of DOE programs and their contractors. Task Force members and/or staff visited the Yucca Mountain site, the Hanford Reservation, Rocky Flats, the Savannah River Site, and the Waste Isolation Pilot Plant. Informal conversations were conducted with DOE and contractor personnel at those sites as well as with representatives of non-governmental organizations and State and local governments.

- *Public trust and confidence is not a luxury. DOE not only has an obligation to merit it, but it also has a compelling need to do so.*
- *Public trust and confidence is not a one-way street. DOE must trust the public before it can expect the public to trust it. ~~By the same token, the public and its representatives must be held to a standard of behavior that is itself trustworthy.~~*
- *Under almost all circumstances currently relevant to DOE's waste management programs, it is preferable to make decisions in an open, pluralistic forum than in a closed one that excludes actual or potential stakeholders.*

CONDITIONS THAT PROMOTE INSTITUTIONAL TRUSTWORTHINESS

Based on deductions from the existing social scientific literature, inductions from its review of the OCRWM and EM programs, and ideas presented to it by interested groups and individuals, the Task Force adopted the following design perspective. This perspective does not produce a unique and infallible solution to the problem of public trust and confidence. It does, however, suggest some of the essential characteristics that any steps toward a solution must embody. In particular, the panel believes that public trust and confidence in the Department depends on:

- *Ensuring that the scientific and technical foundations for managing radioactive wastes merit broad and deep support.*
- *Implementing program activities and initiatives effectively and reliably.*
- *Empowering stakeholders to participate substantively in setting goals, evaluating options for meeting those goals, and assessing the results of the program adopted.*
- *Working with affected parties toward agreed upon programmatic goals in a reliable and responsible manner.*
- *Forming partnerships with, and having genuine empathy for the values of, various stakeholders.*

The Task Force translated those general ideas into a set of conditions that a trust-seeking organization would have to satisfy:

- *Scientific and technical norms held by DOE employees and contractors dominate bureaucratic ones.*
- *Organizational and managerial incentives are structured to reward problem-solving and sanction the cover-up of error.*

- *The parties (organizational members and stakeholders) have a reasonably high respect/regard for each other based on general familiarity and a perceived high degree of mutual understanding and integrity (openness and honesty).*
- *The parties possess the competence to understand the technical and institutional problems others face and the solutions advanced to address them.*
- *The parties have a reasonably equal part in defining the terms of the relationship.*
- *The parties maintain a positive history of relationship during which agreements have been kept, even in the face of apparently very demanding challenges.*
- *The parties are able to determine unambiguously the effects of their relationship on each other in a full and timely fashion.*
- *No party is compelled to work against the interests of any other party.*
- *All parties take into serious account the implications of their actions for sustaining the relationship.*

To the extent that all these conditions obtain, the organization will almost certainly be well positioned to produce and maintain trust. To the extent that any one of these conditions cannot be satisfied *or cannot in some other way be compensated for*, the organization's ability to evoke trust will diminish. These conditions should be kept in mind as the two radioactive waste management programs are set within their institutional context.

INSTITUTIONAL CONTEXT OF RADIOACTIVE WASTE MANAGEMENT

Today's OCRWM and EM programs operate in an institutional context that has been shaped by past choices of their predecessor organizations, by their own past actions, by their legal mandates, by their interaction with stakeholders, and by their organizational cultures.³⁰ Despite the complexity, it is essential to distill the essence of their intensely political environments. For that is what directly affects the choices the Department makes and indirectly affects its capacity to strengthen public trust and confidence.

³⁰ The constraints and challenges that all those factors spawn are considered in some detail in Part Two of this Report.

CIVILIAN RADIOACTIVE WASTE MANAGEMENT PROGRAM

In less than a decade, civilian radioactive waste management moved from off stage to front stage. Emblematic of that transformation was the elevation of the effort from a single branch within the Atomic Energy Commission's Reactor Development Division to a major office within DOE headed by a presidential appointee. Along the way, however, a trail of disappointing initiatives was left. Words and acronyms such as Lyons, Kansas, RSSF, AFR still resonate in the minds of those who have followed the program's fortunes over the years.

In 1982, Congress acted to reconcile, at least for the moment, a series of unresolved issues and to place a greater stamp of authority on the program's efforts. The resulting legislation, the Nuclear Waste Policy Act (NWPA), can be understood as a blend of the intellectual framework advanced by President Jimmy Carter's Interagency Review Group and the Office of Technology Assessment along with measures that recognized and provided remedies for the widespread lack of trust in DOE.

That amalgam translated into four bargains. The *ethical bargain* committed the country to pursuing geologic disposal aggressively in the belief that the uncertainties associated with the technology could be managed and that the generation benefiting from nuclear power should have the responsibility to solve the problem of the wastes left behind. The *economic bargain* gave the industry a fixed schedule *for every stage of the repository development process and a date* for the opening of a disposal facility; *as importantly, it gave utilities a fixed date* for the government to accept title to the waste -- something that was seen as a prerequisite for the industry's future growth -- in return for a surcharge on the cost of nuclear generated electricity to cover fully the ratepayers' costs of repository development and operation.

The *technical bargain* provided that a conservative program philosophy, *subject to an intricate external review and independent oversight process*, would be followed by investigating multiple sites in differing geologic environments. Yet for the first repository, only a small handful of locations could be considered. The *political bargain* called for a second repository, which was likely to be situated outside the region of the first. It also offered the host state and affected tribes the right to participate in a wide range of program decisions, oversight authority, and disapproval over the final choice of site. But that objection could be overridden by a vote of both chambers of Congress.

~~Although concerns were raised at the time about potential conflicts among the bargains, the prevailing atmosphere upon passage was one of guarded optimism. Few observers would have predicted, however, that the technical and political bargains would have collapsed altogether in less than a decade and that the ethical and economic ones would be seriously threatened.~~

Importantly, each of these bargains were struck in large part because some affected party neither trusted nor had much confidence in the Department of Energy. The ethical bargain was necessary because the environmental community felt that DOE would settle for

temporary surface storage to avoid addressing the complicated issue of geologic disposal. The economic bargain was struck because the nuclear power industry had little confidence in the Department's ability to manage an expensive project of indefinite duration and minimal accountability. The technical bargain was struck because virtually no party trusted DOE to make critical siting decisions in an objective manner. Only the political bargain's quest for geographic equity in sharing the burdens of disposal seems to be predominantly motivated by factors other than lack of trust and confidence.³¹

The Department's efforts to implement all these bargains ran into difficulties almost from the very start. The most visible manifestation of this, illustrated in Figure 9, was that the projected date for opening a repository continued to slip. Ironically, this erosion of the economic bargain may have been caused by efforts to keep the technical and political ones. OCRWM's leaders, for example, point out that they offered greater opportunities to comment on technical and policy initiatives than was required by law. They also went to considerable lengths to respond to criticism about the program's site comparison methodology from the National Academy of Sciences.

At the same time the prospects for the first repository receded, the political bargain, which seemed so attractive in theory, turned into a nightmare in practice; the general public and politicians of seventeen states did everything they

could to obstruct the process for selecting a site for the second repository. Indeed, barely three and a half years after passage of the NWPA, the Department announced that it was suspending that effort.³² In the final analysis, trying to preserve the core of the political bargain exacted too high a price. Abrogating it unilaterally was, for many leaders at DOE, the only way to save the other three.

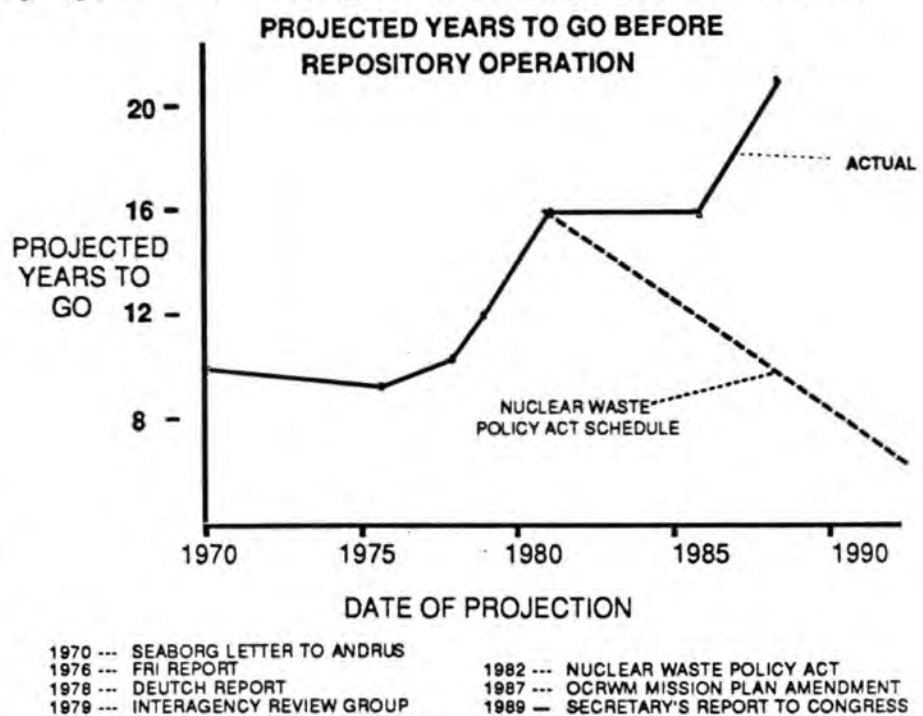


Figure 9

³¹ See Carter, pp. 195-230.

³² There has been considerable speculation about how that decision was reached. For one of the best discussion of this event, see Carter, pp. 408-414.

The subsequent passage of the Nuclear Waste Policy Act Amendments codified the decision to break a key element of the political bargain by requiring DOE to focus its efforts on a single repository. By mandating the Department only characterize the Yucca Mountain site, it also undid the part of the technical bargain that called for site comparisons. The economic bargain has also been rewritten as Congress has tacitly acquiesced to at least a twelve year delay in the schedule for opening a repository.

There is no way of knowing whether these four bargains are inherently contradictory and inconsistent and thus destined to fall apart or whether they might have been managed more astutely and effectively. What is apparent to the Task Force is that no stakeholder is satisfied with the current state of affairs. Among the concerns voiced are the following:

- Utilities that rely on nuclear power believe that the erosion of the economic bargain presents them with an painful dilemma that they had hoped to avoid by signing formal contracts with DOE. As schedules slip, they are faced with the prospect of having to spend money and find space to store spent fuel for some indeterminant length of time. But their options may be limited if their rate regulators do not permit them to recover those expenditures or prevent them from passing on to consumers their contributions to the Nuclear Waste Fund. The utility's dilemma becomes even more excruciating if a repository is not built at Yucca Mountain. Neither they nor their regulators have much confidence that the Department will manage that project any better in the future than it has done in the past.*
- The state of Nevada believes that DOE is at least partially responsible for its being singled out to bear the costs of recasting portions of the technical and political bargains. Moreover, state leaders have emphasized the fact that having only one site under consideration taints the Department's technical objectivity. Thus the portions of the technical bargain involving review and oversight, which have not been explicitly abrogated, have been rendered irrelevant as a practical matter. Normal bureaucratic incentives coupled with institutional momentum means that the site is not likely to be abandoned. These circumstances make it almost impossible to trust DOE.*
- Some members of the environmental community believe that DOE's commitment to expanding the nuclear power option predisposes it to resolve technical uncertainties so as to maintain the viability of the Yucca Mountain site. They do not trust the Department to heed objective technical advice from truly independent experts. Consequently, they have become less committed to the ethical bargain and advocate extended monitored retrievable storage of spent fuel usually at reactors.*

In short, each of these affected parties seeks to maintain in their original form those bargains that protect its central interests while expecting others to accept revisions in the remaining ones.

Once it became apparent that the repository program was falling nearly two years further behind as each year passed, the Department developed an ~~What largely remains from the NWPA is~~ DOE's almost single-minded dedication to construct a repository as expeditiously as possible. That dedication reflects a commitment to implementing the NWPA and to preserving its *ethical and* economic bargains. It aligns the program's activities with the most visible and comprehensible indicator of success -- meeting schedule milestones. It is also a natural and expected consequence of being responsive to the views and the priorities of legislators and constituencies who are the most salient to the agency's policy-makers. Indeed one might well argue that to behave otherwise would be to breach the confidence of one vital sector of the public -- electric utilities and Public Utility Commissioners -- who can neither understand nor accept the Department's inability to maintain a schedule or to control costs. DOE's position is all the more understandable given the uncertain returns from behaving differently.

But this determined pursuit of a repository has had unfortunate ramifications in three interconnected areas: the Department's response to technical overseers, its defense of the technical integrity of its efforts, and its stance with regard to complying with regulatory standards. All of these areas are relevant to the Department's quest for public trust and confidence.

Law and tradition have placed four external bodies in a position to give independent advice on the technical aspects of the program. The National Academy of Sciences' (NAS) Board of Radioactive Waste Management has been involved since 1955. The Nuclear Waste Technical Review Board (NWTRB), a group of presidentially appointed experts, was established by Congress in 1987. Under the NWPA as amended, the host-state, Nevada, and the *situs* County, Nye, also have special rights under the NWPA ~~as amended to review and comment on site characterization activities~~ *have the right to designate a representative to conduct on-site oversight activities. In addition, the state of Nevada as well as Nye County and the nine counties in Nevada and California contiguous to it can undertake a wide review of the Department's site characterization efforts.*

DOE has treated advice received from them all as just that, advice. ~~As it has every legal right to do, the Department has sometimes accepted recommendations, and other times it has rejected them.~~ *Sometimes it has accepted the recommendations. For example, the Department abandoned plans to drill and blast shafts to gain access to Yucca Mountain's underground features. At considerable cost and schedule delay, it decided to use tunnel boring machines instead. Other times, DOE has rejected, as it has every legal right to do, the advice offered by its independent technical overseers.* For many stakeholders, however, including those who wish the Department to succeed in developing a geological disposal system and who are open-minded about the suitability of the Yucca Mountain site, what is troubling is the *rationale* for acceptance or rejection. While no general pattern holds true in every instance, the best predictor of whether the recommendations are ignored seems not to be their intrinsic technical

merit but whether they significantly alter the prevailing program philosophy or imply changes in approach that are perceived to cause serious delays in repository development.³³

Fifteen years ago, the Department was cautioned that organizational and political commitments could so attach themselves to a particular site that "insufficient weight might be given to technical data developed later on. Because of the presence of this risk, a program...might lose some degree of public support. Care would have to be taken that technical adequacy remained a prerequisite for site selection, and *the public must be provided adequate assurance* that this is so. [emphasis added]"³⁴

*More recently, this concern was raised in a report from the NWTRB. The Board observed that the civilian radioactive waste management program was being driven by "unrealistic deadlines [that] may force DOE to make important technical decisions without first performing the appropriate technical and scientific analyses."*³⁵ *It noted in particular that the project's current schedule may not provide enough time to gather data from the exploratory studies facility and from underground experiments or to make informed choices on critical issues such as waste package design and repository thermal loading.*

OCRWM's leaders recognize these fears, and they have offered two forms of assurance. First, they have stated unambiguously that if information is uncovered in the course of site characterization *that demonstrates the unsuitability of Yucca Mountain*, they would recommend that work not continue and that the site be abandoned. Second, they have pointed to the elaborate layers of technical oversight, including independent external advisors and ultimately the licensing authority of the NRC.

Because an atmosphere of distrust pervades the program, it is hardly surprising that OCRWM's declarations of intent have been greeted *by many* with skepticism. And given the program's mixed record of responding to outside advice, technical adequacy cannot be guaranteed on this basis. Moreover, because the level of confidence accorded NRC does not appear to be appreciably higher than that bestowed on DOE, the licensing exercise may also not be sufficient. Indeed, many stakeholders find it difficult to imagine that NRC would reject an application after so much time and resources had been committed to exploring one piece of geology, especially since no other site would be available as a back-up.

³³ This seems especially the case with respect to recommendations from the NAS and the NWTRB. *There is at least a perception that DOE finds it extremely difficult to listen seriously to overseers, who, by its standards, are judged to be less technically qualified.*

³⁴ *Subgroup Report*, p. 81.

³⁵ *Special Report to Congress and the Secretary of Energy, March, 1993, p. 4.*

Finally, OCRWM's determination to develop a repository as expeditiously as possible can subtly subvert its repeated public commitments to comply with all applicable health and environmental regulations. At the same time OCRWM was promising regulatory compliance in its *Draft Mission Plan Amendment*, the Department incorporated into its National Energy Strategy a bill to preempt Nevada permitting authority. ~~In recent months, OCRWM leaders have complained that EPA's high-level waste standard is ill-conceived and fails to justify with health benefits the substantially increased cost of development it seems to dictate. They have also hinted that NRC's regulations are overly burdensome. There are, of course, established administrative mechanisms for modifying promulgated or proposed regulations. These were not followed, instead the Department supported a legislative initiative to alter both regulatory regimes. While these tactical choices are arguably reasonable, in the current contentious and distrustful political environment, they may confirm the fears of those who believe that DOE will, if necessary, circumvent the regulatory process to get a repository at Yucca Mountain.~~ *Any regulated entity, including DOE, can legitimately seek redress from rules it regards as unworkable or ill-conceived. But as noted above, those standards and regulations represent a social judgment about acceptable levels of risk and uncertainty; and therefore, the process by which they are modified takes on considerable importance. By choosing (perhaps as a last resort) to engage in a rather closed and truncated process, the Department sent clear signals to the range of affected parties. Some saw it as a welcome indication of a willingness to "play hardball" to fulfill commitments and thus as source of confidence. Others saw it as confirmation of the fear that DOE will alter the rules of the game as needed to get a repository built at Yucca Mountain and thus as evidence for not trusting the Department.*³⁶

The Task Force fully recognizes that complex programs require target dates to provide an incentive to participating personnel, to facilitate the drafting of work schedules, to emphasize the need for timely completion of tasks, to justify budgets, and to allow different agencies to coordinate their internal programs into a coherent whole. The panel also appreciates the views of the utility industry and their rate regulators that fulfilling schedule commitments is key to maintaining public trust and confidence.

But the schedules that are attached to the civilian radioactive waste management program derive from a time when there was very incomplete understanding of what work needed to be accomplished in this first-of-a-kind undertaking. The Department has, of course, adjusted various program targets in the past. But there remains the fear that the current over-emphasis on the importance of specific dates may be counterproductive to the production of public trust and confidence. Establishing, in consultation with all affected parties, a more flexible schedule consisting of realistic milestones for gathering specific types of information may better ensure the Department's long term credibility.

³⁶ Of course, those initial reactions may be tempered by the outcome of the study of the EPA standard that has been undertaken by the National Academy of Sciences.

ENVIRONMENTAL RESTORATION AND DEFENSE WASTE MANAGEMENT

As noted above, EM program activities fall into three broad categories: environmental restoration of defense complex sites, management of large quantities of liquid radioactive wastes at three locations, and disposal of TRU waste at WIPP. For the purposes of the discussion that follows, the first two sets of activities will be considered separately from the third.

DEFENSE COMPLEX CLEAN-UP AND ON-SITE MANAGEMENT OF WASTE

DOE and its predecessor agencies have been managing radioactive waste from the defense program since 1944. As a practical matter, however, that management has just consisted of a series of interim measures and improvisations for storing (rather than disposing permanently) the by-products. Similarly AEC scientists and leaders, and their successors, were well aware that if radioactive materials were released or escaped, they could harm plants, animals, and people. Yet, ~~for whatever reason~~ *because national security needs took precedence and because there were few organizational incentives to protect the environment*, they failed to take adequate steps to prevent widespread contamination and pollution.

On several occasions during the 1970's and early 1980's, state governments and environmental groups sought relief and remedies for a situation that showed no sign of improving. Those actions challenged a long-standing organizational imperative that was, if anything, even more dominant and supported by powerful interests than the organizational commitment to develop a repository expeditiously: the defense program could not permit itself to be subjected to external control and monitoring.³⁷ To be sure, that imperative flowed logically from legitimate concerns about national security. But it did send an emphatic message to interested parties: if there is a need to alter the way defense wastes are managed or the way weapons-related activities affect the environment, the agency shall be the sole judge of what should be done and how well it should do it.

The discovery in 1983 of numerous substandard hazardous waste disposal practices at the Y-12 Plant at Oak Ridge was the catalyst that forever changed the Department's world. The Legal Environmental Assistance Foundation (LEAF) and the Natural Resources Defense Council filed suit, accusing DOE of failing to comply with the requirements of the 1976 Resource Conservation and Recovery Act (RCRA).³⁸ The Court firmly denied DOE's claims that it was

³⁷ The difference in the approach taken by Congress, at the strong urging of the Department, to licensing a defense TRU-waste repository (WIPP) and the approach taken to licensing a civilian high-level waste repository is a striking example of this imperative.

³⁸ RCRA, as currently interpreted, details the management of hazardous wastes, including the hazardous components of radioactive mixed waste, at currently operating facilities. It requires that DOE obtain permits for facilities that treat, store, or dispose of hazardous or radioactive mixed wastes, and it established standards for

exempt from regulation under the Act.³⁹ Within a year, the states of Tennessee, Washington, Ohio, and South Carolina were asserting their jurisdiction over hazardous waste management on DOE reservations. In 1986, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) was reauthorized with specific language that brought federal facilities within its reach.⁴⁰ Thus, in the space of two years, DOE's long-standing policy of preventing outside intervention in the defense complex had become severely eroded. The host-states and EPA could, in principle, decide how the Department should clean up its messes and how it should store, treat, and dispose of its hazardous radioactive waste.

Aware that the old order had passed *and, more importantly, vulnerable to civil suits and even criminal prosecution*, DOE, beginning in 1986 and accelerating thereafter, negotiated a series of facility compliance agreements, settlement agreements, consent orders, and agreements-in-principle with states and EPA. Those pacts set standards and schedules for compliance with environmental laws, committed the Department to undertake specific activities, set up the groundrules under which the state and federal regulators would have access to the sites and to data, and, in some instances, obligated DOE to seek full funding to meet detailed clean-up and waste management milestones. By mid-1992, over eighty different agreements had been reached. Just as significantly, the Department had to initiate an extensive program of public involvement in order to satisfy its RCRA and CERCLA obligations. Thus, in a fundamental break from the past, not only were regulators literally allowed inside the gates for the first time, but members of the general public and representatives of interested groups were also figuratively admitted.

As might be expected, this transition has not always been smooth. Old patterns of interaction are hard to shed, and when they are repeated, they may suggest arrogance and insensitivity. For example, DOE has stumbled in seeking changes in negotiated agreements

those facilities. The law also mandates the assessment and clean-up of all releases of hazardous waste and hazardous waste constituents; it provides as a condition of a permit the clean-up of all releases and for correction action orders. EPA possesses the original authority to administer RCRA, but the agency may delegate to States. The States, in turn, may choose to apply their own standards so long as they are at least as stringent as the ones EPA would apply.

³⁹ See *LEAF v. Hodel*, 586 F.Supp. 1163 (E.D. Tenn, 1984). After considerable internal debate, DOE concluded that at least some mixed waste was subject to RCRA and initiated rulemaking to determine what the fraction was. For an instructive discussion by one of the environmental attorneys in *LEAF* and the Department's reaction to it, see Barbara Finamore, "Regulating Hazardous and Mixed Waste at Department of Energy Nuclear Weapons Facilities: Reversing Decades of Environmental Neglect," *Harvard Environmental Law Review*, 9, (1985).

⁴⁰ CERCLA, popularly called the Superfund Act, provides for compensation, liability, cleanup and emergency response for hazardous substances released into the environment. It also provides a regulatory structure for cleaning up inactive hazardous waste sites. EPA was again given original jurisdiction to implement the law but delegated to DOE the authority to respond to releases or threats of releases at DOE facilities.

such as the Waste Vitrification Plant at Hanford. It dealt badly with the local population and state officials when a small amount of tritium leaked into the Savannah River. It has often seemed inflexible in dealing with the needs of local emergency planners. It is premature to know whether the Department shall draw the correct lessons from failings such as these.

The Task Force was struck, however, by the earnestness of the EM leaders it heard from. They have so far erected an elaborate structure for carrying out its the program's core mission including rolling five-year plans, system integration studies, programmatic and site-specific environmental impact statements, and a rich program for fostering public involvement. But it they recognize, as do the various stakeholders, that the true test of the program's mettle still has not occurred. When it does, its ability to maintain trust and confidence may be sorely tried. There are at least six interrelated areas issues that will offer significant challenges over the next few years. Unless the Department's leaders manage them carefully and skillfully, EM will likely find itself faced with a serious crisis with respect to public trust and confidence.

RESOURCES

The total cost needed to implement the EM program has been conservatively estimated at \$200 billion over the next 25-30 years. Any estimate of the total cost of the defense complex clean-up and on-site waste management is bound to be misleading. There are too many uncertainties about the scope of the problems, the costs of various remediation activities, and how much residual risk the society is prepared to accept. Ballpark estimates begin at \$100 billion and move up from there. Whatever the ultimate cost, it is likely to be, by any measure standard, a substantial sum, and could increase as new information is gathered about the extent of the problems and what it will take to rectify them. To date, the Office of Management and Budget and Congress have been forthcoming and responsive to the Department's budgetary requests. Whether that cooperation will continue is inherently uncertain. Should support for the program decline, what is now essentially a "win-win" situation among regions could be transformed into a "win-lose" one. Then DOE will have to make and justify tough decisions allocating scarce resources among competing activities and facilities. EM's past experience creating and defending a prioritization scheme indicate how difficult that task might be.

REGULATORY REGIME

Although the basic foundation has been established for regulating DOE's environmental restoration and defense complex clean-up and on-site waste management activities, there are two issues that loom over the future. The first is the classic question of how clean is clean. Experiments in land-use planning for the Hanford Reservation began just this year. These are innovative and commit the Department to interact with stakeholders in a manner that seems likely to promote trust and confidence. But some questions still remain. How much restricted use will communities be prepared to accept? Will the last community demand more stringent clean-up standards than the next-to-last, especially if it is not required to share the costs?

More fundamental is the relationship between *any* standard and the benefits it produces. It is widely acknowledged that the data from which exposure and contamination standards are derived are sufficiently uncertain that they might not be an adequate reflection of environmental and health risks. What can or should be the program's stance? Will, for example, a vigorous effort at risk communications help or will it merely be perceived as a facade that hides an uncaring attitude toward environmental and health hazards?

SCHEDULES

Each of the agreements-in-principle with the states contains a detailed schedule for completing specific remedial actions and carrying out waste treatment, storage, and disposal operations. The agreements do provide for altering the schedule under certain pre-established conditions. And EM has already succeeded into getting state and EPA concurrence to change some dates. The program, however, is in its earliest stages. Since the milestones negotiated were often derived from estimates provided by DOE, there is likely to be a built-in reluctance on the part of the regulators to continually make adjustments because commitments cannot be met. *Importantly, to the extent that a relationship of trust can be established and sustained with the states, changes in schedules will be easier to negotiate.*

TECHNOLOGY

Approximately ten percent of the EM budget is allocated to developing new technologies and bringing them on-line in time to facilitate compliance with applicable laws, regulations, and agreements and to reduce the costs of doing so. There have been some accomplishments in areas such as horizontal well technologies and penetrometer electromagnetic mapping. It is too soon, however, to judge how many truly new technologies will be developed and how useful they, in fact, will prove to be. To the extent that the program does not succeed within its "window of opportunity," many of the pressures it now confronts will only be exacerbated. *This logic suggests that a very conservative and prudent approach be taken for planning purposes. Miscalculations about the pace of development are much more likely then to reap windfalls than to force dramatic and costly readjustments.*

SITING

~~With the exception of WIPP,~~ Current program operations are being conducted on the defense complex sites. Future ones related to waste storage, treatment, and disposal *of low-level and hazardous waste* will require the siting of numerous new facilities. One of the issues that the EM's Programmatic Environmental Impact Statement will address is where, in general, those operations shall be located. But ultimately specific sites shall have to be selected, and EM will have to forge a process for making those choices. As OCRWM can attest, devising a method for equitably and openly picking places is a daunting task.

FACILITY TRANSITION

As noted above, EM has taken ownership from DP of the Hanford Reservation and the Feed Materials Production Center, and it will soon become the landlord at Rocky Flats. At some time in the near future, it may become responsible for the Mound and Pinellas Plants. Those transitions, and the others that probably will follow as the weapons complex further shrinks, will raise issues such as worker retention and retraining and the creation of planning mechanisms that will permit close collaboration with state, local, and tribal governments.

For facilities that remain under DP control but which still have a large EM presence, the situation may pose its own special dilemmas. If the two DOE units adopt differing philosophies or promote diverging organizational cultures, mixed messages could be sent to the interested and involved publics. In such a case, hard-fought efforts to sustain trustworthiness may be unwittingly damaged.

WASTE ISOLATION PILOT PLANT

In the early 1970's virtually all the economic and political leaders in Carlsbad, New Mexico decided that a nuclear waste repository carved out of a salt formation due east of town would be just the right antidote to the steep decline in the local potash industry. Although some residents of the community opposed the idea, the leaders launched a sophisticated campaign using connections with both state and national political figures, and eventually the project was endorsed by DOE and Congress. While tensions periodically arose between the Department and the state of New Mexico, relations have never deteriorated to the point that they have in Nevada. While not an entirely welcome guest, WIPP is a familiar one whose presence serves not only the interests of the Department but those of many constituencies in the state.

Nonetheless, there seem to be some chronic irritants that, if not salved, have the potential for undermining the Department's position and eroding public trust and confidence. The Department has lobbied EPA intensely to modify that agency's disposal standards to facilitate the certification of WIPP. Of more general concern to the state is the scientific justification and validity of DOE's test phase plans. Only quite late in the design and construction of WIPP were concerted efforts made to formulate experiments to support claims about the long-term performance of the facility. The National Academy of Sciences' WIPP Panel criticized a 1992 study that sought to lay out a research strategy. It noted, among other things, that "the plan to conduct a large number of expensive bin tests and to terminate the experiments after five years has no discernible scientific basis."⁴¹ Although discussions

⁴¹ Letter Charles Fairhurst to Leo Duffy, June 17, 1992.

were held been the WIPP Panel and the Department on how to improve the design of the experiments, the issue had not been fully resolved by January 1993.⁴²

A more fundamental problem may lie just over the horizon: EM understands only in the most general terms what specific types and quantities of waste will be coming to WIPP. That information may be critically important to DOE's application for a RCRA part B permit allowing waste emplacement for disposal. EPA may need that information as well in order to modify the no-migration determination it has issued for the test phase. Neither the state nor the Department's sister agency have not yet specified their requirements for waste characterization. Because the cost and schedule implications for the WIPP of having to develop a detailed description are significant, the possibility of substantial disagreements arising with the state and federal regulators cannot be ruled out. Such a circumstance would hardly strengthen public trust and confidence.

COMPARISON OF THE TWO INSTITUTIONAL CONTEXTS

~~As one might expect of units within the same Department, the institutional contexts surrounding the OCRWM and EM programs possess some common characteristics. But they vary in many more respects that have implications for their capacity to maintain public trust and confidence over the periods of their anticipated existence. In the table below, the similarities and differences suggested in the analysis thus far are made explicit. It would appear that OCRWM faces significantly more obstacles if it wants to restore trustworthiness than does EM.~~

The discussion just concluded suggests that a fundamental and complex interaction of factors affects public trust and confidence in the Department's radioactive waste management activities. Some are specific actions, choices, and policies that each program has made; others include characteristics of the core mission and governing regime, both of which are not fully under either programs' control. Figure 9 below presents the Task Force's judgments about the institutional contexts within which waste management activities are conducted.

In virtually every case, the civilian program must overcome greater obstacles to keep and sustain trustworthiness than the defense complex clean-up and on-site defense waste management programs. WIPP generally occupies a position between the other two. It is for this reason that the Task Force paints a bleaker picture with respect to public trust and confidence for the civilian radioactive waste management program than for the

⁴² *The state has a vested interest in the expeditious start of WIPP's test phase. Not only will employment at the site be stabilized but the \$20 million per year for 15 years that Congress has authorized for economic assistance will be paid out once TRU waste is shipped to the facility.*

environmental restoration and defense waste management program.⁴³ One clear implication that follows from this analysis is that OCRWM's capacity to restore trust and confidence critically depends on the decisions of its partners in the governing regime, namely the Congress, the Nuclear Regulatory Commission, and the Environmental Protection Agency.

⁴³ *In particular, no inference should be drawn that the Task Force believes that the leaders of and the contributors to the former effort wear black hats while the leaders of the latter wear white ones. Nor is it because those involved with the former effort have stumbled at every opportunity while those involved with the latter have adroitly negotiated their own potential minefields in interacting with their many publics.*

ASPECTS OF INSTITUTIONAL CONTEXT AFFECTING PUBLIC TRUST AND CONFIDENCE

<u>CHARACTERISTIC</u>	<u>CIVILIAN RADIOACTIVE WASTE MANAGEMENT</u>	<u>DEFENSE COMPLEX CLEAN-UP ON-SITE WASTE MANAGEMENT</u>	<u>WASTE ISOLATION PILOT PLANT</u>
CORE MISSION			
Distribution of Benefits	Perceived as a "game" with clear winners and losers	Possibility of many winners	Benefits largely distributed along the same lines as risks
Major Public Focus	Waste disposal	Clean-up	Waste disposal
Movement of Waste	Arriving at single site Leaving many sites	Staying and/or possibly leaving	Arriving at single site Leaving many sites
Origin of the Waste	Civilian nuclear power plants	Weapons production	Weapons production
Programmatic Activity	Exploration/design	Site assessment/some clean up	Demonstrating regulatory compliance
Locus of Activity	Concentrated at a single site	Dispersed	Concentrated at a few sites
Operations	Will continue for many generations	Will continue for a few generations	Will continue for a few generations
GOVERNING REGIME			
Dominant legislation	Program specific	General environmental law	Program specific
Type of Public Input Legislatively Mandated	"How to do job"	"Should the job be done" "What job to do" "How to do job"	"How to do the job"
Type of Power Sharing with States Mandated by Law	Limited with the exception of a veto that can be overturned by Congress	Considerable	Moderate
Affected Constituencies	Many	Many	Many
Regulatory Standards	Evolving	Incompletely understood	Mostly understood
Dominant Mode of Politics	Closed	Relatively open	Relatively open
ORGANIZATIONAL CULTURE AND PHILOSOPHY			
Inherited Legacy	Poor	Poor	Poor to acceptable
Budgetary History	Stable/slightly growing, tenuous	Growing/base level reasonably secure	Relatively stable
Response to Regulation	Tries to modify to ease challenge to program	Expects more stringent standards/plans accordingly	Tries to modify to ease challenge to program
Attitude Toward Earning Public Trust and Confidence	No explicit acknowledgment of low level; approach to building is narrow	Acknowledges low level; approach to building is more broadly conceived	Acknowledges low level; approach to building is relatively open-minded

Figure 9

FINDINGS

The Task Force carefully considered information presented to it by nearly 100 individuals: DOE employees and contractors from Headquarters, Field Offices, and specific facilities, officials of state, local, and tribal governments, and representatives of non-governmental organizations including the nuclear industry, labor unions, environmental and public interest groups, and academic institutions. The Task Force received reports from its staff who have spoken informally with approximately 40 other individuals. The Task Force and its staff conducted a number of case studies, workshops, and surveys. It relied on analyses produced by OCRWM. It reviewed a substantial portion of the literature relevant to the Department of Energy's quest for building trustworthiness. From all that information, it derived an empirical and conceptual framework that was also described on the preceding pages.

Based on that framework, the Task Force has arrived at its conclusions. The group realizes that there might be particular instances that run contrary to a given finding. Nonetheless, it believes that the conclusions set forth below represent strong central tendencies. The findings are organized into three groups. The first is applicable to both radioactive waste management programs and, when noted, to the Department as a whole, the second to OCRWM, and the third to EM.

GENERAL FINDINGS

I. There is widespread lack of public trust and confidence in the Department of Energy's radioactive waste management activities.

The Task Force has been struck by the intensity of views that it has received. By any conceivable indicator, the Department rouses little trust and confidence from *any* sector of the public. Even parties that generally agree with the agency's policy choices express a deep concern about how reliable a partner it has been or will likely be. As one representative of an industry association put it: "DOE just does not have a good reputation for following through." State and local government officials, many of whom worked closely with the Department over the years, echo that view. DOE does especially poorly among representatives of environmental and public interest groups. It is not surprising, therefore, that many agency employees and contractors voiced without any prompting the opinion that the Department "has no friends, just temporary allies."

2. *There has, however, been some progress made across the board generally and at individual facilities in improving public trust and confidence over the last four years.*

The survey of stakeholders clearly indicates that confidence in the Department's radioactive waste management programs has increased. ~~somehow among virtually all segments of the public. Except for environmental and public interest organizations, trust has increased among more representatives of particular stakeholder groups than it has decreased, usually by margins of greater than two-to-one.~~ *A strong plurality of respondents report that they regard DOE as more trustworthy than they did in the past.*⁴⁴ The Task Force also heard testimony that major strides have been made in earning the public's trust at places such as Oak Ridge, Hanford, and Rocky Flats. Panel members or staff have paid extended visits to each of those sites *and spoke with DOE employees and contractors as well as a variety of stakeholders.* Although the Department still encounters many challenges at those places and undoubtedly will encounter many more in the future, there does seem to be evidence -- *albeit largely impressionistic* -- generally confirming claims of significant headway in strengthening public trust and confidence.

3. *The lack of trust and confidence that remains is a direct consequence of various publics' experience with the Department in the past. It is not an irrational reaction nor can it be discounted merely as a manifestation of the "not-in-my-backyard" syndrome.*

One of Secretary Watkins' first pronouncements after taking over stewardship at DOE was a candid "State of the Department" assessment. He acknowledged the numerous lapses in its past practices at the weapons' complex including inattention to the environmental implications of its activities, excessive secrecy about releasing health and safety data, *dissembling about the effects of above-ground nuclear weapons tests*, and an inadequate record in consulting with many who were affected by policy choices. Those prior deficiencies stemmed largely from the fact that the Department played a major role in the national security arena. A war mentality naturally arose and served to justify actions that, in retrospect, appear unfortunate. It is easier today to understand why those actions occurred than to excuse them, especially when the threats that engendered them seem to have receded. Many portions of the public resent what was done and feel that they were betrayed by an agency that was supposed to be looking after their best interests.

Past activities were not quite as ill-conducted by those in charge of managing civilian radioactive wastes. But there, too, a series of misguided choices periodically soured even those who

⁴⁴ Differences across groups are presented in Figure 8 above. There are also differences between those who deal exclusively with the EM program and those who deal exclusively with the OCRWM program. A significantly larger fraction of the former group sees progress in building trust than does the latter group.

supported OCRWM's core mission of developing a geologic repository. Early attempts at selecting sites were heavy-handed. Later efforts were more sophisticated yet also put the Department in awkward positions. Suggesting, for instance, that a site located under Lake Sebago in Maine might be suitable for a repository may have been technically defensible, but it ~~had to be~~ *was* seen *by many* as evidence that DOE functioned in a reality that was far different than most.

This track-record informs and structures public reactions to what the Department wishes to do today. To the degree that it evokes negative expectations, trust will likely not be forthcoming, nor can the Department demur. Neither can it attribute the public's reaction purely to selfish NIMBY-ism. To be sure, few communities show much enthusiasm for inviting noxious facilities into their midst. But the task of persuading them is made considerably more difficult when they have grounds for believing that the invitee will later if not sooner exploit their hospitality.

In holding that DOE's actions have been a major contributor to the lack of public trust and confidence, the Task Force is not suggesting that other factors have played no part. When the Department becomes the object of intense political controversy, as it has in the state of Nevada, it is less likely to be seen as trustworthy. Moreover, the social amplification of risk and the role of the media in that phenomenon may have lead to a degradation of trust.

4. If DOE is to restore public trust and confidence, it will have to take steps that might be considered unnecessary for an organization that has maintained public trust and confidence over long periods of time.

Organizations that have earned public trust and confidence have greater policy-making flexibility than those that have not. Because that consideration had previously been well integrated into the former organizations' choices, they can better afford, on occasion, to adopt measures that will reduce trustworthiness in the future. The Department of Energy does not have that luxury. For the agency is precariously balanced on a steep slope that corresponds to the trajectory needed to build trust and confidence. It requires substantial efforts to make even a modicum of progress; one slip leads to an accelerated decline.

This means that Departmental leaders will have to make choices that consistently and unambiguously demonstrate an interest in strengthening trustworthiness. Those choices may not appear cost-effective in a conventional sense. Moreover, they may disrupt some internal routines as well as some long-standing external relationships. But it is the strong view of the Task Force that DOE stands little chance of strengthening public trust and confidence unless it recognizes that its decision-making behavior will have to change fundamentally.

5. The legacy of distrust created by the Department's history and culture will continue for a long time to color public reaction to its radioactive waste management efforts. Only a sustained commitment by successive Secretaries of Energy can overcome it.

The term "legacy" is used deliberately; distrust, like the albatross, passes to each new organizational leader and his or her administration. The only open question is whether the burden, passed in turn to the next leader, shall become heavier or lighter. Whereas distrust lingers and adheres, trust is always provisional and transitory. After DOE had done a poor job in explaining the consequences of a very small tritium leak, one senior manager at the Savannah River facility observed, "Decades of responsible interaction have gone by the board; the loss of trust is irreparable." Put starkly, the Department has little slack to draw upon; it cannot count on receiving the benefit of the doubt. These circumstances suggest not only that trust will not be earned overnight but also that policy-makers will have to continually keep its production "high on their screens."

6. Efforts to restore and sustain public trust and confidence cannot simply be appended to on-going activities. There must be a recognition among senior policy-makers and managers that most choices have consequences for institutional trustworthiness.

Whether DOE comes to merit public trust and confidence will ultimately depend not on mechanics but on a sustained commitment to promoting trust and confidence. In many respects, therefore, its challenge to maintain public trust and confidence is analogous to its challenge to demonstrate sensitivity to the environment. Just as few would assert that writing of an impact statement is anything more than a *necessary* step in fulfilling the Department's environmental obligations, simply increasing the opportunities or improving the process for stakeholder involvement is not *sufficient* to increase trustworthiness.

It is widely recognized that the priorities of agency policy-makers are reflected in all of their choices. Importantly, even ostensibly technical questions, such as the diameter of the shafts used to explore Yucca Mountain or the design of casks for transporting transuranic (TRU) waste from Colorado to New Mexico, have ramifications for public trust and confidence. Are those consequences explicitly evaluated? Do they become part of the deliberations that occur inside the agency? Are its leaders prepared to forego something of value in exchange for additional institutional trustworthiness? Unless those things happen, perhaps not always but at least frequently enough so as to be visible, the Department's professions of wanting to strengthen confidence will not ring true.

7. The lack of public trust and confidence is not only being recognized by stakeholders as an obstacle to programmatic progress, but it is also being used increasingly as a reason for opposing initiatives that are important to programmatic progress.

For officials of the state of Nevada, DOE's untrustworthiness is a *prima facie* reason for ceasing work immediately on characterizing the Yucca Mountain site. But they are not alone. A group of governors from every state that hosts major complex facilities but one wrote Secretary Watkins shortly after he took office: "The magnitude, history, and nature of the nuclear weapons waste problems make public confidence and acceptance crucial to cleanup success...To win public confidence, the decision-making and review process must be open..."⁴⁵ As he vetoed further exploration of whether a monitored retrievable storage facility for commercial radioactive waste should be located in his state, the Governor of Wyoming observed, "Let us not deceive ourselves -- we are being invited through continuing study to dance with a 900-pound gorilla...I am absolutely unpersuaded that Wyoming can rely on the assurances we receive from the federal government."⁴⁶

8. Actions taken by one unit within DOE influence the level of public trust and confidence in other units. That coupling is strong when the effect of the action is to reduce trustworthiness; the coupling is quite weak when the effect of the action is to strengthen trustworthiness.

The Task Force has listened to OCRWM managers tell how their efforts to build public trust and confidence have sometimes been compromised by actions taken by EM. EM leaders have related parallel stories. Both program managers are, of course, describing a fact of life: stakeholders rarely distinguish among units within DOE. It is not OCRWM or EM *per se* that has a credibility problem, it is the agency as a whole. Nor, in the Task Force's view, should the public have to make fine distinctions. It is at the Departmental level of leadership where responsibility for sustaining confidence lies.

One reason for that is the asymmetrical coupling among actions taken. Critics of the WIPP project point to events at Yucca Mountain to support the assertion that DOE cannot be trusted to assess objectively the performance of a repository. Or they recall how the Department managed the tank farms at Hanford to underscore their lack of confidence in the agency to move radioactive waste from Fort St. Vrain, Colorado to Idaho. Because those claims have a surface plausibility, they appear to have a real impact. Conversely no one, not even DOE officials, cites successes at Oak Ridge or elsewhere as evidence that the Department might in fact be worthy of public trust in managing commercial radioactive waste. It is not out of modesty that

⁴⁵ Letter to James D. Watkins, April 14, 1989.

⁴⁶ Letter to Fremont County Commissioners, August 21, 1992.

such arguments are not made. Rather it is because everyone seems to realize they are not likely to be very compelling.

FINDINGS WITH RESPECT TO ORGANIZATION

1. There is no persuasive evidence to suggest that a change in organizational structure by itself will affect the level of public trust and confidence.

*Although this Finding about reorganization is cast in general terms, it is especially relevant to the OCRWM program. Indeed, one member of the Task Force wrote fifteen years ago about a DOE predecessor agency, "The existing organization for radioactive waste management is likely to be unworkable if left unchanged."⁴⁷ He proposed a federally chartered public corporation as a replacement. Seven years later, in a study ordered by Congress, the Advisory Panel on Alternative Means of Financing and Managing Radioactive Waste Facilities reached the same conclusion.⁴⁸ A report by the Office of Technology Assessment several months shortly thereafter reiterated the advice.⁴⁹ Significantly *Among the primary* reasons given for supporting reorganization ~~were all associated with~~ *was* the claim that the Department lacks credibility. ~~They included~~ *As support for that assertion, the studies pointed to* its legacy of mismanaging defense waste and the civilian waste program, its inability to hire talented professionals, the conflicting pressures it is subjected to because of its many responsibilities, and its exposure to the capriciousness of the political system.*

In arriving at its conclusions, the Task Force asked itself two questions. First, is there any reason to believe that organizational structure, per se, influences public trust and confidence. It was not able to answer that question affirmatively. The Task Force is skeptical that organizational structure, per se, influences public trust and confidence. It believes that there was little theoretical or empirical support for those claims such a position. In its view, restructuring organizations is largely a hit-and-miss affair, whose outcomes cannot be predicted with a high degree of certainty. And, furthermore, the studies cited above are plausible but hardly compelling.⁵⁰ Regardless of structure, it will be the behavior of the organization and the results it produces that either creates or inhibits public trust and confidence.

⁴⁷ Mason Willrich and Richard Lester, *Radioactive Waste: Management and Regulation*, (New York: The Free Press, 1977), p. 117.

⁴⁸ Advisory Panel, *Managing Nuclear Waste -- A Better Idea*, (1984).

⁴⁹ Office of Technology Assessment, pp. 162-164.

⁵⁰ The Task Force commissioned two papers to determine whether its intuitive understanding about the relationship between organizational structure and public trust and confidence was valid. The first looked at what is known about the effects of federal bureaucratic reorganizations; the second analyzed the underlying causal logic of the AM-FM Report and asked whether that logic had any empirical basis. Those papers did support the limited conclusion set forth in this Finding. See Craig Thomas, "Reorganizing Public Organizations: Alternatives,

The second question it asked was whether reorganization might serve as a vehicle for other changes in management and governance that, in turn, would lead to greater public trust and confidence. The Task Force found this question more difficult to answer. The details of all proposed reorganizations are sketchy and often out of date. Consequently, a reality has to be compared to an idealized alternative. For example, the Task Force realized that the current location of the civilian radioactive waste management program does, in fact, expose it to trade-offs across Departmental activities and sometimes even to capriciousness. Yet, for the most part, those circumstances arise because of explicit choices made by the political system to secure specific ends. It is hard to image that those valued ends would lose their salience and be abandoned simply to facilitate the restructuring of the program.

At the same time, the Task Force believes that removal of the program from government and politics cannot help but reduce the opportunities for participation and influence by a wide -- and ever changing -- set of public stakeholders. Those opportunities have become established in law and political culture over the years and thus have a legitimacy that is widely recognized. Institutionalizing the rights of stakeholders into an organization outside of government may be quite difficult. In the Task Force's view, this potential for reduced public involvement cannot help but weaken trust and confidence.

Ultimately the Task Force concluded that the effect on public trust and confidence of the changes to management and governance brought about by reorganization was neither uniformly positive nor, on balance, compelling in anything other than the most idealized case. By opting for the current structure, the panel is implicitly expressing optimism that it can be reformed albeit only with considerable effort. There is some basis for that sanguine view. In the early 1970's, the Army Corps of Engineers enjoyed much the same reputation as does DOE today. Yet, that large, well-established agency incorporated new publics among its constituencies and achieved a noteworthy measure of organizational change and behavior.⁵¹

It is important to note that, in arriving at this Finding, the Task Force has not examined, nor is it taking any position on, whether some form of reorganization for DOE's radioactive waste management programs might be beneficial for *reasons other than* strengthening public trust and confidence. That question goes beyond the panel's Terms of Reference.

Objectives, and Evidence," and Craig Thomas, "AM-FM's Corporate Solution for Radioactive Waste Management: Appealing But Inappropriate?" The papers are included in Part Three of this Report.

⁵¹ See Daniel A. Mazmanian and Jeanne Nienaber, *Can Organizations Change?*, (Washington: Brookings Institution), 1979.

2. *Because of the Department's extensive use of contractors in carrying out its radioactive waste management activities, any attempt to strengthen public trust and confidence will have to include those individuals in order to be successful.*

Overall there is one DOE employee for every seven contractor personnel who work for the Department. The Task Force in its site visits has dealt as often with contractor as it has with federal personnel. Contractors play such key roles as designing and implementing institutional relations programs for the Yucca Mountain Project and public outreach programs at Hanford and Savannah River. As our survey discovered, stakeholders' views of DOE contractors are virtually indistinguishable for their views of the Department as a whole.

Because of this blurring in the roles of employee and contractor, the Task Force feels that any steps taken by the Department to strengthen public trust and confidence will also have to be taken by those it hires. If that fails to happen, broad segments of the public will receive mixed signals, and DOE's efforts to improve trustworthiness will be attenuated.

3. *The Department currently lacks the institutional capacity to design, implement, and evaluate measures to strengthen public trust and confidence.*

Although there is a general recognition within the Department of the importance of strengthening public trust and confidence, the Task Force has been unable to identify any individual or unit that has clear responsibility for securing that end. The panel does not believe that a special "public trust and confidence" organization should be created. In fact, it feels that unless that responsibility is widely dispersed throughout DOE, trustworthiness is not likely to increase. Yet that responsibility cannot be so generalized that it is neither accountable nor effective. Steps need to be taken to incorporate and institutionalize the specialized skills and experiences that are needed to design, implement, and evaluate whatever measures the Secretary chooses to adopt.

FINDINGS WITH RESPECT TO OCRWM

1. *OCRWM is caught up in a series of interlocking vicious cycles that cross-pressure it and seriously reduce its discretion*

The institutional context within which OCRWM operates has evolved to where it is today because of deliberate choices made by DOE and because of responses by stakeholders who felt that the agency could not be trusted to make and implement its choices properly. As a result of the relatively poor track record of the Department's predecessor organizations, OCRWM has lost over the last ten years a very large portion of its autonomy. Congress adopted legislation that contained quite detailed and prescriptive requirements; EPA and NRC issued standards and

regulations specifically designed to limit DOE's discretion in selecting sites; the nuclear industry entered into contracts to protect its interests.

More fundamentally, the ethical, technical, political, and economic bargains discussed above have proven to be contradictory and almost irreconcilable. Conducting sound exploratory studies may set back schedules. Expediting schedules may require less stringent regulations. Exploding costs may foreclose the possibility of addressing concerns about equity. Ignoring equity considerations may increase political opposition. Failing to resolve significant uncertainties may cast doubts on the technology of geologic disposal. Lacking a core mission may increase pressures to temporize and to postpone finding a solution until later generations. And so it goes.

OCRWM has not been able to surmount these interlocking vicious circles. When it has tried to break out of one, it usually got caught up in another. And in the process it discovered a harsh reality: Winning the trust of one segment of the public often involves losing the trust of some other.

2. Although OCRWM has recently placed more emphasis on building public trust and confidence, the program has a relatively constricted view of what is required to restore it.

Over the last two decades, the managers of civilian radioactive waste have shifted *slowly but not completely* from the language of "public acceptance" to the language of "public trust and confidence." In the 1991 *Draft Mission Plan Amendment*, for example, OCRWM leaders go so far as to state, "In making management, technical, and institutional decisions for the program, we must recognize the importance of public concerns and address the implications for building and maintaining public trust and confidence."⁵² In many respects, that statement seems to mark a clear and positive departure from the past, especially when taken with a declaration about the importance of "substantive and early [public] involvement in decision-making."⁵³ But if one inquires about what specifically the program intends to do differently, the departure is less striking and far-reaching than it appears at first glance. In particular, the overwhelming focus remains on communicating better with interested parties. While OCRWM is certainly correct in believing that effective two-way communication must occur if trust is to be restored, it fails to appreciate how much more will have to be done.

⁵² Office of Civilian Radioactive Waste Management, *Draft Mission Plan Amendment*, RW-0316P, (Washington: US Department of Energy, 1991), p. 8,

⁵³ *Draft Mission Plan Amendment*, p. 124.

3. Notwithstanding its public statements, OCRWM has not implemented any consistent approach to building public trust and confidence.

The *Draft Mission Plan Amendment* did contain an initiative to establish and convene a Director's Forum for predecisional participation by stakeholders. The Forum met once. But based on informal comments from many who attended, it appears that expectations were largely unsatisfied, and no further meetings are scheduled.⁵⁴ Nor have there been other opportunities for predecisional public input. Since the *Amendment's* publication, the program has grappled with such critical issues as strategies for site characterization and philosophies for repository development. To those deliberations, few outsiders were called. As a practical matter, then, it is hard to detect anything beyond marginal changes in how OCRWM interacts with broad segments of the public.

4. Many critical decisions about siting, policy, and technical design have been made in an arena open to few stakeholders. The broader public participated in those choices only formally and with little impact.

DOE and OCRWM, of course, still retain some autonomy over important choices. That discretion was exercised, for example, in picking three sites out of five candidates for extensive characterization, in deciding how much emphasis should be placed on robust engineered waste packages, and in selecting a strategy to develop a repository. In all those instances, as well as others that could have been cited, the choice was made by program managers and policy-makers who consulted closely with few, if any, interested parties. To be sure, public comments were requested in each case. But as a practical matter, the comments received had little effect. The underlying structure of the choice was rarely changed.

5. In making decisions, the implications of a program actions for public trust and confidence have generally not been considered explicitly.

As noted in the previous section, the choices OCRWM makes have a wide range of impacts. Its actions can, for example, affect the economic health of the nuclear industry, the ease in which a license can be obtained from the NRC, or the performance of a repository. Those same actions can also affect the level of trust and confidence various groups accord the program. Whereas the first three impacts are routinely and systematically analyzed before a decision is made, the fourth is not. That difference likely stems from a combination of factors including OCRWM's

⁵⁴ Among the complaints heard was that the meeting was held in Chicago when it dealt exclusively with a topic that was of greatest concern to the citizens of Nevada and that the format and agenda was decided upon unilaterally by OCRWM.

narrow conception of what is required to build public trust and confidence and the low priority that objective has traditionally been assigned. But whatever the reason, if program leaders have, at best, only an intuitive understanding, they are not likely to recognize the cumulative effect of their choices on institutional trustworthiness. Nor are they likely to know early on how to compensate should the level begin to fall.

FINDINGS WITH RESPECT TO EM

1. The institutional context especially surrounding the EM environmental restoration and defense waste management program promotes efforts to build public trust and confidence.

Whether by accident or design, the Task Force believes that EM is operating in a political environment that facilitates rather than hinders efforts to sustain public trust and confidence. Power is distributed to states who tend to be responsive to a broader range of constituencies than are federal agencies. A relatively open and pluralistic process for making decisions has been mandated by law. And, for the moment at least, program managers are not so caught up in vicious cycles that their actions generate or reinforce the impression that a zero-sum game is being played.

Partly because of those favorable circumstances, EM does not appear to be organizationally defensive. It tries to transform challenges into opportunities. It presumes, for instance, that the regulations it will have to satisfy will become more stringent, and it makes plans accordingly. That operational philosophy can create the flexibility necessary to expand options and permit programmatic adjustments. Without that flexibility, measures essential to building institutional trustworthiness might either be foreclosed or not be viable.

2. With some visible exceptions, the EM program has been sensitive to the public trust and confidence implications of its actions.

Given the institutional context within which it operates, EM really has no alternative but to strive to maintain public trust and confidence. Based on informal discussions with managers at headquarters and in the field, there appears to be widespread recognition of that reality. More significantly, those individuals also seem to appreciate that programmatic choices have a profound effect on institutional trustworthiness. They mentioned a number of instances in which modifications were made to proposed actions so as to improve their credibility.

This does not mean EM will inevitably pick the option that best safeguards its stock of trust and confidence; other considerations can take precedence. One example was the Department's uni-

lateral decision to miss a milestone connected with Hanford's waste vitrification plant. Although both the state Department of Ecology and the regional EPA eventually agreed to the substance of what DOE proposed, they were upset that the Department failed to use the agreed-upon process for altering schedules. Representatives of both organizations contended that DOE eroded its standing with precisely those parts of the public who had been encouraged by the Department's willingness to negotiate an agreement.

3. EM has established a number of access points that are designed to increase public involvement in its decision-making processes. It is too early to predict whether those mechanisms will end up strengthening or weakening trust and confidence.

Since its formation, EM has acknowledged that members of the public ought to have input into its deliberations. Thus it has convened a Stakeholders' Forum and the State and Tribal Government Working Group to review a number of program documents, especially its rolling *Five Year Plan*. It chartered an advisory committee to review the scope and implementation of the Programmatic Environmental Impact Statement (PEIS). Finally, EM published in 1992 a policy on public participation. Taken together, these efforts represent a serious commitment to consult with affected parties.

EM has also laid out an ambitious and quite comprehensive set of objectives it hopes to achieve as a result of its public involvement activities.⁵⁵ Indeed, it appears to be willing to use stakeholder input in ways that go beyond what is required by law. It is asking the many publics to raise issues, question assumptions, and, in effect, become partners in making the program succeed.

Concerns have been raised that the promise of public involvement has not matched the reality. Examples often mentioned include the way managers responded to criticisms expressed at the Stakeholders' Forum. In addition, at the first meeting of the EM Advisory Committee, the group unanimously requested that a representative from one influential environmental organization be invited to join the panel; that request was not granted. Finally, some have wondered whether the program really was listening to public comments about the Implementation Plan for the PEIS. It appeared that a number of views advanced were dismissed without reason or explanation. Whether EM's good intentions translate into a meaningful process that strengthens institutional trustworthiness remains a question for which no clear answer is yet available.

⁵⁵ These are summarized in *US Department of Energy, Environmental Restoration and Waste Management Five Year Plan, 1992, pp. 53-58.*

4. *EM has yet to demonstrate that it can sustain public trust and confidence when it grapples with highly contentious issues.*

The environmental restoration and defense waste management program is carrying out work in over 100 jurisdictions. Thousands of discrete sites are being assessed; remedial actions are being undertaken; disparate waste streams are being treated and converted into forms suitable for storage and disposal; research is being supported to invent the technologies of the future. In all this activity, EM has not yet encountered issues that strongly polarize the affected parties.

Two issues in particular are likely arouse considerable controversy: assigning priorities for allocating scarce resources and developing a process for siting new treatment or disposal installations. Each community tends to believe that money spent attending to its problems is money well spent and that it has already borne its fair share of the burden for hosting a noxious facility. By most accounts, DOE historically has not been able to resolve such contentious issues without experiencing a loss of public trust and confidence. Should EM succeed, it would be a signal accomplishment.

5. *The EM program increasingly will be at risk of being trapped in vicious cycles that reduce its ability to maintain institutional trustworthiness.*

Up until now EM has enjoyed a strong consensus on the need to address a serious national problem and a natural willingness to credit a new undertaking. Those conditions are not likely to last indefinitely. EM may find itself, like many other federal bureaucracies, plagued by insufficient resources, slipped schedules, and overly optimistic projections of technological advances. Pressures may build, *in the not too distant future*, to find solutions as inexpensively and expeditiously as possible. At that point, the potential increases for vicious cycles to take over.

It was not hard for the Task Force to construct a hypothetical scenario in which legislation passes that constrains state regulatory authority. Extensive use of exclusion zones could be mandated as well. National clean-up standards could become the ceiling rather than the a floor for what is required. At the same time, competing program priorities, both inside or outside the Department, might drain resources and force DOE policy-makers into making choices that transform a "win-win" situation to a zero-sum game. Then EM would find itself operating within a hostile institutional context. Under that hypothetical scenario, maintaining trust would be quite difficult.

ADVICE FROM THE TASK FORCE

In the sections below, the Task Force first lays out the logic that led to the advice it now offers and addresses the question of whether those suggestions are sufficient for strengthening public trust and confidence. It then presents its recommendations, which were unanimously approved, and its ideas on how to implement them.

UNDERLYING LOGIC

The Task Force regularly asked those who have appeared before it what measures they felt should be taken to strengthen public trust and confidence in the Department of Energy's radioactive waste management programs. A list of those suggestions fills nearly 22 pages. With many of them, the Task Force concurred. For some, however, the link between the action and its putative effect on increasing trust was not immediately apparent. Thus the panel was forced to pose for itself a prior question before it endorsed anything: *on what grounds* does it believe any given recommendation will have its expected impact on institutional trustworthiness? It concluded that its advice would have to⁵⁶

- Be consistent with the first principles that its members brought to the table or that crystallized at it;
- Clearly and positively affect at least one of the conditions that appear to promote institutional trustworthiness;
- Be appropriate for the peculiar institutional context within which the radioactive waste management programs function; and
- Reflect the programs' current status as laid out in the Task Force's Findings.

~~The recommendations that passed all four of those tests are presented below.~~

~~The suggestions advanced below have a somewhat different character than those that normally appear in advisory committee reports. *The Task Force considered three broad approaches to making its recommendations. The first was to suggest the continuation of the steps already being taken by the Department but urge that they should be carried out more effectively. The second was to suggest the adoption of incremental changes that might make a substantial difference in recovering and maintaining public trust and confidence. The third was to*~~

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- *This section has been substantially restructured.*

⁵⁶ A "roadmap" linking the recommendations to principles, conditions, context, and status is found in Part Two of this Report.

recommend that fundamentally different behaviors and policies be set in place and faithfully implemented. The panel concluded that the first two approaches were unlikely to lead to much change in how trustworthy the public believed the Department to be.

*The individual recommendations that follow can be interpreted as being consistent with simply endorsing current practices or offering marginal changes to the status quo. The Task Force, however, wishes to make clear that its advice should not be properly viewed in that light; the recommendations are not simply choices on a menu -- something from Column A can be picked to go along with something from Column B; rather they represent the panel's recipe for what the Department should do to strengthen public trust and confidence; they are threads of roughly comparable importance that make up a fabric. This does not mean that Departmental decision-makers must implement them all *or at once*; there will clearly be situations when other considerations have to take precedence. But DOE leaders need to realize that each time they choose not to adopt a recommendation or choose to do so in a way that is half-hearted or superficial, unless they commit to changing fundamentally how DOE conducts its business, they will increasingly encounter situations that further erode public trust and confidence. Pursuit of a menu of separate choices versus acceptance of a recipe for integrated basic change might be a proper standard for evaluating how the Department responds to the Task Force's advice.*

The Task Force has already noted that the Department too often finds itself in the position that taking steps to increase the trust and confidence of one segment of the public may cause another one to lose trust and confidence. Some of the recommendations listed below undoubtedly will *may* create precisely that dilemma. The panel can only offer DOE leaders and managers three suggestions about how to wrestle with that predicament:

- Acknowledge candidly the fact that a choice was made that did weaken trust and confidence of some segment of the public.
- Make certain that no single stakeholder or group of stakeholders has its trust and confidence weakened consistently.
- Endeavor to find ways of mitigating the situation by *compensating paying special attention in the future to* those segments whose trust and confidence was weakened.

NECESSITY AND SUFFICIENCY

One of the questions that the Task Force has grappled with almost from the start of its deliberations has been: Can any *list set* of recommendations do more than posit *necessary* conditions for strengthening public trust and confidence? Are there any guarantees that if all of them were adopted and implemented in good faith that institutional trustworthiness would increase?

Senior managers from OCRWM in their formal appearances before the panel and in informal conversations with Task Force members and staff were not hesitant to express skepticism that the second question had an affirmative answer. They point to the state of Nevada that appears implacably opposed to even studying Yucca Mountain, to an inherent programmatic tension that seems to promise only increased distrust from one group in exchange for increased trust from another, and to the intervention of outside parties, most notably Congress passing the NWPA Amendments Act, which have created an institutional context that almost seems purposely designed to stimulate distrust. Those claims cannot be dismissed easily.

The Task Force, however, believes that those vicious cycles that now confront OCRWM were at least in part brought about because of choices the DOE consciously made. Indeed, for some, the Amendments Act can be seen not as a climax, but rather as a *denouement* whose climax occurred eighteen months earlier when the Department decided not to pursue *the process for selecting* a site for a second repository *was abandoned*. (If so, that case may offer important lessons for EM today.)

But, even so, the Task Force is not prepared to say that its suggestions are *sufficient for increasing institutional trustworthiness*. In the first place, the panel cannot assert in good conscience that it has identified all of the changes that are important for strengthening public trust and confidence in DOE's radioactive waste management programs. There may be some others that it has not contemplated. Second, while the group is convinced that all of its recommendations are useful and important and that every effort must be made to put them *all* into action, it cannot predict with any certainty the precise consequences of not carrying out one-tenth, one-sixth, or one-quarter of them. Third, the Task Force recognizes that, regardless of what DOE does, some segments of the public will never accord it much trust and confidence. They are opposed as a matter of principle or tactics to what *the missions* the Department of Energy has *either* been charged to *do undertake by Congress or has undertaken on its own*.

The Task Force, therefore, puts forward its recommendations for another reason. It believes that they probably are a sufficient basis for DOE to show that it is *worthy of trust*. For some stakeholders that is of little consequence. For others, it may be too little value bought at too high a price. And for still others, it may be critical.

RECOMMENDATIONS

The Task Force recognizes that progress has been made over the last four years in strengthening public trust and confidence. In the Task Force's opinion, *that whatever improvement has been made* is directly tied to recent changes in institutional culture initiated under Secretary Watkin's stewardship. That the trend is up and that the efforts of many appear to be rewarded is no cause for complacency however. As the panel has observed, trustworthiness is easier to lose than to sustain. It is in that spirit, then, that the Task Force turns to its recommendations.

The recommendations are organized initially into two sets: those that address how DOE should interact with external parties and those that pertain to how the Department should conduct its internal operations. Within each set, the suggestions are sorted on the basis of whether they are applicable to both waste management programs and by extension to the Department as a whole or whether, *because of the particular need to recover trust*, they are directed solely towards the OCRWM civilian waste management program. General design premises or guidelines are introduced first, followed by *objectives the Department must realize to strengthen public trust and confidence*. For each objective, the Task Force present a number of specific steps that the DOE's policy-makers might want *ought* to embrace. *Measures necessary to sustain trust and confidence are listed first followed by additional measures that are likely to be required to recover trust and confidence.*** The panel has not exhaustively evaluated the pros and cons of those specific measures only in part because their utility probably varies depending on the particular circumstances surrounding their implementation. More importantly, the Task Force feels that most of these recommendations can only be implemented after extensive consultation and collaboration with a wide variety of affected parties. Thus to evaluate them in detail is premature.

One last observation. The Task Force recognizes that the Department has already implemented some of its recommendations. *Although the list is by no means exhaustive, the panel was favorably impressed with*

- *The process OCRWM employed to resolve the technical issue raised by a DOE staff hydrologist concerning the effect of earthquakes on groundwater level at Yucca Mountain;*
- *DOE's support for the land use planning process at for the Hanford Reservation;*
- *Steps taken to increase public trust and confidence at Rocky Flats and at Oak Ridge; and*
- *DOE's willingness to negotiate and conclude "protocols" with both Nye and Lincoln counties in Nevada.*

Indeed, many of those experiences were quite influential in shaping the group's thinking and in providing a reality check on the practicality of its advice. In those cases, the panel wishes not only to endorse *types of* initiatives that were adopted but also to advocate that they be *consistently and widely accepted throughout the relevant programs*. For it is critical that the Department take advantage of the positive lessons it has learned.

** Recommendations that are especially relevant to recovering trust are designated with (*). The Task Force recognizes that other specific measures might accomplish the objectives as well.

DESIGN BASIS FOR INTERACTING WITH EXTERNAL PARTIES

Especially when agencies are the initiators of programs that could be seen as levying more potentially harmful effects than benefits on citizens and communities, agency leaders ~~should~~ **strive to must** give all groups of citizens and their representatives ~~a sense of~~ opportunities for involvement and **must demonstrate** fairness in negotiating the terms of their immediate relationship. In general, the agency should commit itself to:

- Early and continuous involvement of state and/or local advisory groups as well as national advisory bodies on which a broad range of stakeholders (including, but not limited to the nuclear industry, electric utilities, public utility commissions, potential host **and corridor** states, communities, and tribes, environmental and public interest groups) are represented. That involvement would be characterized by frequent contact, complete candor, rapid and full response to questions, and assistance in increasing the technical and oversight skills of the community;
- *Carrying out commitments unless modified through an open process established in advance;**
- Active, periodic presence of very high level agency leaders making themselves visible and accessible to citizens and their representatives;*
- Unmistakable agency and program residential presence in the locality that contributes its energies to community affairs and pays through appropriate mechanisms its fair share of the tax burden;*
- Assuring the availability of negotiated benefits for the community along with the resources *to host and corridor communities* that might be needed to detect and respond to unexpected costs;* and
- Consistent and respectful efforts to reach out to state and community leaders and to the general public for the purpose of informing, consulting, and collaborating with them about the technical and operational aspects of Departmental activities.*

SPECIFIC MEASURES AND POLICIES THAT MIGHT BE ADOPTED THROUGHOUT THE DEPARTMENT

1. To ensure that it can be relied upon, the Department should

- *Periodically consult with affected parties regarding the status of various commitments, including project target dates and milestones, it has undertaken.*

- *Inform affected parties at the earliest possible opportunity when fulfilling those commitments becomes problematic.**
 - *Establish, as needed, mechanisms for formally or informally altering the terms of the commitment.**
2. *To empower the full range of stakeholders, including host, states corridor, and affected communities and tribes and citizen non-governmental organizations groups, the Department should*
- Offer pre-decisional involvement that includes review of methodology, data validity, and premises underlying analyses.
- *Scrupulously comply with all state regulations that are administered even-handedly. Follow an open and clearly explained process for changing regulations or for appealing those that may be administered unfairly.*
 - *Work with affected parties to create vehicles, such as trust funds, revolving accounts, etc., that will ensure the provision of adequate and predictable resources to oversee waste management programs.**
 - *Organize Safety Review Boards, composed of DOE managers and representatives of stakeholders, that can temporarily suspend operations at a facility for a pre-established set of reasons.**
3. *To make public involvement a means for creating partnerships, the Department should*
- *Place greater emphasis on periodic informal consultations and interactions to supplement more formal public meetings, hearings, and updates.*
 - *When formal processes are used, devise agendas and formats jointly with representatives of stakeholders.*
 - *Create and rigorously enforce procedures that produce thoughtful and specific responses to public comments.*
 - *Obtain and use advice from stakeholders about what policy alternatives should be analyzed and evaluated.*

- Develop initiatives to ensure that a broad range of stakeholders is involved in the decision-making process beginning at the predecisional stage and continuing through its ultimate implementation.*

4. *To ensure that programs speak consistently to stakeholders, the Department should*

- Publish on a regular basis, perhaps every six months, a summary of major positions that represent program policy.*
- Indicate how activities carried out since the last report have been either consistent or inconsistent with those positions.*
- Identify, to the maximum extent possible, positions that the program is planning to alter either unilaterally or with the concurrence of other parties. Any changes that affect negotiated milestones should be included (whether or not the relevant state and EPA has already been notified) as well as any efforts to modify applicable regulatory standards.*

5. *To improve the quality of its interaction with all public stakeholders, the Department should*

- Make training in public involvement principles and processes a requirement for managers, supervisors, and technical personnel who might interact with stakeholders.
- Consult broadly about the design and implementation of such training.
- Include, at a minimum, in that training, consideration of the importance of candor, the implications of choosing various mechanisms, and differences between one and two-way communications.
- Appoint a senior advisor who would have an oversight and an assessment role in the training programs.
- Make bonus awards, career advancements, and promotion dependent on successful demonstration of the capability to interact positively with a wide range of sectors in the public.
- Establish mechanisms to solicit and incorporate feedback from various sectors on the training program's effectiveness.

- Require DOE contractors to conduct equivalent training for their employees. Their performance evaluations and awards would be structured to include contributions to the overall public involvement effort.

6. *To provide information fully and rapidly, the Department should*

- Identify and employ the information channels actually used by stakeholders.
- Disseminate without exception information about past practices that may raise questions about potential health, safety, and environmental risks.
- Rely on the pre-decisional exemption in the Freedom of Information Act only under exceptional circumstances, which are candidly explained.
- Release, *on request*, any DOE-generated material that has been shared, even informally, with any other non-governmental organization. (Precautions should be taken to protect legitimate proprietary information.)*

SPECIFIC MEASURES AND POLICIES THAT MIGHT BE ADOPTED BY OCRWM

1. *To empower host states, corridor, and affected communities and tribes, and citizen groups, the Department should*

- Give the Safety Review Board the power to decide when a repository should be sealed and when retrievability of the waste is no longer essential.*
- Permit state, local, and tribal authorities to have a voice in determining the pace at which waste will be shipped to a repository for disposal.*

2. *To make the program a stakeholder in a community that hosts a potential repository, OCRWM should, as formal determinations have been made increasing the likelihood of site suitability,*

- Expand the local presence of key decision-makers so as to ensure greater public access to them.*

- Require full-time local residence for all employee, contractor personnel, and National Laboratory scientists *who spend the majority of their time working on the project at the site.*^{57*}
 - Favor local industries and firms as sources for supplying goods and services to the program.*
 - Obligate the vendors of hardware such as casks to manufacture them as near as possible to any site ultimately chosen for a repository.*
3. *To further become a good citizen in the area where it is characterizing a repository site or actually developing a facility, OCRWM should*
- Make good faith efforts to keep all ~~commitments made even if that might cause some delay in schedule~~ *promises made to the community. Inform affected parties at the earliest possible moment when those promises cannot be met and seek some accommodation.*
 - Provide incentives to all those working for the program to involve themselves in service to the community by, for example, enriching the *general science* curriculum of local schools or by increasing the technical skills of local businesses.*

DESIGN BASIS FOR INTERNAL OPERATIONS

When the various segments of the public gain access to programs, they should discover internally activities taking place that increase institutional trustworthiness not decrease it. The higher the potential hazard associated with those activities, the more critical is their proper conduct. In general, the agency should commit itself and require its contractors to:

- Maintain a high level of professional and managerial competence, continually honed by rigorous training;
- Reward honest self-assessment that permits the organization to get ahead of problems by identifying them and airing them and resolving them *before* they are discovered by outsiders;
- Establish and meet reasonable technical performance measures and schedule milestones that are dictated by a project's intrinsic scientific requirements; and

⁵⁷ *Since a repository is likely to be built in a sparsely populated area, the "locality" might be some considerable distance away from the site.*

- Develop tough internal processes of reviewing and discovering actual operating activity that includes stakeholders;*
- Institutionalize responsibility for promoting and protecting the internal viability of efforts to sustain public trust and confidence throughout the organization.*

SPECIFIC MEASURES AND POLICIES THAT MIGHT BE ADOPTED THROUGHOUT THE DEPARTMENT

1. To make the Department's scientific work even more credible, it should

- Expand to the maximum extent possible its *external independent* peer review network to include experts from *affected states, localities, and Indian tribes* and other countries.*
- *Involve stakeholders in the process of selecting external peer reviewers.**
- Jointly design and conduct experiments and share data at the earliest possible time with teams from host, *corridor, and* affected communities and tribes.*
- Seek authorization for joint auditing of quality assurance programs.*
- Be prepared to "bend over backwards" to address and resolve, if possible, plausible scientific arguments that might arise over the life time of the waste management programs.*
- Allow stakeholders to nominate, subject to negotiated preconditions, individuals who would participate in exercises that elicit the expert judgments that are often employed in safety and risk analyses.*
- Clarify carefully and publicly the reasons when advice from technical overseers, such as the National Academy of Sciences and the Nuclear Waste Technical Review Board, is not accepted.*

2. To build on the efforts already in place to promote a new culture within the Department, it should

- Undertake an assessment to determine to what degree the current incentive structure actually rewards those whose behavior is consistent with the objectives of the emerging culture.
- Develop measures by which improvements or decrements can be objectively charted.

- Disseminate on a systematic basis throughout DOE experientially derived best practices for building, sustaining, or recovering public trust and confidence.
 - Consider the deployment of "trust and confidence" teams that would independently evaluate how different units performed.*
3. *To ensure that the public trust and confidence implications of critical Departmental activities have been properly identified and weighed, the Secretary should*
- Order that any analysis of policy options presented to him/her or to Program Secretarial Officers include an explicit assessment of the impact on trust and confidence for various segments of the public.
 - Support efforts to increase the objectivity of those assessments over time.
 - Require a sound explanation for the recommendation of an option that is likely to substantially weaken the trust and confidence of any significant segment of the public,
 - Publish that explanation along with a plan for mitigating the causes of lower trust and confidence.*
 - Review the predicted effects for degree of consistency with actual public reactions. Publicize such reviews both for internal managerial purposes and public understanding.*
4. *To ensure that organizational dysfunctions are not responsible for operational problems that could lead to decreased institutional trustworthiness, the Department should*
- Devolve greater authority and responsibility to the Field Offices to manage issues that have significant trust and confidence implications at the local level.
 - Enhance the connections between policy, program decisions, and budget.
 - ~~Increase~~ *Determine whether increased* organizational redundancy on activities critical to safety *is required*.
 - Maintain sufficient employee technical and managerial capacity to oversee at a rather detailed level contractor activities.
 - Support and develop mechanisms to learn from innovations by Field Offices that have increased public trust and confidence.

- Institute overlapping self-regulatory processes.*
- Reward the discovery and correction of error.*

~~5. To ensure that central and crucial technical issues are well ventilated, the Department should~~

- ~~• Create competing teams of technical and scientific experts to peer review each others' work. (Faculty at a public university in the host and corridor states might also perform this role.)~~
- ~~• Make their critiques public.~~
- ~~• Provide incentives (resources, prestige, etc.) if they persuade the broader expert community of the soundness of their arguments.~~

5. To ensure reliable and high-quality technical and programmatic performance, the Department should

- Establish incentives for quality work as well as measures of quality.
- Be willing to revise schedules rather than decrease quality.
- Work with affected parties in establishing both the measures of quality and schedules.

SPECIFIC MEASURES AND POLICIES THAT MIGHT BE ADOPTED BY OCRWM

1. To demonstrate its commitment to taking into account the interests of the citizens of Nevada, OCRWM should

- Undertake public and private initiatives to initiate a dialog with state officials.*
- Be quite forthcoming with respect to what it offers but ~~seek as part of the bargain from the state appropriate conduct in the relationship~~ **make clear that its goal is agreement on mutual confidence-building measures.***
- DOE should not condition its ~~offer willingness to develop mutual confidence-building meaures~~ on the state dropping its opposition to characterizing the Yucca Mountain site.*

- ~~Offer the same terms and conditions to the situs County, Nye, whether or not the state enters into a relationship.~~ ***Enter into discussions with affected and corridor local governments to develop mutual confidence-building measures regardless of whether or not agreement can be reached with the state of Nevada.****
2. *To acknowledge by deeds that the first-of-a-kind nature of its activities requires special attention to public trust and confidence, OCRWM should*
- Aim to design a repository system whose predictable performance exceeds by a substantial margin the standards set up by the regulators.*
 - Adopt a technical strategy that takes into account ways of making performance claims persuasive to broad segments of the public. This might involve the use of multiple, redundant barriers including robust engineered barriers.*
 - Devise a process for characterizing and developing potential repository sites that is sequential, incremental, and specifically designed to learn from and respond to new information.*
 - Leave no room for a mistaken impression to arise that the program is in anything other than an ~~experimental~~ ***exploratory*** mode.*
 - Foster a culture that will resolve uncertainties in a manner that places the highest priority on protecting health, safety, and the environment.*
3. *To acknowledge the symbolic and real barriers to trust and confidence that arose when the bargains contained in the NWPA either collapsed or have moved to the verge of collapse, OCRWM should*
- Support research and development in alternative technological approaches to disposing of radioactive waste.
 - ***Develop contingency plans should Yucca Mountain prove unsuitable for a repository.***
 - Revisit the dual issues of multiple sites and multiple repositories using the opportunity provided by a recently mandated report to Congress.⁵⁸
 - Emphasize that the primary driving force behind this program is the need to solve a serious national problem.

⁵⁸ Energy Policy Act of 1992, Section 803.

- Explore ways of responding to concerns of nuclear utilities that derive from the difficulties the Department has encountered in constructing either central storage facilities or a geologic repository on a timely basis.

IMPLEMENTATION OF ADVICE

~~Part of the Secretary's charge to this Task Force was to provide him guidance on implementing these recommendations. The panel has already suggested that it is premature to detail specific arrangements for putting its advice into action. This stance, of course, opens it to criticism, especially from those who feel that the general principles outlined and the courses of action suggested can be subverted by a bureaucracy that is resistant to change. This frankly is of concern to the group.~~

~~But balanced against that concern is the strong view that the Department cannot succeed in fostering public trust and confidence if it unilaterally decides -- even on the disinterested advice of this Task Force -- what is the best way of interacting with stakeholders and what internal reforms are likely best to inspire trustworthiness. Furthermore, the panel realizes that, in the final analysis, the success of any effort to strengthen public trust and confidence will depend on whether the Secretary of Energy and his/her successors is committed to that objective. If they are, then this Task Force will defer to their contemporaneous judgments. For those individuals and their immediate staff will have a more intimate understanding of the Department's internal political environment, will have learned lessons from initiatives undertaken by their predecessors, and will have grappled with the dilemmas that arise from a contentious policy domain. If they are not committed to the objective of strengthening public trust and confidence, it matters little what this Task Force has to advance with respect to implementing its recommendations.~~

Part of former Secretary Watkins' charge to this Task Force was to provide him guidance on implementing these recommendations. The panel believes, however, that it is premature to detail specific arrangements for putting its advice into action. At the same time, it would be derelict in its responsibilities if it did not put forward its thoughts on implementation.

Two issues are especially critical. The first issue relates to the "practicality" of the specific measures advanced. With a handful of possible exceptions, none of the mechanisms suggested seem to fall outside of DOE's present discretionary authority. Those exceptions, however, are key items that either empower affected parties, such as Safety Review Boards, or require changes in procurement practices, such as specifying where casks must be made. Thus some new legislation would have to be sought. With a handful of possible exceptions, none of the mechanisms involve the expenditure of large sums of money. Compared to the billions of dollars the OCRWM and EM programs expect to spend, the direct costs of the

panel's advice are quite small. Yet, at least one proposal, responding to the concerns of utilities arising from schedule delays, could potentially be costly. Undoubtedly a decision to implement any of the suite of recommendations will require that some trade-off be made, and undoubtedly some risks may have to be run to empower affected parties. Yet none of the trade-offs strike the Task Force as being so excruciating and none of the risks strike it as being so reckless as to make any specific proposal "impractical."

The second issue relates to the process that might be followed in making decisions on the Task Force's recommendations. The panel envisions a series of actions that might evolve along these lines. The staff of the Secretary of Energy Advisory Board would develop a briefing paper that presented three initial options:

- Improve the current efforts for building public trust and confidence;*
- Make incremental changes to current efforts by incorporating elements of the Task Force's advice;*
- Reconstruct how the Department carries out its business in ways that make it worthy of trust.*

If the Secretary selects the first alternative, both the leaders of OCRWM and EM programs would be instructed to review what they are doing and report back within a short period of time on what improvements they had made. If the Secretary chooses the second, similar instructions would be issued, except the program leaders would also be asked to consult with affected parties and the Task Force before reporting back.

If the Secretary decides that DOE has to change fundamentally the approach it took to strengthening public trust and confidence, then a much more elaborate process involving all stakeholders would have to be created and exercised. It would, in fact, be absolutely contrary to the spirit of this advice were the Department to embark on such an a significant reform unilaterally. One can image, for example, the formation of specialized panels composed of representatives of affected parties exploring how best to secure the objectives that the Task Force has identified as being necessary for an institution like DOE to be considered worthy of trust. The particular modalities of implementing some of the specific recommendations could be hammered out. Those explorations might also prove to be appropriate vehicles for both for re-creating relationships and for developing mutual confidence-building measures. Ultimately, the Secretary will have to make the hard choices about how the Department will restructure the way it works to strengthen public trust and confidence. But at least she will have the benefit of a thorough and public ventilation of the issues.

CONCLUSION

The Task Force is sensitive to the fact that its recommendations call for considerably broader changes in institutional culture and behavior in the Department of Energy than have taken place in recent years. This will be a daunting challenge for the leadership and the staff of DOE if only because the Task Force's ideas have never, to our knowledge, been adopted within the federal bureaucracy, and thus, there is little experience upon which to build.

The panel, however, does see in its suggestions to the Department something of a parallel with what has recently come to be generically termed a greater regard for quality among American firms *and with the movement to "reinvent government."* ~~There, too,~~ *In both those cases,* the advocates and designers of a new approach to how business was conducted faced challenges and vast changes in corporate culture that often seemed insurmountable. And it, indeed, took hard work to make those changes, but it did prove feasible and valuable in the end. In hindsight, however, the challenge was not nearly as daunting as it first appeared. This gives us cause for optimism.

The Task Force believes that the changes it advocates will not only reap significant benefits to DOE, but, in a post-Cold War era, they may be less difficult to set in place than anyone currently expects. The group hopes that this prediction will be put to the test.

APPENDIX A

MEMBERS OF THE SECRETARY OF ENERGY ADVISORY BOARD TASK FORCE ON RADIOACTIVE WASTE MANAGEMENT

Dr. Todd La Porte -- Chairman
Professor, Political Science
University of California
Berkeley, California

Ms. Barbara Barry
Department of Transportation*
State of Colorado
Denver, Colorado

Dr. William Bishop
Vice President
Desert Research Institute
Las Vegas, Nevada

Mr. William Eichbaum
Vice President
World Wildlife Fund
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Resources for the Future
Washington, DC

Ms. Kristine Gebbie
Secretary of Health*
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Dr. Donald Kettl
Professor, Political Science
University of Wisconsin
Madison, Wisconsin

Mr. John Landis
Senior Vice-President
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Executive Director
Council of Indian Resource Tribes
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Mr. Gene Lucero
Partner*
Sidley and Austin
Los Angeles, California

Dr. Alfred Schneider
Professor Emeritus, Nuclear Engineering
Georgia Institute of Technology
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Mr. Mason Willrich
Chief Executive Officer
PG&E Enterprises
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Mr. Michael Wilson
Chairman*
Florida Public Service Commission
Tallahassee, Florida

Dr. Mayer Zald
Chairman, Sociology and Social Work
University of Michigan
Ann Arbor, Michigan

Dr. Daniel Metlay
Staff Director
Office of the Secretary of Energy Advisory Board
US Department of Energy

*Position at time of appointment to Task Force

APPENDIX B

**TERMS OF REFERENCE
SECRETARY OF ENERGY ADVISORY BOARD
TASK FORCE ON CIVILIAN RADIOACTIVE WASTE MANAGEMENT**

INTRODUCTION

The Department of Energy recognizes that the resolution of outstanding institutional issues, such as access to sites, social and economic impacts, and organizational design, is as critical to the ultimate success of the civilian radioactive waste management program as the resolution of outstanding technical issues. No institutional issue commands as much attention and is as widely regarded as pivotal and far-reaching as the question of public trust and confidence. It is, for example, a common theme in reviews by organizations such as the National Academy of Sciences, the Congressional Office of Technology Assessment, and the Nuclear Waste Technical Review Board.

Although numerous oversight and advisory bodies are examining the technical foundations of the program, there is currently little systematic analysis and guidance on developing the institutional framework for managing radioactive waste in a manner that ensures public trust and confidence. Such analysis and guidance would be helpful not only to the existing policy-making organizations that are conducting many of the program's immediate activities but also in the on-going creation and design of the technical development and operating organizations that will play increasingly critical roles in the program's future. The objective of the Secretary of Energy Advisory Board (SEAB) Task Force of Civilian Radioactive Waste Management is to begin to undertake those institutional analyses and to suggest approaches for establishing public trustworthiness so as to facilitate progress toward the Department's satisfaction of its statutory obligations.

As detailed below, the Task Force should examine what is meant by "public trust and confidence" and describe the conditions that are important for ensuring it. The group should explore what additional steps the program might take to strengthen public trust and confidence in efforts to dispose of radioactive waste. The Task Force should investigate whether attempts to increase public trust and confidence affect other objectives such as timely waste acceptance and cost-effectiveness. Finally, the group should consider how its recommendations and guidance might be implemented.

STUDY OBJECTIVES

The Meaning and Development of Public Trust and Confidence

The phrase "public trust and confidence" is frequently used, but its meaning is rarely articulated with precision. Consequently, misunderstandings among parties with an interest in those ends may arise, and accusations of bad faith may be leveled, leading ironically to reduced trust and confidence. The Task Force should strive to develop a clear understanding of what it means for the radioactive waste management program to have public trust and confidence extended or withheld. The group should then analyze the factors and processes

that cause it to be gained, maintained, lost, and reestablished. Among the questions the Task Force should address are:

- Whose trust and confidence is most critical? Why?
- What are the most important factors affecting the level of public trust and confidence in the program?
- What lessons has the program learned from the past? What can be done to build on past successes and avoid past failures?

Opportunities for Ensuring Public Trust and Confidence

The management of radioactive waste poses a number of challenges, which, in combination, may make the establishment and maintenance of public trust and confidence problematic. Hazardous materials must be processed and transported; the benefits of nuclear power are widely distributed, but many of the costs of waste management are geographically concentrated; political and technical accountability must be sustained over extended periods; a relatively large-scale technological system with a complex institutional infrastructure must be created; some errors may only arise in the far future, and others may be hard to detect. Based on the understanding and insights developed in the first phase of the study and through other means, the Task Force should consider questions such as these:

- How can the challenges that tend to make public trust and confidence in the radioactive waste management program problematic be addressed?
- Under what circumstances, if any, can alternative financial, organizational, and regulatory arrangements for the program promote public trust and confidence?
- Can the organizational structures and processes adopted for similar programs in other nations provide models for increasing the perceived trustworthiness of the U.S. program?

Consequences of Ensuring Public Trust and Confidence

Actions taken to ensure a significant reservoir of public trust and confidence may affect other program objectives such as the timely acceptance of waste, cost-effectiveness, and confidence in the program's schedule. Those other factors must be taken into account as any long-term implementation plan is developed. If trade-offs between conflicting goals have to be made, it is important that the stakes be clarified and the balancing of advantages and disadvantages of various approaches be done explicitly. To inform choices that will have to be made, the Task Force should investigate these questions:

- To what degree would additional efforts to foster public trust and confidence disrupt established program routines and organizational interactions?
- How would efforts to ensure high levels of public trust and confidence

influence the timeliness and the cost of the radioactive waste management program?

- To what extent would initiatives to increase public trust and confidence affect or be affected by the regulatory regime for developing and licensing a repository?

Recommendations

Having assessed alternative approaches for ensuring public trust and confidence and having considered in general terms what the central advantages and disadvantages of each might be, the Task Force should present recommendations to the Secretary of Energy. Included in those recommendations should be guidance on what steps can be taken to implement them. In particular, the Task Force should note which actions can be taken under authority already vested in the Department, which actions require new authority, and which actions depend on the cooperation of other governmental and non-governmental entities.

In pursuing these objectives, the Task Force can

- Obtain the advice of recognized experts in organizational design;
- Examine program decisions and policies over the last decade that have strongly contributed to the current level of public trust and confidence;
- Solicit the views of informed and interested individuals both inside and outside of government;
- Secure information from DOE program offices and contractors that helps identify the characteristics of the policy-making, technical design and development, and operating organizations of the radioactive waste management system.

APPENDIX C



The Secretary of Energy
Washington, DC 20585

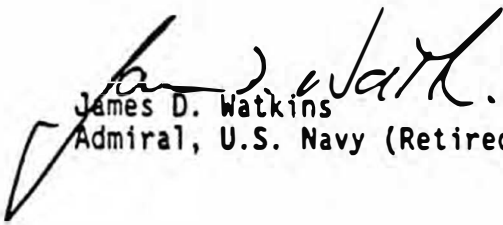
September 5, 1991

MEMORANDUM FOR THE EXECUTIVE DIRECTOR, SECRETARY OF ENERGY ADVISORY BOARD

SUBJECT: EXPANSION OF THE SCOPE OF THE TASK FORCE ON CIVILIAN RADIOACTIVE WASTE MANAGEMENT

On April 25, 1991, I approved the membership and Terms of Reference for the Task Force on Civilian Radioactive Waste Management. This group will be examining the critical issue of ensuring public trust and confidence in the Department's program.

I believe that this institutional issue is relevant to a wide range of activities undertaken by the Department of Energy. I would like, therefore, for the task force to expand the scope of its efforts. Although its focus should remain on the civilian radioactive waste management program, it should draw for its insights from other areas of Departmental activity, especially the defense waste program. Furthermore, I would like the task force to develop its recommendations to me so that they might be more broadly applicable within the Department.


James D. Watkins
Admiral, U.S. Navy (Retired)

LUTHER J. CARTER
2722 CHAIN BRIDGE ROAD, N.W.
WASHINGTON, D.C. 20016
telephone 202-966-3579
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June 23, 1993

Professor Todd La Porte,
Chairman, Secretary of Energy's Task Force on Public
Trust and Confidence in Radioactive Waste Management
3207 Andreasen Drive
Lafayette, California 94549

Dear Todd,

I have read with interest the final report of your task force, together with the comments made by reviewers on the previous report. As I indicated in my own earlier comments, while finding the report to be very good as far as it goes, I think it should go further. Here I would propose that the body of the report be left essentially just as it is, but that the "implementation of advice" section be strengthened in so far as it pertains to the Yucca Mountain project in Nevada.

As the report now stands, it does not come to terms with the fundamental objection raised by Robert Loux of the Nevada Nuclear Waste Project Office in his letter to the task force of last December 18. His objection had to do with the report's "failure to address directly the implications" for public trust and confidence of attempting "to force the repository on an unwilling state." As you know, I personally take no exception to what Congress did in the Nuclear Waste Policy Act Amendments of 1987 except that I think, and once recommended (see Environment October 1987), that Congress should have at first designated Yucca Mountain as the sole candidate site only tentatively, subject to review by the National Academy of Sciences. I do agree however with the task force's observation that most of the "bargains" struck in the NWPA of 1982 were undone by the 1987 Amendments.

The need today is to somehow refashion those original bargains in new legislation and policies that are workable and that reflect the country's hard-won experience about the political and technical realities of isolating and containing the more dangerous and longer-lived nuclear materials. For purposes of illustration let me give you some of my own thoughts on this subject. In my judgment Congress should:

* Declare the Nevada Test Site (with the NTS boundaries extended to take in all of the Yucca Mountain site) to be a unique federal reservation that is to be dedicated in part to the storage and disposition of hazardous, long-lived nuclear materials from all sources--the generation of nuclear energy,

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the production of nuclear explosives, and the dismantling of nuclear warheads. The bargain here would be that in return for the heavy investment of ratepayer and taxpayer funds the storage and disposition of these hazardous nuclear materials is indeed going to be accomplished, even though it may have to be done by means not yet fully known or decided. The beneficiary would be the nuclear industry, the nation at large, and generations to come. Congress need not be apologetic about such a declaration. The NTS is in fact unique in its history; its geology, hydrology, and climatic setting; and its remoteness from major population centers and tradition of tight security.

* Recognize that central to any project for isolation of longlived, highly radiotoxic nuclear materials is the problem of dealing convincingly with uncertainty. This problem is not sufficiently recognized, indeed far from it, by the existing law and DOE program. The best solution, in my view, would be a new law and program pointing toward underground retrievable storage and a major new emphasis on redundancy in the overall containment system (e.g., through highly robust, long-lived casks). The Yucca Mountain project would, to this end, be redefined as an exploratory endeavor, which while not necessarily open-ended would not be cramped by tight or inflexible schedules. This would be a refashioning of the technical bargain referred to in the task force report, with conservatism in design and a philosophy of keeping all options open taking the place of a politically illusory commitment to finding the best among multiple sites.

* Declare that within the foregoing policy framework, the state of Nevada is to be a major partner in the exploration and development of the Yucca Mountain site and in any other activities related to storage or disposition of hazardous nuclear materials at the NTS. This partnership would be not nominal but real, with the powers and prerogatives vested in the state such that in many matters state and federal officials would be on an equal footing. In these circumstances the extensive behavioral reform contemplated in the task force report could, to a degree, be made self-enforcing and indeed be made to survive DOE itself, should the department follow its predecessors into the bureaucratic boneyard. This commitment, along with what follows below, would represent a reshaping of what your report refers to as the political bargain with the host state.

* Declare that the NTS is to be made a preferred site for new federal-state ventures in high technology, some of them related to storage and disposition of hazardous nuclear materials (e.g., a state-of-the-art reactor for "burning" warhead plutonium) and some not. This should be much more than a rhetorical commitment that might soon prove to be an empty box as other states, politically more powerful and influential, grab off for themselves attractive high-tech projects to be sponsored or

-3-

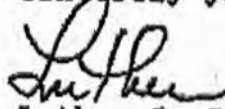
initiated by the government. The commitment should be genuine and in some measure self-implementing, as perhaps through the establishment of a "Nevada Technology Development Trust" from income generated by the Nuclear Waste Fund.

Your task force has neither the mandate nor the inclination to outline as I have above even the general terms of a refashioning of the bargains struck in 1982. But it would lend sharpness and force to your analysis and recommendations if the report were, in its conclusions, to acknowledge the need for such a refashioning (a need which I believe is implicitly recognized in the report even as now written). Your thoughts as to an appropriate refashioning might be rather different from my own, but whatever they are you might usefully indicate the direction in which they lie.

As a parting observation, I would like to suggest that the idea of looking for ways to make your recommendations self implementing or self enforcing deserves strong emphasis. The genius of the National Environmental Policy Act was NEPA's enforceable requirement for environmental impact statements; without that requirement NEPA would have been soon forgotten as just another hortatory declaration of high-minded goals. Inspired by Lynton Caldwell's seminal report to a Senate committee, NEPA was something of an earthquake in its impact on the way government agencies do their business. I don't see much chance of your report producing any widely-felt seismic events but you might reasonably hope (as I know you do) to shake things up at DOE.

I don't know whether these remarks will be helpful to you. But I can say that your report, and my reflections on it, have been quite helpful to me and will be reflected in my own writing on what to do about hazardous and longlived nuclear materials.

Sincerely yours,


Luther J. Carter

United States Government

Department of Energy

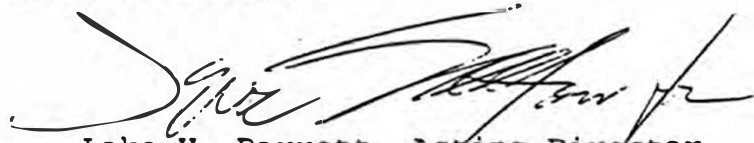
memorandum

DATE: JUN 15 1993
REPLY TO:
ATTN OF: RW-5
SUBJECT: Final Comments on SEAB Recommendations

TO: Executive Director of the Secretary of Energy
Advisory Board, AC-1

Per your request, attached are the final comments on the Draft Final Report of the SEAB Task Force on Radioactive Waste Management which was issued on December 1992. As we noted in our earlier response dated February 22, 1993, we found that we agreed with many of the Task Force's ideas and we planned to implement many of the recommendations to enable the program to earn the trust and confidence of our numerous constituents. Consequently, we are providing specific comments only to those recommendations that we believe would prove either ineffective or beyond our resources to implement.

If you have any questions concerning our comments, please feel free to contact me on 586-6842.



Lake H. Barrett, Acting Director
Office of Civilian Radioactive
Waste Management

Attachment

**AN ANALYSIS OF SPECIFIC RECOMMENDATIONS
IN THE DRAFT FINAL REPORT OF THE
SEAB TASK FORCE ON
RADIOACTIVE WASTE MANAGEMENT**

The following comments respond to recommendations that OCRWM believes would prove ineffective or beyond the Program's resources to implement.

Recommendation: To make the Department's scientific work more credible, it should expand its peer review network to always include experts from other countries.

Comment: OCRWM agrees in general, however, decisions to include foreign experts should take into account relevant and appropriate technical expertise and cost effectiveness.

Recommendation: To make the Department's scientific work more credible, it should jointly design and conduct experiments and share data at the earliest possible time with teams from host States, Indian Tribes and affected counties.

Comment: OCRWM agrees that the results of experiments must be shared promptly and fully, however, DOE is responsible for designing and conducting experiments to ensure they comply with quality assurance and regulatory requirements. Special circumstances may arise where joint experiments are appropriate; in these cases, outside involvement must be subject to pre-negotiated conditions.

Recommendation: To make the Department's scientific work more credible, it should seek authorization for joint auditing of quality assurance programs.

Comment: OCRWM disagrees that joint auditing of the program would be appropriate. Quality assurance audits must be conducted by the appropriately designated organization. The State of Nevada and affected counties currently observe DOE audits as does the Nuclear Regulatory Commission (NRC). We understand this observation of, and opportunity to comment on, DOE audits is considered appropriate by the other parties. To act as more than an observer could jeopardize the independent oversight role of the organization.

Recommendation: To empower host States, affected counties, Indian Tribes, and citizen groups, the Department should organize Safety Review Boards comprised of DOE managers and representative stakeholders that can temporarily suspend operation at a facility for a pre-established set of reasons.

Comment: OCRWM agrees with the intent to give the host a meaningful role, subject to pre-negotiated conditions. However, since DOE is ultimately responsible for the sound operation of the facility, the compatibility of this concept with the current legal, regulatory, and institutional framework of the program must also be considered.

Recommendation: To make the program a stakeholder in a community that hosts a potential repository, OCRWM should, as formal determinations have been made increasing the likelihood of site suitability require full-time residence for all employee, contractor personnel, and National Laboratory scientists working on the project.

Comment: OCRWM does not agree. In many cases, contractors and national laboratory personnel provide "matrix" support to other national programs as well as to OCRWM. Moving the locus of their support to the candidate site would remove them from scientific support available at their home offices and would impact their work for other programs.

Recommendation: To make the program a stakeholder in a community that hosts a potential repository, OCRWM should, as formal determinations have been made increasing the likelihood of site suitability obligate the vendors of hardware, such as casks, to manufacture them within proximity of any site ultimately chosen for a repository.

Comment: OCRWM does not agree. However, vendors can be "encouraged" rather than "obligated" to perform their manufacturing operations near a repository site, consistent with the expressed interests of the host community. If by "casks," however, what is meant is waste packages for disposal, there may be a stronger argument for manufacturing such containers near a repository.

Recommendation: To empower host States, affected communities and tribes, and citizen groups, the Department should give the Safety Review Board the power to decide when a repository should be sealed and when retrievability of the waste is no longer essential.

Comment: OCRWM agrees that the host community has an interest and a role to play in operational decisions. However, this is an item that should be discussed with the host and other stakeholders, consistent with the laws and regulations regarding health and safety.

Recommendation: To build on the efforts already in place to promote a "new culture" within the Department, it should consider the deployment of "trust and confidence" tiger teams that would regularly evaluate how different units performed.

Comment: OCRWM disagrees. Monitoring and evaluation can be readily accomplished through regular stakeholder involvement.

Recommendation: To ensure that central and crucial technical issues are well ventilated, the Department should create competing teams of technical and scientific experts to peer review each others' work. (Faculty at a public university in the host State might also perform this role.)

Comment: OCRWM disagrees. Open peer review, as currently practiced, is considered the best means to test scientific findings and to resolve differences. One of the principal responsibilities of the new position of Chief Scientist will be to establish peer review teams for scientific work at Yucca Mountain, assuring broad-based and competent representation.

Recommendation: Provide incentives (resources, prestige, etc.) if they [the competing teams] persuade the broader expert community of the soundness of their arguments.

Comment: OCRWM disagrees and considers the principle antithetical to the scientific process. While aggressive advocacy of scientific positions might have some short-term benefits to the program, it would also work against the reputation for scientific objectivity that is critical to earning trust and confidence in OCRWM's ability to deliver an unbiased judgment on the suitability of Yucca Mountain, the safety of cask designs, etc.

Recommendation: To demonstrate its commitment to taking into account the interests of the citizens of Nevada, OCRWM should not condition its offer on the State dropping its opposition to characterizing the Yucca Mountain site.

Comment: OCRWM agrees in principle and would like to explore this matter further with the State, but full implementation may require a change in the Nuclear Waste Policy Act.

Recommendation: To acknowledge by deeds that the "first-of-a-kind" nature of its activities requires special attention to public trust and confidence, OCRWM should aim to design a repository system whose predictable performance exceeds by a substantial margin the standards set up by regulators.

Comment: OCRWM agrees in part. The value of the recommendation is recognized and its thrust is already being considered. The recommendation must be balanced against the scientifically accepted ALARA (risk to be "as low as reasonably achievable") principle and other trust and confidence considerations, including cost. Increasing the cost of the system to exceed substantially the scientifically based requirements might satisfy some stakeholders' concerns at the expense of others. The ability of a first-of-a-kind geologic repository to perform as required for many thousands of years can neither be scientifically "proven" nor physically demonstrated. For that reason, there is a need to build the strongest possible evidentiary case that the repository system can operate safely for 10,000 years or more. That can be attained by marshalling technical and scientific evidence, judgment, and public support to develop a strong, broad-based consensus that the repository will perform as predicted.

Recommendation: To acknowledge by deeds that the "first-of-a-kind" nature of its activities requires special attention to public trust and confidence, OCRWM should leave

no room for a mistaken impression to arise that the program is in anything other than an experimental mode.

Comment: OCRWM agrees with the underlying thrust of the recommendation that the suitability of Yucca Mountain is yet unknown and the present activities are solely for the characterization required to determine site suitability. However, the deep geologic disposal of radioactive wastes represents an international, scientific, consensus on the best long-term solution to the international problem.

Recommendation: To acknowledge the symbolic and real barriers to trust and confidence that arose when the bargains contained in the NWPA either collapsed or have moved to the verge of collapse, OCRWM should use the opportunity provided by a recently mandated report to Congress to revisit the dual issues of multiple sites and multiple repositories.

Comment: The Section 803 Report mandated in the Energy Policy Act of 1992, presents an opportunity to revisit the need for multiple repositories. However, with respect to multiple sites for a first repository, the Nuclear Waste Policy Act clearly provides that only the site at Yucca Mountain should be characterized, unless and until it is found to be unsuitable.



Secretary of Energy Advisory Board
Washington, DC 20585

June 18, 1993

MEMORANDUM FOR MEMBERS OF THE TASK FORCE ON RADIOACTIVE WASTE MANAGEMENT

FROM: DANIEL METLAY, TASK FORCE DIRECTOR *DM*

SUBJECT: PROPOSED FINAL VERSION OF REPORT AND COMMENT RESPONSE DOCUMENT

I am forwarding copies of the Proposed Final Version of the Report and a comment response document for your consideration. If the July 7th meeting is to proceed smoothly, it is *imperative* that you read the Proposed Final Version closely and carefully, even those parts of it that have not been changed. You should also examine the responses to the comments, for those commit the Task Force to particular interpretations of its work as well as to particular trains of logic.

You each should come to the meeting knowing in advance what portions of the report now give you heartburn. In that way the discussion stands a better chance of being focused and productive.

I shall be sending you a fax on Monday giving you additional logistical information for the meeting and for the dinner on the night of July 6th.

I am also enclosing a copy of OCRWM's comments on the draft. These came too late to be incorporated into the Proposed Final Version. But we will need to address them at the meeting.

Happy reading!

**EIGHTH MEETING OF THE
SEAB TASK FORCE ON RADIOACTIVE WASTE MANAGEMENT**

JULY 7, 1993

The National Wildlife Federation
Kimball Conference Room
Washington, D.C.

9:00 - 10:30 AM	Public Comments on Revisions to Draft Final Report
10:30 - 10:45 AM	BREAK
10:45 - 12:00 PM	Public Comment Continued
12:00 - 1:00 PM	LUNCH
1:00 - 4:00 PM	Task Force Deliberations
4:00 PM	Adjourn

SEAB TASK FORCE ON RADIOACTIVE WASTE MANAGEMENT

Dr. Daniel Metlay
Task Force Director, Designated Federal Officer
U.S. Department of Energy
1000 Independence Ave., SW
Washington, D.C. 20585
202-586-7092

**RESPONSES TO COMMENTS
RECEIVED ON THE
DRAFT FINAL REPORT**

**SECRETARY OF ENERGY ADVISORY BOARD
TASK FORCE ON RADIOACTIVE WASTE MANAGEMENT**

JUNE 1993

**PROPOSED FINAL VERSION
SUBJECT TO TASK FORCE APPROVAL**

OVERVIEW OF THIS DOCUMENT

The Task Force solicited comments on its Draft Final Report from a variety of sources. Letters were sent to over 400 individuals who had expressed interest in the interest in the Department's radioactive waste management programs, a notice was placed in the *Federal Register*, the morning session of the January 1993 meeting of the full Secretary of Energy Advisory Board was given over to discussion of the draft, and Task Force members and staff presented the effort at several professional meetings.

Altogether 32 written comments were received. They are reproduced here, prefaced in each case by the Task Force's response to specific suggestions made to improve the draft. (The panel did not respond to comments that simply reflected policy preferences or that praised the group's effort.) With one exception, those specific suggestions are highlighted and given a letter designation from "A" to "Z". The Task Force's responses are labeled in a like manner. For the one exception, a comments submitted by Judy Treichel, the Task Force's response is printed on copies of her annotated pages.

John Andelin

Office of Technology Assessment (comment is not an official response from OTA)
Washington, DC

12/29/92

A. The Task Force agrees; see page 23.

B. Language has been changed in the hope of increasing clarity. See page 15.

C. The Task Force agrees; see pages 22-27.

TECHNOLOGY ASSESSMENT BOARD
GEORGE E. BROWN, JR., CALIFORNIA, CHAIRMAN

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JOHN H. GIBBONS

Congress of the United States
OFFICE OF TECHNOLOGY ASSESSMENT
WASHINGTON, DC 20510-8025

December 29, 1992

Dr. Todd LaPorte
3207 Andreasen Drive
Lafayette, California 94549

Dear Todd:

Thanks for sharing the draft report on public trust and confidence. First rate. It should be one of the first things read by Secretary-designate O'Leary.

Since the report said "draft," I'd like to make a couple of relatively minor comments:

1. page 5 -- The dotted line on the graph should probably read "NWSA schedule," not "ideal." | A
2. page 12 -- The paragraph discussing the attributes not associated with institutional confidence is not clear. I assume it would be a negative association that would have been expected for these attributes? But the correlations are near zero? | B
3. page 15 -- "First principles" and "conditions" -- Nice.
4. pages 17 and 29 -- The discussion of the NWSA bargain and their "collapse" and "almost irreconcilable" nature is not satisfying. I'd think this needs more like a page than a sentence or two. In what way were they contradictory? Would they not have had a chance of being reconciled or adjusted by normal, even if tumultuous, means if it had not been for Herrington's unilateral violation of the "political" bargain? My sense is that it was this act that tore apart whatever "public trust and confidence" DOE might have had on this issue. (The close of the paragraph on page 29 -- "and so it goes" -- is reminiscent of David Rose. He used that well.) | C
5. page 18 -- "... the best predictor of whether the recommendations are ignored seems not to be their intrinsic technical merits but whether they significantly alter the prevailing program philosophy or imply changes in approach that are perceived to cause serious delays in repository development." -- Nice. I hope the data behind this will be made available.
6. page 23 -- A fine chart.
7. page 43 -- There are typos here and there throughout the draft -- one that matters is here -- "simply that things could be any worse." Couldn't, I presume?

Good to see you again.

Sincerely,



John Andelin

Lake Barrett
Acting Director
Office of Civilian Radioactive Waste Management
US Department of Energy

2/22/93

No substantive suggestions for revising the Draft Final Report were contained in this memorandum.

(Additional comments were submitted by Barrett on June 15, 1993 after the Proposed Final Version had been written. Those comments will be considered seriously by the Task Force at its July 7th meeting.)

United States Government

Department of Energy

memorandum

DATE February 22, 1993

REPLY TO
ATTN OF RW-1

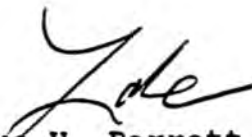
SUBJECT Secretary of Energy Advisory Board Task Force on Radioactive
Waste Management-Draft Final Report

TO Jake Stewart, Executive Director
Secretary of Energy Advisory Board

In preparing its Draft Final Report, the Secretary of Energy Advisory Board Task Force on Radioactive Waste Management has provided a valuable service to the Department and to the Civilian Radioactive Waste Management program. The Report, developed through an extensive process of study and gathering of information and opinions from many of the Department's constituents, attempts to place the issues of public trust and confidence in a fuller context. It illuminates the "interlocking vicious cycles that cause pressure to this program and slowly reduce its discretion." We appreciate the Task Force's recognition that these often conflicting pressures mean that "winning the trust of one segment of the public often involves losing the trust of some other." For many years, this tension has had a significant impact on the program's effectiveness.

We have read with interest the conclusions and recommendations of the Task Force. In our initial review of the Report, we find that we agree with many of the Task Force's ideas and hope to be able to implement many of its recommendations to help us earn the trust and confidence of our numerous constituents. In fact, several recommendations mirror steps we have already taken in this direction.

Our experience to date in implementing the Nuclear Waste Policy Act, as amended, leads us to conclude, as the Task Force did, that while adoption of these measures aimed at increasing trust and confidence may be necessary, there are no guarantees that these steps will be sufficient to engender that trust. The program remains committed to continuing and strengthening its efforts to increase its institutional trustworthiness while implementing the mandates of the Nuclear Waste Policy Act. In that vein, we look forward to the completion of the Task Force's Final Report.



Lake H. Barrett, Acting Director
Office of Civilian Radioactive
Waste Management

CC:
CP-1
EM-1

Lake Barrett
Acting Director
Office of Civilian Radioactive Waste Management
US Department of Energy

3/10/93

The Task Force did, in fact, paint a bleak picture of OCRWM's efforts to strengthen public trust and confidence. Modifications in the text (pages 22-27 and 33-35) describe and analyze the factors in the program's institutional setting that have brought about this unfortunate situation and reinforce the panel's view that improving the situation is not, in fact, "as easy as it looks."

The Task Force also recognizes that it failed in the Draft Final Report to call out explicitly instances when the program did act effectively. Appropriate changes have been made. (See, in addition to the pages cited above, page 52.

Nonetheless, the Task Force attaches significantly less importance to the Yucca Mountain Project's outreach program than is implied in this comment. While apparently designed and carried out effectively and while necessary, that operation ought not to be held out as the prime example of how the civilian program is strengthening public trust and confidence. Doing so reinforces the Task Force's finding concerning OCRWM's rather narrow view of what is required to strengthen public trust and confidence.

(Additional comments were submitted by Barrett on June 15, 1993 after the Proposed Final Version had been written. Those comments will be considered seriously by the Task Force at its July 7th meeting.)

United States Government

Department of Energy

memorandum

DATE March 10, 1993
REPLY TO
ATTN OF RW-2
SUBJECT: Comments on Secretary of Energy Draft Final Report

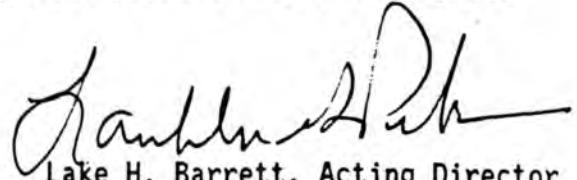
TO: Director, Secretary of Energy Advisory Board Task Force, AC-1

Thank you for providing the opportunity to comment on the draft, "Final Report of the Secretary of Energy Advisory Board (SEAB) Task force on Radioactive Waste Management." These comments focus on public confidence issues in Nevada, specifically, and supplement those comments (attached) previously made by the Office of the Civilian Radioactive Waste Management. The SEAB recommendations related to public involvement and other efforts to increase public trust and confidence are generally excellent and consistent with policy the Yucca Mountain Site Characterization Project (YMP) has previously implemented or plans to adopt.

We freely admit that there is still much progress to be made--and as we think your report recognizes, "it's not as easy as it looks." There are numerous external political and internal obstacles to overcome in implementing the approach outlined in the SEAB report, but we are dedicated to overtaking them. Successful implementation requires the continued adjustment of U.S. Department of Energy (DOE) decision-making processes and mindsets that are firmly entrenched; the allocation of appropriate resources to support interactions; and the passage of time to overcome the legacy we have inherited.

We believe that the text of the report paints a much darker picture than circumstances suggest of the status of, and the role the DOE's current program has played in influencing the level of, public trust and confidence as it relates to the YMP. Carl Gertz, Ace Robison, and their staff have done an excellent job supporting this mission. During the past year alone the YMP has conducted over 300 public presentations; over 5,000 Nevadans have toured Yucca Mountain, Nevada, and have talked with YMP scientists; thousands of citizens have visited our information offices located in three Nevada communities--over the past few years the YMP, on their own initiative, held 28 large-scale public meetings in Nevada; and, most importantly, we have made important strides through formal communications channels to increase pre-decisional involvement by "affected" parties. Interactions with the public, both one-on-one and in groups, suggest that these programs are well accepted and appreciated by the public. Only through these daily interactions can one fully appreciate the views, and developing trends in views, of informed Nevadans. Further, the report did not, in our opinion, fully reflect the balanced nature of testimony made by the public at your hearings in Las Vegas and Amargosa Valley. We believe significant progress is being made. We also accept that we have a long way to go.

We thank you for your support. It was intellectually stimulating and served as an excellent confirmation of the approach we have been implementing. You have described an approach which is correct, and the only way the YMP, or for that matter any controversial Federal project, should be conducted.



Lake H. Barrett, Acting Director
Office of Civilian Radioactive
Waste Management

Attachment

cc:

C. Gertz, RW-20/YMPO

A. Robison, RW-20/YMPO

Dennis Bechtel
Coordinator
Clark County
Department of Comprehensive Planning
Las Vegas, Nevada

12/21/93

A. The Task Force agrees; see page 20.

B. Although this idea was not directly incorporated into the text, it is consistent with the general thrust of the Task Force's analysis and recommendations. In particular, it stresses the importance of consultation on program planning, especially when commitments need to be modified.

C. The Task Force believes that this was too detailed an explanation of a specific recommendation to be included in the Proposed Final Version. It does not, however, disagree with it.

D. The NWPA provides clear instructions to DOE about its obligations to assess and mitigate adverse socioeconomic impacts. Courts can hear claims that the Department has not lived up to its responsibilities. This is one of those instances where trust, while desirable, is not necessary.

E. The Task Force is still of the view that the order of applying the filters may not be important, so long as they are applied in a biased or arbitrary fashion. See pages 4-5 for a revision discussion of this issue.

F. The discussion about EPA standards was revised slightly. But the Task Force believes that the conclusions are premature if only because there is no "Congressionally mandated standard." The NAS panel will not issue its final report for another 24 months. How EPA chooses to use the NAS advice will not be known for yet another year.

G. The terms are now defined. See footnote 11 and page 9.

H. That footnote was eliminated between the first working page and the draft final report.

I. The Task Force agrees. The draft has been modified accordingly.

J. The term "maximum extent possible" reflects a belief that it may not also be possible to provide notification very far ahead of time.

K. The Task Force believes that a credible scientific process is the best way of identifying precisely what the uncertainties and complexities are, and just as importantly, whether there are design options available to buffer the uncertainty and to simplify the complexities.

L. The Task Force agrees that honest self-assessment should become a norm of DOE's organizational culture. Providing rewards for it is not in conflict with that objective. In fact, rewarding it has the effect of legitimating it and, thus, making it easier to become accepted as an organizational norm. A parallel here is rewarding high quality, objective scientific and technical work.

M. This recommendation has been modified consistent with this comment. See page 56.

N/O. The Task Force feels that these changes are implicit in recommendations that "could be adopted across the Department."

P. The Task Force believes that local governments also represent a specific constituency. As such they can enter into agreements with DOE to protect it. The language has been modified to clarify this point (page 61).



Department of
Comprehensive Planning

Nuclear Waste Division

CALIFORNIA FEDERAL BUILDING
301 EAST CLARK AVENUE, SUITE 570
LAS VEGAS, NEVADA 89101
(702) 455-5175

December 21, 1992

Dr. Daniel S. Metlay
Director of Civilian Radioactive Waste
Management Task Force
Secretary of Energy Advisory Board
1000 Independence Avenue, SW
Room 7-B198
Washington, D.C. 20585

SUBJECT: COMMENTS ON DRAFT REPORT OF THE SECRETARY OF ENERGY'S ADVISORY
BOARD TASK FORCE ON WASTE MANAGEMENT

Dear Dr. Metlay:

On behalf of the Department of Comprehensive Planning, Clark County, Nevada, we would like to compliment the Task Force for compiling a draft report that frankly acknowledges the problem of trust and confidence in DOE programs, and makes an honest effort to propose some solutions. We are in agreement with the basic thrust of the Task Force recommendations, and believe you have accurately reflected many of our concerns. We particularly appreciate having the opportunity to present comments at meetings of the Task Force, and to participate in your deliberations. The Task Force itself has provided a good model for the kind of DOE consultations with affected parties that are recommended in your report.

GENERAL COMMENTS

1. We agree that "Public trust and confidence is not a luxury" (p. 15). We would add that DOE not only has an obligation to merit trust, but that trust must be earned by the agency through consistent policies and actions over the long term. 1A
2. We also agree that "Public trust and confidence is not a one-way street" (p. 15). If DOE trusts the public by being candid about the problems to be addressed, there will be an increased prospect of long-term trust in DOE programs.

COMMISSIONERS

Jay Bingham, Chairman • Karen Hayes, Vice-Chairman
Paul J. Christensen, Thelie M. Dondero, William U. Pearson, Don Schlesinger, Bruce L. Woodbury
Donald L. "Pat" Shalmy, County Manager

3. To establish a climate of trust in its program, DOE should develop, in consultation with affected parties, a set of technical and institutional principles to guide the program. Once adopted, the agency should resist pressures to change these principles for reasons of schedule, cost or political objectives. If changes must be made, or if actions inconsistent with the principles are contemplated, they should be worked out in consultation with affected parties. 1 B
4. We agree that "actions taken by one unit within DOE influence the level of public trust and confidence in other units" (p. 27). Consistent with this finding, we suggest that it is not sufficient (p. 36, Section 2) to publish a summary of major positions to ensure that programs speak consistently to stakeholders. What is needed are internal procedures to ensure that activities of one program within DOE do not impinge on trust and confidence in other DOE programs. Policymakers need to ask not only how this policy will affect stakeholders' trust in my program, but also how it will affect stakeholders' trust in other DOE programs. Too much compartmentalized thinking undermines trust in the agency as a whole. Discussions among DOE programs are also cost effective since many of the issues are the same. 1 C
5. We particularly support recommendations to "empower host states, communities, and citizens groups" (p. 37, Section 6) by providing guaranteed access to resources for oversight activities. We support the concept of locally controlled Safety Review Boards with the power to suspend operations at a facility until questions about its operations have been satisfactorily answered. The idea of local representatives having control over questions and being able to call "Time Out" from operations that may affect their citizens would significantly enhance trust in the repository program.
6. We note that there are no recommendations that address the need for confidence in DOE's willingness to address socioeconomic impacts resulting from the proposed repository. Socioeconomic impacts are among the greatest concerns to the public on issues related to radioactive waste. 1 D

SPECIFIC COMMENTS

1. In discussing "filters" on page 4, the order in which technical and non-technical filters are applied is important. The traditional "Decide, Announce, Defend" approach to facility siting, which has adversely affected public trust, assumes that the technical filter will precede the institutional filter. In fact, the opposite should be the case if public trust is to be enhanced. An institutional 1 E

framework based on open consultation with affected parties should precede technically based decisions by the implementing agency.

2. The discussion of EPA Standards on page 5-6 is less than candid because it leaves the impression that the provisions of the 1992 National Energy Policy Act were simply a sequential step toward resolving EPA's "state of flux" since the court remanded certain sections of the standard for further work by EPA. The congressionally mandated standard not only ignores EPA's scientific findings and the sections approved by the courts, it also establishes separate standards for Yucca Mountain and for all other repositories (notably WIPP). The action of Congress has the effect of creating different levels of protection for Nevada citizens than for other Americans, and in itself has contributed to the erosion of trust in the repository siting process. DOE could enhance trust by insisting that a single set of standards be established that apply equally to all sites. | F
3. The use of terms like "socially acceptable" (p. 6 and 8) and "social judgment" (p. 7) should be carefully defined. Some decisions may be socially acceptable to Congress but not to impacted parties. | G
4. The footnote on page 8 says that it is "impossible to find a socially acceptable, i.e., non-dictatorial way" of making choices. If so, how will trust be enhanced and who will address it? | H
5. On Page 36, Sections 2, 3 and 4, we believe that all publics should be allowed early involvement in all programmatic decisions being made by DOE. This involvement should begin at the conceptual stage of policy development and should assume a continuously interactive process with stakeholders. | I
6. The qualifying phrase "to the maximum extent possible" on Page 36, Section 2 detracts from the recommendation and should be deleted, since the actions either will or will not be accomplished. | J
7. To make the Department's scientific work more credible (p. 37, Section 5), the Department should acknowledge the extreme uncertainties and complexities of the problems to be resolved in forecasting geohydrological performance at the proposed repository as well as human behavior with respect to the repository over the next 10,000 years. | K
8. Honest self-assessment should not be rewarded (p. 39) but should be expected or demanded as a norm within the DOE culture. | L

9. Regarding the location of the Director within a "host" community (p. 38, Section 1), we would encourage the project director to take up full time residence (as at WIPP), but not until and unless a decision has been made to proceed with the project. The OCRWM Director should remain in Washington, but maintain an office locally for a designated portion of his time to ensure public access. | M
10. We suggest that on Page 40, Section 2, bullet 1, the phrase "for this and all other Departmental programs" be added. Also bullet 3, add "in relation to any Departmental program." | N/O
11. We question the concept of offering "terms and conditions," (p. 41, Section 1), which are not defined, to Nye or any affected county. In Nevada, this implies an effort to "go around" the State as well as to ignore the other counties that have been designated by DOE as "affected parties." We suggest that any "offers" be made to both the state and the affected counties. | P

In conclusion, the recommendations contained in this report are comprehensive and far-reaching, and we appreciate the efforts of the Task Force to enable our participation in its process through public commentary. We trust that the Department will adopt the recommendations and make a sincere effort to implement them. In the future, the Task Force, or its successors, should choose to meet more frequently in Nevada and in communities affected by defense waste cleanup to discuss the implementation of the recommendations. To demonstrate trust, controversial topics should be aired in those communities with most potential to be affected by those activities.

Sincerely,



DENNIS A. BECHTEL
Coordinator

DAB/km

cc: Todd LaPorte, Chairman
Donald L. Shalmy
James L. Ley
Richard B. Holmes

L-923

Dennis Bechtel
Coordinator
Clark County
Department of Comprehensive Planning
Las Vegas, Nevada

3/9/93

A. An Executive Summary has been included in the Proposed Final Version.

B. The Task Force agrees; see page 20.

C. Although this idea was not directly incorporated into the text, it is consistent with the general thrust of the Task Force's analysis and recommendations. In particular, it stresses the importance of consultation on program planning and especially when commitments need to be modified.

D. The Task Force believes that this was too detailed an explanation of a specific recommendation to be included in the Proposed Final Version. It does not, however, disagree with it.

E. The Task Force considered several ways of reorganizing its recommendations. It concluded, while each method had its advantages and disadvantages, ordering them in a way that separates those need to sustain trust from those required to recover it was more appropriate for the panel's purposes.

F. The Task Force discusses its views on implementing the recommendations on pages 62-63. It recognizes that some of its suggestions are cast in general terms, in part, because it believes that the specific details will vary from one program activity to another. The example cited in the comment is surely one such recommendation. Despite its being cast in general terms, however, it will not be hard to ascertain whether genuine steps have been taken to implement it. The same holds true for many other suggestions that seem "too general."

G. The NWPA provides clear instructions to DOE about its obligations to assess and mitigate adverse socioeconomic impacts. Courts can hear claims that the Department has not lived up to its responsibilities. This is one of those instances where trust, while desirable, is not necessary.

H. The Task Force is still of the view that the order of applying the filters may not be important, so long as they are not applied in a biased or arbitrary fashion. See pages 4-5 for a revised discussion of this issue.

I. The terms are now defined. See footnote 11 and page 9.

J. See the revisions on footnote 22 on page 12.

K. The Task Force agrees; see page 15.

L. The Task Force agrees; see revised language on page 25.

M. The Task Force agrees, see revised language on page 17.

N. The Task Force has substantially revised its discussion of this Finding. See pages 41-42. The materials in question are available upon request. When Part III of the report is published, they will also be distributed automatically to those who have commented formally on the draft.

O. This Task Force understands this comment, but it does not feel it should be included in the Proposed Final Version.

P. The Task Force has voiced its support for a number of different mechanisms that offer opportunities for affected parties to participate in the decision-making processes of the Department's radioactive waste management programs. In its view, structuring those opportunities is the critical issue. They could be given any name.

Q. The Task Force agrees; see page 53.

R. The Task Force agrees; its overarching philosophy is one of inclusion.

S. The term "maximum extent possible" reflects a belief that it may not also be possible it provide notification very far ahead of time.

T. The Task Force believes that a credible scientific process is the best way of identifying precisely what the uncertainties and complexities are, and just as importantly, whether there are design options available to buffer the uncertainty and to simplified the complexities.

U. The Task Force agrees; see revised language on page 54.

V. The Task Force agrees, see revised language on page 58.

W. This recommendation has been revised; see pages 56-57.

X. The Task Force agrees that honest self-assessment should become a norm of DOE's organizational culture. Providing rewards for it is not in conflict with that objective. In fact, rewarding it has the effect of legitimating it and, thus, making it easier to become accepted as an organizational norm. A parallel here is rewarding high quality, objective scientific and technical work.

Y. The Task Force believes that local governments also represent a specific constituency. As such they can enter into agreements with DOE to protect it. The language has been modified to clarify this point (page 61).

Z. The Task Force agrees that this is a key recommendation. But it does not agree that the objective of a siting process ought to be finding the "best" site. The NWPA recognized that such an objective had no stopping point. Thus it required only that the site satisfy the standards prescribed by the EPA and NRC.



Department of Comprehensive Planning

Nuclear Waste Division

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March 9, 1993

Dr. Daniel S. Metlay
Director of Civilian Radioactive Waste Management
Task Force
Secretary of Energy Advisory Board
1000 Independence Avenue, SW
Room 7-B198
Washington, D.C. 20585

SUBJECT: COMMENTS ON DRAFT FINAL REPORT OF THE SECRETARY OF ENERGY'S
ADVISORY BOARD (SEAB) ON WASTE MANAGEMENT

Dear Dr. Metlay:

This is an addendum to the comments submitted by the Clark County Department of Comprehensive Planning, Nuclear Waste Division, on December 21, 1992 on SEAB's Draft Final Report on Waste Management. There will be some redundancy with our December comments since there is some uncertainty as to how our original concerns will be resolved. We're confident that the comments provided will be considered as well as our earlier testimony.

As I mentioned at the January meeting, it is important that we have an accounting of how the public and other affected parties' concerns are addressed in the final document. We, therefore, look forward to the completion of Parts Two and Three of the report.

We would like to reiterate that the SEAB's work was valuable in identifying problems that the Department of Energy (DOE) is experiencing with public trust. It is also important in providing solutions that may begin to restore credibility to the organization. The SEAB, I continue to believe, offers an excellent guide to how DOE (and probably other governmental entities) can address contentious problems. It is gratifying to note that DOE is taking this message seriously as evidenced by the creation of the Environmental Restoration and Waste Management Committee (EMAC), currently wrestling with the weapons program cleanup issues.

The SEAB process was not perfect. An inordinate amount of time, for example, was spent in avoiding meeting at locations where DOE is experiencing difficult credibility problems. The problems involved in scheduling a meeting in Las Vegas, to cite one instance, I feel, adds to the public's distrust. The meeting, once held however, provided the Board with excellent insight into issues of trust. If DOE can draw one lesson from this experience it would be that the earlier and more complete the coordination, the greater the potential for trust to occur. (Hanford, Washington, is one excellent example where trust is beginning to be restored by actively involving the public early in the cleanup process).

COMMISSIONERS

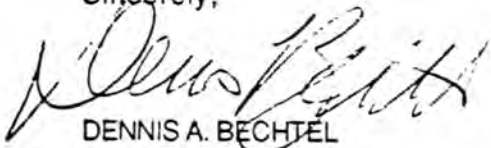
Jay Bingham, Chairman • Karen Hayes, Vice-Chairman
Paul J. Christensen, Thalia M. Dondero, William U. Pearson, Don Schlesinger, Bruce L. Woodbury
Donald L. "Pat" Shalmy, County Manager

Dr. Daniel S. Metlay
March 9, 1993
Page two

Despite this somewhat minor distraction the process is to be commended. We look forward to the publication of the final report and the opportunity to participate if another meeting is to be held. We're also hopeful that the process and the recommendations are conveyed to the Clinton administration with a strong endorsement for implementation.

Thank you again for being able to provide input into what I feel was an extremely valuable exercise. If you have any questions on the comments provided, please feel free to contact me.

Sincerely,

A handwritten signature in dark ink, appearing to read "Dennis A. Bechtel", written over the printed name.

DENNIS A. BECHTEL
Coordinator

DAB/km/al

Attachment

cc: Dr. Todd LaPorte, Chairman
Donald L. Shalmy
James L. Ley
Richard B. Holmes

L-230

March 9, 1993

COMMENTS ON DRAFT REPORT OF THE SECRETARY OF ENERGY'S ADVISORY BOARD
TASK FORCE ON WASTE MANAGEMENT

GENERAL COMMENTS

1. The Final report should include an Executive Summary, Conclusions and Recommendations, in the beginning of the document. | A
2. Page 14 We agree that "Public trust and confidence is not a luxury." We would add that DOE not only has an obligation to merit trust, but that trust must be earned by the agency through consistent policies and actions over the long term. | B
3. Page 15 We also agree that "Public trust and confidence is not a one-way street." If DOE trusts the public by being candid about the problems to be addressed, there will be an increased prospect of long-term trust in DOE programs.
4. To establish a climate of trust in its program, DOE should develop, in consultation with affected parties, a set of technical and institutional principles to guide the program. Once adopted, the agency should resist pressures to change these principles for reasons of schedule, cost or political objectives. If changes must be made, or if actions inconsistent with the principles are contemplated, they should be worked out in consultation with affected parties. | C
5. Pages 27 and 37 We agree that "actions taken by one unit within DOE influence the level of public trust and confidence in other units". Consistent with this finding, we suggest that it is not sufficient (Section 2) to publish a summary of major positions to ensure that programs speak consistently to stakeholders. What is needed are internal procedures to ensure that activities of one program within DOE do not impinge on trust and confidence in other DOE programs. Policymakers need to ask not only how this policy will affect stakeholders' trust in my program, but also how it will affect stakeholders' trust in other DOE programs. Too much compartmentalized thinking undermines trust in the agency as a whole. | D

Discussions among DOE programs are also cost effective since many of the issues are the same.

6. **Page 39** We particularly support recommendations to "empower host states, communities, and citizens groups" (Section 6) by providing guaranteed access to resources for oversight activities. We support the concept of locally controlled Safety Review Boards with the power to suspend operations at a facility until questions about its operations have been satisfactorily answered. The idea of local representatives having control over questions and being able to call "Time Out" from operations that may affect their citizens would significantly enhance trust in the repository program.
7. **Page 41** It would be useful to separate the "action" recommendations from the general "conceptual" ones. For example, the recommendation (first bullet in Number 3) on "devolving responsibilities to the Field Offices" could be a useful one but it gets "lost" in the other statements. | E
8. **Page 42** Some of the recommendations require more substance. For example, "instituting overlapping self-regulatory processes" is undoubtedly useful. It would be more substantive, however, if specific implementation recommendations were provided to DOE. The testimony that you received probably provided some examples. My concern is that some of the recommendations are so general that they may not be considered. | F
9. We note that there are no recommendations that address the need for confidence in DOE's willingness to address socioeconomic impacts resulting from the proposed repository. Socioeconomic impacts are among the greatest concerns to the public on issues related to radioactive waste. Recommendations are needed to address this shortcoming. | G

SPECIFIC COMMENTS

1. **Page 4** In discussing "filters", the order in which technical and non-technical filters are applied is important. The traditional "Decide, Announce, Defend" approach to facility siting, which has adversely affected public trust, assumes that the technical filter will precede the institutional filter. In fact, the opposite should be the case if public trust is to be enhanced. An institutional framework based on open consultation with affected parties should precede technically based decisions by the implementing agency. | H

8. **Page 28 (Number 2)** The recent revelations on lack of DOE guidance with respect to Contractors and the indiscretions by Contractors further detracts from trustworthiness on this item. [A House of Representatives hearing on February 17, 1993 and an upcoming Senate hearing on March 16, 1993 are evaluating DOE contracting practices and the expenditure of the public's money. The House hearing had some disconcerting testimony on DOE's lack of proper oversight of contractors.]
9. **Page 30 (Number 2)** It should be noted that although the "Strategic Principles" workshops, at which the *Draft Mission Plan Amendment* was discussed, were very interactive with all major public parties involved, we have still yet to receive the final document. This will determine, how in fact, our input was considered. | 0
10. **Page 30 (Number 3)** Hopefully, the SEAB will provide strong support for the continuation of the "Director's Forum." Former OCRWM Director Bartlett should be commended for its creation. Having been a participant in the first Forum, however, I felt it could have been more successful if there had been preliminary discussions about topical areas that needed to be deliberated and if the group had had more time to review the "Earl Site Suitability" questions that were reviewed. In other words, more adequate preliminary preparation could have made the Forum more effective. | P
11. **Pages 31 to 34 (Findings With Respect to EM)** One question that will be interesting with respect to EM recommendations is the issue of "equity" in the resolution of waste management problems. There is a concern in Nevada whether solutions will be regional or whether individual areas will be earmarked to receive much of the waste. The solutions recommended will demonstrate whether there will be an equitable resolution to the final disposition of the waste.
12. **Pages 29 through 34 (Findings with Respect to OCRWM and EM)** These sections are very well written and offer excellent insight.
13. **Page 36 (Design Basis) - First Paragraph** Rather than "strive" to involve all groups or give them "a sense of involvement" this should be reworded to state that DOE "will" involve or "give" representatives involvement, etc. | Q

2. **Pages 6 and 7** Terms like "socially acceptable" and "social judgment" are subjective and should be carefully defined. Generally, the definitions may depend on the perspective of the parties reviewing the activity. Some decisions may be socially acceptable to Congress but not to impacted parties. I F
3. **Footnote number 10 (Page 9)** needs to be reworded. Section 801(c) requires DOE "Following repository closure, the Secretary of Energy shall continue to oversee the Yucca Mountain site to prevent any activity at the site that poses an unreasonable risk of (1)) breaching the repository's engineered or geologic barriers, etc." I J
4. **Page 11** The definition for "Public" should exclude the word "outside" in line one. While this may be a subtle change it somewhat describes the "them" versus "us" mentality that DOE needs to change if they are truly to become an organization worthy of trust. I K
5. **Page 17 - First full paragraph.** In addition to Nye County's special rights it should be noted that the Nuclear Waste Policy Amendments Act also includes in its provisions "affected units of local government," those counties adjacent to Nye County that will experience impacts from the proposed repository [See Section 2 (definitions) and Section 116(c) of Title V of PL 100-203]. I L
6. **Page 24 (General Findings - Number 2)** While an increase in trust is evident in the EM side of DOE it is much less evident in the OCRWM (Yucca Mountain) area. This section needs to more accurately reflect this dichotomy. I M
7. **Pages 27 and 28 (Findings with respect to Organizations - Number 1)** While it is probably uncertain whether any governmental agency in the public's mind can credibly handle radioactive materials, I will be interested in reading the backup material that led to the conclusion that program reorganization is not the answer. Several witnesses at the Irvine, CA meeting seemed to be convinced that a quasi-public (COMSAT?) or private organization may be the only answer instilling credibility to the program. It would seem that such recommendations (or at least considerations) would fall within the "terms of reference" approved by Admiral Watkins. I N

21. **Page 43** We question the concept of offering "terms and conditions," (Section 1), which are not defined, to Nye or any affected county. In Nevada, this implies an effort to "go around" the State as well as to ignore the other counties that have been designated by DOE as "affected parties." | Y
22. **Page 43 (Specific Measures - Number 2)** Bullet Number 3 should probably become the Number 1 recommendation for the SEAB. The most positive way to engender trust in the OCRWM program would be to start over. If the deep-rock repository concept is deemed to be the most favored method of storage, a national site selection process should be initiated to find the "best" site and not merely a "suitable" site (similar to the truncated process used to evaluate the "second" repository location). | Z

DB/km

R-923.1

14. **On Page 36 (Design Basis)** We believe that all publics should be allowed early involvement in all programmatic decisions being made by DOE. This involvement should begin at the conceptual stage of policy development and should assume a continuously interactive process with stakeholders. 1 R
15. **Page 37** The qualifying phrase "to the maximum extent possible" (Section 2) detracts from the recommendation and should be deleted, since the actions either will or will not be accomplished. 1 S
16. **Page 37** To make the Department's scientific work more credible (Section 5), the Department should acknowledge the extreme uncertainties and complexities of the problems to be resolved in (a) forecasting geohydrological performance at the proposed repository as well as, (b) human behavior with respect to the repository over the next 10,000 years. 1 T
17. **Page 38 (Recommendations - Number 4)** The first bullet is an excellent recommendation. The formal and informal "consultations" should be noted as requiring close "interaction" rather than "presentations," as has been too often the case. 1 U
18. **Page 38 (Recommendations - Number 5)** The first bullet comments on expanding the peer review group to include those from other countries. The "Strategic Principles" and "Director's Forum" groups, noted earlier, also commented on the need for more independent peer review groups for DOE in general. It is the feeling of Clark County, for example, that the "Peer Review" group evaluating the Early Site Suitability (ESS) Issues needed to be selected from outside of DOE. This recommendation should be strengthened by stating that it is important that DOE activities requiring peer review be done so by including authorities outside of DOE. 1 V
19. **Page 39** Regarding the location of the Director within a "host" community (Section 1), we would encourage the project director to take up full time residence (as at WIPP), but not until and unless a decision has been made to proceed with the project. The OCRWM Director should remain in Washington, but maintain an office locally for a designated portion of his time to ensure public access. 1 W
20. **Page 40** Honest self-assessment should not be rewarded but should be expected or demanded as a norm within the DOE culture. 1 X

Mary Lou Blazek
Manager
Nuclear Waste Program
State of Oregon
Department of Energy
Salem, Oregon

3/2/93

A. The Task Force agrees; see page 53.

B. The Task Force agrees; it was difficult, however, to state this idea generally because adjacent state may not always consider themselves stakeholders. The Proposed Final Version should be interpreted in ways that are consistent with the Task Force's prevailing philosophy of inclusion.

C. The Task Force agrees; see the revised language on pages 53-55.

D. The Task Force did not intend to imply any such thing.

E. The term "ultimate implementation" refers to the decisions that emerge from collaborations with affected parties. Their outcome cannot be foreordained.

F. See response to "B" above.

G. The Task Force does not feel that the use of the verb "justify" instead of "explain" significantly changes the meaning or purpose of this recommendation.

H. See response to "B" above.

I. This language was revised. See page 54.

J. Although the Task Force does not necessarily disagree with the recommendation contained in this comment, it does not feel it that such a detailed suggestion should be included in the Proposed Final Version.

K. The issue of compensation is a very delicate and sensitive one. If compensation comes to be seen as "accepting bribes" then providing it may be counterproductive. While the availability of benefits does have some affect on public trust and confidence, the Task Force does not believe it is wise to make compensation a centerpiece for proposals to strengthen institutional trustworthiness. Nevertheless, these "pay-offs" integrate the program more deeply in the community can, therefore, can lead to greater public trust and confidence.

L. See response to "B" above.

M. Although skepticism in this area is the norm not the exception, this interpretation is not consistent with the overarching approach taken by the Task Force.

N. The protection of whistleblowers is a necessary and logical adjunct to rewarding the discovery of error.

O. Language has been revised; see page 60.

P. The Task Force agrees; see page 61.

March 2, 1993

Dr. Daniel Metlay
Task Force Director
Secretary of Energy Advisory Board
1000 Independence Avenue, SW
Washington D.C. 20585

Dear Dr. Metlay:

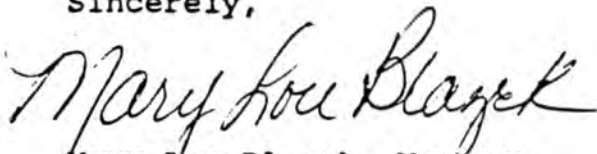
Thank you for the opportunity to comment on the Draft Final Report of the Secretary of Energy Advisory Board Task Force on Radioactive Waste Management. Many of the Task Force recommendations, if accepted, will do much to improve the credibility of the U.S. Department of Energy (USDOE). More importantly, it will give affected states, Tribes, and citizens a more meaningful involvement in major decisions which affect them.

I agree that the USDOE has made considerable progress in recent years towards better involving the public. However, there are still many within the Department who resist the "culture change" begun by Secretary Watkins. As a result, recent gains are precarious. A vigorous effort must continue if these changes are to have any lasting and meaningful effect.

While some of the recommendations of the Task Force are truly inspired, I feel others do not go far enough to offer sincere and meaningful public participation in nuclear waste siting and cleanup issues. My specific comments are attached.

I would be happy to discuss my comments further with you. I can be reached at 503-378-5544.

Sincerely,



Mary Lou Blazek, Manager
Nuclear Waste Program

Barbara Roberts
Governor



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STATE OF OREGON COMMENTS ON
DRAFT FINAL REPORT
OF THE SECRETARY OF ENERGY ADVISORY BOARD TASK FORCE
ON RADIOACTIVE WASTE MANAGEMENT

- Page 36, under "Design Basis". First paragraph says "agency leaders should strive to give all groups of citizens and their representatives a *sense of involvement and fairness...*" The involvement and fairness should be real, not artificial, as "sense" seems to imply. 1 A

- Page 36, under "Design Basis", first bullet. Potential host states are among the list of stakeholders. Yet some adjacent states are also stakeholders in many of these issues. For example, cleanup decisions at the Hanford Site in Washington state have a definite impact on the State of Oregon. High-level liquid radioactive waste threatens the Columbia River. Potentially explosive waste tanks present a potential hazard to at least two Oregon counties. And the transport of radioactive waste either to or from Hanford crosses 200 miles of Oregon highways. If a Monitored Retrievable Storage facility is proposed at the Hanford Site (and it is now being studied), the transportation impacts on Oregon would be substantial. Adjacent states need formal recognition from USDOE as legitimate stakeholders and should be listed as such. 1 B

- Page 37, 3rd bullet under item 2. Recommendation is that USDOE should identify positions it is planning to alter either *unilaterally* or with the concurrence of other parties. USDOE has already attempted to make unilateral changes to the Tri-Party Agreement, which directs Hanford cleanup. The state of Washington and the U.S. Environmental Protection Agency properly opposed USDOE's attempts at unilateral changes. Changes to cleanup agreements or applicable regulatory standards should always be made with the concurrence of other parties, not through USDOE's unilateral decisions. 1 C

- The same bullet also implies that relevant State and EPA may not be notified promptly. Any proposed changes to negotiated milestones or applicable regulatory standards should be discussed with the relevant State(s) and EPA before USDOE makes any final decisions about them. 1 D

Oregon Comments on Draft Final Report
of the Secretary of Energy Advisory
Board Task Force on Radioactive
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March 2, 1993

Page 2

- Page 38, 1st bullet under item 4. Wording seems to indicate that any USDOE initiatives are inevitable ("ultimate implementation"). If there is to be meaningful public participation in the decision-making process, the outcome can not be inevitable. | E
- Page 38, 2nd bullet under item 5. Adjacent states should also be privy to this data, for reasons listed above. | F
- Page 38, last bullet under item 5. USDOE needs to do much more than simply "clarify" why advice from technical overseers is not accepted. It must justify these decisions and allow opportunity for appeal of its decision. | G
- Page 39, item 6. Adjacent states should also be empowered, for reasons listed above. | H
- Page 39, last bullet under item 6. What is meant by "comply with all State regulations that are administered even-handedly?" Who determines whether the state is administering its regulations even-handedly? USDOE has for too long ignored state and federal laws. Congress has recently directed USDOE to abide by environmental laws. If USDOE is having difficulty with a state, USDOE has the option of taking that state to court. It should not simply be allowed to ignore state regulations when it feels it is not getting cooperation. | I
- Page 39, ADD a bullet under item 6. Apply the transportation safety standards developed for transuranic waste shipments to the WIPP site to other major USDOE shipping campaigns. This includes: | J
 - early involvement of corridor states and tribes
 - costs borne by USDOE
 - certification of shipping casks by the Nuclear Regulatory Commission
 - route selected by safety analysis
 - careful selection of carriers and drivers
 - independent state safety audits of carrier

Oregon Comments on Draft Final Report
of the Secretary of Energy Advisory
Board Task Force on Radioactive
Waste Management

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Page 3

- independent state inspections of each shipment
 - avoiding unsafe road conditions
 - advance notice and shipment tracking
 - emergency response plans
 - radiation detection equipment provided to emergency responders
 - training for emergency responders
 - emergency exercises
-
- Page 39, 3rd and 4th bullets under item 1, 2nd bullet under item 2. These call for OCRWM to stress the "pay-offs" it is willing to provide to waste storage site hosts. These are inappropriate in this document. | K
 - Page 40, 2nd bullet under item 3. Adjacent states should also have a voice in determining the pace at which waste will be shipped to a repository. | L
 - Page 41, 4th bullet under item 2. This sounds more like "damage-control" than a meaningful attempt to explain to the public USDOE's reasons for making decisions that weaken public trust and confidence. | M
 - Page 42, 2nd bullet from top of page. This item should be strengthened to encourage and offer protection to whistleblowers. This protection must involve not only USDOE but also its contractors. | N
 - Page 42, 2nd bullet under item 1. This sounds like "pay-offs" to the state of Nevada. It is inappropriate in this document. | O
 - Page 43, ADD a bullet to item 3. If USDOE and OCRWM want to engender trust and confidence in Nevada and others states who feel threatened by USDOE's heavy-handed approach to site characterization of Yucca Mountain, the Department must clearly define and explain the course it will take IF Yucca Mountain is scientifically determined to not be suitable for the repository. Failure to do so undermines all credibility in the characterization. It leads everyone to believe that USDOE will find Yucca Mountain suitable, no matter what. | P

Oregon Comments on Draft Final Report
of the Secretary of Energy Advisory
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Page 5

- Page 38. "Require DOE contractors to conduct equivalent training for their employees. Their performance evaluations and awards would be structured to include contributions to the overall public involvement efforts."
- Page 38. "Place greater emphasis on periodic informal consultations to supplement more formal public meetings, hearings, and updates."
- Page 38. "When formal processes are used, devise agendas and formats jointly with representatives of stakeholders."

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of the Secretary of Energy Advisory
Board Task Force on Radioactive
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Page 4

Some of these recommendations may seem to the Task Force to be trivial or finding hidden meaning where none is intended. However, because USDOE does not now have the public's trust and confidence, these recommendations must leave no room for USDOE to maneuver its way out of a commitment. These commitments must be explicitly stated.

We recommend also that all of the Task Force recommendations be applicable to all USDOE contractors.

Task Force recommendations we strongly endorse:

- Page 36. "Early and continuous involvement of State and/or local advisory groups as well as national advisory bodies on which a broad range of stakeholders...are represented. That involvement would be characterized by frequent contact, complete candor, rapid and full response to questions, and assistance in increasing the technical and oversight skills of the community."
- Page 36. "Consistent and respectful efforts to reach out to state and community leaders and to the general public for the purpose of informing, consulting, and collaborating with them about the technical and operational aspects of Departmental activities."
- Page 36. "rely on the "pre-decisional" Freedom of Information Act exemption only under exceptional circumstances, which are candidly explained."
- Page 37. "Disseminate without exception information about past practices that may raise questions about potential health, safety, and environmental risks."
- Page 37. "Make training in public involvement principles and processes a requirement for managers, supervisors, and technical personnel who might interact with stakeholders."
- Page 37. "Make career advancement and promotion dependent on successful demonstration of the capability to interact positively with a wide range of sectors in the public."

Dr. Jeremy Boak

No affiliation mentioned, but Dr. Boak alludes to his job as a manager in DOE's Yucca Mountain Project
Las Vegas, Nevada

No date

A. The Task Force has revised some of its discussion on the EPA standard to reflect the concern raised in this comment. See page 27. The comment's description of the interaction between DOE, EPA, and the NAS is at odds with what the Task Force's understanding.

B. The Task Force never stated that OCRWM consistently ignores the advise of the NWTRB. Its precise language was: "While no general pattern holds true in every instance, the best predictor of whether the recommendations are ignored seems not to be their intrinsic technical merit but whether they significantly alter the prevailing program philosophy or imply changes in approach that are perceived to cause serious delays in repository development." In the Proposed Final Version, explicit mention is made of the redesign of the Exploratory Studies Facility as one example where that "best predictor" was off the mark. See page 25.

C. Revisions have been made in the draft to call out more explicitly some of the positive activities undertaken by the professional and leaders of OCRWM. See, for example, page 52. But the Task Force still believes that the outreach efforts at the Yucca Mountain Project, while designed and carried out effectively and while necessary, are nonetheless indicative of the OCRWM's rather narrow view of what is required to strengthen public trust and confidence.

D. The Task Force agrees completely; that language has been eliminated from the Proposed Final Version.

E. The Task Force has made revisions to consider the questions of time and costs. See pages 62-63. It also now recognizes explicitly that the program dealt fairly and professionally with the scientific issues raised by Jerry Szymanski. See page 52.

Dr. Jeremy M. Boak
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702-254-7313

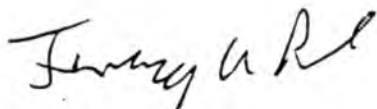
Dr. Daniel Metlay
Task Force Director
Secretary of Energy Advisory Board
1000 Independence Avenue SW
Washington, DC 20585

Dear Dr. Metlay:

Enclosed are a few brief comments on the report of the Secretary Of Energy Advisory Board's Task Force on Radioactive Waste Management. I have not had time to provide exhaustive comments, although I find much that I would like to comment on. It is clear that the Task Force worked under certain constraints in terms of time to do a comprehensive review of the existing program. It seems as if the focus has largely remained inside the Beltway, where many institutions are under fire for a kind of insulation from the concerns of the people. Many people working on Yucca Mountain are relatively unaware of the work of your group, in spite of the several headlines generated some time ago when Nevada politicians took advantage of the Task Force's choice not to conduct several of its meetings in Nevada. Those events were a fine example of the difficulty of gaining credibility for the Department, as the State used the Task Force's actions as a demonstration of DOE's unwillingness to pay more than lip service to stakeholder involvement.

I think that I could not have taken the job that I did with the DOE if I felt that my technical credibility would be substantially compromised by working for this institution. If I thought it were seriously threatened, I would feel obliged to leave. It is for this reason that the work of this Task Force is of some personal and professional importance to me. I hope that the Task Force will consider carefully the import of its comments, as I see wide potential for mischief, given the wording of some parts of this report. It is in this spirit that I submit these comments. My work cannot go forward in the absence of greater acceptance by the public of the technical judgments I must make as a manager in this program.

Sincerely



Dr. Jeremy M. Boak

Comments on Draft Final Report of the Secretary of Energy Advisory Board Task Force on Radioactive Waste Management

On page 18 of the draft final report, the authors assert that:

"In recent months, OCRWM leaders have complained that EPA's high-level waste standard is ill-conceived and fails to justify with health benefits the substantially increased cost of development it seems to dictate. They have also hinted that NRC's regulations are overly burdensome. There are, of course, established administrative mechanisms for modifying promulgated or proposed regulations. These were not followed; instead the Department supported a legislative initiative to alter both regulatory regimes."

This quote fails to acknowledge years of efforts to interact with the EPA about proposed draft revisions of the high-level waste standard, and especially a negotiated effort between EPA and DOE to present specific technical evaluations of aspects of the regulations. These efforts, within the normal administrative channels, resulted in a National Academy of Sciences review of the Department's technical analyses. Although the NAS panel had reservations about the adequacy of DOE's demonstration of its concerns, it did not reject the assertions. Given the extremely short time for the evaluations to be prepared, this result was not surprising. What is surprising is that the SEAB completely ignores this effort, which diverted substantial technical resources away from development of more comprehensive suitability evaluations for the site.

To those of us actively seeking specific ways to improve the Project's credibility with the public, such an oversight suggests a superficiality of analysis that calls into question much that follows. This oversight was not a lone example. To suggest that OCRWM consistently ignores the NWTRB recommendations ignores in turn the major changes, including a complete redesign of the Exploratory Studies Facility, and the use of Tunnel Boring Machines, which were in part responses to Board suggestions.

Those of us who work in the trenches dedicate substantial time to developing reasoned cases for the DOE to make in the face of opponents, some of whom feel no such compunction to back up their assertions with reasonable technical data. We did not get many opportunities to converse with the SEAB about our experiences. We do, however, spend time talking to more common folk on bus tours of Yucca Mountain, who seem pleased to hear our technical perspectives. It is very frustrating to these DOE people to read a report ignoring or dismissing our efforts. A casual reference to the possibility that some of the Task Force's recommendations may have been initiated hardly speaks to the time and effort many on the Project have dedicated to outreach efforts.

[It hardly seems in the interest of improving public trust and confidence to respond to a potential charge that the report was "too academic" by stating, "For that, the Task Force does not apologize." This smacks of the elitist rhetoric that the public have regularly found offensive.] The program proposed by the Board contains many laudable suggestions, but it pays only lip service to efforts undertaken, which in many instances already constitute "bending over backwards" to address potential scientific or technical controversies. Glittering generalities with no recognition of the cost in time and money of many of the Board's recommendations are of little help to the Department. They will only serve as a convenient whip for those who will note publicly with pleasure only those recommendations that DOE has not had sufficient funding or staffing to accomplish over and above the expected progress at Yucca Mountain. That progress, we are told by others, is also a critical prerequisite to establishing credibility.]

When USGS Hydrologic Research Facility workers spend up to 20% of their time giving tours, and millions of dollars go to required public interactions with regulators and advisory boards, at the same time the Office is accused of spending too much on "infrastructure costs," something is out of line. If the Board wants to make useful recommendations, let it give some specific details. How much more of our time must we spend responding to external comments (many of which are duplicative) and interacting with outside observers? If Congress will agree with the Board that 20%, 40%, or 50% of our time is not too much to spend on the Board's confidence-building measures, many of us will shoulder that burden. But the costs should be acknowledged.

Harold Borchert
Chairman
Midwestern High-Level Radioactive Waste Transportation Committee

2/26/93

The Task Force agrees that considerable emphasis was placed in the Draft Report on repository development, perhaps to the exclusion of other issues. Revisions were made to highlight the special issues that arise from transporting waste. In particular, stakeholders that reside along transportation corridors were explicitly identified and the appropriateness of their involvement at many stages of the decision-making process was explicitly recognized. See, for example, pages 6, 15, 53, 56, and 58.

A. See revised language on page 4.

B. New language clarifies the implications of Figure 4. See page 12.

C. Footnote 33 on page 26 reflects this view.

D. The Task Force agrees.

E. The Task Force refers to the importance placed on national security considerations on page 28 and notes on page 6 the dominance of a management culture that was relatively insensitive to the long-term consequences of environmental pollution.

F. The purpose of Figure 9 on page 35 is to identify aspects of the institutional content within which the Department's waste management activities operate, not to designate which of those activities are important or major public foci.

G. Although there is some merit to this comment, the Task Force does not agree that OCRWM dismisses public concerns about trustworthiness because they derive from an "irrational fear" of radiation.

H. This Task Force agrees, but it does not choose to mention this point specifically.

I. Additional observations about the Director's Forum are contained in footnote 45 on page 54. The Task Force disagrees completely with the assertion that the difficulties that process encountered were a reflection not only of OCRWM's lack of interest in

stakeholder input but were also an indication that the program will take whatever steps necessary to avoid public involvement.

J. Appropriate changes have been made throughout the section entitled "Advice from the Task Force." See pages 53, 56, and 58.



February 26, 1993

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Daniel Metlay
Designated Federal Officer
Secretary of Energy Advisory Board
AC-1
1000 Independence Avenue, S.W.
Washington, DC 20585

Dear Dr. Metlay:

Enclosed you will find comments from the Midwestern High-Level Radioactive Waste Committee on the draft report of the SEAB Task Force on Radioactive Waste Management.

I feel it is important to call attention to several of the more general comments that follow. The draft report clearly represents the product of a great deal of effort; however, it is disappointing that the scope of the report seems to be limited to repository development. The reason for this narrow focus is unclear, especially in light of the fact that the terms of reference provided by the Secretary of Energy refer to the "civilian radioactive waste management program," which covers not only disposal but storage and transportation. Even the Secretary's instruction that the Task Force should look at steps to "strengthen public trust and confidence in efforts to dispose of radioactive waste" cannot be construed to mean the study should ignore storage and transport -- certainly "efforts" in support of disposal -- and focus solely on disposal.

While siting storage facilities entails many (although not all) of the problems that befall disposal, transportation is unique in that it is a relatively short-term enterprise (covering approximately 30 years) with very clear feedback (e.g., successful shipments versus truck and rail accidents). According to the matrix on page 9 of the draft report, the combination of these factors would define transportation of spent fuel and high-level waste (or even TRU waste) as an activity for which DOE does not need a high level of trustworthiness. State authorities, residents of potential corridor states, and even DOE itself would strongly disagree with such an assessment.

DOE opened the section on transportation in its *Draft Mission Plan Amendment* with a very strong statement: "The transportation of radioactive waste may do more to bring radioactive-waste disposal to widespread attention than any other aspect of the Federal waste-management program." The statement goes on to say that DOE will "emphasize demonstrating the safety of transportation to the public." Several department initiatives currently underway are geared toward



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Daniel Metlay
February 26, 1993
Page 2

creating a two-way dialogue with stakeholders (e.g., the Transportation Coordination Group, the Transportation External Coordination Working Group, and cooperative agreements with states in the Midwest, West, and the South). The success of these initiatives depends squarely on the extent to which stakeholders feel they can trust DOE.

Given the fact that DOE, state authorities, and the people residing in potential corridor states (including Nevada) view transportation of radioactive waste as an integral part of the Civilian Radioactive Waste Management Program, it seems the Task Force's report should include an analysis of the unique public trust and confidence issues raised by transportation activities.

Thank you for providing this committee the opportunity to comment on the draft report. If you have any questions about these comments, please feel free to contact Lisa Sattler at 708/810-0210.

Sincerely,

A handwritten signature in cursive script, reading "Harold R. Borchert".

Harold R. Borchert, Director
Division of Radiological Health
Nebraska Department of Health and
Chairman, Midwestern High-Level Radioactive Waste
Transportation Committee

HRB/lrs

enclosure

Page	Paragraph	Comment
i	opening quote	The first sentence of the quote is very awkward -- perhaps part of the quote was inadvertently omitted.
	3 par, 2 sen	Delete "that" after "cultural change".
ii	2 par, 4 sen	Move comma from after "Report" to after "does".
3	4 par	Transportation is omitted from the activities that fall under "radioactive waste management." Transportation is as distinct from disposal as is "stabilizing uranium mill tailings piles," yet it is a fundamental component of the Civilian Radioactive Waste Management Program and should be included. A
9	3 par, 1 sen	Replace "affects" with "affect".
	Matrix	Again, radioactive waste "management" appears to be used as a synonym for "disposal". If one were to analyze transportation according to the factors of time horizons and feedback about success, the results would be quite different from the conclusion reached for disposal. Feedback from transportation is fairly clear (e.g., accidents will be highly visible) and the time horizon can be considered short (several decades compared to thousands of years). According to the matrix, the combination of these factors implies that transportation of spent fuel, high-level waste, or TRU waste is an activity that requires only a small amount of trustworthiness, yet this is clearly not the case. State officials and the citizens of corridor states have a strong interest in making sure the transportation system is safe. Unfortunately, these same people are not convinced that DOE is capable of ensuring safety or that DOE will open its activities to public input. B
10	ft 13	The title of the book should be corrected to read " <i>Nuclear Imperatives</i> ."
	ft 15	Is it possible the surveys were administered by Washington University (in St. Louis), not Washington State University? Also, the draft did not contain Appendix D (or C).
12	Figures	"Confidence in DOE" includes 4 points (very little, some, quite a bit, and great deal), whereas "Confidence in DOE by group" shows 5 points. Presumably both figures refer to the same question, therefore it appears one of the charts should be corrected.
	2 par, 4 sen	Replace "then" with "than".
	2 par, 5 sen	Replace "are" with "is" after "distribution of their views."
13	ft 16	The footnote is actually number 17.

Page	Paragraph	Comment
15	1 par	Replace "advance" with "advanced".
16	6 par, 1 sen	Replace "single-mined" with "single-minded".
	6 par, 5 sen	Delete comma after "'public'".
17	3 par, 3 sen	Replace "by" with "about" after "open-minded". Also, it should be noted that if DOE has a hard time accepting the advice of the NAS or the NWTRB, the department finds it exceedingly difficult to listen to stakeholder groups who are less "technically qualified" to judge the radioactive waste management program. The Western Interstate Energy Board and the state of Nevada have argued that testing full-scale models of shipping casks would enhance public confidence in the safety of the casks, however DOE has consistently maintained that such testing is not necessary from a technical or regulatory standpoint and, therefore, would be a poor investment of resources.
	4 par, last sen	This statement applies to transportation as well. For instance, DOE points to the requirement that shipping casks receive NRC certification as evidence that the casks will be safe. Furthermore, the department takes every opportunity to mention the Sandia crash tests, despite the fact that those tests were performed 20 years ago on older designs (not the "new generation" casks DOE is developing) and the tests were not intended to demonstrate cask safety. In calling attention to these tests, DOE appears to deliberately cultivate the misconception that new casks will undergo these same spectacular crash tests. This misconception is strengthened by vague language in the <i>Draft Mission Plan Amendment</i> . Specifically, although it states on p. 110 that scale models will be used for "design-verification tests," the wording on p. 116 seems to imply that cask vendors will have to perform extensive physical testing on the casks they produce.
	ft 21	", p. 81." should not be italicized.
18	2 par, last sen	Given that the subject of the report is public trust and confidence, it might be useful to flesh out the AEC's reasons for failing "to take the adequate steps to prevent widespread contamination and pollution."
	ft 22	Insert "a" between "licensing" and "defense".
19	ft 25, last sen	"EPA was again given original to implement . . ." is confusing – something appears to be missing.
20	2 par, last sen	Replace "indicate" with "indicates" after "scheme".

Page	Paragraph	Comment	
	4 par, 2 sen	Replace "is" with "are" after "standards".	
	5 par, 3 sen	Replace "into" with "in" after "succeeded".	
22	Table	DOE's statement in the <i>Draft Mission Plan Amendment</i> implies that the department feels transportation is a "major public focus." Transportation should be included in the table with site selection. With regard to attitudes (under "Organizational Culture"), it seems more the case that OCRWM acknowledges a low level of public trust, yet dismisses it as based on "irrational" fear of radiation and only of limited importance. In addition, the department appears to feel that it can start with a clean slate and build public trust and confidence, rather than first trying to wipe out a deficit and move on from there.	F G
23	4 par, 2 sen	Replace "Department's" with "Department".	
24	5 par, 2 sen	Replace "coming" with "forthcoming".	
26	2 par, 1 sen	Transpose "not" and "depend".	
27	5 par, 1 sen	Delete "of our" after "One".	
28	1 par, 1 sen	Replace "advise" with "advice".	
	2 par, 3 sen	Insert "of" between "restructuring" and "organizations".	
	5 par, 2 sen	Replace "have" with "has" and "contractor" with "contractors".	
	5 par, last sen	Replace "for" with "from" after "indistinguishable".	
		Also, contractors play a key role in transportation activities. The Waste Policy Institute is responsible for organizing and planning meetings of the Transportation External Coordination (TEC) Working Group. This particular contractor has demonstrated extreme reluctance in accepting feedback from stakeholders, a characteristic that would help explain the tendency for stakeholders to lump DOE and its contractors together.	H

Page	Paragraph	Comment
30	2 par	Regarding the inclusion of a section on public trust in the <i>Draft Mission Plan Amendment</i> : It is interesting that the tone and format of this document has changed significantly from previous versions. By using "we" liberally, DOE appears to be creating an image of itself as a team of individuals rather than a faceless bureaucracy. Also, many of the technical details have been eliminated, which streamlines the document and makes it easier for the general public to read, but at the same time diminishes its value as a complete source of information.
	4 par	More detail should be provided on the first Director's Forum. The topic of the first forum was early site suitability, a subject that clearly was of primary interest to citizens of Nevada. DOE's decision to hold the forum in Chicago sent a strong message – namely, that the department not only does not <i>want</i> stakeholder input, but will take whatever steps necessary to <i>avoid</i> it.
		Regarding OCRWM's interaction with the public: Many of the participants at the last meeting of the TEC Working Group were disappointed in the poor planning that went into the meeting, especially in the fact that the Waste Policy Institute (DOE's contractor) had not thought it necessary or appropriate to provide an evaluation form to solicit comments from meeting participants on how to improve future meetings. WPI was very resistant to the suggestion that such evaluations should be standard practice.
		OCRWM has expressed the belief that demonstrating an ability to meet deadlines will enhance public confidence. Yet the department has consistently failed to meet <i>document</i> deadlines (e.g., a comprehensive transportation plan was initially scheduled for release in 1987 and has yet to be produced), which can only lead the public to question how the department could possibly meet its <i>production</i> deadlines.
31	1 par	It seems "formally" should be replaced with "informally".
	4 par, 2 sen	Replace "in" with "which" after "ease".
32	1 par, last sen	Delete "be" before "viable".
	4 par, 3 sen	Insert "the" between "to" and "substance".
33	4 par, last sen	Delete "not" before "yet".
	5 par, 1 sen	Insert "to" between "likely" and "arouse".
35	ft 34	Replace "recommendations" with "recommendation".

Page	Paragraph	Comment
40	3 par	Although this sentence refers to shipments, it appears to consider only authorities in the host state. That is, it disregards the need to empower authorities in corridor states regarding the pace of shipments.
	4 par, 1 sen	Replace "internally" with "internal".
45	2 par, 2 sen	Replace "is" with "are" after "successors".

15

Les Bradshaw
Program Manager
Nye County
Nuclear Waste Project Office

3/26/93

A. The Task Force certainly believes that Nye County should be able to participate fully in any adjudicatory hearing held by the NRC. It does not sufficiently understand the legal constraints on how DOE may make grants to the county to know what would be required to implement this particular suggestion. Therefore, it declines to add the recommendation to its Proposed Final Version.

B. The Task Force in its recommendations consistently recognizes the important role local governments can play throughout any deliberations on radioactive waste management issues.

C. The Task Force agrees; see page 23.

D. To improve its clarity the section in question has been substantially revised. See pages 8-10.

E. See response to "D" above.

F. The Task Force agrees with this description of the sociology of the scientific review process. It would expect independent peer review to be sensitive to the issues raised by this comment.

G. Once again, the Task Force consistently recognizes that state and local governments can play critically important roles in the varied processes involved in the management of radioactive waste. Obviously, specific legal authority and financial assistance facilitates their involvement.

H. The Task Force has modified the definition of "public" very much along the lines, although not in the same order, as suggested by this comment. See page 15.

I. The Task Force has modified this language. See page 25.

J. There undoubtedly exists interdependencies between DOE on the one hand and its contractors on the other. Those interdependencies can blur DOE's legal lines of authority. The Task Force has not explored this question sufficiently to know whether this comment raised serious issue at this time.

K. The Task Force here speaks of "compensating" not "compensation." The verb takes on its standard meaning: to counterbalance or offset; to make up or make amends.

L. The language the Task Force adopted adequately conveys the meaning it desires within the context of generalized design principles.

M. This comment is consistent with the recommendations at the very top and the very bottom of page 59.

N. The Task Force agrees; see page 58.

O. Modifications have been made that clarify this point; see the footnote on the bottom of page 52.

P. The Task Force addressed the question of schedules in greater detail in the Proposed Final Version. See pages 25-27 and 53-54.

Q. In order to carry at the recommendation in question, the source term will have to be specified with some precision.

R. The Task Force believes that local governments also represent a specific constituency. As such they can enter into agreements with DOE to protect it. The language has been modified to clarify this point (page 61).

March 26, 1993

Dr. Daniel Metlay
Secretary of Energy Advisory Board AC-1
1000 Independence Ave. S.W.
Washington, D.C. 20585

Dear Dr. Metlay:

Nye County appreciates the opportunity to comment on the discussion draft of the "Final Report of the Secretary of Energy Advisory Board Task Force on Radioactive Waste Management". Nye County has been an active observer of the Task Force's work and has regularly contributed to the Task Force's deliberations. We have appreciated the openness with which the Task Force has received our input, and the demonstrated effort to engender confidence and trust in its work -- notwithstanding a few instances where its "practices" were not consistent with its objectives. Of particular note was the Task Force members taking the time to ask follow-up questions of presenters with what appeared to be genuine and empathetic interest. This simple technique helped reinforce with the presenters that the Task Force was listening and attentive.

In general, the Task Force is to be commended for a thorough, thoughtful, and insightful analysis of the public trust and confidence issue. The conceptual underpinnings laid out in pages 1-22 were particularly helpful for focusing the reader on a subject that is admittedly more intuitive than intellectual. The findings with respect to the Office of Radioactive Waste Management were pointed and on the mark.

Please note the enclosed comments. We request that the Task Force give serious consideration to our analysis as it completes its final report. We also request that the Task Force add one additional recommendation:

OCRWM should support full affected party participation before the NRC in all licensing proceedings for the candidate repository site. Support should extend to the continuation of financial assistance for preparation and participation, as well as for potential adjudicatory hearings once DOE's license application has been docketed.

| A

REPLY TO:

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Page 2

Dr. Metlay

Comments on Public Trust and Confidence

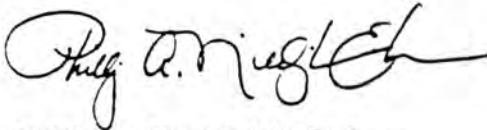
Finally, you may be aware that Nye County has made a Repository Program transition during the time period of your study. The County just recently appointed me to assume the important role of managing Nye County's efforts to monitor and oversee DOE's implementation of the Yucca Mountain Project. Phillip Niedzielski-Eichner has returned to his projects administration role after performing interim program manager responsibilities.

Please feel free to contact me at (702) 482-8183, or Phillip Niedzielski-Eichner at (703) 818-2434, regarding our comments.

Very truly yours,

Les W. Bradshaw
Program Manager

By:

A handwritten signature in black ink, appearing to read "Phillip A. Niedzielski-Eichner". The signature is fluid and cursive, with the first name "Phillip" being more prominent.

Phillip A. Niedzielski-Eichner
Projects Administrator

Enclosure

cc: County Commission
W. Offutt, County Manager
E. Holstein
M. Murphy
Planning Information Corporation

**NYE COUNTY, NEVADA COMMENTS ON DRAFT FINAL REPORT
SECRETARY OF ENERGY ADVISORY BOARD
TASK FORCE ON RADIOACTIVE WASTE MANAGEMENT**

GENERAL OBSERVATIONS

The Task Force is to be commended for a thorough, thoughtful, and insightful analysis of the public trust and confidence issue. The conceptual underpinnings laid out in pages 1-22 were particularly helpful for focusing the reader on a subject that is admittedly more intuitive than intellectual. The findings with respect to the Office of Radioactive Waste Management were pointed and on the mark.

Nye County reiterates the program-level issues that continue to undermine the Federal government's credibility relative to Yucca Mountain:

- Adherence to an unrealistic schedule for acceptance of spent fuel from the utilities by 1998 and repository site suitability evaluation and licensing by 2010.
- An unwillingness to establish contingency plans for pursuing an alternative candidate site to Yucca Mountain, as well as a second repository site.
- Uncertainty relative to the characteristics and waste storage requirements of all high-level waste potentially destined for deep geologic disposal. In light of the potential volume and the weak Congressional and DOE commitment to the 77,000 metric ton limit, the first repository appears destined to become the second, third and fourth repository location.
- Continuing efforts to seek relief from established regulations, aided and abetted by Congressional intervention.
- Inefficiencies in contracting arrangements, ranging from overlaying old-time NTS contractor relationships onto the Yucca Mountain project, to proceeding with an M&O contractor arrangement even after two sites were eliminated by Congress. The result is an overhead-heavy program which drives up program costs and prevents a more comprehensive surface-based testing program.
- Persistence in constructing the ESF drifts to repository specifications.

SPECIFIC COMMENTS

The following specific comments are offered by Nye County to give additional strength to the analysis and recommendations offered by the Secretary of Energy's Advisory Board's Task Force on Radioactive Waste Management.

- Page 2, third full paragraph. The Task Force acknowledges that within the American structure of government, the authority of those who govern derives from the willingness of the citizens to be governed. The Constitution, in effect, defines the process by which citizens delegate governing authority their government; it also the means by which that authority can be withheld. The ultimate way in which the public can hold government accountable is through the ballot box.

B

If one accepts the principle that "all politics are local" then it would be useful as the Task Force builds its conceptual framework within these introductory pages to acknowledge the important role local government oversight can play in the overall context of public trust and confidence.

Nye County respects the work of the U.S. Nuclear Regulatory Commission (NRC) and the Nuclear Waste Technical Review Board (NWTRB) as they conduct their oversight activities; the County is also on record admonishing the Federal government to give serious attention to the State's technical oversight work. The reality is, however, that in a national program as complex and controversial as the civilian high-level waste repository program, the residents would prefer to also have a local monitoring and oversight capability.

The point is accessibility and accountability. The Nye County Commissioners, the County Manager, and the Nye County Repository Program Manager can all be immediately reached by the residents of Nye County. In addition, Commissioners stand for re-election every four years. The County Commission and staff are able to focus solely on the interests and needs of Nye County residents. State, and certainly Federal, officials have many more considerations to balance than Nye County's best interests.

- Page 4. The dotted line on the graphic might be more aptly named "Desired" as opposed to "Ideal." C
- Page 6-8. The discussion of common choices and tensions was interesting and worthwhile. However, this section requires additional elaboration to be fully beneficial. As it stands, it is somewhat cryptic and academic. The sections would benefit from a more operationally oriented discussion. One example of an overly abstract assertion is as follows:

"But what makes it (having to resolve difficult value trade-offs) even more daunting is the combination of how support is distributed for any given value and the strong correlation among them all." D

The subsequent sentence then refers to a graphic that demonstrates a bimodal group reaction to the circumstances, but does not elaborate on the significance this reaction has for making value tradeoffs.

- Page 8. Following up on the previous comment, the four-square matrix identifying problem solving strategies requires further elaboration and, again, an effort to provide operational examples. E
- Page 9, second full paragraph. In referencing the technical expertise demanded by the project, an assertion is made that, "when validating alternatives, there must be trust that uncertainties are resolved in an unbiased fashion". Actually, the next sentence, "there must also be confidence that activities will be implemented in good faith" is the more relevant criterion. F

The public appears to understand what the scientific community has not yet been willing to fully admit. A person cannot completely divorce himself from his personal belief system such that the science he practices can be conducted without personal bias. The belief that

there is such a thing as "totally objective science" has, unfortunately lead to scientists being affronted by citizen challenges to their credibility and national policy being formulated with misplaced confidence.¹

The "good faith" criterion calls for scientists to specify the biases that may affect their study design, data collection and analysis, and ultimate conclusions. Independent peer review or stakeholder oversight can then validate or challenge their assertions with all the "data", not just the experimental results and analysis.

Page 9 second full paragraph. The discussion concerning the requisite level of trustworthiness or the imperative for trustworthiness is well taken. The Task Force notes the analysis it describes is not "novel". What perhaps is novel, is that local communities, confronted with a complex federal project like the Repository siting effort, need not rely solely on the Federal government for comfort. The unique experiment undertaken by Congress, perhaps unwittingly, through the Amendments to the Nuclear Waste Policy Act of 1982, is that for the first time, local communities were given the authority and funding to carry out a reasonably meaningful independent oversight effort.

Nye County is fearful that if the importance of this "experiment" is not explicitly acknowledged, in this instance by the Task Force, that those funds historically appropriated for this purpose will be too easily cut under the guise of cost saving.

Page 11. Nye County suggests that the Task Force establish three definitions for the public which are now encompassed in one. The first public, and most important from the standpoint of accountability, is the general public; those citizens who make no assertions as to affiliation and are essentially "non-aligned." The second public is a "governmental stakeholder" consisting of State, Local, and Tribal Governments. The third public can be referred to as a "declared" stakeholder, consisting of all other outside groups and associations.

The distinction is helpful, at least from Nye County's perspective, because it helps address the fact that governmental entities are directly accountable to the "public", while declared stakeholders are accountable only to their collective membership. DOE should bear this reality in mind when it initiates public participation strategies, or seeks to negotiate the resolution of problems. This is of particular interest, with the national emphasis directed toward establishing site specific advisory committees.

¹Please see two books from the series Environmental Ethics and Science Policy:

Mayo, Deborah and Hollander, Rachele, Acceptable Evidence: Science and Values in Risk Management, (Oxford University Press), 1991.

Cook, Roger M., Experts in Uncertainty: Opinion and Subjective Probability in Science, (Oxford University Press), 1991.

- Pages 15-18. We applaud the Task Force's analysis of OCRWM's institutional context. We offer the following additional point:

As statutorily affected parties, the host State, and the situs county, do in fact have special and unique rights under the NWPA as amended. The key right is to on-site representation, and the affiliated access to data and information. All counties adjacent to Nye, though, also have rights to review and comment on site characterization activities.

The County particularly appreciates the Task Force's acknowledgement of its unique standing (in addition to "situs" the County refers to itself as the "first among equals"). Historically, the County has had to exert extraordinary effort to even be invited to the table. The reality is that the repository site and the end point for all transportation routes, with all the incumbent future risks, are within Nye County.

Nye County supports the opportunity for adjacent counties to monitor repository-related activities and issues. However, their oversight role should be commensurate to their exposure to health and safety risks and socioeconomic impacts.

- Page 28, finding #2, regarding the Department's extensive use of contractors. The Task Force missed the mark when, after finding that there is only one DOE employee for every seven contractor employees working for the Department, it notes only that contractors will have to take the same steps as the Department to strengthen public trust and confidence. In reality, this finding goes to the very heart of the role of government and the accountability systems established by the Constitution that we so cherish. Who, for example, is in control of the Yucca Mountain Project? The National Academy of Sciences was recently told that its recommendation to DOE to enlarge its drilling program at Yucca Mountain would be "too expensive."²

One might conjecture that the requested drilling would be too expensive because DOE has overlaid test site contracts onto the Yucca Mountain Project. Practices that have been built up over many years of testing are not likely to be the same that are needed to establish sampling and monitoring wells.

- Page 29, Finding #1, second paragraph. The Task Force notes that exploding repository related costs may foreclose the possibility of addressing concerns about equity. The interesting observation about the Task Force's assertion is that financial assistance costs to conduct monitoring and oversight activities are viewed by DOE as discretionary and not an entitlement. In this light, in tight budget years, financial assistance payments can become susceptible to being reduced or cut.
- Page 30, Finding #3. The Task Force references the draft mission plan amendment as an example of a document that was drafted without pre-decisional public input. Other examples include DOE's development of its issue resolution strategy, vis-a-vis, NRC licensing; the process for completing its Mission 2001 exercise; the end of the year announcement by the Secretary that DOE would proceed forward to develop a distributed

²See "Inside Energy/ with Federal Lands", March 15, 1993.

- Page 38, Recommendation #5. The recommendation to expand the peer review network is highly desirable; this expansion, however, should not be limited to experts from other countries, but should include state and local representatives as well. | N

- Page 40, Recommendation #3. The call to empower host states, affected communities and tribes and citizen groups is to be commended. However, the two mechanisms provided as bullet #1 and bullet #2 should only be considered examples. The empowerment that will induce greater confidence will need to be negotiated on a site specific basis, since the risks, impacts and potentially interested parties are likely to be unique to each site. | O

Parties seeking empowerment must also be willing to accept responsibility; those accepting responsibility must also be able to be held accountable for their actions. Governmental stakeholders should, therefore, take the lead with empowerment opportunities.

- Page 40, fourth bullet under Design Basis. As has been pointed out by the NAS and the NWTRB, unreasonable schedule milestones are one of the core issues affecting public trust and confidence in DOE's past repository-related performance. | P

- Page 43, Recommendation #3, first bullet. Regardless of the suitability of Yucca Mountain for a high-level waste repository, the source term and waste stream should be definitively established. Ambiguity in the amount of commercial high level waste, the 77,000 metric ton statutory constraint notwithstanding, compounds the first repository uncertainty. DOE's inability to fully characterize defense waste is a significant contributor, as well. | Q

The known waste volume far exceeds the 77,000 metric ton limit for the first repository. Ever since the decision was made not to pursue the siting of a second repository, DOE has adamantly refused to explore with interested and affected parties the need for additional storage space for high level nuclear waste.

- Page 43, first bullet. Nye County interprets "terms and conditions" to the situs county as programmatic or procedural in nature. Negotiating financial arrangements, unless they are entitlements that have been denied, is unrelated to building public trust and confidence. | R

- Page 43, Recommendation #2, first bullet. The call for the repository's predictable performance to exceed by a substantial margin the standards set up by the regulators is to be commended. The Task Force understands, we are sure, how widely at variance this recommendation is relative OCRWM's past performance.

storage site alternative to the MRS; and, of course, the seminal decision to forgo the siting process for the second repository.

- Page 33, second paragraph. EM does indeed set out an ambitious and comprehensive set of objectives for its public involvement activities. Nye County offers a case example of where the Nevada Test Site's actions have not been consistent with the Department's objectives. Since its inception as the site for nuclear testing, the Nevada Operations Office (NVO) has had very few official dealings with Nye County. Yet, the whole of the Test Site is within the County's jurisdiction. The County can surmise that its population base has historically been insignificant relative to Clark County, and in particular, Las Vegas, where NVO was established.

Where Nye County was once a population of a few thousand, it has now grown nearer to 20,000. Nye County believes that it is time that Nye County and NVO establish a government-to-government relationship on matters of interest and concern to both parties. This includes the implementation of clean-up planning for the Test Site, land use planning, and the establishment of a site specific advisory board.

- Page 35, third paragraph. The most significant mis-assertion made in the Task Force's report is that compensation can be an off-set to a loss of trust and confidence. Nye County has historically made distinctions between compensation and mitigation. Mitigation is an entitlement due the County to address negative Repository related socio-economic impacts. Compensation, on the other hand, has historically been viewed as a tool for off-setting the burden of potentially being the Nation's repository for the storage of high-level nuclear waste. In either case, compensation and mitigation will only affect public trust and confidence inversely; i.e., if they are not paid, they will diminish the public's trust and confidence in DOE. However, making a payment to them is highly unlikely to be the basis for restoring that which was previously lost.

- Page 36, fourth bullet. Again, clarity of terminology is very important when discussing the sensitive issue of financial arrangements between the federal government and other affected governments. The following is recommended as an alternative design basis statement:

- Providing sufficient financial assistance to affected governments to conduct an effective monitoring and oversight program commensurate with the nature and degree of risk to which their citizens are exposed; mitigation funds to offset negative socio-economic community impacts; good faith compliance with payments-equivalent-to-taxes provisions; and finally, good faith negotiations with affected parties for benefit payments intended to compensate for inequitable distribution of the national burdens for treating or storing toxic waste.

- Page 37, Recommendation #3, first bullet. Within the DOE system are a few site and headquarters' managers who seem to have achieved a degree of public trust and confidence. These individuals ought to be identified and the behaviors that they have exhibited documented. These traits could then be incorporated into the training program.

Beatrice Brailsford
Eastern Idaho Coordinator
Snake River Alliance
Pocatello, Idaho

3/11/93

A. The language of this recommendation has been modified. See page 56-57. It needs to be evaluated as part of a larger set of suggestions that will need to be adopted and faithfully implemented.

B. The Task Force disagrees with this characterization. It, in fact, found that the loss of public trust and confidence was due to the public's experience with DOE and not due to the public's unwillingness to believe what the Department had to say. See page 37.



Snake River Alliance

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March 11, 1993



Dr. Daniel Metlay
Task Force Director
Secretary of Energy Advisory Board
1000 Independence Avenue SW
Washington, DC 20585

Dear Dr. Metlay:

The Snake River Alliance is an Idaho-based 1,200-member citizens group working on issues of radioactive waste, nuclear weapons production, and related subjects. We have focused on the Idaho National Engineering Laboratory since 1979. Underlying all our work is the core understanding that public agencies doing the public's business with the public's money, presumably at the public's behest, must be accountable to the public.

We appreciate the Task Force's analysis of the sources of the striking absence of public trust in the Department of Energy. Citizens simply do not believe the DOE; nor are we confident of its ability to do our business.

But the solution proposed for the DOE's credibility problem begs the Task Force's own analysis. The Task Force's draft Final Report suggests moving all the activities of the Office of Civilian Radioactive Waste Management to Nevada. What would this accomplish? Nevada would get more money. What would this accomplish? Nothing. | A

After a good analysis of the DOE's grave problems, the Task Force seems to have leapt to an unspoken assumption we often face when dealing with the DOE: the problem is not that the DOE is not believable, but instead, that the public is refusing to believe. | B

We are quite confident that any attempt to purchase a public suspension of disbelief would be no more successful in Nevada than it would be in Idaho.

Sincerely,

Beatrice Brailsford
Eastern Idaho Coordinator



Howard Eckert
Acting Director
Office of Hanford Programs
Office of Waste Management
Environmental Restoration and Waste Management
US Department of Energy
Washington, DC

5/5/93

- A. The Task Force agrees; see page 2.
- B. The Task Force agrees, see page 4.
- C. The Task Force believes that the audience for this report is familiar with the phrase "back-end of the fuel cycle." It does define it parenthetically.
- D. The Task Force disagrees. Bargain is the word that best describes the compromises reached in enacting the NWPA.
- E. The discussion of the EM program has been substantially expanded. See pages 6-8 and 28-35. Only the regulators of that particular program are considered.
- F. This idea has been incorporated on page 31.
- G. The Task Force agrees; see page 37.
- H. The language used was confusing. Modifications appear on page 38.
- I. The Task Force proposed a variety of mechanisms for increasing public involvement in the Department's decision-making process. One or more might serve the purposes and functions of a Public Oversight Group.
- J. The Task Force admits that the recommendations could be twisted so that they are used for punitive rather than constructive purposes. DOE's managers will have to maintain a watchful eye to ensure that such distortions do not occur.



Department of Energy
Washington, DC 20585

May 5, 1993

Dr. Daniel Metlay
Task Force Director
Secretary of Energy Advisory Board
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Dear Dr. Metlay:

Thank you for the opportunity to review the *Draft Final Report of the Secretary of Energy Advisory Board Task Force on Radioactive Waste Management*, dated December 1992. The issue of strengthening the public's trust and confidence in the Department has and will continue to play a vital role in our waste management efforts. Your advice in this area is a welcome step to help us support this goal.

Our comments on the report are enclosed for your consideration.

Sincerely,

Charles L. O'Hall

for Howard J. Eckert, Acting Director
Office of Hanford Programs
Office of Waste Management
Environmental Restoration
and Waste Management

Enclosure

COMMENTS BY THE OFFICE OF HANFORD PROGRAMS
ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT

on

Draft Final Report of the SEAB Task Force on Radioactive Waste Management

1. On page 2, paragraph 2, the second sentence begins a sequence that reads, "By default, responsibility falls to each institution to engage the matter (of trust and confidence) as it sees fit...Ironically, those organizations that try genuinely to struggle with the issue expose themselves to the greatest risks. Their established patterns of external support and internal process almost always are disrupted and must be recreated and reconstructed." (emphasis supplied)

COMMENT: This statement is far too general to be characterized with "almost always".

2. On page 3, paragraph 4, the third bullet states, "Provide expanded storage facilities."

COMMENT: Expanded doesn't apply in this context.

3. On page 4, in discussing Commercial Radioactive Waste Management, the AEC's rule apportioning responsibility for the back-end of the nuclear fuel cycle.

COMMENT: This statement assumes that the back-end of the nuclear fuel cycle is a commonly used terminology and should be clarified.

4. On page 13, footnote # 16 at the bottom of the page.

COMMENT: This footnote has been incorrectly numbered. This should be footnote # 17.

5. In the section on the Civilian Radioactive Waste Management Program on page 16, reference is made to the term "bargain" as in political bargain or economic bargain.

COMMENT: The use of the term bargain is not clearly understood. A better term might be "alternative" or "choice".

6. In the same section on Civilian Radioactive Waste Management, on page 17, the four external bodies in a position to give technical advice are mentioned.

COMMENT: To be consistent, the applicable regulatory groups for the EM and DP Programs (for example the DNFSB) should be discussed in the following section on Environmental Restoration and Defense Waste Management.

7. On page 20, paragraph 3, the third sentence ends with a time reference: "...this year."

COMMENT: This reference should be observed and the appropriate change made in case the Report is not issued with a 1992 date.

8. On page 21, paragraph 2, the last sentence reads, "To the extent that the program does not succeed within its "window of opportunity", many of the pressures it now confronts will only be exacerbated."

COMMENT: This negative conclusion might better be supplied with proper emphasis by appending the following: "The safest means of relating schedule and technological advances is to avoid adopting schedules that are based on the forecast development of new technology. It is very difficult to schedule technological "breakthroughs". Instead, let the new technologies provide windfall improvements to the schedule."

9. Under General Finding # 3 on page 24, the use of the acronym NIMBY.

COMMENT: It would make more sense if NIMBY were spelled out at least initially so that it is clear to everyone what NIMBY stands for.

10. On page 25, paragraph 1, the second sentence implies that DOE, under certain circumstances, "...can better afford...to reduce trustworthiness..."

COMMENT: The appropriateness of this statement is questionable.

11. On page 36, paragraph 2, bullet 1.

COMMENT: Acknowledge the potential value of a Public Oversight Group, organized and supported by the local DOE entity.

12. On page 37, item 2, the second bullet reads, "indicate how activities carried out since the last report have been either consistent or inconsistent with those (major Program policy) portions."

COMMENT: Maximum emphasis should be added to this point. It represents the communication failure of a large percentage of public interaction. If they (anyone) can understand an action, they can better appreciate it.

13. On page 37, item 2, the last bullet addresses the "...changes that affect negotiated milestones..." question.

COMMENT: This is another high emphasis item. The political resistance to giving any indication that a negotiated milestone is in jeopardy (until it is already obvious and trust and confidence have already been lost) must be overcome in favor of timely openness.

14. On page 41, item 1 poses measures that "...might be adopted..." to "...promote a new culture within the Department."

COMMENT: The suggestions under item 1 would be very difficult to implement objectively and an effort to apply subjective interpretations may result in a challengeable base that can be used for punitive rather than constructive purposes.

15. On page 41, item 3, the third bullet reads "Increase organizational redundancy on safety critical activities," and on page 42, the first bullet reads "Institute overlapping self-regulatory processes."

COMMENT: Redundancy and overlapping responsibilities do not necessarily lead to greater effectiveness. One effective organization is better than two ineffective organizations.

Luther Carter

No affiliation mentioned, but he is the author of one of the best studies of
nuclear waste management
Washington, DC

3/9/93

This comment develops an extended argument about the need to recast the mission of the Department of Energy in the state of Nevada. The Task Force takes exception to the assertion that no amount of reform will lead to relationships of mutual trust so long as state officials refuse to enter into cooperative relationships with DOE. In fact, the state interacts with the Department today in a number of ways: it carries out oversight activities at Yucca Mountain, it comments on draft documents, it often participates in conferences where both technical and institutional issues are addressed, and it even provides informal input at the very earliest stages of decision-making.

While the Task Force feels that expanding those relationships will be very difficult, it does not rule out the possibility, that with a commitment to restructure fundamentally key aspects of Departmental behavior, gradually agreement can be reached on mutual confidence-building measures. In any event, the panel believes that its recommendations will go far to make DOE more worthy of trust, not only in Nevada, but in the dozens of other locations where it carries out radioactive waste management activities.

The Task Force is intrigued by the suggestions that the connection between the Yucca Mountain Project and the defense waste clean-up program be emphasized and that both be linked with new missions for the Nevada Test Site. It cannot make an informed judgment whether that reorientation will have the consequences claimed.

Luther J. Carter, March 9, 1993

Comments on Draft Final Report of the Secretary of Energy's
Advisory Board Task Force on Radioactive Waste Management

This report of the task force on building public trust and confidence is, in the opinion of this reviewer, excellent insofar as it goes. A specific recommendation that I very much favor is the one calling for creation by the Department of Energy of Safety Review Boards on which stakeholders as well as DOE managers would be represented. As the task force suggests, this is a form of public participation that is truly empowering. If stakeholders can be drawn into a genuine two-way relationship with DOE, the decision-making authority vested in such a board could indeed reach to such critical questions as how long a capability for waste retrieval should be maintained. It might even be given some voice in the design of the overall repository system.

But while the report has much to commend it I believe it could be strengthened by going well beyond the question how DOE should conduct its relationship with stakeholders in the carrying out of its mission. Equally important in building trust and confidence, indeed more important, is the question what that mission is and how it is defined and articulated. In defining the "first principles" underlying its thinking, the task force observed that "public trust and confidence is not a one-way street" and that trust must be reciprocal and be reflected in the behavior of both the department and representatives of the public. This in my view is an absolutely key point and much of what I have to say will explore possibilities for bringing about such a spirit of reciprocity and mutual trust. But this exploration cannot be in the abstract and must turn on the content and articulation of the DOE mission.

It should be useful here to point to the sharp contrast between how host states generally view DOE's clean up program at the weapons production sites and how Nevada views the DOE exploration of Yucca Mountain for a spent fuel and high-level waste repository.

Consider first the matter of the defense clean up. Nuclear wastes at the defense sites were generated in a weapons production program which was long opposed by peace activists and which might ultimately have led to raging national controversy. But weapons production has now ceased and dismantlement of weapons has begun. Thus no longer are the production sites centers of a controversial activity, and the DOE program to clean up these sites is backed by a solid national consensus. As the task force points out, the relationship between DOE and stakeholders will not be free of tension and conflict, but their differences will be over priorities and planning details, not over ultimate goals or what in the broad needs to be done. The relationship between DOE and the host states and stakeholders is

improving and there is already the makings of mutual trust and respect.

A totally different situation obtains with respect to the DOE effort in Nevada looking to the building of a repository at Yucca Mountain principally for spent fuel from commercial power reactors. Nevada says "never," and its DOE-funded nuclear waste project office serves principally as a staging mechanism for attacks on the DOE program. The state shows no interest in cooperation with DOE, for in its mind cooperation would in reality turn out to be cooptation. Its posture of intransigent opposition has for the most part been encouraged by the antinuclear groups, by certain of the major environmental groups (including the Sierra Club), and to a degree by the press.¹ The task force has itself pointed out some major distinctions between the clean up of the defense production sites and the Yucca Mountain project. Surely a salient difference is the fact that the spent fuel that would go to this repository is generated by an intensely controversial nuclear enterprise that is still ongoing.

The fearsome nuclear imagery inspired by Hiroshima and Nagasaki, nuclear testing, and events such as Three Mile Island and Chernobyl may hang more or less equally over the defense clean up sites and any prospective "nuclear dump" at Yucca Mountain. But the defense clean up deals with radioactive waste left from activities now shutdown; the Yucca Mountain repository would receive spent fuel from power reactors which for the most part continue to operate--and if proponents of nuclear energy have their way, from reactors yet to be built. Spent fuel would come from afar to a state which has no nuclear reactors and sees itself, correctly, as the place targeted by Congress somewhat in desperation after the political collapse of a national site screening plan. It is argued moreover that to impose this repository on an unwilling state is gratuitous because everyone agrees that spent fuel can safely be stored at the reactor sites for many years, indeed well into the next century. If the Nuclear Waste Policy Act Amendments of 1987, designating Yucca Mountain as sole candidate for a repository, still commands majority support in the Congress it may well be because few senators and congressmen want to reopen an issue as controversial as this one.

1. An example of the latter can be seen in the New York Times magazine lead article of November 18, 1990 treating geologist Jerry Szymanski as a veritable folk hero for his predictions of calamitous seismic and hydrologic change for a Yucca Mountain repository, predictions that have fared poorly under scientific peer review.

So now we come back around to the question of how the relationship between DOE and the state officials and other stakeholders in Nevada is to be put on a "two-way street" in keeping with the first principles of the task force. There is no direct way to accomplish this as long as top state officials are refusing even to attempt entering into a cooperative relationship with DOE with respect to the Yucca Mountain project. No amount of reform of the kind recommended in the task force report will be availing. An approach that may hold some promise is to strengthen the project rationale in such a way as to make the case for the project more compelling and to increase support for it across the country, with particular attention to the numerous local and national groups eager to see the clean up of the defense sites succeed. This could be important inasmuch as Nevada officials cannot remain indifferent to any marked shift of national opinion in which their intransigent opposition is cast in an unsympathetic light.

One rather obvious way to strengthen the program rationale would be for DOE to point out repeatedly and untiringly how interdependent the Yucca Mountain project and the clean up of the defense sites really are. A repository at Yucca Mountain would be every bit as important to the success of the clean up as the WIPP repository at Carlsbad, New Mexico, because it would receive all the high-level waste recovered and vitrified from the underground tanks at Savannah River and Hanford and from the calcine bins at Idaho Falls. Although the defense high-level waste would represent only a modest part of the total inventory of a fully loaded Yucca Mountain repository, there would nonetheless be many thousands of canisters of it constituting by far and away the most radiotoxic materials now present at the weapons production sites. Thus failure to make progress toward establishing a permanent repository can only leave the clean up stymied with respect to achieving some of its major objectives.

Another point that deserves to be repeatedly and forcefully made is that proposals for either long continued at-reactor or central monitored retrievable storage of spent fuel will not in the final analysis have or deserve much credence unless there is clear progress toward establishing a permanent repository. The conceptual and political flaw in looking to interim surface storage of spent fuel as an alternative to the Yucca Mountain project is that the interim nature of this expedient is speculative and unconvincing absent promise of permanent geologic disposal at some point in the future. This flaw already has impeded the work of the U.S. Nuclear Waste Negotiator, as was evident last year when Governor Michael Sullivan of Wyoming cited it explicitly in his letter to the Fremont County Commissioners disapproving a proposed study of the county's hosting a MRS facility. Governors of states with nuclear power stations and a continuing build up of spent fuel are likely sooner or later to be expressing similar concerns.

The foregoing talking points for continued work toward establishing a repository should be still more persuasive, I believe, when one considers the potential for redefining the Yucca Mountain project as a research and development endeavor aimed at reducing uncertainty (and public perceptions of uncertainty) in geologic disposal, whether at the Nevada site or elsewhere. There is of course reason enough to be working resolutely toward establishing the first geologic repository just in light of the spent fuel and high-level waste generated by existing reactors and the defense sites. The disposal job that awaits is challenging enough whatever the longer term future of nuclear energy. There should be broad agreement moreover that if use of nuclear power is to expand or even long continue at its present level it should be made as safe as possible. To this end work toward more nearly inherently safe reactors now seems increasingly in vogue; while inherent safety may never be fully achievable, looking to it as a goal is a way of encouraging nuclear engineers to give their creative imagination free reign. In my view an analogy can appropriately be drawn between inherent safety as a goal for reactor design and operation and as a goal for nuclear waste isolation. Furthermore, the Yucca Mountain project could be made a means of testing concepts and design strategies for ensuring that geologic and engineered containment of radioactivity will continue over the period of hazard.

This would mean giving the present project a much more experimental emphasis--the task force, as I read its report, recommends this--and giving a much larger place to exceptionally robust engineered barriers (e.g., very longlived canisters) as part of the overall containment system. Perfecting retrieval systems as a fail-safe against the chance of unexpected performance failures would also deserve careful attention. As the task force knows, such approaches have been explored and recommended by the National Academy of Sciences Board on Radioactive Waste Management and the Nuclear Waste Technical Review Board and by a number of highly qualified individual experts, such as Lawrence Ramspott of the Lawrence Livermore National Laboratory and Eugene Roseboom and William Dudley of the U.S. Geological Survey. The problem of dealing with uncertainty in nuclear waste isolation is generic, so a successful effort to address it at Yucca Mountain might be quite useful in establishing other repositories in the United States and abroad.

The foregoing changes in the definition and articulation of the Yucca Mountain project would, I believe, make for the stronger program rationale that is needed and put the project on a much sturdier political footing nationally. Directly and indirectly, the changes might also cause Nevadans to think somewhat better of the project and perhaps lead state officials to edge toward the "two-way street" the task force sees as essential to a meaningful relationship. But to this end

something more could be done. Nevadans could be urged by DOE--and, one might hope, by the White House--to look upon the Yucca Mountain project as part of a new post-Cold War mission for the Nevada Test Site which they are invited to play a significant part in planning and bringing about. Nuclear weapons testing began at the NTS forty years ago and has sustained a sizable payroll; testing, it now appears, is to be phased out over the next few years. Accordingly, there is again a lively interest in alternative uses for the Test Site. I say "again," for only 16 years ago the Nevada Legislature was, by formal resolution, urging that the NTS be used under certain conditions for nuclear waste isolation and solar projects.

That early receptiveness to waste isolation proved shortlived because once the siting of repositories became hotly controversial nationally, Nevada was not going to welcome something fiercely rejected by other states--and ambitious Nevada politicians were soon exploiting the waste issue for their own purposes. But the time may now indeed be propitious to bring Nevada into a wide ranging discussion of how the Test Site shall be used in the future. Nuclear waste isolation presumably would be a major part of the new mission if Yucca Mountain is found suitable but other activities might also be a real possibility.² Given a genuine discussion along these lines DOE, the state and local officials, and other stakeholders would be on their mettle to make their positions believable and attractive. For DOE's part, careful observance of the reforms proposed by the task force might make the difference between Nevada's continued rejection of the Yucca Mountain project and a constructive engagement with the problem of allowing this project to make the most of its potential.

2. U.S. Senator Harry Reid of Nevada, joined by Governor Bob Miller and U.S. Senator Richard Bryan, has been advocating in particular using the Test Site for a demonstration of "solar hydrogen." Arrays of solar collectors at the Test Site would produce the electricity needed to power electrolyzers used to split water into hydrogen and oxygen. Solar hydrogen as a concept for creating a major new source of transportable, storable fuel is described by Joan Ogden and Robert H. Williams in Solar Hydrogen: Moving Beyond Fossil Fuels (Washington, D.C.: World Resources Institute, 1989). Its congressional advocates includes Representative George Brown (D-Calif.), chairman of the House Committee on Science and Technology.

Jim Firkins
Co-Coordinator
State of New Mexico
Energy, Minerals, and Natural Resources Department
Santa Fe, New Mexico

1/20/93

General observation: The Task Force found these comments to be especially helpful in revising the Draft Final Report. It had tried to indicate in that document that it saw in the EM program greater possibilities to strengthen public trust and confidence than it saw in the civilian waste program. That distinction was not well enough presented so the Draft could be read as too "pro-EM." Modifications have been made that hopefully clarify the Task Force's original intent. Of prime importance is the separate discussion of the Waste Isolation Pilot Plant.

A. The surveys conducted by the Task Force do not show higher levels of trust and confidence for EM than for OCRWM. They do show that the former has increased its level of trust among significantly more stakeholders (50% to 38%) than the latter. The Task Force feels that *changes* in trust level are as significant as the absolute level itself. See page 17.

B. By "old order" the Task Force means an almost single-minded focus on the national security components of DOE's mission. Just because that order has passed does not mean Congress will pass all the legislation the Department requests. That is especially true with the legislators from states primarily affected by proposed laws cannot agree among themselves what constitutes the best approach.

C. It is undeniable that EM has created an elaborate structure of plans, procedures, and technical analyses. The Task Force believes it is an open question how effectively that structure will operate and whether it will succeed in increasing trust and confidence in that program. See page 30 and page 48.

D. The Task Force recognized that substantial changes in Figure 9 (page 35) were required once defense complex clean-up and on-site waste management were considered separately from WIPP. Although the panel did not fully agree with the suggested changes, they did incorporate a number of them.

E. The Task Force substantially revised its discussion of the EM program. It devoted considerably more attention to WIPP and the problems it has encountered. It believes it

has made changes that respond to the spirit, if not the specific details, of these comments. See pages 6-8 and 28-34.

F. The Task Force believes that this discussion is critical to its conclusion that EM may only have a short time to demonstrate a capacity to solve problems and merit public trust and confidence before the relatively favorable institutional environment in which it now operates becomes more hostile. The six issues suggest why that change might come about. The comment that these issues present problems for OCRWM as well suggests the consequences of such a transformation.

G. The Task Force feels that the civilian radioactive waste management program is faced with unique challenges to strengthen public trust and confidence. That warrants additional attention and advice. If the foreshadowed changes in EM's institutional environment do occur, then additional recommendations for that program could be derived from those now advanced for the civilian program.

H. See responses to "D" through "F" above.

I. The Task Force agrees; see footnote 27 on page 15.

J. The Task Force takes the phrase "or cannot in some other way be compensated for" to mean that a deficit in satisfying one of the conditions might be made for by satisfying others more completely.

K. The Task Force agrees; see pages 6, 28-30, and 35.

State of New Mexico
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
Santa Fe, New Mexico 87505



January 20, 1993



BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

Dr. Daniel Metlay, Director
Task Force on Radioactive Waste Management
AC-1
1000 Independence Avenue
Washington, DC 20585

Dear Dan:

Please find enclosed my comments on the Draft "Final Report of the Secretary of Energy Advisory Board Task Force on Radioactive Waste Management". This draft incorporates several welcome adjustments to the previous draft, particularly in terms of implementation.

I feel these comments are timely, and urge you and the Task Force to give them serious consideration. The primary focus of these pages is compliance with your request that I point out to the Task Force where I believe the draft Report paints too flattering a picture of EM.

As I noted in San Diego, I do not feel the EM references in the draft Report are as descriptive of germane circumstances affecting public trust and confidence as the OCRWM references. Basically the draft says EM made some mistakes, heard the call in 1986 and changed their ways providing a viable example to OCRWM.

This analysis omits several critical points. It also presumes to know that EM has higher levels of public trust and confidence than OCRWM does and is primarily challenged by maintaining those higher levels. Do you have empirical evidence confirming this underlying assumption? If so, the data should be cited.

Dan, I appreciate your hard work and patience. I feel very strongly about these adjustments to the text, particularly the need for empirical evidence to back your assumption that EM is held in higher stead by the public than is OCRWM. After having requested the Task Force include defense waste in their deliberations, the Secretary is entitled to as clear a view of EM's status as possible.

A

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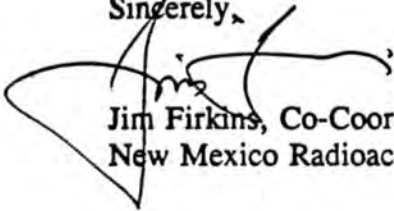
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I whole-heartedly support this process and I offer the following recommendation for the Department: *Examine DOE's institutional structure governing interaction with the Congress for approaches which might be extended or extrapolated for use with other stakeholders.*

I'll be happy to provide additional clarification on any of these points should you desire it. I can be reached at 505/827-5950.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jim Firkins', is written over the typed name and title.

Jim Firkins, Co-Coordinator
New Mexico Radioactive Waste Consultation Task Force

cc: Members of the SEAB Task Force on Radioactive Waste Management

Attachments (2)

GENERAL COMMENTS

Serious systemic problems have interfered with EM and persist today. I submit the following:

If the DOE "old order" has passed as you wrote (pg. 19, para. 2), why did land withdrawal for WIPP fail in each of the five Congresses subsequent to watershed 1986? Why did Congress finally place WIPP in the hands of the EPA (an action which in itself resonates loudly in terms of EM's perceived trustworthiness in 1992)?

What you have characterized as *an elaborate structure* (pg. 20, line 1) appears to me to be a series of uncoordinated reactions mandated by settlements from lawsuits and compliance with the law. These are not circumstances which flowed from a well-managed, coordinated, strategic effort. If this is an elaborate structure, then the lesson to OCRWM should be "act in an egregious manner, get sued and comply with the terms of all agreements".

I'm not trying to be snide, but I'm not going to be coy either. I feel the draft is in error and know the final Report can provide better guidance.

As I view OCRWM and EM I see more similarities than differences in terms of the Report's methodology and First Principles. Many would argue with the characterizations of the two programs provided in the table on pg. 22. The EM effort is older and more broadly distributed as you have written. There are very few major organizational distinctions between the two.

I have attached a completed version of the table which I feel is more descriptive and embraces the notions that:

- 1) there are multiple sites in each program which will benefit from transportation offsite for waste storage and/or disposal;
- 2) relevant environmental legislation is the same for each; and
- 3) budgets are appropriated one period at a time and any discernable trends are only notable in retrospect.

Once again, if you know EM has more trust and confidence, supporting evidence should be cited.

Speaking to pgs. 18-21, I would look favorably on a description of EM which is analogous to the draft's OCRWM overview (pgs. 15-18). This revised section could benefit from the following:

- EPA currently is gearing up to face a challenge which, if it occurs, will be very similar to that which smote NRC (pg. 17, para. 5). Under P.L. 102-579, EPA is given funds and a very short time within which to reissue disposal standards for these materials. EPA is understaffed and has had to engage outside contractors to begin work on the mandated rulemakings. Both EPA and the State of New Mexico have faced allegations similar to

those you've cited concerning OCRWM and NRC that the amount of funding already expended to construct WIPP virtually guarantees licensure under RCRA.

- Courts have ruled against DOE interests in three lawsuits: National Resources Defense Council v. Environmental Protection Agency (1987); State of New Mexico v. Watkins (1991) and Environmental Defense Fund v. Watkins (1991).
- DOE's informal interactions with EM stakeholders have done very little to advance the cause of public trust and confidence. I refer specifically to the following:
 - * DOE's 1992 decision to threaten wholesale layoffs at WIPP if the 102nd Congress didn't pass land withdrawal legislation;
 - * Sec'y Watkins untimely and public suggestion to the Governor of New Mexico in the summer of 1992 that the Governor could circumvent the formal RCRA permitting process and simply grant WIPP a Part B permit and;
 - * DOE's insistence (fall 1992) on pressing the Federal appeals court to award WIPP interim status under RCRA after the enactment of P.L. 102-579 essentially made interim status moot.

Relative to the draft's characterization of OCRWM, EM has much to be humble about.

Pages 20 and 21 give me lots of heartburn. The six headings do describe real challenges for EM, but; 1) they are challenges common to most governmental agencies; 2) I don't see their absolute salience to the DOE public trust and confidence issue and; 3) with the possible the exception of the last (Facility Transition), OCRWM has the same problems. | F

I'm also troubled by the absence of recommended "specific measures and policies" for EM (pgs. 36, 39 and 41). This omission underscores to me the impression that EM is not properly characterized in this draft. I would be inclined instead to list specific recommendations to EM based on testimony already presented to the Task Force, or to delete the OCRWM recommendations entirely and beef up the recommendations to the Department as a whole to include the observations that have been presented to the Task Force in reference to EM. [Incidentally, I feel the "Design Basis" on pg. 36 and the specific measures, pgs. 36-39 are excellent] | G

If I could apply the Report's methodology, DOE's successes (and there have been some) have almost exclusively flowed from one group of stakeholders; the Congress. While your research indicates some improvement in perceptions of polled policy elites of the Department over the past four years, I fear affected groups have not become supportive of EM since 1986.

SPECIFIC COMMENTS

In direct response to your request, the following citations left me with the impression that EM is held in higher stead than the civilian program:

- 1) Pg. 20, line 1.
- 2) Six headings on pgs. 20 and 21.
- 3) Pg. 22, para. 1. last sentence.
- 4) Table on Pg. 22.
- 5) Pg. 24, para. 1, last sentence. (Evidence should be cited)
- 6) Pg. 31, para. 3, second sentence. (OCRWM and the Constitution have distributed power to Nevada, who has also been rather responsive.)
- 7) Pg. 32, para. 2, first sentence.
- 8) Pg. 33, para. 1. (I have never seen a set of these objectives. If you could discuss them in more detail, I'll retract this cite).

Additionally:

Pg. 6, para. 4, line 9; Add: "Transportation from the sites currently storing hazardous mixed wastes to WIPP will affect members of the public in 22 states many of whom who have not had occasion to consider themselves active stakeholders in this process."

Pg. 15, full para 1, line 3; the intent of the italicized text "or cannot in some other way be compensated for" is unclear and should be clarified.

Pg. 17, para 5; As a point of reference, the military program faces similar skepticism. EM inherited a legacy from the classified activities of Defense Programs and similarly engendered considerable distrust from public sectors opposed to nuclear weapons when it received these new responsibilities.

EDITORIAL COMMENTS

Pg. 16, para 5, line 1; change "mined" to "minded". (Rather spectacular pun)

(Table on pg. 22)

SIMILARITIES AND DIFFERENCES IN THE INSTITUTIONAL CONTEXT

<u>CHARACTERISTIC</u>	<u>OCRWM</u>	<u>EM</u>
CORE MISSION		
<u>Distribution of Benefits</u>	<i>Possibility of many winners</i>	<i>Possibility of many winners</i>
<u>Major Public Focus</u>	<i>Site selection</i>	<i>Clean-up</i>
<u>Movement of Waste</u>	<i>Leaving and arriving</i>	<i>Leaving, staying and arriving</i>
<u>Origin of the Waste</u>	<i>Civilian nuclear power plants</i>	<i>Weapons production</i>
<u>Programmatic Activity</u>	<i>Experimental</i>	<i>Experimental</i>
<u>Locus of Activity</u>	<i>Concentrated</i>	<i>Dispersed</i>
<u>Operations</u>	<i>Open-ended</i>	<i>Open-ended</i>
GOVERNING REGIME		
<u>Legislation</u>	<i>Program specific General environmental law < NEPA and RCRA ></i>	<i>Program specific General environmental law</i>
<u>Type of Public Input</u> <u>Legislatively Mandated</u>	<i>"How to do job"</i>	<i>"Should the job be done?" "What job to do" "How to do job"</i>
<u>Type of Power Sharing</u> <u>Mandated</u>	<i>Limited</i>	<i>Limited</i>
<u>Affected Constituencies</u>	<i>Many</i>	<i>Many</i>
<u>Regulatory Standards</u>	<i>Mostly understood</i>	<i>Mostly understood</i>
<u>Dominant Mode of Politics</u>	<i>Closed</i>	<i>Relatively Open</i>

CHARACTERISTIC	OCRWM	EM
----------------	-------	----

ORGANIZATIONAL CULTURE

Inherited Legacy

Poor

Poor

< **BUDGET SHOULD BE DELETED IF THIS TABLE SURVIVES IN THE REPORT** >

Conclusions based on budget data are only valid after the fact of appropriation.

Response to Regulation

Tries to modify to ease challenge to program

Tries to modify to ease challenge to program

Attitude Toward Earning

Public Trust and

Confidence

No explicit acknowledgement of low level; approach to building is narrow

Acknowledges low level; approach to building is narrow

Dr. Hollister Hartman

TRW Managing and Operating Contractor

(Her comments do not necessarily represent the views of TRW.)

Las Vegas, Nevada

3/9/93

A. The Task Force engaged in an intense conversation on this issue at its meeting in San Diego last December. It does not wish to change its decision to delete the recommendation in question from the Proposed Final Version.

B. The Task Force has substantially revised its discussion on implementing recommendations. See pages 62-63.

7041 Rogers Street
Las Vegas, NV 89118
9 March 1993

Daniel Metlay, Task Force Director
Secretary of Energy Advisory Board
1000 Independence Avenue, SW
Washington, DC 20585

Dear Dr. Metlay:

This is in response to your request for comments on the Draft Final Report on public trust and confidence. I am writing both as a member of the public and as a contractor employee on OCRWM's Yucca Mountain Project (YMP). Emblematic of OCRWM's fundamental malaise is the fear of reprisal that motivates me to mail this only from my private residence. No doubt you are aware of a number of "whistle blower"-type letters regarding the CRWMS, whose charges I will not repeat here. I do wish to add my whole-hearted endorsement of their messages, however, and to urge you **not** to soften the original criticisms found in your December 1992 Draft Working Paper. To do so would be a betrayal not only of the American public, but of those such as myself that have been victimized by the pathological dynamics now gripping the YMP.

The enclosed Commentary illustrates the perniciousness of the YMP's sickness. It is a perfidy of the American spirit that a collection of motivated and highly competent systems engineers such as originally comprised the Management and Operating Contractor could be reduced, through systematic attack and manipulation, to many of the same destructive attitudes that currently characterize OCRWM. The corporation itself can be only partially faulted, as it was a simple matter of survival to either adapt or be destroyed. Those such as myself, who refused to corrupt our performance standards, have been shuttled to low-responsibility positions and prevented from contributing our areas of unique expertise to Project activities. Those of lesser capabilities have been promoted to the premier positions, as not threatening to the customer and therefore preserving the contract.

As pointed out by the NWTRB, DOE's effort to develop a permanent repository "is being undermined by faulty planning, arbitrary deadlines, questionable scientific assumptions and bad public relations." Knowing this, you will be engaging in bad faith not to restore your former recommendation that DOE (or **higher authority**) contract out a study of the implications of removing OCRWM's functions from DOE, and that results of this study be provided to Congress by January 1996. There can be no doubt that incompetent persons are currently running the YMP; unlike other typical bureaucracies, however, the consequences of this mismanagement are measured in the ruination of human lives.

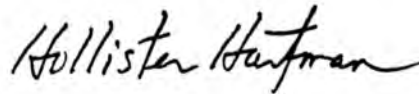
| A

It is inconceivable to me that the same Task Force which could cite DOE's "inability to hire talented professionals" and admit that "many stakeholders accept as conventional wisdom" that the civilian radioactive waste management program should be removed from the Department could publish the bland Implementation and Conclusion sections now appearing in the current version of the report. Out of loyalty to the American people, I entreat you to exercise your sense of professional ethics, even as I, at great personal cost and with far less potential payoff, have done.

B

Further documentation can be provided if requested.

Sincerely,

A handwritten signature in cursive script that reads "Hollister Hartman".

Hollister A. Hartman, Ph.D.

COMMENTARY ON THE GENERAL MALAISE OF THE CRWMS PROGRAM

22 January 1993

The M&O has been told to both a) keep the customer happy and b) make the Project work. As we have seen over the past couple of years, the two imperatives are mutually incompatible, i.e., a zero or one choice. Left with two conflicting ideas, and zero management direction, employees have responded with two distinct strategies. The first strategy is to satisfy goal (a). This is done mainly by accepting "go-fer" work responsibilities and suppressing any sense of initiative or effort at productivity. By not making waves, short-term objectives are met; and the employees exploiting this strategy will not be blamed for long-term lack of progress on goal (b). The other strategy, in use by a definite minority of the population, is to strive for goal (b). Unlike "goal a" adherents, who cannot be identified as failing to further goal b, goal b adherents tangibly impede achievement of goal a. Although eventually only succeeding in goal b will save the M&O and/or the Project, and therefore such efforts should be accorded the highest praise and priority, these employees instead are ostracized and punished. Evidence of this is indicated by my own experience.

TRW sought me out because I have demonstrated a massive capability to get things done, when things desperately need doing. Apparently when this need doesn't exist, then having a "doer" on board is more of a liability than an asset. Undoubtedly there are other parts of TRW that could benefit from super-productivity, but the current corporate upheaval makes the farsightedness necessary to accept the additional attention needed to manage a thoroughbred unlikely. In this case the term thoroughbred is used in the sense of a performer which, with proper handling and by virtue of its extreme training and background (which pose special handling challenges), delivers superior return on investment. In the hands of the proper trainer and rider at the racetrack, fantastic profits can be realized; but one would not expect the same horse to flourish in the traces of a plow.

RE: Dixon/Grassmeier/Robison gang-up and Simmons/Gil/Jones gang-up:

TRW is incapable of a strong defense against such base tactics because its highest priority is to keep the customer happy, not to get the job done. This situation precludes acting honorably because the customer's highest priority is to maintain turf and avoid change. TRW applauded my efforts at change and getting the job done, so apparently they are no better at judging what will provoke the customer (or they wish to produce scapegoats). If the Project were a person, it would be diagnosed as psychotic, i.e., "unable to distinguish reality, and unaware of this inability". The situation is no-win because if TRW doesn't try to get the job done, then external authorities will become dissatisfied; and if TRW does, then the customer will become dissatisfied and eventually infect external authorities with this attitude. A partial solution would be the physical separation of M&O and DOE offices; arguments that this didn't work for T&MSS due to the need for continual meetings are spurious. Our mandate, unlike that of T&MSS, is self direction, not just acting as go-fers at the whim of our DOE masters.

The underlying malady is a widespread abdication of leadership responsibility to make tough decisions. Whatever happened to doing what it takes to get the job done? The corporate culture has degenerated into a social club - the only way to get ahead is to not get on the wrong side of anyone, or risk being branded as "unable to get along with people" - apparently the new TRW criterion for excellence. This inevitably leads to intentional oversensitivity to imagined slights and contrived conflicts, twisted by those who would benefit so that only the victim is made to look bad, i.e., "constantly involved in conflict". Could it be that some of those victims are guilty, not of inability to manage, lead, or otherwise get the job done; but simply of less skill at defending themselves from office back-stabbing? Doing so forces a diversion of energies to petty infighting and a mentality of "every man for himself" (if one wishes to survive), instead of the company. Ultimately, however, this can only hurt all of us, as companies who have seen the light and take steps to correct the situation will outstrip us competitively on the marketplace.

a:complain.let

Dr. Hollister Hartman
TRW Managing and Operating Contractor
(Her comments do not necessary represent the views of TRW.)
Las Vegas, Nevada

5/3/93

In an earlier comment, the suggestion was made that a recommendation appearing in a staff working paper, but deleted from the Draft Final Report, be reinstated in the Proposed Final Version. The recommendation in question called for a study of whether the OCRWM program should remain within DOE. Upon completion, that study would be submitted to the Secretary and Congress for their consideration.

In this comment, some intriguing and innovative analyses are presented in support of the suggestion for reinstatement. Those analyses are undergirded with assumptions both empirical and methodological that are not necessarily universally accepted. But even if they were, the conclusions reached about managerial effectiveness leave completely unanswered whether matters would be better off if the repository program was taken out of DOE. Consequently, the Task Force declines to reconsider its decision not to adopt the recommendation contained in the staff working paper.

7041 Rogers Street
Las Vegas, NV 89118
3 May 1993

Dr. Daniel Metlay
Designated Federal Officer
1000 Independence Avenue, SW
Washington, DC 20585

Dear Dr. Metlay,

Following our brief conversation at the High-level Radioactive Waste Management Conference last week, you requested that I resubmit my comments regarding the SEAB Task Force on Public Trust and Confidence report. My original comments are enclosed, as are additional arguments advocating reinstatement of the Task Force's initial recommendation (see attached title page reference) that an independent review of OCRWM operations be provided to Congress. A

I also am forwarding a copy of this package to Todd LaPorte at Berkeley to assure myself that if indeed, as you say, the Task Force's consensus is not to recommend removing DOE as overseers of the CRWMS Program, the additional factors presented here were considered. It is my hope that either or both you and Dr. LaPorte will see fit to circulate these materials among Task Force members to reconfirm their sense of the issue.

Figure 1 illustrates the critical negative role played by the mere fact of DOE's organizational position on the Yucca Mountain Project. As is shown, three factors continue to stall the YMP: Omnipresent misapprehensions about the nature of nuclear hazards; the public's distrust of assurances about their own health/safety as well as that of their descendants; and finally, their lack of vested interest in the nuclear industry. The latter two can be directly traced back to Federal insistence that DOE oversee day-to-day YMP operations.

Public distrust stems both from the DOE's admittedly abysmal track record, and from ongoing management problems. These problems result in a variety of interrelated ills:

- Cost and schedule overruns typical of any poorly-run project, nuclear or otherwise
- Inability to attract/keep professionals talented enough to disassociate themselves from a "loser" project, resulting in a negative feedback cycle of self-fulfilling prophecies
- Fuel for stakeholder beliefs that the future is likely to recapitulate past incompetence
- Ineffective handling of sociologically grounded risk factors.

Current DOE management refuses to acknowledge that they are mishandling interactions with the public. If Nevada should decide to negotiate for benefits, this probably will be claimed as evidence for the effectiveness of DOE's outreach program. The fact remains, however, that after wasting seven years and millions of dollars the YMP under DOE still stands as a textbook example of how not to do business. Not one DOE representative (Gertz, Robison, nor Reilly) was present at the numerous HLW Conference presentations about public

participation. The DOE Technical & Management Support contractor talk, although labelled "two-way communication", was a sham simply detailing how recipients of the standard sales pitch were polled for ideas on how to improve audio/visual materials.

The latest from the DOE Project Office is an ill-conceived directive to technical study supervisors, to devise "public participation opportunities". Those technical managers to whom I have spoken have no idea how to respond to the directive, nor why it was issued. Such vagueness on the part of DOE management bespeaks of two possibilities, both negative: Either the DOE project manager really doesn't have the slightest idea of why he is being harangued from Washington to involve the public, or his implementing vagueness is meant to intentionally undermine the directive.

The answer, of course, is simply to remove DOE from day-to-day management of the YMP. Without DOE's destructive, turf-driven influence, talented contractor and national laboratory professionals would be free to get on with the job. There usually are quite good reasons for why a given belief attains the status of "conventional wisdom". I therefore would strongly urge that before dismissing the conventional wisdom "held by many stakeholders" that the CRWMS program should be removed from DOE, the SEAB Task Force take another hard look at the facts. Walking a mile or two in our shoes wouldn't hurt, either.

The above discourse may be dismissed as overblown, but my track record over the past ten years has been unbroken. Every time I have recognized and called attention to Department of Defense or Department of Energy deficiencies, and been ignored, I have been accorded the dubious distinction of later being able to say "I told you so". I would rather be heeded now, however, than have to extend my 100% success rate. I await your disposition of the case presented here.

Sincerely,



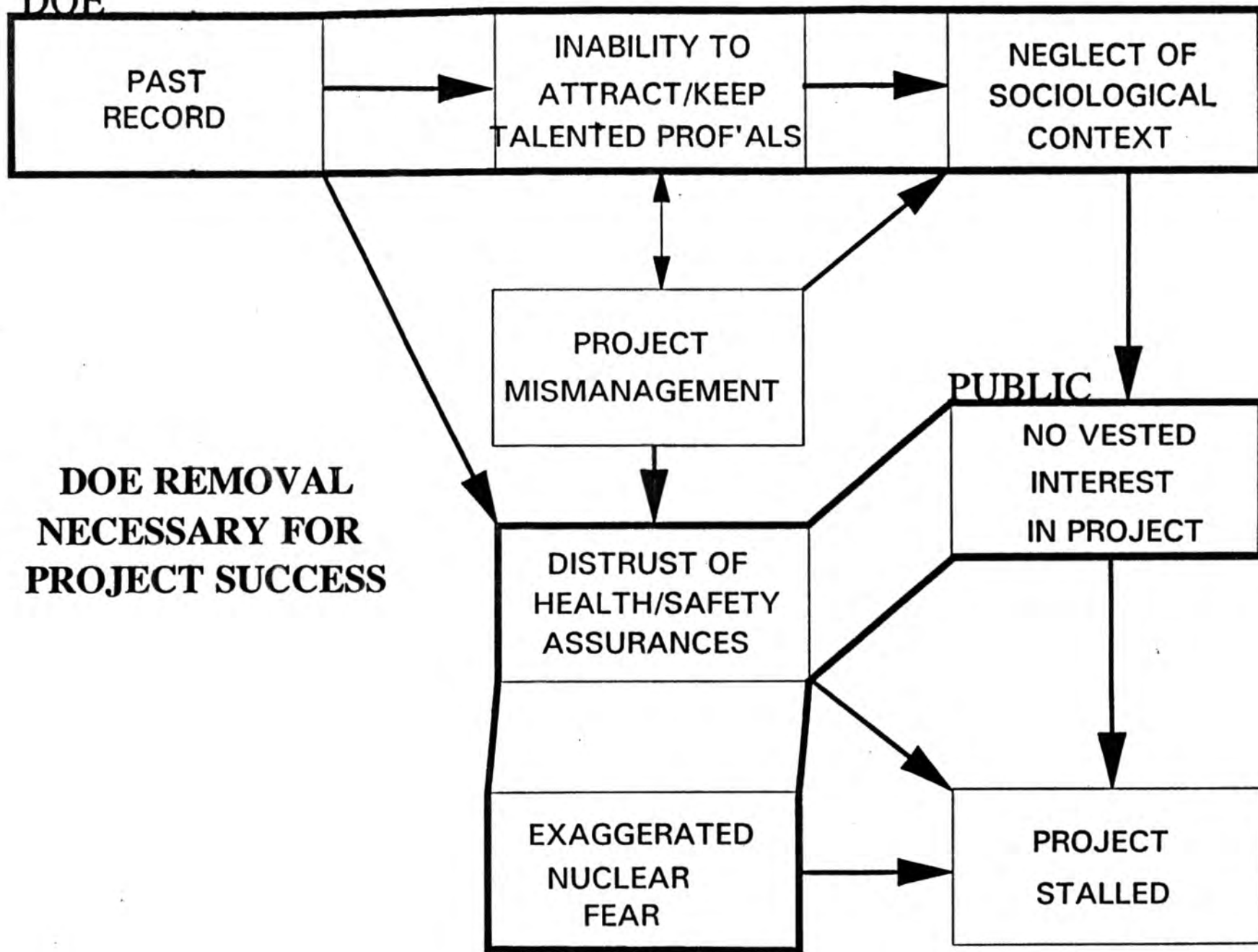
Dr. Hollister Hartman
Senior Systems Staff, M&O/TRW

cc: Dr. T. LaPorte
Professor, Political Science
University of California
Berkeley, CA 94720

DRAFT WORKING PAPER
for
DISCUSSION by the SEAB TASK FORCE
on
RADIOACTIVE WASTE MANAGEMENT
December 10-11, 1992
in
San Diego, California

**THIS DRAFT WORKING PAPER DOES NOT NECESSARILY REPRESENT
THE VIEWS OF THE TASK FORCE**

DOE



HH/3MAY93

An analysis of alternative management approaches to the Yucca Mountain Project

INTRODUCTION

On any project there are always four generic types of activities in progress: 1) Work that is needed and is being done; 2) work that is needed but is left undone; 3) work that is unneeded but is still being done; and 4) work that is unneeded and is left undone. The proportion of activities falling into each category could be used as a diagnostic for how effectively the project is accomplishing its mission. Intuitively, one would recognize categories 1) and 4) as being most desirable. But which is worse, doing unneeded work or not doing needed work? Three criteria are proposed to answer this question: the degree to which each type of activity a) accomplishes the project's Scope of Work, b) avoids opposition, and c) minimizes cost. One could imagine a project which achieves all of its scientific objectives yet is railroaded by citizen opposition; or gains citizen acceptance but bankrupts its budget. Thus we wish to satisfy all three criteria in some optimal balance. The following describes how the Yucca Mountain Project approached this, results obtained, and discusses their significance.

METHOD

The approach used was to rate each category of activity as a "plus" or a "minus" against each criterion; assign criterion weights of 1, 2, or 3; and add up the weighted ratings to give a final overall score for each category. In most cases the plus/minus ratings were obvious: A match between need and action was positive for "Accomplish mission" (and vice versa); inaction was positive for "Minimize cost" (and vice versa). The more complicated scheme for "Avoid Opposition" is explained below.

Derivation of criterion weights

Assigning weights of 1, 2, or 3 requires only that the least important (weight = 1) and most important (weight = 3) criterion be identified. This was done by asking, "If I had a choice of three scenarios, each of which was best on only one criterion and worst on the other two, which would I pick?" The scenario picked first would correspond to the most important criterion, and the last to the least. The following scenarios were ranked as follows.

First: Gets the job done, but excites opposition and is expensive (Accomplish mission)

Next: Accepted w/out opposition, but fails to do the job and is expensive (Avoid opposition)

Last: Thrifty, but fails to do the job and excites opposition (Minimize cost)

The rationale was that getting the job done is an absolute priority. Then between the remaining two scenarios, I would rather spend money ("there's lots more where that came from") and placate the public; rather than save money and anger the public, leaving a legacy of ill will for future management to overcome. This results in weighting Accomplish Mission most, Avoid Opposition next, and Minimize Cost least.

Derivation of rating alternatives on avoiding opposition

Two sources of opposition to Yucca Mountain activities were postulated: 1) disagreement with its fundamental mission; and 2) contempt for alleged mismanagement and corruption. It

is fairly straightforward to assume that Project management alternatives that do things which need doing (actively forwarding Project interests) and don't do things which don't need doing (passively forwarding Project interests) would be least preferred by those who disagree with YMP's fundamental mission. Additionally, the former (active) option would be preferred less than the latter (passive) approach.

Conversely, contempt for alleged mismanagement and corruption would be greatest for the other two options (doing unneeded things, and not doing needed things). Distinguishing which of the two would be perceived with greater contempt is less straightforward than before. To do so, the alternatives were rated according to the following scheme.

	<u>Eventual Quality</u>	<u>Total Cost</u>	<u>Schedule Delay</u>	<u>TOTAL</u>
Needed, undone	-	0	-	-2
Unneeded, done	0	-	0	-1

The rationale for these ratings was that while not doing needed things may save more money than doing unneeded things, the latter might assist future efforts in unexpected ways. Finally, summing the two basic sources of YMP opposition yields the greatest opposition for doing needed things and not doing needed things. This allows the following table to be compiled.

RESULTS

<u>CRITERION: ALTERNATIVES</u>	<u>Accomplish Mission</u>	<u>Avoid Opposition</u>	<u>Minimize Cost</u>	<u>WEIGHTED SCORE</u>
Needed, being done	+	-	-	0
Needed, undone	-	-	+	-4
Unneeded, being done	-	+	-	-2
Unneeded, undone	+	+	+	+6

WEIGHT:	3	2	1	

DISCUSSION

The main question is, which general bias, "doing things" or "not doing things", is best for the YMP? This is addressed as an uncertainty lottery from the above table of scores, i.e., "would you rather have -1 for sure (averaging the negligible difference between 0 and -2 for "doing things" alternatives) or take a chance on getting either -4 or +6?" The apparent selection by current management is the former, risk-averse option. While this is least desirable from a cost standpoint, few bureaucrats lose jobs for wasteful spending. The project's profile is one of high and escalating costs with little or no clear progress to justify them. On the other hand, a tendency to "do things" does enjoy the side benefit of creating an impression of productivity on the part of management, while avoiding the political pitfall of leaving needed things undone. It is a strategy that might be employed by a project manager uncertain or unable to determine what is important, and therefore hedges his bets by doing "everything".

In order to maximize the YMP's ultimate viability, however, a manager must be of sufficient talent to recognize, and confidence to cease, unneeded activities. Congress is deeply concerned about cost escalation and the lack of results, or clear prospect of results. The NWTRB expressed its concern that the program's "effort to rush to meet overly demanding schedules could affect the quality of the technical and scientific work." In proceeding to build and operate the entire repository for rapid full-scale disposal, the program is not designed to meet the objectives of timely disposal capability, system flexibility or external confidence. In summary, the current strategy is not well suited to meeting either the program's objectives or the concerns of its stakeholders. The results of this analysis support the need for a new DOE program strategy for disposal of SNF and defense HLW.

Juanita Hayes
Program Director
Esmeralda County
Nuclear Waste Repository Oversight Program
Goldfield, Nevada

3/4/93

A. The Task Force believes that local governments also represent a specific constituency. As such they can enter into agreements with DOE to protect it. The language has been modified to clarify this point (page 61).

B. The Task Force does not know when it will be possible to identify routes. Absent that knowledge, a recommendation to do so as "early as possible" would have little substantive meaning. However, see footnote 27 on page 15.

December 23, 1992

Dr. Daniel S. Melley
Director of Civilian Radioactive Waste
Management Task Force
Secretary of Energy Advisory Board
1000 Independence Avenue, SW
Room 7-B198
Washington, DC 20585

Dear Dr. Melley:

Esmeralda County has followed the progress of the Task Force with interest, including testimony at your meetings in Amargosa Valley last summer and in San Diego on December 11. We are very supportive of the Task Force's efforts to rebuild trust and confidence in the nuclear waste program in DOE's management role.

One of the problems with interactions between stakeholders and federal agencies is that these agencies often don't really listen to the concerns of stakeholders. We feel you have done exceptionally well in this regard and have included many of the suggestions proposed by the counties for improving trust in the DOE program. We remain somewhat skeptical about the extent to which the current Secretary, or the next one, will actually implement (and if necessary, enforce) your recommendations as the policy of the Department. We will be watching with interest to see what happens to this report.

We are especially gratified to see the Task Force acknowledgement of the damage to trust that occurred when the "bargains" incorporated in the Nuclear Waste Policy Act of 1982 began to unravel (p.17). Nothing undermined trust in the integrity of the siting process more than the passage of the NWPA amendments of 1987, which singled out Nevada as the only site for consideration and let off all other first and second repository sites on political grounds. The ensuing opposition from many Nevada citizens is not surprising, and recent efforts by Congress - encouraged by the Department - to overcome state opposition by proposing to remove its environmental permitting authority, and by passing an act which could substantially weaken the EPA standard for Yucca Mountain, have not helped to maintain our citizen's trust.

Despite these developments, Esmeralda County has yet to take a position on the repository. We fully support your recommendation on page 41 to try and recreate a sense of equity in the siting process by revisiting the issues of multiple sites and multiple repositories. We also agree that the primary driving force behind the program should be the need to solve a serious national problem rather than to promote the expansion of the nuclear power option. Solving this problem in a manner that increases trust may require consideration of the full range of options, including multiple sites, monitored retrievable storage, or on-site storage, while continuing to seek appropriate technological solutions to the disposal problem over the longer term.

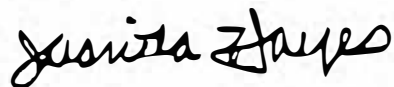
We also support your recommendations on page 37 to empower communities and citizens groups. Our experience with the waste program is largely shaped by the year-to-year uncertainties about whether resources will be available to evaluate transportation and other impacts of a repository and to keep abreast of developments in the program and inform our citizens. We strongly endorse your proposal to create a trust fund or other mechanism that would ensure a regular flow of funds to affected counties for oversight programs. The Task Force proposal to create Safety Review Boards with real power to make decisions about the repository would also help to increase confidence in the Department's management of a proposed repository.

We take exception to the idea on page 41 that the "situated county" should be given special treatment in any agreements reached on Yucca Mountain. The ten affected counties will all be impacted to some degree by the siting of a repository, and any "offers" made to the state or the situated county should recognize the legitimate interests of all affected parties. The state and the counties have been working together through the State and Local Government Planning Group to coordinate oversight activities with regard to the repository. Singling out one county for special treatment would not encourage trust in the process. A

One additional programmatic action that DOE could take to enhance trust among Esmeralda County residents would be to identify transportation routes as early as possible and to provide early access to emergency response training resources. This single act would go far towards inspiring confidence among our citizens. B

In closing, I want to sincerely thank you for listening to the many voices of stakeholders and the public and reflecting those concerns in your report. We appreciate your efforts.

Sincerely,



Juanita Hayes

Juanita Hayes
Program Director
Esmeralda County
Nuclear Waste Repository Oversight Program
Goldfield, Nevada

3/4/93

A. These terms have been clarified and discussed in greater detail. See footnote 11 and page 6.

B. See response to "A" above.

C. The Task Force agrees; see revised language on page 25.

D. The relevant language has been revised; see pages 60 and 61.



NUCLEAR WASTE REPOSITORY OVERSIGHT PROGRAM ESMERALDA COUNTY, NEVADA

JUANITA D. HAYES
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March 4, 1993

Dr. Daniel S. Metlay
Director of Civilian Radioactive Waste
Management Task Force
Secretary of Energy Advisory Board
1000 Independence Avenue, SW
Room 7-B198
Washington, D.C. 20585

Dear Dr. Metlay:

Esmeralda County has followed the progress of the Task Force with interest, including presentation of testimony at your meetings in Amargosa Valley last summer and in San Diego on December 11, 1992. We are very supportive of the Task Force's efforts to rebuild trust and confidence in the nuclear waste program in DOE's management role.

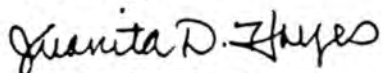
One of the problems with interactions between stakeholders and federal agencies is that these agencies often don't really listen to the concerns of stakeholders. We feel you have done exceptionally well in this regard and have included many of the suggestions proposed by the counties for improving trust in the DOE program. We remain somewhat skeptical about the extent to which the Secretary will actually implement (and if necessary, enforce) your recommendations as the policy of the Department. We will be watching with interest to see what happens to this report.

Esmeralda County has yet to take a position on the repository. Our primary concerns are protecting the health and safety of our residents and oversight of DOE's site characterization activities. We firmly believe that without increased public trust and confidence, DOE as an organization will continue to be less than effective.

In additions to our attached comments, one additional programmatic action that DOE could take to enhance trust among Esmeralda County residents would be to identify transportation routes as early as possible and to provide early access to emergency response training resources. This single act would go far towards inspiring confidence among our citizens.

On behalf of the Esmeralda County Commission, the Esmeralda County Repository Oversight Program Citizen's Advisory Council and myself, I want to sincerely thank you and the other Task Force members for listening to the many voices of stakeholders and the public and reflecting those concerns in your report. We appreciate your efforts.

Sincerely,

A handwritten signature in cursive script that reads "Juanita D. Hayes".

Juanita D. Hayes
Program Director

Encl:

ESMERALDA COUNTY COMMENTS ON SEAB FINAL REPORT:

Page 5, Paragraph 2 and Page 18, Paragraph 1:

As pointed out in the Final Report, the new EPA Standards will apply only to the potential repository at Yucca Mountain. This is another example of DOE undermining public trust and confidence. It is gratifying to see the concerns of many stakeholders reflected in these remarks.

Page 6, Paragraph 1:

"...to reduce to socially acceptable levels (underlining added)... The question arises as to who will determine what the "socially acceptable levels" will be. DOE's ideas are usually vastly divergent from the views of stakeholders and the general public.

1 A

Page 7, Paragraph 1:

"...how much uncertainty can be tolerated..." Once again, DOE's ideas tend to prevail and stakeholders' social judgments do not seem to be weighted with equal importance.

1 B

Page 8, Paragraph 3:

..."and that no segment finds itself permanently a 'loser' in policy controversies." It should be noted that Nevada has consistently been a "loser" in policy controversies concerning Yucca Mountain. As long as Nevadans feel that DOE has adopted high handed methods in pursuing site characterization at Yucca Mountain, there will never be an increased level of public trust and confidence. DOE's attempt to preempt Nevada's permitting authority and the new provision in the 1992 Energy Policy Act concerning EPA standards succeeded in reducing rather than strengthening public trust and confidence throughout the State. In the view of many Nevadans, Yucca Mountain is a "done deal" and DOE's actions have convinced many that there is no cause for trust and confidence. There is widespread belief that the scientific studies will be skewed to support licensing. Whether or not this is indeed accurate, DOE's actions don't encourage public trust and confidence.

Pages 15 and 16:

The tracing of the Civilian Radioactive Waste Management Program through the years and the way that the "bargains" incorporated in the Nuclear Waste Policy Act began to unravel is an excellent illustration of the erosion of public trust and confidence. Nothing undermined trust in the integrity of the siting process more than the passage of the NWPA amendment of 1987 which singled out Nevada as the only site for consideration and let off all other first and second repository sites on political grounds.

Page 17, Paragraph 2:

"The host-state, Nevada and the situs County Nye, also have special rights under the NWPA as amended to review and comment on site characterization activities." Esmeralda County takes exception to this statement. In addition to the State of Nevada and Nye County, there are eight additional Nevada counties and one county in California who have been granted "affected" status. All ten counties have the right to review and comment on site characterization activities and do so on a regular basis. It is important to realize that each of these counties have real concerns and potential impacts to their populations.

General Findings (Pages 23-27):

We generally agree with your findings and especially support the argument that the lack of public trust and confidence stems from various groups' past experience with the Department. Nevadans have always supported the facility at the Nevada Test Site and felt proud to be contributing to the Nation's defense. DOE's efforts in Nevada since 1987 have eroded trust and confidence. Nevadans generally felt that they were being unfairly singled out to house the proposed repository and DOE's efforts to convince Nevadans has been met with skepticism and increased distrust.

While there is some increased confidence toward individuals within DOE, the Department as a whole still fares badly. There are still substantial numbers of hard ball players within the DOE ranks and they continue to discount the need for openness and commitment to stakeholders and the general public. Whether the Department is willing to actively work toward strengthening trust and confidence through major attitude adjustment remains to be seen.

Findings With Respect To Organization (Pages 27-29):

We strongly support the following statement: "Regardless of structure, it will be the behavior of the organizations that either creates or inhibits public trust and confidence." Is DOE willing to cut across all levels to change its behavior as an organization? Specific steps need to be taken to guarantee that the entire Department recognizes the need for public trust and confidence and that procedures are developed to ensure its success.

Findings With Respect to OCRWM (Pages 29-31):

Predecisional public input has not taken place in spite of the rhetoric of the Draft Mission Plan Amendment. The Director's Forum was attended by several stakeholders from Nevada. The thrust of their concern was the lack of public input and involvement in decision making in regard to the Early Site Suitability Evaluation. The document was issued in the form of a final contractor report rather than as a draft DOE program document. There was no opportunity for development of the report or review and comment by stakeholders and the general public. This example clearly contradicts the following statement from the Draft Mission Plan Amendment:

"The program must be conducted such that public confidence is warranted, with opportunities and means provided for meaningful participation by affected governments and interested parties."

Once again, DOE actions speak louder than words.

Recommendations (Pages 34-43):

Esmeralda County endorses the recommendation on Page 39 regarding trust funds, etc., to ensure provision of adequate resources. The ten counties affected by the proposed repository at Yucca Mountain have had to struggle constantly to obtain adequate funding for oversight programs. While DOE received \$375 million for FY 93, the affected counties received \$6 million to be split ten ways. Our experience with the waste program is largely shaped by the year-to-year uncertainties about whether resources will be available to evaluate transportation and other potential impacts of a repository and to keep abreast of developments in the program and inform our citizens.

Esmeralda County also supports the idea of Safety Review Boards with the power to make decisions about the repository. This would help increase confidence in the Department's management of a proposed repository.

Furthermore, favoring local industries and requiring vendors of hardware to manufacture as near as possible to the proposed repository would serve to increase public trust and confidence and show Nevadans that they could reap some of the benefits since they potentially would be carrying the load for the Nation's high-level radioactive waste.

We fully support your recommendation on Page 43 to try and recreate a sense of equity in the siting process by revisiting the issues of multiple sites and multiple repositories. We also agree that the primary driving force behind the program should be the need to solve a serious national problem rather than to promote the expansion of the nuclear power option. Solving this problem in a manner that increases trust may require consideration of the full range of options, including multiple sites, monitored retrievable storage, or on-site storage while continuing to seek appropriate technological solutions to the disposal problem over the longer term.

[We take exception to the idea on Page 43 that the "situs county" should be given special treatment in any agreements reached on Yucca Mountain.] The ten affected counties will all be impacted to some degree by the siting of a repository, and any offers made to the State or situs county should recognize the legitimate interests of all affected parties. The State of Nevada and the counties have been working together through the State and Local Government Planning Group to coordinate oversight activities with regard to the repository. Singling out one county for special treatment would not encourage trust in the process.

D
B

Abigail Johnson
Consultant to Eureka Country
Carson City, Nevada

3/10/93

A. The Task Force feels it has presented a set of recommendations, whose adoption would, at the very least, make the Department of Energy's more worthy of public trust and confidence. For the reasons laid out on pages 41-42, it does not believe that "fundamental structural reforms" are the answer to the challenges DOE faces in this area. Rather the panel calls for fundamental changes in behavior. Although the Task Force realizes that progress in this area will be difficult, it does not regard the problems as inherently "unfixable."

B. The Task Force agrees; see page 53.

C. Although the Task Force was not charged with evaluating the credibility of DOE scientific studies, it is well aware of what both the NAS and the NWTRB have had to say about them. While both bodies often disagree with particular choices and strategies and while there may be legitimate differences of scientific opinion, the Task Force is not aware of any document from either technical overseer that says or even suggests DOE's science is not credible, ie, believable. The one exception to this general rule might be the WIPP Panel's June 1992 letter. (See page 32.) Thus the Task Force believes that there is ample justification for the language it used.

D. While the Task Force feels that the views of technical overseers are entitled to a certain deference, it is not prepared to recommend that DOE always accept their advice. It takes this stance because it does not believe that any human institution has a perpetual monopoly on knowledge or wisdom.

E. This recommendation has been revised. See page 54.

F. Although the Task Force discussed Safety Review Boards in great detail at its meeting in San Diego, it did not reach agreement on how they might best operate.

Abigail C. Johnson

CONSULTING • COMMUNITY ASSISTANCE • GRANT MANAGEMENT • PUBLIC INVOLVEMENT

617 Terrace Street, Carson City, Nevada 89703 (702) 882-0296 FAX (702) 883-0226

March 10, 1993

Dr. Daniel Metlay
Designated Federal Officer
Secretary of Energy Advisory Board, AC-1
1000 Independence Ave., SW
Washington, DC 20585

Dear Dr. Metlay,

On behalf of the Eureka County, Nevada Board of Commissioners, I am submitting the following comments on the Draft Task Force Report of the Secretary of Energy Advisory Board Task Force on Radioactive Waste Management. Eureka County is an "affected unit of local government" under the Nuclear Waste Policy Act of 1982 as amended. I am a consultant to the county on nuclear waste, specializing in public education.

It is commendable that this task force was formed to delve into the public trust and confidence issue, one of the central problems facing the Department of Energy (DOE) in the management of nuclear waste. The trust and confidence research that was done is thorough and clearly indicates that all sectors of the public, to a lesser or greater degree, distrust the DOE. Moreover, that lack of trust does fundamentally hinder the DOE's ability to carry out its missions.

The Findings section of the report is also quite strong, and should not be watered down in the final report. Although not all of the suggestions of the Task Force are useful or practical, overall the Findings section addresses some of the bedrock problems that DOE has regarding the public.

We are disappointed that the Recommendations section does not propose solutions to the fundamental problems. Although the symptoms have been thoroughly studied and diagnosis has been made, it appears from the recommendations that there is no cure. The major flaw in this report is that no innovative, courageous solutions regarding fundamental structural reform are recommended. If the trust and confidence problem is not fixable, then this report should state that, and make recommendations regarding the future management of a high level waste repository.

We have several specific comments in the "Interactions with External Parties" section. (Sections underlined for emphasis).

Page 35, paragraph 1

"...agency leaders should strive to give all groups of citizens...a sense of involvement and fairness in negotiating the terms of their immediate relationship"

Comment: This is misleading because it sounds as if the agency leaders are being encouraged to convey that sense of involvement without actually involving them. Also the word "negotiate" has several meanings, especially in Nevada, and should be avoided. Instead it should read, "...agency leaders should involve all groups of citizens and their representatives in developing the terms of their immediate relationship."

B

Page 37, #5

"To make the Department's scientific work even more credible..."

Comments: This presupposes that the Department's scientific work is already credible, when it may not be.

C

Page 37, #5, last bullet

"Clarify...the reasons why advice from technical overseers...is not accepted."

Comment: The credibility of the DOE would improve dramatically if they followed the advice of technical overseers, rather than finding rationales not to accept their advice. Expand the description of "technical overseers" to include the State of Nevada, local affected governments, and other oversight groups.

D

Page 38, top line

"Scrupulously comply with all State regulations that are administered even-handedly."

Comment: This should read "Comply with all State and local regulations".

E

Pages 37 and 38

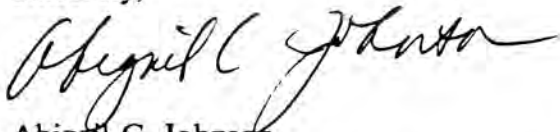
"Safety Review Boards" are mentioned.

Comment: This is an interesting idea, worthy of additional discussion in the report. This idea should be the lead recommendation for page 37, #6, rather than a bullet.

F

Eureka County appreciates the opportunity to comment on the draft document. We look forward to receiving a copy of the final report, and hope that the final document will be strengthened to include strong recommendations on fundamental structural reform of DOE.

Sincerely,



Abigail C. Johnson
Consultant to Eureka County

Floyd Lamb
Chairman
Lincoln County
Board of County Commissioners
Pioche, Nevada

Submitted on behalf of the Caliente City Council and the Joint City/County Impact Alleviation Committee as well

1/20/93

A. This comment raises some important concerns that cannot lightly be dismissed or defended. In many respects, it points out the importance attached to the *form of activity* independent of its substantive impact. The Task Force did not fully appreciate that the significance of that distinction for meriting the trust of an important stakeholder group.

1. While it is true that public comment was often scheduled for late in the meeting, its impact on the panel's deliberations was probably less than implied by the comment. In the first place, the Task Force "deliberated," as opposed to listening and reacting to presentations, only twice. Once was at its meeting in Richland, Washington. Opportunities were presented for public comment prior to that deliberation. At its meeting in San Diego, public comments were also received before the Task Force concluded its "deliberations". In particular, the Task Force has made no decisions, that is, has not finalized its report, until all parties have had an extended opportunity to present their views.

2. It is true that the Task Force only spent two days meeting in Nevada. It did hold sessions both in the community located closest to Yucca Mountain as well as in the most populous city. In addition, Task Force staff spent two weeks in the state over the course of the panel's work. Finally, the group heard from representatives of the state and local governments at virtually all of its meetings. It believes that the total level of input it received from Nevada matches well with the attention it gave to the civilian waste management program.

3. Insufficient time was available between the release of the working paper in early December and the meeting held to consider it. The Task Force regrets this. In the future, it shall attempt to distribute material to interested parties at least two weeks prior to a meeting. It is, however, important to note that the purpose of presenting the Draft Report to the full Secretary of Energy Advisory Board was to receive additional feedback, not to obtain its approval or to finalize the document.

B. The Task Force agrees; language has been changed on page 1. Although the Task Force did not specifically consider the issue of "dread" it did address other

characteristics of radioactive waste management that raise distinctive obstacles to strengthening public trust and confidence. See pages 8-10, 53, and 57.

C. The Task Force agrees; see the discussion on pages 16-18.

D. The Task Force agrees; see the revised graph on page 23.

E. Some reference is made to the Department's failure to communicate the risks associated with weapons production and testing on page 37. In addition, the importance the Task Force attaches to this issue is reflected in the specific recommendations it advances on page 56.

F. By "trial and error," the Task Force was referring to the process for characterizing a potential repository site. In evoking that image, it was trying to convey idea that the civilian program is in an exploratory phase that cannot be programmed fully in advance. This view, it should be noted, is consistent with the National Academy Report, *Re-Thinking High-Level Radioactive Waste Disposal*.

G. The Task Force agrees; see page 18.

H. This language has been revised. See page 20.

I. Agree; see page 25. But more importantly see the revised discussion of the four bargains on pages 22-28.

J. The Task Force agrees; see revised language on page 25.

K. The Task Force arrived at this finding based on presentations by several dozen state and local government officials and representatives of a wide range of non-governmental organizations. They explicitly linked their lack of trust in the Department's radioactive waste management activities to a series of ill-conceived actions taken by DOE and its predecessor agency. The panel is prepared to take them at their word. It is quite possible that members of the general public believe that the Department is not worthy of trust because of the role of the media including the phenomenon of "social amplification of risk." (See page 38.) The Task Force does not regard these two explanation for the origin of distrust as necessarily contradictory.

L. The Task Force does not deny that NIMBY-ism can be a factor in causing declined trust in the Department of Energy's radioactive waste management activities. It just stated that distrust cannot be dismissed "merely" a result of the not-in-my-back-yard syndrome. The panel does believe, however, that it is less likely to manifest itself when a relationship of trust can be established.

M. The Task Force tried to make clear that the implementation of the specific measures must be worked out jointly with the affected parties. If some choose not to involve themselves for reasons they find compelling, that does not prevent others from engaging in them. To restore trust, the Department will need to offer a wide variety of opportunities for genuine involvement. Affected parties retain the option of selecting only those that they believe are appropriate.

N. This is an excellent example of how other actors in DOE's political environment can affect the level of trust and confidence accorded the Department. That is why the panel makes a distinction between DOE being considered trustworthy and it being worthy of trust.

O. There are many possible "test-beds" that can be found where the Task Force's recommendations could be tried. Given the fact that the Director's Forum is in limbo, the panel chose not to single it out.

P. Although the Task Force was not charged with evaluating the credibility of DOE scientific studies, it is well aware of what both the NAS and the NWTRB have had to say about them. While both bodies often disagree with particular choices and strategies and while there may be legitimate differences of scientific opinion, the Task Force is not aware of any document from either technical overseer that says or even suggests DOE's science is not credible, ie, believable. The one exception to this general rule might be the WIPP Panel's June 1992 letter. (See page 32.) Thus the Task Force believes that there is ample justification for the language it used.

Q. The Task Force feels that the local community bears the brunt of residual risk from a repository and therefore should reap commensurate benefits. This does preclude other efforts aimed at securing equity in the geographic distribution of risk. Also footnote 57 should be consulted in this regard.

R. They do not exist; the Task Force recommends their creation.

S. The Task Force's philosophy is one of inclusion not exclusion. See revisions made on page 61. See also the positive reference made to the conclusion of a protocol agreement between DOE and Lincoln County on page 52.

T. The logic underlying that recommendation is two-fold. First, there are trust and confidence reasons for having a second repository, both as a fallback in case Yucca Mountain proves to be unsuitable and as evidence that institutional momentum can be stopped in necessary. The attractiveness of a second repository is increased due to the possibility it will be needed to disposed of the projected inventory of waste. As the Task Force notes on page 23, multiple sites by no means guarantees lack of opposition to siting a repository.

U. While the Task Force does not necessarily disagree with this comment, the absence of any concrete interest in "new generations of nuclear power plants" renders it rather moot.

V. The Task Force takes full responsibility for its work.

W. This comment is not relevant to the Draft Final Report.