

ENVIRONMENTAL MANAGEMENT ADVISORY BOARD  
U.S. Department of Energy  
1000 Independence Avenue, S.W.  
Washington, D.C. 20585

November 30, 1998

Mr. James M. Owendoff  
Acting Assistant Secretary  
for Environmental Management  
U.S. Department of Energy  
1000 Independence Avenue, S.W.,  
Washington, D.C. 20585

Dear Mr. Owendoff:

This letter transmits the Environmental Management Advisory Board (EMAB) Report and Recommendations on Long-Term Stewardship, prepared by the Board's Long-Term Stewardship Committee and unanimously approved by the Board at its October 8, 1998 meeting. The Minutes of the Board meeting, which include a record of the discussions and deliberations regarding this Report and associated Recommendations, are available through the EMAB Executive Director.

If you have any questions or comments regarding this Report, please contact me through the EMAB office at 202-5964400.



Dr. David Bodde, Chair  
Environmental Management Advisory Board

Enclosure

**ENVIRONMENTAL MANAGEMENT ADVISORY BOARD  
LONG-TERM STEWARDSHIP COMMITTEE  
REPORT AND RECOMMENDATIONS**

**OCTOBER 8, 1998**

The Long-Term Stewardship Committee met on July 21 and 22, 1998, and met by conference call on September 25, 1998, to consider several recent reports on long-term stewardship issues and to continue its work along the lines outlined in the Committee's last recommendation to the Board. We reviewed the following: ICF Kaiser, *Managing Data for Long-Term Stewardship*; Kate Probst & Michael McGovern (Resources for the Future), *Long-Term Stewardship and the Nuclear Weapons Complex: The Challenges Ahead*; National Academy of Public Administration, *Deciding for the Future: Balancing Risks, Costs and Benefits Fairly Across Generations*; DOE, *From Cleanup to Stewardship (draft)*; DOE, *Accelerating Cleanup: Paths to Closure*; and several other pertinent documents. On the basis of that review and several very helpful presentations, the Committee proposes that the Board reiterate the importance of long-term stewardship in DOE's current decision making and planning, and that the Board recommend to DOE the specific actions that are detailed below.

In future meetings, the Committee will continue its study of the matters discussed in the following recommendations. In addition, it will examine long-term stewardship "on the ground" at representative sites. Some sites, notably UMTRA sites under the Grand Junction Projects Office, have begun stewardship activities; other sites, such as Mound, have very definite long-term plans; others have undertaken studies of their long-term stewardship needs; and at least one, Oak Ridge Reservation, has completed a stakeholder-led process on long-term stewardship.

*The Importance of Long-Term Stewardship*

The Board's previous recommendation on this subject (January 30, 1998) emphasized the importance of long-term stewardship in DOE's current decision making and planning processes. Long-term stewardship will be necessary at *all* Department of Energy sites where long-lived wastes or contaminants remain in place. Such materials -- many of which will remain toxic for thousands of years -- require careful management, as they continue to pose a real threat to human health and the environment, which is the fundamental guiding principle for long-term stewardship. Furthermore, long-term stewardship programs should be predicated on a partnership between federal, state, local and tribal governments and communities, with regard to both program development and implementation.

The issue of long-term stewardship is inextricably linked with numerous aspects of clean-up decisions, such as future land use, cultural concerns and treaty rights, the trade-offs between current and future risks and costs, and the choice between site stabilization and investment in technology development *versus* the use of existing and sometimes limited technologies that result in partial cleanup and constrained resource availability. A thorough evaluation of these issues would include

the physical and institutional controls needed to ensure continued protection; roles and responsibilities of those involved in implementing, monitoring and maintaining the controls; costs; enforcement and funding mechanisms; compliance with laws and treaties; and contingency plans. Looking holistically at cleanup provides for better decision making, and helps to ensure that cleanup alternatives chosen will be viable over the long term.

Given the extent and duration of the commitment that is needed to implement a long-term stewardship program successfully, it is imperative that the Department view these responsibilities as an integral part of its mission. It is also imperative that the Department provide for ample and meaningful public involvement in the debate about long-term stewardship needs, about the contaminants that will be left onsite, and about the land-use limitations and control mechanisms that will be required to protect human health and the environment. The Department also needs to recognize that stewardship is an iterative process that will require periodic adjustments over long periods of time.

It is with these issues and concerns in mind that the Long-term Stewardship Committee recommends the following:

#### *Recommendations*

1. DOE must take action to incorporate long-term stewardship into its local and national remedial action and waste management decisions. At present, such consideration is inconsistent and incomplete. Sites need to prepare site stewardship plans that address with specificity the following issues:
  - ! information management
  - ! compliance with applicable statutes, regulations, orders, and international and Native American treaties
  - ! burdens on future generations
  - ! monitoring and maintenance of facilities and physical controls
  - ! legal authority for stewardship and institutional controls
  - ! enforcement of institutional controls
  - ! contingency planning
  - ! present and future costs
  - ! effects of property transfers to other agencies or non-federal owners
  - ! roles and responsibilities of federal, state, tribal, and local governments.

State, tribal, and local governments and interested stakeholders should have the opportunity to be involved in the development of the foregoing information and its use in remedial action and waste management decisions.

2. EM needs to establish a single, adequately staffed organization with responsibility for long-term stewardship research, decisions, and planning. Specifically, such an organization should

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- ! define long-term stewardship functions
- ! develop protocols for incorporating long-term stewardship into current and future site-specific and programmatic decisions
- ! study institutional arrangements
- ! find effective institutional controls
- ! develop criteria for adopting different stewardship measures
- ! create a permanent, accessible repository for stewardship information.

This organization should start within EM, because long-term stewardship (like EM) deals with the end of the life cycle of DOE materials, and because DOE's existing expertise on long-term stewardship resides primarily in EM. Eventually, however, the organization may need to be broader than EM because long-term stewardship activities also involve other elements of the Department, especially at sites with continuing missions.

3. To the extent that the types of information required by Recommendations 1 and 2 are not available, DOE needs to take steps to identify, preserve, and where necessary to develop such information. EM has in fact begun this process, but it must continue and move toward making this information available both for current decision making purposes and for the development of a long-term stewardship program. Specifically, EM should identify its "stewardship baseline," that is, the specific items of information that are necessary to plan and carry out long-term stewardship. The draft report entitled *Managing Data for Long-Term Stewardship* is an excellent start in this direction.

EM should immediately suspend the operation of protocols that require the routine destruction of relevant records. EM should also coordinate its information activities with the work of the Secretary's Openness Committee to identify and provide for the management of records relevant to long-term stewardship.

Finally, to facilitate the ready availability of relevant information to decision makers and stakeholders, DOE should consider creating a geographically based or other type of database for stewardship information, including, in particular, land transfer and risk information. In doing so, however, DOE must take care that the goal of informing ongoing decisions is not lost (that is, the database should not be an end in itself) and that the format chosen is a durable one (because archival experts have warned of the relatively short life of electronic formats).