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December 4, 2000

Steven Livingstone
Project Manager
U.S. Department of Energy
P.O. Box 45079
Washington, D.C. 20026-5079

Dear Mr. Livingstone:

We are pleased to provide comments on the Department of Energy's Long-Term Stewardship Study Draft dated October 2000.

This draft is a very well reasoned and thoughtful analysis of the problems and issues that DOE faces in managing the legacy of wastes left from its' operations from the beginning of the cold war through the present and into the future. Though the document notes that this is not a decision document, it provides a good framework for DOE managers to begin their evaluations in many other decision documents. We also believe it provides a good basis for DOE to begin formulating Policy Guidance. 1.1

1.1 – The Department appreciates this comment. Thank you.

We are especially pleased to see the emphasis on planning for uncertainty and fallibility. By planning for these, DOE stands a much better chance of avoiding difficult and costly responses long after cleanup was thought to be completed. 1.2

1.2 – The Department appreciates this comment. Thank you.

The draft recognizes the value of contingency planning and emergency management for unanticipated events.

Lakeview Uranium Mill Waste Disposal Site

One of the first long-term disposal sites for Uranium Mill wastes was completed several years ago near Lakeview, OR. This site is instructive on what DOE might expect for some long-term stewardship issues. During construction, the cover rock authorized by DOE was of lower quality than originally specified. 1.3

1.3 – This comment focuses on site-specific issues. Where these issues have identified general issues for long-term stewardship, the Department has attempted to communicate these issues in both the Draft and Final Study. This comment has been forwarded to the Department's long-term stewardship representatives at the appropriate sites; however, the long-term stewardship study is not the appropriate document for addressing site-specific issues.

Since completion of the disposal cell, several problems have been noted. Cows walked up a hill immediately adjacent to the site and formed a furrow, which eroded. If this continued uncorrected, it had the potential to erode into the disposal cell. The damage was repaired and a fence is now maintained below the disposal cell to keep the cows away.

A badger was also found burrowing into the soils on top of the hill immediately adjacent to the disposal cell. The badger was relocated and the damage repaired. This too threatened the cell and might have been avoided with minor changes to the disposal cell design.

The greatest threat to the disposal cell so far is from the rock used in the disposal cell cover. The rock is showing signs of degrudation and is breaking up. It is likely that at some point this portion of the cover will need to be removed and replaced. This cap and cover was designed for a one-thousand year life.

Indian Tribes

The draft makes extensive comments analyzing and supporting DOE's obligations to Native Americans and to Tribal Treaty duties. However, this is inconsistently applied. It seems to place emphasis on the "host community", while neglecting the often major importance that DOE sites play in regions of the country.

The Hanford site is instructive in this regard. Though Hanford has the greatest immediate impact on the local Tri-City communities of Richland, Pasco and Kennewick, it also has enormous impact on the broader Columbia Basin, including both Oregon and Washington States, the Yakima Nation, the Wanapum, the Confederated Tribes of the Umatilla and the Nez Perce Tribe. Public involvement in all aspects of the site must include the interests from the entire effected region.

1.4

1.4 – This comment is acknowledged in a text box in Section 9.1 of the Study. The definition of "affected parties" in Chapter 1 of the Study was broadened to include regional concerns. Section 4.1 and Chapter 9 of the Study acknowledge the special government-to-government relationship between the federal government and Tribal governments. Chapter 9 of the Study also acknowledges the importance of ensuring that the federal Indian Trust Responsibilities and federal treaty obligations are met.

Four Principles

The draft identifies The Four Principles of Intergenerational Equity. A fifth principle should also be included – The Trust Principle. The Trustee Principle focuses on our duty for our descendants. The Trust Principle extends this to the Federal Governments obligation and duties for the Tribes descendants.

1.5

1.5 – This comment is acknowledged in a text box in Section 9.1 of the Study. The Department agrees that long-term stewardship activities must ensure that the federal Indian Trust Responsibilities and federal treaty obligations are met. However, the Four principles of Intergenerational Equity noted in the Draft Study are a direct citation from the National Academy of Public Administration report.

Failure of long term institutional controls

To succeed, Long-Term Stewardship at DOE sites must avoid to the greatest degree possible the use of institutional controls. Instead, active remediation combined with proven engineered barriers should be preferred.

The conceptual models used to support these designs must be verified to bound the actual site conditions. In particular, horizontal transport of moisture through soils challenges the utility of surface barriers.

1.6

1.6 – Long-term stewardship planning (see Chapter 4 of the Study) and remedy selection decisions are done on a site-specific basis with input from regulators, stakeholders, and the public. As noted in Exhibit 3-1 of the Study, the criteria used to evaluate remedial alternatives include long-term effectiveness and cost-effectiveness. The long-term effectiveness of institutional controls is one of the criteria for evaluating long-term stewardship requirements during remedy selection that have been suggested in guidance developed by DOE, EPA, and the Department of Defense (DoD) and in recommendations forwarded to the Department (see Exhibits 3-2 and 3-3 in the Study). The Department also has identified the need to promote new science and technology development to help address the uncertainties associated with maintenance of institutional and engineered controls. The Department acknowledges the public concerns about long-term effectiveness in a text box in Section 3.2 of the Study. The issue of uniform or national standards for cleanup is beyond the scope of this Study because this document focuses on long-term stewardship. In addition, the Department notes that the specific mix of active remediation, proven engineered controls, and institutional controls needs to be decided on a site-specific basis.

Timeframes

It is unfortunate that many of the wastes created by DOE over the past fifty years will remain intrinsically dangerous a long time. As a result, cleanups at the sites need to focus on ensuring the permanence of proposed remedies for the indefinite future. The hazardous waste laws are for the most part aimed at ensuring compliance for a few decades to at most a century. They do not easily lend themselves to analyzing hazards over thousands of years. Long-Term Stewardship can play a central role in changing the way cleanups are done, thereby reducing both the hazards remaining and the long term costs. As a beginning, cleanups should be implemented in such a manner that there is a high likelihood that they will remain effective as long as the wastes remain dangerous. 1.7

1.7 – Long-term stewardship planning (see Chapter 4 of the Study) and remedy selection decisions are done on a site-specific basis with input from regulators, stakeholders, and the public. As noted in Exhibit 3-1 of the Study, the criteria used to evaluate remedial alternatives include long-term effectiveness and cost-effectiveness. The long-term effectiveness of institutional controls is one of the criteria for evaluating long-term stewardship requirements during remedy selection that have been suggested in guidance developed by DOE, EPA, and the Department of Defense (DoD) and in recommendations forwarded to the Department (see Exhibits 3-2 and 3-3 in the Study). The Department also has identified the need to promote new science and technology development to help address the uncertainties associated with maintenance of institutional and engineered controls. The Department acknowledges the public concerns about long-term effectiveness in a text box in Section 3.2 of the Study. The issue of uniform or national standards for cleanup is beyond the scope of this Study because this document focuses on long-term stewardship.

The draft notes the inadequacies of our current technical understanding and capabilities. It further provides the impetus to advance the science, engineering and technology for a remedy. Understanding how well or poorly we understand the ecosystems, physical environment, transport processes other factors and uncertainties will form a key component of any such analysis. 1.8

1.8 – The Department acknowledges these comments in a text box in Section 4.2.4 of the Final Study. As noted in Section 4.2.4 of the Final Study, the Department's process for developing and implementing new science and technology includes developing a long-term stewardship science and technology roadmap that will (1) identify science and technology needs; (2) identify existing capabilities to meet these needs both within and external to DOE; (3) determine research and development priorities; and (4) direct specific efforts to meet these needs. The Department agrees that research into a number of key areas is needed, including the long-term effectiveness and reliability of engineered and institutional controls; surveillance and monitoring; and information management. Advances in science and technology may provide future generations with the ability to cost-effectively achieve unrestricted use at some sites. The Department's Long-term Stewardship Working Group recently identified the policy issue as to whether the ultimate goal of new science and technology should be to improve the ability to maintain the existing end state (i.e., the end state established during cleanup) or should be to "improve" the end state more closely toward unrestricted use as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee.

Environmental Justice

At DOE sites, cleanup decisions are frequently analyzed by using a combination of different exposure scenarios. The two most common are the industrial and residential scenarios. Residential scenarios set an acceptable risk cutoff of one in one-million. The industrial scenario assumes that exposure is limited by exposure time and exposure pathways. It allows for a higher risk level of one chance in ten-thousand of inducing a fatal cancer.

Industry may favor building on clean land to avoid liability for past practices of others that used the site before them. This may invalidate the assumptions used in the industrial cleanup scenario and seriously question the policy of having two cleanup levels. What is needed is a uniform protective standard for cleanup that recognizes the unique conditions at each site. 1.9

1.9 – The extent that risk-based cleanup standards can be adapted to a particular land use is the approach followed by DOE and external regulators in making cleanup decisions.

Land Use

At present, many DOE cleanup decisions are predicated on deciding today what land use will be more than a century from now. The acceptable level of cleanup is set by the scenarios that flow from this land use that recognizes the unique conditions at each site.

However, the reality as is noted by the draft is that institutional controls cannot be relied upon. People's desires can and do change and the land use cannot be assured. These factors lead to 1.10

1.10 – Long-term stewardship planning (see Chapter 4 of the Study) and remedy selection decisions are done on a site-specific basis with input from regulators, stakeholders, and the public. As noted in Exhibit 3-1 of the Study, the criteria used to evaluate remedial alternatives include long-term effectiveness and cost-effectiveness. The long-term effectiveness of institutional controls is one of the criteria for evaluating long-term stewardship requirements during remedy selection that have been suggested in guidance developed by DOE, EPA, and the Department of Defense (DoD) and in recommendations forwarded to the Department (see Exhibits 3-2 and 3-3 in the Study). The Department also has identified the need to promote new science and technology development to help address the uncertainties associated with maintenance of institutional and engineered controls. The Department acknowledges the public concerns about long-term effectiveness in a text box in Section
3.2 of the Study. The issue of uniform or national standards for cleanup is beyond the scope of this Study because this document focuses on long-term stewardship. In addition, the Department agrees that institutional controls must be continuously monitored for effectiveness, and the results made available to all stakeholders. DOE also recognizes that future stakeholders may have views and desires for land uses that are different than those established by today's stakeholders. Therefore, a viable long-term stewardship program is necessary to

potential failures in Long-Term Stewardship. What is needed is a uniform protective standard for cleanup.

Cleanup Standards

DOE managers and regulators also often make a distinction on cleanup standards based on land-use. When the proposed future use of the land is decided, the regulators and DOE tend to set cleanup levels that allow much higher residuals of contaminants to remain behind. As noted above, this leaves a large vulnerability to change as these land-use decisions are revisited in the future.

1.11 – Since cleanup decision documents must specify or reference a future land use for the site appropriate for the protection of human health, worker safety, and the environment, a remedy would be unprotective if the land use decision was reversed resulting in unacceptable exposures. The remedy may need to be revisited in this case to ensure long-term protection of human health and the environment.

At Hanford, DOE and the regulators have proposed setting cleanup levels in this way. However, in the short time since these decisions were made, large portions of the site have been designated as a National Monument. The U.S. Fish and Wildlife Service (USF&W) is the lead Federal agency for management of the monument. They propose to require that cleanup levels for lands in the monument be more restrictive to protect the ecosystems than was proposed for protection of humans under the residential scenarios.

It is possible that contaminated lands under DOE control today will have to be cleaned up to more stringent standards to allow ultimate transfer to USF&W. If not DOE will likely have to institute and maintain long-term protective actions and stewardship over contaminated parcels surrounded by National Monument lands.

Public Involvement

Throughout this process, the public – both local and regional – the effected States, Tribes and others should be consulted and involved in the decision making. This already occurs over the short term for most decisions made under the direction of The National Environmental Policy Act, the Resource Conservation and Recovery Act and the Comprehensive Environmental Response, Compensation and Liability Act. It must also occur at each decision point throughout the long-term stewardship period.

1.12 – The Department acknowledges this comment in a text box in Section 3.2 of the Study. Existing laws and regulations, especially the CERCLA process that is used for many site cleanups, require public involvement in the activities and decisions that lead to the selection of a remedy (ROD), including the technical and economic feasibility of cleanup to unrestricted use. However, these laws and regulations do not clearly articulate the role of public involvement in the activities and decisions that follow the ROD. At the same time, the Department recognizes that the ultimate success of long-term stewardship depends on the active involvement of the affected parties, including local governments and Tribes. It is important for all parties to develop a workable approach for meaningful public involvement in the decisions that affect and manage long-term stewardship activities. The Study identifies this as an additional key challenge associated with long-term stewardship. The Department's Long-term Stewardship Working Group recently identified public involvement as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. This issue includes how DOE should balance the need to involve the public in maintaining controls (e.g., institutional controls such as water use restrictions) with competing needs such as classified information or activities, particularly at sites with ongoing national security missions. The Department's Long-term Stewardship Working Group also has identified the issue of under what circumstances DOE should consider funding of external parties as one of the most important issues that should be addressed by the Executive Steering Committee. Although the general issue of public involvement has been identified to the Executive Steering Committee, specifics of implementation (e.g., what external organizations should be involved, what should be provided by DOE, what mechanisms for public involvement should be used) have not been discussed and may be determined on a site-specific basis. We intend the public participation process will allow the Tribes and the public to express their views on long-term stewardship activities at DOE sites.

State and Tribal Governmental Working Group (STGWG) comments

We endorse and strongly support the comments provided by the State and Tribal Governmental Working Group.

1.12.1 – Please see responses to comment letter 28.

Attached are our additional detailed comments.

If you have any questions in regards to our comments, please contact me at (503) 378-5544 or Mr. Dirk Dunning on my staff at (503) 378-3187.

Sincerely,

Mary Lou Blazek
Nuclear Safety Program Manager
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Salem, OR 97301-3742

Cc:
States and Tribal Working Group
National Governors Association
Hanford Advisory Board
Oregon Hanford Waste Board

Detailed comments and questions on the Department of Energy's Long-Term Stewardship Study Draft dated October 2000

- How will DOE enforce restrictions on land owned by someone else, particularly if ownership continues to change hands? 1.13

- Part 2.5 page 8 states in part that continued protection of human health and the environment will depend on public awareness and institutional openness. This is one of the most critical challenges to sustainability.

  DOE must begin public awareness as soon as possible with stakeholder participation. The only way the public will respect restrictions is if they are involved from the beginning and continue with a robust public awareness and involvement program. In addition, if such controls are to be used, there must be some way to assure that they remain in place and remain used for so long as the hazard remains. Already we know that at DOE sites, memory of what was disposed begins to fail within a decade. 1.14

- Part 2.6 page 8 states in part that one of the biggest stakeholder concerns is the source and nature of sustained funding for long term stewardship. A variety of issues are associated with each funding alternative, including in some cases the lack of clear legislative authority to implement the alternative. 1.15

  The draft should outline the issues associated with each alternative.

- Part 2.7 page 8 states in part that Tribal goals often differ from those of local governments. 1.16

  DOE should consider tribal interests as a priority.

- Part 2.8 page 10 states in part that residual hazards and strategies for managing these hazards **should be re-evaluated periodically to take into account new science and technology.** 1.17

  Stakeholders should be involved in these evaluations.

- Chapter 3: page 13 states in part that requirements of cleanup decisions under RCRA typically extend up to 30 years beyond completion of cleanup, with provisions to extend monitoring and maintenance activities beyond that period if necessary. 1.18

  The plan should include the point at which the decision to extend would be made. It should also include at what points during the 30 years the public will be involved and that the public will be involved beyond that point if further decisions need to be made.

1.13 – This comment is acknowledged in a text box in Section 6.2 of the Study. Section 6.2 of the Study recognizes the many issues, public concerns, and uncertainties associated with ensuring the continued provision of long-term stewardship after property transfers. The Department's Long-term Stewardship Working Group recently identified the issue of how DOE will ensure adequate protection of human health and the environment at sites transferred to the private sector as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. This comment will be provided to the Executive Steering Committee for their consideration.

1.14 -- See response to Comment 1.7

1.15 – The Department acknowledges this comment in a text box in Section 8.2 of the Study. As noted in Section 8.2 of the Study, developing an alternative funding mechanism will require additional study and eventually Congressional action. Section 8.2 of the Study also provides a summary of the recent study of Trust Funds by Resources for the Future. The Department's Long-term Stewardship Working Group recently identified funding of long-term stewardship as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. Specific funding issues identified by the Working Group included: (1) difficulties in determining long-term stewardship costs now and in the future because there is no consistent procedure for how long-term stewardship activities are budgeted for and reported among DOE sites; (2) whether the annual appropriations process is the most effective mechanism for funding long-term stewardship activities that may be needed for decades or centuries; and (3) circumstances under which DOE should consider funding external parties (e.g., local governments) to conduct long-term stewardship activities or oversight. This comment will be forwarded to the Executive Steering Committee for their consideration. In addition, the Department believes that Section 8.2 of the Study adequately discusses

1.16 – See response to Comment 1.4.

1.17 – See response to Comment 1.12.

1.18 – As noted in Section 4.2.2 of the Study, site-specific long-term stewardship plans are required by law for uranium mill tailings sites and must be approved by the Nuclear Regulatory Commission. The Department also requests the development of a site-specific long-term stewardship plan before accepting long-term stewardship responsibilities for any site. As the EM mission at a site is completed, current plans call for the EM program and the site landlord (if different from EM) to develop a long-term stewardship baseline for each site. The baseline will describe the scope of applicable long-term stewardship requirements, the technical activities and the projected schedule to meet these requirements, and expected costs. The Department acknowledges these comments in a text box in Section 4.2 of the Final Study and will consider the recommendations they provide in developing the guidance that will specify the format and content for site-specific long-term stewardship plans.

- Page 14 states in part that for UMTRA sites there is no termination of the general license issued by the NRC for custody and long-term care of residual radioactive material disposal sites.

  DOE should have a general license or some other regulatory arrangement with NRC for long term maintenance and monitoring in perpetuity. 1.19

- Page 14 also states in part …if complete treatment or removal of the source(s) and resulting contaminated media is technically and economically feasible….

  It should be stated that DOE will make this decision in consultation with regulators and stakeholders. 1.20

- Part 3.2 page 15 states in part…Preliminary and Final Close-out Reports …provide more …information about the …remedy and requirements for operation …and monitoring of the remedy.

  The public involvement process for the preliminary and final Close-out Report should be stated. 1.21

- Page 17 discusses Remedy Monitoring Plans

  There is no discussion of any public process prior to issuing a final plan. If this is the case, a decision (remedy selection) is made which leads to the decision about long-term stewardship without public involvement. 1.22

- Exhibit 3.3 page 20 (Department of Energy) outlines criteria developed by DOE, EPA and DOD for evaluating long-term stewardship.

  This exhibit should discuss the points for public involvement in the process. 1.23

- Exhibit 3-4 Recommendations by Affected Parties is an important list of considerations and we support them.

- Exhibit 3-4 (continued) suggests that Congress should establish a fund that will generate the required annual budget for stewardship. Another bullet points out that the Assistant Secretary should require full consideration of the estimated lifecycle costs of remediation and long-term institutional controls in order to evaluate the tradeoffs between cleanup and stewardship. We agree. Further, this analysis should include a full analysis of non-economic life-cycle impacts. 1.24

1.19 – The Department acknowledges these comments in a text box in Section 4.1 of the Final Study. The specific mechanisms available for oversight and enforcement of long-term stewardship vary according to the applicable regulatory regime(s) and state laws on a site-specific basis. The Department has not developed a policy on potential alternative regulatory regimes at specific sites. These comments will be provided to the senior management Long-term Stewardship Executive Steering Committee for their consideration.

1.20 – The Department acknowledges this comment in a text box in Section 3.2 of the Study. Existing laws and regulations, especially the CERCLA process that is used for many site cleanups, require public involvement in the activities and decisions that lead to the selection of a remedy (ROD), including the technical and economic feasibility of cleanup to unrestricted use. However, these laws and regulations do not clearly articulate the role of public involvement in the activities and decisions that follow the ROD. At the same time, the Department recognizes that the ultimate success of long-term stewardship depends on the active involvement of the affected parties, including local governments and Tribes. It is important for all parties to develop a workable approach for meaningful public involvement in the decisions that affect and manage long-term stewardship activities. The Study identifies this as an additional key challenge associated with long-term stewardship. The Department's Long-term Stewardship Working Group recently identified public involvement as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. This issue includes how DOE should balance the need to involve the public in maintaining controls (e.g., institutional controls such as water use restrictions) with competing needs such as classified information or activities, particularly at sites with ongoing national security missions. The Department's Long-term Stewardship Working Group also has identified the issue of under what circumstances DOE should consider funding of external parties as one of the most important issues that should be addressed by the Executive Steering Committee. Although the general issue of public involvement has been identified to the Executive Steering Committee, specifics of implementation (e.g., what external organizations should be involved, what should be provided by DOE, what mechanisms for public involvement should be used) have not been discussed and may be determined on a site-specific basis. We intend the public participation process will allow the Tribes and the public to express their views on long-term stewardship activities at DOE sites. The Department also notes that Chapter 1 of the Study states that DOE's cleanups are based on existing plans and agreements with regulators, with input from affected parties.

1.21 – See response to Comment 1.12.

1.22 – See response to Comment 1.12.

1.23 – The Department acknowledges this comment in a text box in Section 3.2 of the Study. Existing laws and regulations, especially the CERCLA process that is used for many site cleanups, require public involvement in the activities and decisions that lead to the selection of a remedy (ROD), including the technical and economic feasibility of cleanup to unrestricted use. However, these laws and regulations do not clearly articulate the role of public involvement in the activities and decisions that follow the ROD. At the same time, the Department recognizes that the ultimate success of long-term stewardship depends on the active involvement of the affected parties, including local governments and Tribes. It is important for all parties to develop a workable approach for meaningful public involvement in the decisions that affect and manage long-term stewardship activities. The Study identifies this as an additional key challenge associated with long-term stewardship. The Department's Long-term Stewardship Working Group recently identified public involvement as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. This issue includes how DOE should balance the need to involve the public in maintaining controls (e.g., institutional controls such as water use restrictions) with competing needs such as classified information or activities, particularly at sites with ongoing national security missions. The Department's Long-term Stewardship Working Group also has identified the issue of under what circumstances DOE should consider funding of external parties as one of the most important issues that should be addressed by the Executive Steering Committee. Although the general issue of public involvement has been identified to the Executive Steering Committee, specifics of implementation (e.g., what external organizations should be involved, what should be provided by DOE, what mechanisms for public involvement should be used) have not been discussed and may be determined on a site-specific basis. We intend the public participation process will allow the Tribes and the public to express their views on long-term stewardship activities at DOE sites. In addition, the Department believes that the text in Section 3.2 of the Study adequately provides this information.

1.24 – The Department acknowledges this comment in a text box in Section 8.1 of the Final Study. The Department agrees that more information is needed on the scope of future long-term stewardship activities and better life-cycle costs estimates are needed. The Final Study incorporates the cost estimates from the Report to Congress on Long-term Stewardship and will discuss the basis for these estimates. Accurate cost estimates are critical for long-term stewardship, particularly for ensuring accountability for the technical scope of the program. The Report to Congress on Long-term Stewardship is only the first step in developing the necessary cost figures. The Department's Long-term Stewardship Working Group recently identified funding of long-term stewardship as one of the most important issues that should b e addressed by the senior management Long-term Stewardship Executive Steering Committee. Specific funding issues identified by the Working Group included difficulties in determining long-term stewardship costs now and in the future because there is no consistent procedure for how long-term stewardship activities are budgeted for and reported among DOE sites. This comment will be forwarded to the Executive Steering Committee for their consideration.

- Part 7.2 page 73 states in part that "The first step in such an effort would be to develop a consensus on the types if activities onsite and in the surrounding communities that will require information.

  This section should state…"will require information" add…by involving **the regional stakeholders** and surrounding communities…

1.25 – The text now mentions regional "affected parties". The Department uses this term instead of the suggested word: "stakeholders".

- Page 74 **"Make critical information available to offsite entities."** Change the first sentence to read: DOE needs to work proactively with **States, stakeholders and** local communities to make information available…..

1.26 – The text has been changed to reflect this comment; however, the term "affected parties" is used rather than "stakeholders".

- Page 77 regarding records…first line should be changed to read "site files in **regional** and local libraries;

1.27 – The text has been changed to reflect this comment; however, the phrase "local libraries" is used instead.

- Page 78 first line should be changed to read "between dispersed and central control, but more dialogue **to include stakeholders** is required …

1.28 – This comment is reflected in the text; however, the term "affected parties" is used rather than "stakeholders".

- Page 85 Item number 2 at the bottom of the page. Long-term Stewardship Funds /Escrow Account. We strongly support this approach.

1.29 – The Department acknowledges this comment in a text box in Section 8.2 of the Study. As noted in Section 8.2 of the Study, developing an alternative funding mechanism will require additional study and eventually Congressional action. Section 8.2 of the Study also provides a summary of the recent study of Trust Funds by Resources for the Future. The Department's Long-term Stewardship Working Group recently identified funding of long-term stewardship as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. Specific funding issues identified by the Working Group included: (1) difficulties in determining long-term stewardship costs now and in the future because there is no consistent procedure for how long-term stewardship activities are budgeted for and reported among DOE sites; (2) whether the annual appropriations process is the most effective mechanism for funding long-term stewardship activities that may be needed for decades or centuries; and (3) circumstances under which DOE should consider funding external parties (e.g., local governments) to conduct long-term stewardship activities or oversight. This comment will be forwarded to the Executive Steering Committee for their consideration.

- Page 94, Exhibit 9-1 describes a process for involving the public in DOE's decision process. However, it omits the special government to government relationship between the Federal Government (represented by DOE) and the Tribes in the process, as well as the regulators and broader regional interests.

1.30 – Section 9.1 includes a text box on the Role of Tribal Governments in Long-term Stewardship.

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7 December 2000

Steven Livingstone, Project Manager
U.S. Department of Energy
P.O. Box 45079
Washington, DC 20026-5079

Subject: Comments on "Long-Term Stewardship Study", draft of October 2000.

Dear Mr Livingstone:

I have participated in various Oak Ridge groups interested in stewardship and in their review of the subject draft. Here, I wish to comment as an individual on one specific aspect that seems of particular importance.

On page 38, a box summarizes various needs for research and development. Although I do not quarrel with any of them, it seems to me there is a grievous omission. Estimates of stewardship costs for the Oak Ridge Reservation have varied wildly, but many projections have been in the range of ten to fifteen million dollars per year. However, the breakdowns have frequently attributed $10 million plus to Bethel Valley (site of Oak Ridge National Laboratory) alone. When one is aware of the far worse contamination over the ridge in Melton Valley, not to speak of Y-12 and the old K-25, such a large fraction raises questions.

So far as we members of the public have been able to elucidate answers, it appears that the major drains in Bethel Valley are the costs of pumping and treating ground water, eighty or ninety percent of the total. It seems unlikely that pumping is the major factor; most of the water appears to be from the sumps of buildings in the area, with relatively small fractions from controlling the core-hole 8 and other plumes. Treatment then must be the major cost. From what numbers I have been able to extract in oral presentations, it seems that of the order of $100/kilogallon is being spent on treatment. The feed is only slightly contaminated; it does not need elaborate shielding for the workers. This cost seems exorbitant. I don't know what is spent to make high-salinity Persian Gulf water potable, but I doubt it is over 5 or 10% of $100/kilogallon. 2.1

Applied research topics are usually selected on the basis of economic gain of success and the probability of success. It seems to me that improvement of technology for water treatment (or just adopting better available technology) easily meets both of these criteria. I have the impression that similar high costs are being incurred in DOE sites other than Oak Ridge. 2.2

Although the projections of gross stewardship costs I quoted have appeared in CERCLA and other documents, the volumes of water being treated in Bethel Valley and costs attributed to the activity have been gleaned from oral presentations. There is consequently a possibility of misunderstanding. However, if the numbers are in the ball park, there needs to be an assessment of current practices.

Sincerely,

James S. Johnson, Jr

2.1 – This comment focuses on site-specific issues. Where these issues have identified general issues for long-term stewardship, the Department has attempted to communicate these issues in both the Draft and Final Study. This comment has been forwarded to the Department's long-term stewardship representatives at the appropriate sites; however, the long-term stewardship study is not the appropriate document for addressing site-specific issues.

2.2 – The Department acknowledges this comment in a text box in Section 4.2.4 of the Study. The Department has identified two preliminary goals for new science and technology for long-term stewardship: (1) reduce long-term stewardship costs, and/or (2) increase long-term stewardship effectiveness. These preliminary goals may change in the future as DOE gains more experience with long-term stewardship. Section 4.2.4 also notes that expertise and solutions may come from the private sector.

130 Oklahoma Avenue
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November 26, 2000

Steven Livingstone, Project Manager
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Dear Mr. Livingstone **Comments on the draft Long Term Stewardship Study of October 2000**

This report is an excellent effort to illuminate the large issues involved for Department of Energy Long Term Stewardship (LTS) and indicate the available broad policy directions. I did not detect a major point that is not covered somewhere at least by implication. A few ideas, however, were treated too lightly or indirectly to command the future attention they deserve. A few sentences changed or added could eliminate these residual questions.

3.1 – The Department appreciates this comment. Thank you.

Citizen requests, as in Oak Ridge, for better LTS coverage in Proposed Plans (PP) and Records of Decision (RODs) are dismissed on pages 15 and 17 in Section 3.2 with an argument based on a flawed statement of the request. Nobody expects a detailed stewardship plan in a ROD, a plan that would locate signs, fenceposts, the exact width of buffer zones, or list the botanical and biological species that will be monitor ed forever. Yet the impossibility of including such detail has been given as the reason for not including meaningful stewardship discussions in the crucial decision docu ments (PP and ROD) that set out the whole remediation strategy for an area. How can stewardship be considered in remedy suggestion as the LTS study suggests on page 16 if these documents do not clearly commit to maintaining a level of remedia-tion through time that is sufficient to achieve the chosen Remedial Action Objectives? (There is an open process for modifying objectives.) Here, "remediation" includes all the monitoring, maintenance of both institutional and physical controls, information storage and retrieval, public education, and reconsideration of alternatives to which your Study refers. (An analogous issue must exist at sites not regulated under CERCLA.) I believe that a post-ROD document, to which the public has no required input, is no place to be defining high level goals for long-term stewardship as is suggested near the end of page 17.

3.2 – The Department acknowledges this comment in a text box in Section 3.2 of the Study. Existing laws and regulations, especially the CERCLA process that is used for many site cleanups, require public involvement in the activities and decisions that lead to the selection of a remedy (ROD), including the technical and economic feasibility of cleanup to unrestricted use. However, these laws and regulations do not clearly articulate the role of public involvement in the activities and decisions that follow the ROD. At the same time, the Department recognizes that the ultimate success of long-term stewardship depends on the active involvement of the affected parties, including local governments and Tribes. It is important for all parties to develop a workable approach for meaningful public involvement in the decisions that affect and manage long-term stewardship activities. The Study identifies this as an additional key challenge associated with long-term stewardship. The Department's Long-term Stewardship Working Group recently identified public involvement as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. This issue includes how DOE should balance the need to involve the public in maintaining controls (e.g., institutional controls such as water use restrictions) with competing needs such as classified information or activities, particularly at sites with ongoing national security missions. The Department's Long-term Stewardship Working Group also has identified the issue of under what circumstances DOE should consider funding of external parties as one of the most important issues that should be addressed by the Executive Steering Committee. Although the general issue of public involvement has been identified to the Executive Steering Committee, specifics of implementation (e.g., what external organizations should be involved, what should be provided by DOE, what mechanisms for public involvement should be used) have not been discussed and may be determined on a site-specific basis. We intend for the public participation process to allow for meaningful Tribal and public involvement. Note also that The Department agrees that Records of Decision and other decision documents should clearly identify problems, remedial objectives, and long-term stewardship implications to the extent feasible. Section 3.2 of the Study has been revised to emphasize this point.

On page 41 and Exhibit 5-1 the authors of the Study acknowledge that persons outside the originally contaminated area are protected from hazards primarily by "engineering controls" designed to stabilize the contaminants, rather than by "institutional controls" that keep people away from hazards. However, the rest of the report dwells far too much on the latter type of remedy. Unless contaminated properties are transferred to owners who prove to be complacent and uncooperative, the engineering controls and their maintenance will be the more important for DOE sites just as they are for strip mines and old hazardous waste dumps that lack effective liners and caps. Where hazardous contamination will be left in place at weapons sites, engineered physical controls will be added to substitute for the careful structure of a proper landfill; storm and flood are bound to challenge the halfway measures that must be used to control contaminant transport

3.3 – The Department acknowledges this comment in Section 5.3 of the Study. The Department believes that Section 5.3 of the Study appropriately discusses the difficulties and challenges associated with ensuring the long-term maintenance of institutional controls, including roles and responsibilities for enforcement. The determination of the type of institutional controls and enforcement of these controls (e.g., by DOE or external parties) will be determined on a site-specific basis as part of remedy selection and long-term stewardship planning and may change over time.

On page 48 and particularly in Exhibit 5-4, the authors indicate the fragility and possible uselessness of land use control measures such as deed restrictions. I recall that the paper of Mary English, your Reference 49, indicates that easements and other deed restrictions have been found to fail over time unless the owner that originates the restrictions (here usually the federal government) consistently enforces the restrictions in the civil courts. This finding is very important, and suggests a strong and difficult condition for the usefulness of deed restrictions. I have found many references to deed restrictions in government regulations and decision documents, but recall only one case that indicated the intent of the agency to inspect and then enforce the restriction (groundwater licenses in Union Valley in Oak Ridge). If Ms. English is correct for an important fraction of the cases, this consistent enforcement caveat needs emphasis; it is just the type of condition that engineers and members of the public are unlikely to think of. (Another approach would be for the DOE to convince state legislatures to enable third party lawsuits to enforce deed restrictions for a class of lands that includes DOE sites. Local governments normally cannot and do not try to enforce such restrictions.)

3.4 – See response to Comment 3.3.

Please mention the significance of cost inflation to the considerations involving trust funds in Section 8 around page 91. The trust described in Exhibit 8-5 for stewardship of the Oak Ridge Reservation Environmental Management Waste Management Facility can succeed only if the terms of agreement are broadly interpreted to include regularly using a portion of the trust income to increment the principal. This reinvestment would counteract the expected gradual increase over time in the dollar cost of maintenance and monitoring. The Tennessee trust fund agreement is a real breakthrough, and interestingly it is one in which the local public played no roles except to be concerned before and to cheer after it was signed.

3.5 – The Department acknowledges this comment in a text box in Section 8.2 of the Study. The text in Exhibit 8-3 was modified to note this point.

The likely importance of continuing local public involvement to effective LTS is introduced in the sidebar on page 91 concerning public participation. I applaud those comments, but would go farther. I think some sort of citizen stewardship board will be needed at the widely contaminated sites. Successful organization of such boards will be difficult, and some encouragement by the federal government may be required. Local governments could combine to provide such informal oversight, but my own extensive experience as a county legislator suggests that long term problems rarely get the attention of local political leaders. They are usually busy paving roads, operating jails, and hiring school teachers, all on a tight annual schedule. Often, some citizen group must activate the elected leaders. Also, local governments are under heavy pressure to overprioritize economic development efforts.

3.6 – The Department acknowledges this comment in a text box in Section 3.2 of the Study. Existing laws and regulations, especially the CERCLA process that is used for many site cleanups, require public involvement in the activities and decisions that lead to the selection of a remedy (ROD), including the technical and economic feasibility of cleanup to unrestricted use. However, these laws and regulations do not clearly articulate the role of public involvement in the activities and decisions that follow the ROD. At the same time, the Department recognizes that the ultimate success of long-term stewardship depends on the active involvement of the affected parties, including local governments and Tribes. It is important for all parties to develop a workable approach for meaningful public involvement in the decisions that affect and manage long-term stewardship activities. The Study identifies this as an additional key challenge associated with long-term stewardship. The Department's Long-term Stewardship Working Group recently identified public involvement as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. This issue includes how DOE should balance the need to involve the public in maintaining controls (e.g., institutional controls such as water use restrictions) with competing needs such as classified information or activities, particularly at sites with ongoing national security missions. The Department's Long-term Stewardship Working Group also has identified the issue of under what circumstances DOE should consider funding of external parties as one of the most important issues that should be addressed by the Executive Steering Committee. Although the general issue of public involvement has been identified to the Executive Steering Committee, specifics of implementation (e.g., what external organizations should be involved, what should be provided by DOE, what mechanisms for public involvement should be used) have not been discussed and may be determined on a site-specific basis. We intend for the public participation process to allow for meaningful Tribal and public involvement.

I am pleased that the Natural Resources Defense Council lawsuit settlement has led to a useful overview of DOE's stewardship needs.

Regards,

Robert Peelle

cc. Oak Ridge Stewardship Committee

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December 6, 2000

Mr. Steven Livingstone
Project Manager
U.S. Department of Energy
P.O. Box 45079
Washington, D.C. 20026-5079

Dear Mr. Livingstone:

Thank you for providing the opportunity to comment on the Department of Energy's Draft Long-Term Stewardship Study. From our perspective, long-term stewardship at the Hanford Site is a very important and challenging issue. The framework set out in the Draft Study will certainly play a significant role in determining how USDOE, the State of Washington, Indian tribes, local governments and other stakeholders approach that challenge.

Your department's leadership in addressing long-term stewardship at large contaminated sites will also affect how other agencies, regulators and responsible parties approach management of residual hazards all across the country. In the enclosed comments, you will find us frequently urging a broader perspective than the inward-focused tone in the draft Study. Please do not take that to mean that USDOE's work and leadership are not critical. Indeed they are, and we strongly encourage the Department to carry on this work and to become an advocate within the broader federal family.

We trust the enclosed comments will be helpful to you as you finalize the Study document, and as you develop a path forward for USDOE's long-term stewardship efforts. If you have questions regarding these comments, please contact Max Power, in our Nuclear Waste Program, at 360/407-7118.

Sincerely,

Tom Fitzsimmons
Director

Draft Comments on
USDOE's
Long-Term Stewardship Study Draft

GENERAL COMMENTS

- The draft Study brings together many complex issues in a single overview and in generally readable and often candid prose. There are however points at which the "bureaucratese" obscures the message. 4.1

- The draft Study includes a number of useful compendia of legal and regulatory citations, summaries of specific concepts, examples and other material. This will make it a useful desk reference; however, that also suggests that periodic updates would be in order to maintain its usefulness. 4.2

- In spite of some good discussion, especially in Chapter 3, the draft Study understates the degree to which the costs and uncertainties of long-term stewardship should drive toward cleanup to unrestricted use wherever such cleanup is feasible. The multiplication of contaminated soil sites, in particular, requiring long-term stewardship is likely to lead to both confusion and diffusion of resources, focus and effort. Given the complexities of long-term stewardship, as revealed in the study, it should be focused on those area--e.g. waste disposal units and major groundwater contaminant plumes--where such activities are significant and concentrated. 4.3

- A major missing component is how DOE should integrate management of DOE lands with long-term stewardship of adjacent federal or state lands. Two examples:
  - This should clearly be considered in Nevada where the Nellis Range is immediately adjacent to the Nevada Test Site.
  - At Hanford, there have been proposals to link up the DoD-controlled Yakima Training Center with the nearby Hanford Site to create a continuous habitat for the endangered sage grouse.

  In other words, this document has missed the *national* perspective on ecosystem management. 4.4

- Recognizing that this is a DOE report, dealing with DOE's responsibilities, it is not reasonable to expect that DOE is, will be, or should be the principal actor in assuring that the necessary work of stewardship gets done. This will be addressed in specific comments below—but just one example here: Why should or would one assume that DOE will be the agency best suited to make sure stewards (DOE or others) are aware of new technologies to reduce cost, speed attenuation of contamination, or more effectively close off pathways? 4.5

  As in other situations our state has experienced, DOE's over-emphasis on its responsibility and authority under its internal regulations and orders may well become

4.1 – The Department appreciates this comment. Thank you.

4.2 – This comment is acknowledged in a text box in Section 4.1 of the Study. Updates to the Study for the suggested purpose would have little added value because most of this information is available at EPA and DOE (EM, EH) websites, including the Long-term Stewardship Information Center Website (http//lts.apps.em.doe.gov).

4.3 – The decision to clean up to unrestricted use, or to meet other specific land use requirements, is made on a site-specific basis with input from regulators, stakeholders, and the public. It is both DOE and EPA policy that cleanup remedies should be consistent with the intended future use of the affected areas. Chapter 2 of the Study includes a new text box that provides a more formal statement on the scope of long-term stewardship and why it is required (i.e., the inability to achieve unrestricted use and the nature of residual hazards). The goal of long-term stewardship is to ensure continued protection of human health and the environment consistent with applicable requirements. The Department recognizes the many issues and public concerns associated with the uncertainties with planning for, documenting, and funding long-term stewardship throughout the Study and acknowledges this comment by including it in a text box in Section 3.2 of the Study.

4.4 – The Department acknowledges this comment in a text box in Section 2.1 of the Study. The Department notes that the definition of long-term stewardship used in the Study is that which is stated explicitly in the Settlement Agreement. The Department agrees that long-term stewardship at some sites may include activities such as resource management and discusses these concepts, for example, in a new text box in Chapter 2 and in Section 9.1 of the Study. The Department also agrees that coordinated management of resources on adjacent federal and non-federal lands may be appropriate at some sites and has modified the text in Sections 6.1.3 and 9.1 of the Study to note that point. The Department's Long-term Stewardship Working Group recently identified the issue of whether the scope of long-term stewardship includes only compliance activities or also includes other activities associated with the management of DOE lands as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee.

4.5 – The Department acknowledges this comment in a text box in Section 4.2 of Study. The Study has included examples of successful efforts to assist individual sites in establishing these partnerships. Developing partnerships, however, is both difficult and time-consuming, and it may be years before partnerships function smoothly. Potential options for managing long-term stewardship include a centralized agency to steward Federal sites. However, a detailed discussion of the advantages and disadvantages of such a centralized agency is beyond the scope of the Study, which is required to focus on DOE sites.

a barrier to the kind of partnership discussed at various places throughout the draft Study.

SPECIFIC COMMENTS

Sec. 3.1, p. 14 The following statement is overly optimistic: " The remedy selection process essentially determines how any residual hazards at a site will be managed for the long term and thus establishes implicit or explicit long-term stewardship requirements."

As a practical matter, many remedy selection decisions (as noted in the following section) come much too early to have much specific content about long-term management of residual hazards. At most, the remedy selection may include a concept (e.g. land use control, or type of cover) without specific requirements about who will monitor, how, and with what frequency. Lacking such specifics, costs cannot be accurately calculated, nor is there a driver for technology development specifically aimed at reducing costs, risks and uncertainties.

4.6 – The Department agrees that site-specific long-term stewardship planning and decision documents should clearly identify problems, remedial objectives, and long-term stewardship implications to the extent feasible. Section 3.2 of the Study has been revised to emphasize this point. The Department acknowledges this comment in a text box in Section 3.2 of the Study. Chapter 4 of the Study discusses DOE's current policy requiring sites to conduct long-term stewardship planning.

Sec. 4.1, p. 28 The DoD requirement for an environmental baseline survey should be generally supported, not only for any area being transferred, but also for any area deemed "cleaned up to the specified end state" that will go into long-term stewardship. Established standards are important, but so is some mechanism for independent scientific and public review. The outcome/comments from such a review can become part of the accessible record. That, in turn, would provide a basis for some periodic audit or review of the effectiveness, accuracy and relevance of the baseline studies.

4.7 – As noted in Section 4.2.2 of the Study, site-specific long-term stewardship plans are required by law for uranium mill tailings sites and must be approved by the Nuclear Regulatory Commission. The Department also requests the development of a site-specific long-term stewardship plan before accepting long-term stewardship responsibilities for any site. As the EM mission at a site is completed, current plans call for the EM program and the site landlord (if different from EM) to develop a long-term stewardship baseline for each site. The baseline will describe the scope of applicable long-term stewardship requirements, the technical activities and the projected schedule to meet these requirements, and expected costs. The Department acknowledges these comments in a text box in Section 4.2 of the Final Study and will consider the recommendations they provide in developing the guidance that will specify the format and content for site-specific long-term stewardship plans.

Sec. 4.2.2, p. 33 Two bullets on this page appear to be confusing. "Planning for sale of site/end state" appears to imply end states will be sold. The meaning of "records disposition plans for contaminated, electronic, transuranic waste, and classified records" is very hard to decipher.

4.8 – These bullets have been revised to reflect this comment.

Sec. 4.2.3, p. 34 The suggestion that "state governments may assume a more prominent role in managing long-term stewardship information and in promoting education and training to ensure the continuity of long-term stewardship across multiple generations" is intriguing. Some suggestions as to specific kinds of activities would be helpful. It appears that state involvement in school curricula, training local land use planners under state growth-management laws, higher education, and sustaining historical societies/museums offer some possible avenues to implement this suggestion.

4.9 – Examples have been provided in response to this comment.

Sec. 4.2.4, p. 36 It is not clear whether the intent of the paragraph beginning "The majority of the EM program's. . . ." is to increase emphasis on technology development and deployment to reduce the number of sites needing long-term stewardship, to increase investment in technologies that make long-term stewardship less costly, or both. It may be worth making explicit here the

4.10 – The text has been altered to reflect this comment.

importance of having enhanced technology for long-term monitoring available in the very near term, so that it can be deployed at the greatest number of sites during remediation.

Sec. 4.2.4, p. 37 The phrase "For the same reason", at the beginning of the penultimate sentence on this page, doesn't seem to connect to what goes before. Having said that, however, we strongly support the need for increased investment in information management "technology"—if this includes "soft" sciences, like anthropology, psychology and sociology. 4.11

Sec. 4.3, p. 38 The Department may wish to consider the possibility that long-term stewardship responsibility could be assigned to another agency or party altogether for those at least some of the 21 sites where DOE will have continuing missions. 4.12

Sec. 5.2, p. 44 One of the study's most important findings may be that there is essentially no ongoing monitoring and research to understand degradation of sub-surface barriers. If true, that raises the question: What validates the assumptions used in Performance Assessments and Composite Analyses? 4.13

Sec. 5.3, p. 47 Layering of institutional controls must include multiple oversight or enforcement mechanisms. Accountability to parties other than the stewards needs to be clear. Ideally, parties with divergent interests will all have a tangible stake in exercising some kind of oversight. For instance, adjoining property owners, wildlife or resource management agencies, local governments and Indian tribes all might have assigned rights and roles. 4.14

Sec. 5.4, p. 51 Clearly the steward must have the capabilities to mobilize to respond both to failures and to long-term changes in both values and site conditions. Again, however, there must be some accountability. It is not clear that DOE (or another agency in the role of steward) should itself determine when action is warranted for the reasons listed at the top of p. 51. For example, a regulatory agency that changes standards in order to protect public health and the environment, based on new scientific knowledge, should have some ability to demand a response from the steward. 4.15

Sec. 5.4.2, p. 52 While environmental restoration, per se, is young, efforts to block "pathways" into (or out of) underground structures, and to maintain structures, are very old and well studied. DOE and other agencies involved in stewardship would do well to invest more time and resources in studying history of engineering and archeology. 4.16

Sec. 6.1, p. 56 We heartily concur with the statement that "In practice, it has been difficult to cover the entire life-cycle within a single planning activity such as preparation of an Environmental Impact Statement." It is equally true that it is difficult to plan for the whole life-cycle of an activity or project from the 4.17

4.11 – The phrase has been changed to: "On the other hand" to reflect this comment.

4.12 – The Department acknowledges this comment in a text box in Section 6.2 of the Study. The Department recognizes that long-term stewardship responsibility eventually may be vested in any number of federal or non-federal entities. The Department will address these issues during site-specific long-term stewardship planning processes. The Department has added language to Section 6.2 of the Study to address some of the potential complications associated with a transfer of LTS responsibility to other federal agencies. Note also that current DOE policy is that the landlord organization will take responsibility for long-term stewardship at these 21 sites (see Exhibit 4-2 of the Study).

4.13 – The Department acknowledges these comments in a text box in Section 4.2.4 of the Final Study. As noted in Section 4.2.4 of the Final Study, the Department's process for developing and implementing new science and technology includes developing a long-term stewardship science and technology roadmap that will (1) identify science and technology needs; (2) identify existing capabilities to meet these needs both within and external to DOE; (3) determine research and development priorities; and (4) direct specific efforts to meet these needs. The Department agrees that research into a number of key areas is needed, including the long-term effectiveness and reliability of engineered and institutional controls; surveillance and monitoring; and information management. Advances in science and technology may provide future generations with the ability to cost-effectively achieve unrestricted use at some sites. The Department's Long-term Stewardship Working Group recently identified the policy issue as to whether the ultimate goal of new science and technology should be to improve the ability to maintain the existing end state (i.e., the end state established during cleanup) or should be to "improve" the end state more closely toward unrestricted use as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. In addition, the Department anticipates that required long-term stewardship activities will include appropriate surveillance and monitoring to assure the continued effectiveness of engineered controls. The reference in question was included to note some of the technical challenges associated with long-term stewardship.

4.14 – The Department acknowledges this comment in Section 5.3 of the Study. The Department believes that Section 5.3 of the Study appropriately discusses the difficulties and challenges associated with ensuring the long-term maintenance of institutional controls, including roles and responsibilities for enforcement. The determination of the type of institutional controls and enforcement of these controls (e.g., by DOE or external parties) will be determined on a site-specific basis as part of remedy selection and long-term stewardship planning and may change over time.

4.15 – See response to Comment 4.14.

4.16 – The Department acknowledges these comments in a text box in Section 4.2.4 of the Final Study. As noted in Section 4.2.4 of the Final Study, the Department's process for developing and implementing new science and technology includes developing a long-term stewardship science and technology roadmap that will (1) identify science and technology needs; (2) identify existing capabilities to meet these needs both within and external to DOE; (3) determine research and development priorities; and (4) direct specific efforts to meet these needs. The Department agrees that research into a number of key areas is needed, including the long-term effectiveness and reliability of engineered and institutional controls; surveillance and monitoring; and information management. Advances in science and technology may provide future generations with the ability to cost-effectively achieve unrestricted use at some sites. The Department's Long-term Stewardship Working Group recently identified the policy issue as to whether the ultimate goal of new science and technology should be to improve the ability to maintain the existing end state (i.e., the end state established during cleanup) or should be to "improve" the end state more closely toward unrestricted use as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee.

4.17 – See response to Comment 4.7.

viewpoint of the project's proponent. Unfortunately, what has happened is that DOE has therefore layered multiple planning systems and reviews, but only some—generally the environmental impact statement process (which is weak, as stated above)—is open to external input and reconciliation of multiple values. This may be the point that the first full paragraph on p. 58 seeks to make in discussing supplemental NEPA analysis. However, there may be more effective ways to get the needed perspective built into DOE's multiple planning layer—e.g. Project Baseline Summaries.

Sec. 6.1.2, p. 60 The last sentence in the last paragraph of this section, at the top of p. 60, is one of the draft's unfortunate lapses into bureaucratic mumbo-jumbo. What does "identifying long-term stewardship as a performance measure in the facility disposition process" really mean in terms of what someone will actually do?

4.18 – The sentence now reads: "In addition, LCAM needs to be revised to include needs of long-term stewardship as they are determined in DOE policy," where LCAM refers to DOE Order 430.1A (Life-Cycle Asset Management).

Sec. 6.2, pp. 61-2 Section 6.2 needs to address the restrictions that other agencies may have on accepting formerly/residually contaminated real estate, and the steps (e.g., Inter-Agency Agreements, Executive Order) that would be necessary to overcome those agencies objections & policies.

4.19 – The Department acknowledges this comment in a text box in Section 6.2 of the Study. The Department recognizes that long-term stewardship responsibility eventually may be vested in any number of federal or non-federal entities. The Department will address these issues during site-specific long-term stewardship planning processes. The Department has added language to Section 6.2 of the Study to address some of the potential complications associated with a transfer of LTS responsibility to other federal agencies.

Section 6.2 also needs to include a strong statement that DOE is not an appropriate land management (resource management) agency for non-mission essential land. It should mention state land management agencies as potential recipients.

Given the ecological significance (and size) of many DOE reservations (including but not limited to Hanford, INEEL, Oak Ridge, Savannah River) this section should explicitly recognize the preference by some stakeholders (and some law/policy, e.g., the Endangered Species Act) for biological and habitat preservation in land transfer decisions.

4.20 – The issue of whether DOE is an appropriate land management agency for non-mission essential land is beyond the scope of the Study. Section 6.2 of the Study notes explicitly that uncontaminated property may be "set aside" to protect valued natural resources or cultural resources; however such decisions will be site-specific.

Sec. 6.3, p. 68 We agree with the three issues raised with regard to enforcement of institutional controls on transferred properties. However, it is not clear that DOE should be the primary enforcer of accountability (unless reversionary mechanisms are used, or surrounding property remains in DOE uses). DOE may be one among several oversight agents at this point, and perhaps primary oversight responsibility should rest in an agency whose primary mission is stewardship.

4.21 – Where DOE has an easement or lesser interest in the property, by regulation and law it must enforce its rights. However, there may be site transfer situations where DOE may not be the most effective enforcer of institutional controls at a site, but the Department has not identified these situations. With respect to the issue of a single federal agency responsible for long-term stewardship, the Department's Long-term Stewardship Working Group has recommended to the senior management Executive Steering Committee that DOE should undertake to interact with other federal agencies to develop a consensus approach to long-term stewardship across the federal government.

Sec. 7.1, pp. 70-1 We agree with the four major information management aspects identified. Again, these must be resolved for DOE sites, but DOE cannot resolve them without a genuine partnership with other federal agencies, state, local and tribal governments, and individuals and institutions surrounding the sites.

4.22 – The Department acknowledges this comment in Section 7.2 of the Study. The Department has begun a process to more clearly identify and develop a consensus on long-term stewardship information needs and develop guidance for long-term stewardship information and records management. Some information management guidance will be included in the guidance for site-specific long-term stewardship plans currently under development by the Department. This comment will be considered in these efforts.

Sec. 7.2, p. 73 Nowhere is the above more evident than in the task of setting criteria about what information to keep. Two examples may help clarify the point. In the early decades of Hanford operations, scientists realized it was important to sample fish in the Columbia River to measure uptake of radionuclides. But, as they assumed salmonoids left the river as juveniles and returned to spawn years later without eating, they also assumed it wasn't worth sampling salmon. There was no awareness of the importance of salmon to the Columbia Basin's indigenous people, nor even of the possibility of uptake around the mouth of the River. In 1986, the draft Hanford Defense Waste Environmental Impact Statement barely mentioned chemical contamination at the site, focusing almost entirely on radioactive elements. Awareness of issues surrounding chemical contamination had barely begun within DOE's world. Establishing such criteria must be a very open public and stakeholder process.

4.23 4.23 – See response to Comment 4.22.

Sec. 7.2, p. 74 As mentioned above (Sec. 4.1, p. 28), the concept of clear information baselines at "closure" of cleanup is important. Independent review and validation, and a public comment process, should be incorporated. This then becomes the part of the information base that is unchanging. It can be multiply located and accessible. It must include clear instructions about where and how to get subsequent information about monitoring, changing conditions, etc.

4.24 4.24 – See response to Comment 4.22.

Sec. 7.3, pp. 77-9 The need to institutionalize information management, and the tradeoffs between decentralized and centralized structures are well, if briefly drawn. Two aspects need more attention. First, redundancy is more important than consistency. If the baseline information is fairly uniform—and includes public review comments—it can be widely distributed and available. Not all repositories will get updates, though the effort should be made and the baselines should all have at least one identified pathway to get to updates. On balance, however, redundant but discrepant information is better than no information.

4.25 4.25 – See response to Comment 4.22.

Second, individuals and institutions need to have incentives to maintain, make available and/or demand the information. Co-location with museums or visitor centers, requirements governing title searches, inclusion in school curricula—the list is long and diverse. But some of these mechanisms need to be used consciously to create and sustain an incentive structure.

One might consider, as a subset, how to rely on Native American cultural norms supporting oral transmission of knowledge.

Sec. 8.1, pp. 82-4 The description of the various techniques of estimating long-term stewardship costs does not explicitly address what is being done or what might be done to reduce uncertainty.

4.26 4.26 – The Department acknowledges this comment in a text box in Section 8.1 of the Study. The Department agrees that more information is needed on the scope of future long-term stewardship activities and better life-cycle cost estimates are needed. The Study incorporates the cost estimates from the Report to Congress on Long-term Stewardship and discusses the basis for these estimates. Accurate cost estimates are critical for long-term stewardship, particularly for ensuring accountability for the technical scope of the program. The Report to Congress on Long-term Stewardship is only the first step in developing the necessary cost figures. The Department's Long-term Stewardship Working Group recently identified funding of long-term stewardship as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. Specific funding issues identified by the Working Group included difficulties in determining long-term stewardship costs now and in the future because there is no consistent procedure for how long-term stewardship activities are budgeted for and reported among DOE sites. This comment will be forwarded to the Executive Steering Committee for their consideration. Note also that Section 8.1 of the Study discusses some of these efforts.

Sec. 8.2, p. 85 It might be helpful to distinguish the two identified needs for funding more clearly. *Operational funding* for monitoring, maintenance,

4.27 4.27 – The Department acknowledges this comment in a text box in Section 8.2 of the Study. The Draft Study may not have adequately distinguished between operational and contingency funding. Chapter 8 of the Study has been modified to discuss this distinction. Some of the cost estimates in the Report to Congress on Long-term Stewardship include contingency funding; others do not.

information management and periodic reviews of remedies might be handled one way, or within one kind of budget or fund. *Contingency funding* to cover emergent failures or unforeseen problems might be handled as a risk pool, funded by periodic assessments or appropriations. The Price-Anderson structure might be a starting point.

4.27 – The Department acknowledges this comment in a text box in Section 8.2 of the Study. The Draft Study may not have adequately distinguished between operational and contingency funding. Chapter 8 of the Study has been modified to discuss this distinction. Some of the cost estimates in the Report to Congress on Long-term Stewardship include contingency funding; others do not.

Sec. 8.2, p. 88 The two notions at the top of the page share a common idea: Give the steward an incentive to manage the site well (i.e. to prevent spread of contamination) by including income-producing resources, which, in turn, support stewardship. It's not clear that DOE is well suited to this role, but other agencies and non-profit entities (e.g. recreation districts) may be.

4.28 – See response to Comment 4.5.

The study should also explore whether Nuclear Regulatory Commission (and Agreement State) regulations on financial responsibility may be applicable or relevant and appropriate requirements (ARARs) under CERCLA. Although federal facilities would typically be exempt from trust fund obligations under those regulations, the financial requirements under these regulations might provide a creative path towards creating a trust fund.

4.29 – The Department acknowledges these comments in a text box in Section 4.1 of the Final Study. The specific mechanisms available for oversight and enforcement of long-term stewardship vary according to the applicable regulatory regime(s) and state laws on a site-specific basis. The Department has not developed a policy on potential alternative regulatory regimes at specific sites. These comments will be provided to the senior management Long-term Stewardship Executive Steering Committee for their consideration.

Sec. 8.3, pp. 90-1 We would note that the state of Washington maintains both Perpetual Care and Maintenance and Closure trust funds for the USEcology low-level waste disposal facility located on the Hanford site. These funds are built from per-cubic-foot disposal fees. DOE should explore state-maintained funds more thoroughly. They may be a particularly attractive option if a national risk pool is created to cover extraordinary failures or unforeseen events.

4.30 – The Department acknowledges this comment in a text box in Section 8.2 of the Study. As noted in Section 8.2 of the Study, developing an alternative funding mechanism will require additional study and eventually Congressional action. Section 8.2 of the Study also provides a summary of the recent study of Trust Funds by Resources for the Future. The Department's Long-term Stewardship Working Group recently identified funding of long-term stewardship as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. Specific funding issues identified by the Working Group included: (1) difficulties in determining long-term stewardship costs now and in the future because there is no consistent procedure for how long-term stewardship activities are budgeted for and reported among DOE sites; (2) whether the annual appropriations process is the most effective mechanism for funding long-term stewardship activities that may be needed for decades or centuries; and (3) circumstances under which DOE should consider funding external parties (e.g., local governments) to conduct long-term stewardship activities or oversight. This comment will be forwarded to the Executive Steering Committee for their consideration.

Sec. 9.1, p. 96 We agree with the point that DOE should avoid additional natural resource damages in selecting stewardship activities. However, this notion should be expanded. Avoidance of future damages is another reason to favor cleanup to unrestricted use in the near term. We support the suggestion that stewardship can be done in ways that positively enhance resource values.

4.31 – This comment is acknowledged in a text box in Section 9.1 of the Study. The definition of "affected parties" in Chapter 1 of the Study was broadened to include regional concerns. Section 4.1 and Chapter 9 of the Study acknowledge the special government-to-government relationship between the federal government and Tribal governments. Chapter 9 of the Study also acknowledges the importance of ensuring that the federal Indian Trust Responsibilities and federal treaty obligations are met.

Sec. 10.1.2, p. 108 Chapter 10 generally is critical to evolution of good policy and implementation for long-term stewardship. The separations suggested in this sub-section need thorough discussion with a wide range of parties and stakeholders, and with the insights of many disciplines. Our initial bias is that separating the functions along the lines suggested is desirable for long-term success. As indicated throughout these comments, there must also be vigorous discussion about the extent to which DOE takes responsibility for any one of these functions.

4.32 – The Department acknowledges this comment in a text box in Section 4.2 of the Final Study. The Department's Long-term Stewardship Working Group recently identified the need for a corporate vision for long-term stewardship as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. The corporate vision includes the appropriate organizational structure for long-term stewardship within the Department. The Department also recognizes that it is important to define long-term stewardship roles and responsibilities both within DOE and between DOE and other entities, including other federal agencies, states, Tribes, and regional governments. The Executive Steering Committee is developing a Strategic Plan for long-term stewardship; part of that effort will include identifying roles and responsibilities within DOE. The Department also notes that long-term stewardship as an issue is broader than DOE sites. For example, states and local governments already have long-term stewardship responsibilities at municipal landfills, and states may have long-term stewardship responsibility for some "Superfund lead" sites on the CERCLA NPL. Implementation of long-term stewardship across this broad spectrum of sites will require states to develop their own, independent capability to provide long-term stewardship.

Sec. 10.2, p. 109 The principles of "rolling stewardship" constitute good advice, but should not be taken to extremes or out of context. Adding a third principle might help counteract that tendency: In managing hazards for the near- to mid-term, foreclose as few options as possible for future decisions. For example, Hanford stakeholders recommended disposing of the low-activity fraction of Hanford tank

4.33 – A new principle has been added in response to this comment.

wastes in a form that would be retrievable and moveable in the future, rather than in huge concrete monoliths whose performance was at best uncertain.

Sec. 10.2.2, p. 111 Technology development and deployment in support of long-term stewardship are very important. One of the draft Report's (and the earlier ***From Cleanup to Stewardship's***) major contributions is the concept cyclical re-evaluation in light of new technology and scientific knowledge. However, it would be a mistake to place this technology development and deployment role in DOE for two reasons. First, DOE has other missions, and the EM mission will decline in relative importance as its share of the overall agency budget declines. Second, other federal agencies, Indian tribes, state agencies, local governments and private entities all will have stewardship responsibilities relating to many contaminated sites. They, along with DOE, should be advocates for and clients of a centralized program.

4.34 – The Department agrees that the EM program, or DOE itself, will not be the only source of new science and technology for LTS. The language in Section 4.2.4 of the Study has been modified to reflect this. The Department acknowledges this comments in a text box in Section 4.2.4 of the Study.

Appendix A, page A-1 The first sentence is blatantly incorrect: "Prior to 1995, Congress and the public assumed that DOE generally was cleaning up its sites to levels appropriate for unrestricted use."

In fact, DOE had already completed cleanup at a number of its uranium mill tailings sites, had prepared Long Term Surveillance & Maintenance (LTS&M) plans for those sites, and was receiving congressionally-approved funding for the DOE Grand Junction site to perform LTS&M/LTS. This report is "reinventing the wheel" because it has ignored DOE's actual operating history for post-closure UMTRA sites, and has ignored the copious congressionally-funded research that was done circa 1978 – 1985.

4.35 – Appendix A has been changed to reflect this comment.

Alliance for Nuclear Accountability

A national network of organizations working to address issues of nuclear weapons production and waste cleanup

Member Groups

American Friends Service Committee
Denver, CO

Carolina Peace Resource Center
Columbia, SC

Citizen Alert
Las Vegas, NV

Coalition for Health Concern
Benton, KY

Concerned Citizens for Nuclear Safety
Santa Fe, NM

Fernald Residents for Environmental Safety and Health, Inc.
Ross, OH

Global Resource Action Center for the Environment
New York, NY

Government Accountability Project
Seattle, WA

Heart of America Northwest
Seattle, WA

Los Alamos Study Group
Santa Fe, NM

Miamisburg Environmental Safety & Health
Miamisburg, OH

National Environmental Coalition of Native Americans
Prague, OK

Neighbors In Need
Englewood, OH

Nuclear Watch of New Mexico
Santa Fe, NM

Oak Ridge Environmental Peace Alliance
Oak Ridge, TN

Pantex Area Neighbors & Landowners (PANAL)
Panhandle, TX

Peace Action Education Fund
Washington, DC

Peace Farm
Panhandle, TX

Physicians for Social Responsibility
Washington, DC

Portsmouth/Piketon Residents for Environmental Safety & Security
McDermott, OH

Rocky Mountain Peace and Justice Center
Boulder, CO

Snake River Alliance
Boise, ID

Southwest Research and Information Center
Albuquerque, NM

STAND of Amarillo
Amarillo, TX

Tri-Valley CAREs
Livermore, CA

Western States Legal Foundation
Oakland, CA

Women's Action for New Directions
Arlington, MA

Alliance for Nuclear Accountability Comments to the Department of Energy's Long-term Stewardship Draft Study

November 30, 2000

The Alliance for Nuclear Accountability (ANA) is a network of local, regional and national organizations working together to promote education and action to address issues related to the cleanup and protection of the public and the environment at Department of Energy (DOE) sites. Many ANA member organizations were plaintiffs to the lawsuit settlement requiring this Study on Long-term Stewardship (LTS), so ANA has a special interest in it. We want to ensure that this Study is a first step in an iterative, open, public process of LTS planning for the DOE weapons complex. 5.1

We recognize and commend the effort that went into this Study and note that in addition to this Study, the Office of Long-term Stewardship has also worked on other aspects of LTS information gathering and sharing to lay the foundation for policy development in this area. We hope that this foundational work will be preserved and built upon during the next administration. For example, we hope that the excellent LTS web site will be maintained. Moreover, we think that preserving one Office of LTS at DOE headquarters with the authority to coordinate LTS activities would be helpful in furthering coherent, credible and cost effective LTS planning and policies. 5.2 5.3

The LTS Office has also been working on a Report to Congress on Long-term Stewardship as required by the FY2000 National Defense Authorization Act (NDAA). Although Congress required the Report by October 1, 2000, the Report is still not completed. It is unfortunate that this Congress that requested the Report will not be able to review it. This NDAA Report is another essential piece of work that provides more site-specific information. We strongly urge that Department promptly complete its work on this Report and release it so that both the Report and Study together (the PEIS Study and the NDAA Report) are available to inform Congress, as well as the next administration, stakeholders and interested members of the public. 5.4

5.1 – The Department acknowledges this comment in a text box in Section 3.2 of the Study. The Department recognizes that the ultimate success of long-term stewardship depends on the active involvement of the affected parties, including local governments and Tribes. It is important for all parties to develop a workable approach for meaningful public involvement in the decisions that affect and manage long-term stewardship activities. The Study identifies this as an additional key challenge associated with long-term stewardship. The Department's Long-term Stewardship Working Group recently identified public involvement as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. This issue includes how DOE should balance the need to involve the public in maintaining controls (e.g., institutional controls such as water use restrictions) with competing needs such as classified information or activities, particularly at sites with ongoing national security missions. The Department's Long-term Stewardship Working Group also has identified the issue of under what circumstances DOE should consider funding of external parties as one of the most important issues that should be addressed by the Executive Steering Committee. Although the general issue of public involvement has been identified to the Executive Steering Committee, specifics of implementation (e.g., what external organizations should be involved, what should be provided by DOE, what mechanisms for public involvement should be used) have not been discussed and may be determined on a site-specific basis.

5.2 – The Department acknowledges this comment in Section 7.2 of the Study. The Department has begun a process to more clearly identify and develop a consensus on long-term stewardship information needs and develop guidance for long-term stewardship information and records management. Some information management guidance will be included in the guidance for site-specific long-term stewardship plans currently under development by the Department. This comment will be considered in these efforts. The Department continues to maintain the long-term stewardship web site.

5.3 – The Department acknowledges this comment in a text box in Section 4.2 of the Study. The Department's Long-term Stewardship Working Group recently identified the need for a corporate vision for long-term stewardship as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. The corporate vision includes the appropriate organizational structure for long-term stewardship within the Department. The Department also recognizes that it is important to define long-term stewardship roles and responsibilities both within DOE and between DOE and other entities, including other federal agencies, states, Tribes, and regional governments. The Executive Steering Committee is developing a Strategic Plan for long-term stewardship; part of that effort will include identifying roles and responsibilities within DOE. The Department also notes that long-term stewardship as an issue is broader than DOE sites. For example, states and local governments already have long-term stewardship responsibilities at municipal landfills, and states may have long-term stewardship responsibility for some "Superfund lead" sites on the CERCLA NPL. Implementation of long-term stewardship across this broad spectrum of sites will require states to develop their own, independent capability to provide long-term stewardship.

5.4 – The Department issued the National Defense Authorization Act (NDAA) Report, entitled A Report to Congress on Long-term Stewardship, in January 2001 (DOE/EM-0563). The Report to Congress and the Study were prepared as separate documents because the required scope for each was different. The primary focus of the Report to Congress was site-specific requirements; the primary focus of the Study was common national issues. Nonetheless, the two reports are complementary to one another, and the public is encouraged to read both documents. The Report to Congress can be useful for certain common long-term stewardship analyses, such as evaluating long-term stewardship needs. Similarly, the Department has added a text box to Chapter 2 of the Study providing an overview of the overall scope of DOE's long-term stewardship responsibilities. The cost estimates from the Report to Congress have been incorporated into Section 8.1 of the Study. They were not in the Draft Study because the cost information in the Report to Congress was not final prior to publication of the Draft Study. The Department anticipates that life-cycle cost estimates will improve over time as DOE moves forward with planning and implementing long-term stewardship. For the Report to Congress, each site was strongly encouraged to work with local stakeholders during the preparation of site-specific cost estimates. The Study is not the appropriate document to respond to specific comments on the Report to Congress or on the public comment process used to develop the Report. The Department encourages members of the public to comment on their respective site's cost estimate through established public involvement mechanisms at each site.

As DOE moves forward with the next steps of LTS policy planning and development, it is of paramount importance that the public and stakeholders be engaged and involved in decisions from the very beginning. DOE must also make a long-term commitment to provide opportunities for meaningful public participation in future cleanup and stewardship decisions. This means providing information, as discussed in the Study, but also providing for regular meetings and hearings with stakeholders. The Study notes the importance of working with other federal agencies, states, Tribal governments and local governments, and we wish to emphasize that in members of the public in affected communities need to be present at the decision-making tables as well. Building strong local public involvement is possibly the most essential element of ensuring survivability and sustainability of LTS. People need to know what happened at these sites – what materials were handled, what contamination levels exist, what health risks exist, etc. and they need to know that they share responsibility for protecting their communities with a say in setting cleanup standards, choosing remediation and monitoring technologies, and establishing zoning restrictions etc.

5.5 5.5 – See response to Comment 5.1.

ANA believes that the primary purpose of LTS should be to protect human health. Certainly, this must be a primary reason why DOE currently spends so much effort and attention on cleanup. With this focus in mind, we suggest the following:

1) Information provided to the public, including databases, fact sheets etc. should also include information about possible disease outcomes related to contamination and health risks;
2) Physicians and public health providers should be specifically targeted with this information;
3) With full public participation, health monitoring plans should be developed in appropriate communities;
4) The DOE LTS Office should work with the DOE Office of Environment, Safety and Health and other federal, state, Tribal and local health agencies to develop a public health LTS plan at each site.

5.6 5.6 – The Department acknowledges this comment in Section 5.3 of the Study. The Department agrees that the primary purpose of LTS is continued protection of human health and the environment. The Department agrees that in some cases, site-specific LTS plans may need to include provisions for distributing public health information to affected parties, and, where appropriate, plans for health monitoring. A new text box at the end of Chapter 2 of the Study discusses the importance of public health concerns during long-term stewardship. With respect to care and compensation, such decisions would need to be made on a case-by-case basis.

Even with the best redundant and robust LTS plans, we know that there will be failures. Some of these failures may require emergency medical response (an explosion for instance), but some failures may lead to health affects over time (failure to contain seeping groundwater plumes leading to contamination of the water supply, for example) and may require a longer-term public health response. When failures of LTS lead to disease outcomes such as cancer or other illness, the federal government should provide adequate care and compensation to those people. Tracking illnesses and caring for people over the long-term should be seen as part of LTS. Any funding mechanism should also provide funds for this.

5.7 5.7 – See response to Comment 5.6.

ANA would like to offer a specific comment to the issue of *"How will Long-term Stewardship be managed at sites with ongoing missions other than cleanup." (Sec. 4.3)* Between the two options - transferring to the DOE program responsible for the ongoing mission, or EM (or successor organization) taking responsibility- we recommend that EM (or successor organization) take responsibility for LTS at the site. We do not believe that the other line programs of DOE would put equal focus into the LTS mission because this goal could often conflict with, or compete against, production and other missions. This is especially a concern at National Nuclear Security Agency (NNSA) sites, where it is unclear who will have authority over environmental management issues. Regardless of the option chosen, it is of particular importance that LTS planning and activities be coordinated with adequate project management oversight in one office within DOE. We recognize this is a relatively short-term issue, but we believe it is very significant in getting the initial LTS planning off on the right track. DOE should make sure that LTS is not viewed as an afterthought and addressed in a fragmented, ad hoc manner, but rather is the singular priority of one office.

5.8 5.8 – See response to Comment 5.3.

As DOE continues with its LTS planning, we urge a careful look at the sites on the "1995 List of Sites Reviewed for Possible Past Involvement in Nuclear Weapons and Nuclear Energy Related Activities (Also known as the FUSRAP List)." Sorting out these sites is an important and difficult task. We urge the DOE to continue work on this list – specifically creating a database that will provide information about each site. The lack of currently available information about many of these sites should also serve as a lesson in how not to do LTS. An analysis of the elements missing in the FUSRAP list may help to avoid pitfalls in future LTS Planning.

5.9 5.9 – The Department acknowledges this comment in a text box in Section 7.2 of the Study. Section 7.2 of the Study also notes that on February 11, 2001, the Department made public a list of sites, including beryllium vendors, DOE sites that used radioactive materials, and facilities where atomic weapons workers may have been employed (66 FR 4003). The Department is working on a database for these sites. The Study focuses on common issues and challenges that exist across many sites rather than focusing on one particular subset of these sites. The Department also notes that long-term stewardship is not limited to DOE sites, or even sites where the federal government has some responsibility. For example, local governments are already responsible for the long-term stewardship of closed municipal landfills. Many of the issues that pertain to DOE sites are likely to pertain to closed landfills as well.

Thank you for the opportunity to participate in this hearing. ANA and our member organizations are still in the process of reviewing the Study and we will likely submit additional comments prior to December 15, 2000.

Submitted November 30, 2000

Kathy Crandall
Interim Program Director
Alliance for Nuclear Accountability

Tri-Valley CAREs

Communities **A**gainst a **R**adioactive **E**nvironment

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Peace Justice Environment since 1983

December 12, 2000

Steven Livingstone, Project Manager
Office of Long-Term Stewardship, (EM-51)
Office of Environmental Management
U.S. Department of Energy, P.O. Box 45079
Washington, D.C. 20026-5079

Subject: Comments regarding the DOE/EM/LTS "Long-Term Stewardship Study Draft" dated October 2000.

Dear Mr. Livingstone:

Enclosed find comments of Tri-Valley CAREs (TVC) and Western States Legal Foundation (WSLF) on the Draft Long-Term Stewardship Study. We would like to compliment you on the thoroughness of this draft study and its ease of reading. Our comments address some of the issues that were raised in the study and some that we think should be added.

Sincerely,

Marylia Kelley

Marylia Kelley
Executive Director,
Tri-Valley CAREs

1. The highest priority should be placed on selecting remedies that protect the long-term safety and health of the community and of the environment surrounding the DOE facility. All aspects of establishing, maintaining and funding long-term stewardship activities should be considered during the remedy selection process. Wherever possible, we prefer that DOE facilities are cleaned up to a level that allows unrestricted use and avoid the need for long-term stewardship. Where cleanup to such a level is not practical due to current technical constraints, we want commitments inserted into final remedy decision documents detailing the stewardship plan and funding. 6.1 6.2

2. Long-term stewardship activities at each site should include distribution of health information and a health-monitoring plan. After remedy selection, we believe that the long-term stewardship should include the following activities: 1) distribution to the public of information, databases, and fact sheets about possible disease outcomes related to contamination; 2) distribution to local public health providers about possible disease outcomes related to contamination; 3) development of health monitoring plans in appropriate communities. 6.3

3. We strongly advise that DOE develop a mechanism where local communities will be involved throughout the long-term stewardship decision making process. Building strong local public involvement is possibly the most essential element of ensuring survivability and sustainability of long-term stewardship. This should include involvement in initial long-term stewardship activities and any changes to those activities that may occur as a result of re-evaluation or modification of the remedy. The community should also be involved in periodic reviews, such as the five-year review cycle under CERCLA to re-evaluate the effectiveness and performance of long term stewardship activities. Additionally, independent technical expertise should be provided to communities to assist them in wading through the many technical documents that form the basis for key decisions. DOE should provide funding for this expertise. 6.4

4. Develop Contingency Plans at the Time Cleanup Decisions are Made. The National Research Council recommended that "DOE should plan for uncertainty and fallibility" of some aspects of the long-term stewardship program; including developing plans "to maximize follow-through on phased, iterative and adaptive long-term institutional management approaches at sites where contaminants remain." We believe that these plans should be developed concurrent with cleanup decisions, and should be periodically revisited. 6.5

5. Develop firm funding commitments for long-term stewardship. Funding for stewardship activities must be adequate. When the final remedy is agreed to at a site, full funding for stewardship activities should be defined, including the role of the parties who will manage the funding and the funding sources. 6.6

6. Periodically re-evaluate the remedy. DOE (or subsequent federal managers) should implement a systematic process for re-evaluating and if needed, modifying existing LTS activities to ensure that developments in science, technology and performance are incorporated. This reevaluation should consider the following: changes in health standards associated with contaminants that are left in place, changes in technology that were not available at the time when initial cleanup decisions were made but if implemented would eliminate the need for long-term stewardship activities, and 6.7

6.1 – Long-term stewardship planning (see Chapter 4 of the Study) and remedy selection decisions are done on a site-specific basis with input from regulators, stakeholders, and the public. As noted in Exhibit 3-1of the Study, the criteria used to evaluate remedial alternatives include long-term effectiveness and cost-effectiveness. The long-term effectiveness of institutional controls is one of the criteria for evaluating long-term stewardship requirements during remedy selection that have been suggested in guidance developed by DOE, EPA, and the Department of Defense (DoD) and in recommendations forwarded to the Department (see Exhibits 3-2 and 3-3 in the Study). The Department also has identified the need to promote new science and technology development to help address the uncertainties associated with maintenance of institutional and engineered controls. The Department acknowledges the public concerns about long-term effectiveness in a text box in Section 3.2 of the Study. The issue of uniform or national standards for cleanup is beyond the scope of this Study because this document focuses on long-term stewardship.

6.2 – As noted in Chapter 4 of the Study, current DOE policy requires facilities to begin their planning for long-term stewardship in final remedial decision documents. Decision documents from remedies requiring long-term stewardship will set the direction for a final site-wide plan and subsequent agreements with stakeholders, local governments, and environmental regulators.

6.3 – The Department acknowledges this comment in Section 5.3 of the Study. The Department agrees that the primary purpose of LTS is continued protection of human health and the environment. The Department agrees that in some cases, site-specific LTS plans may need to include provisions for distributing public health information to affected parties, and, where appropriate, plans for health monitoring. A new text box at the end of Chapter 2 of the Study discusses the importance of public health concerns during long-term stewardship. With respect to care and compensation, such decisions would need to be made on a case-by-case basis.

6.4 – The Department acknowledges this comment in a text box in Section 3.2 of the Study. Existing laws and regulations, especially the CERCLA process that is used for many site cleanups, require public involvement in the activities and decisions that lead to the selection of a remedy (ROD), including the technical and economic feasibility of cleanup to unrestricted use. However, these laws and regulations do not clearly articulate the role of public involvement in the activities and decisions that follow the ROD. At the same time, the Department recognizes that the ultimate success of long-term stewardship depends on the active involvement of the affected parties, including local governments and Tribes. It is important for all parties to develop a workable approach for meaningful public involvement in the decisions that affect and manage long-term stewardship activities. The Study identifies this as an additional key challenge associated with long-term stewardship. The Department's Long-term Stewardship Working Group recently identified public involvement as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. This issue includes how DOE should balance the need to involve the public in maintaining controls (e.g., institutional controls such as water use restrictions) with competing needs such as classified information or activities, particularly at sites with ongoing national security missions. The Department's Long-term Stewardship Working Group also has identified the issue of under what circumstances DOE should consider funding of external parties as one of the most important issues that should be addressed by the Executive Steering Committee. Although the general issue of public involvement has been identified to the Executive Steering Committee, specifics of implementation (e.g., what external organizations should be involved, what should be provided by DOE, what mechanisms for public involvement should be used) have not been discussed and may be determined on a site-specific basis. We intend for the public participation process allow for meaningful Tribal and public involvement.

6.5 – As noted in Section 4.2.2 of the Study, site-specific long-term stewardship plans are required by law for uranium mill tailings sites and must be approved by the Nuclear Regulatory Commission. The Department also requests the development of a site-specific long-term stewardship plan before accepting long-term stewardship responsibilities for any site. As the EM mission at a site is completed, current plans call for the EM program and the site landlord (if different from EM) to develop a long-term stewardship baseline for each site. The baseline will describe the scope of applicable long-term stewardship requirements, the technical activities and the projected schedule to meet these requirements, and expected costs. The Department acknowledges these comments in a text box in Section 4.2 of the Final Study and will consider the recommendations they provide in developing the guidance that will specify the format and content for site-specific long-term stewardship plans. In addition, the specific example provided in the Study was not meant to imply that other styles or formats for conceptual site models were not effective.

6.6 – The Department acknowledges this comment in a text box in Section 8.2 of the Study. The Department currently relies on the annual appropriations process to fund long-term stewardship. This is not likely to change in the near term. As noted in Section 8.1 of the Study, a separate Project Baseline Summary (PBS) for long-term stewardship at each site will help the Department improve its estimates of annual long-term stewardship funding requirements. Developing an alternative funding mechanism will require additional study and eventually Congressional action. The Department's Long-term Stewardship Working Group recently identified funding of long-term stewardship as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. Specific funding issues identified by the Working Group included: (1) current difficulties in determining long-term stewardship costs now and in the future because there is no consistent procedure for how long-term stewardship activities are budgeted for and reported among DOE sites; (2) whether the annual appropriations process is the most effective mechanism for funding long-term stewardship activities that may be needed for decades or centuries; and (3) circumstances under which DOE should consider funding external parties (e.g., local governments) to conduct long-term stewardship activities or oversight. This comment will be forwarded to the Executive Steering Committee for their consideration.

6.7 – The Department acknowledges this comment in a text box in Section 10.2 of the Study. The Department agrees that remedies may need to be reassessed periodically in light of changing circumstances and information. Section 10.2 of the Study includes a discussion of these points.

performance of the remedy in place. The community should be involved in these re-evaluations.

7. DOE should develop a program to look for solutions that would minimize or eliminate the need for long-term stewardship. We are aware that some contaminants will have to be "stored" in place or at the site for long periods of time. This may be true for many radionuclides and some chemicals, often when they are in the form of dense-non-aqueous phase liquids (DNAPLs). We also believe that once decisions are made to leave a contaminant in place, it is difficult to continue research on how the contaminant could be safely treated, avoiding the need for long-term stewardship measures. We propose that DOE form a dedicated program that keeps an eye towards the future, and continually looks for solutions to these problems. We think that this program should be coordinated with the Office of Long-Term Stewardship. 6.8

8. A reliable, up-to-date record management facility accessible to the community is required. DOE must fully characterize, document, and disclose all environmental contamination at its sites in case failures occur. Because of the long-term nature of contaminants found at many of the sites, DOE should develop a record management system that will always be accessible near the location of the stewardship activities, from a regional access point (such as the state archive or library) and from the National Archive system. In cases such as waste burial areas (e.g., Waste Isolation Pilot Project), DOE should submit records to international archives as well. 6.9

9. Develop policy and regulations on property transfers. One of the more difficult aspects of this program is deciding how to handle property transfers and the obligations of DOE and the new owner after the transfer. We strongly advise that this be addressed as policy and specific regulation, which contains the premise that DOE is responsible for a site in perpetuity unless the new owner has altered the property (e.g., drills through a landfill), violated a legal deed restriction, or contaminates the environment. If the owner is insolvent, then liability should revert back to DOE. 6.10

10. When institutional controls or land-use controls are part of the remedy, DOE should be required to monitor and enforce compliance with those controls. If property is transferred to another entity, DOE should develop a system whereby it will monitor compliance with any land-use restrictions/institutional controls, and enforce compliance when necessary. 6.11

11. Avoid transferring hazardous substances. Transferring waste adds the complication of transportation and reclamation of the former site, while still maintaining the burden of long-term stewardship activities. We are also concerned that some locations with lax standards could become the dumping ground for many long-lived hazardous materials. 6.12

12. All cleanups that fall under the LTS program should use the CERCLA regulatory framework. There are many cleanups conducted pursuant to non-CERCLA authority. We propose that DOE take the initiative to form a consistent regulatory mechanism for the LTS program, and that CERCLA is the method that provides the most opportunity for community involvement in decision making. 6.13

13. When contaminants are left in place, DOE should compensate local governments. Compensation to fund protective equipment, emergency preparedness, and sophisticated record keeping should be available to all local governments where long- 6.14

6.8 – The Department acknowledges these comments in a text box in Section 4.2.4 of the Final Study. As noted in Section 4.2.4 of the Final Study, the Department's process for developing and implementing new science and technology includes developing a long-term stewardship science and technology roadmap that will (1) identify science and technology needs; (2) identify existing capabilities to meet these needs both within and external to DOE; (3) determine research and development priorities; and (4) direct specific efforts to meet these needs. The Department agrees that research into a number of key areas is needed, including the long-term effectiveness and reliability of engineered and institutional controls; surveillance and monitoring; and information management. Advances in science and technology may provide future generations with the ability to cost-effectively achieve unrestricted use at some sites. The Department's Long-term Stewardship Working Group recently identified the policy issue as to whether the ultimate goal of new science and technology should be to improve the ability to maintain the existing end state (i.e., the end state established during cleanup) or should be to "improve" the end state more closely toward unrestricted use as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee.

6.9 – The Department acknowledges this comment in Section 7.2 of the Study. The Department has begun a process to more clearly identify and develop a consensus on long-term stewardship information needs and develop guidance for long-term stewardship information and records management. Some information management guidance will be included in the guidance for site-specific long-term stewardship plans currently under development by the Department. This comment will be considered in these efforts.

6.10 – This comment is acknowledges in a text box in Section 6.2 of the Study. Section 6.2 of the Study recognizes the many issues, public concerns, and uncertainties associated with ensuring the continued provision of long-term stewardship after property transfers. The Department's Long-term Stewardship Working Group recently identified the issue of how DOE will ensure adequate protection of human health and the environment at sites transferred to the private sector as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. This comment will be provided to the Executive Steering Committee for their consideration.

6.11 – The Department acknowledge this comment in Section 5.3 of the Study. Current laws and regulations do require DOE to monitor and enforce compliance with institutional controls.

6.12 – The decision to clean up to unrestricted use, or to meet other specific land use requirements, is made on a site-specific basis with input from regulators, stakeholders, and the public. It is both DOE and EPA policy that cleanup remedies should be consistent with the intended future use of the affected areas. Chapter 2 of the Study includes a new text box that provides a more formal statement on the scope of long-term stewardship and why it is required (i.e., the inability to achieve unrestricted use and the nature of residual hazards). The goal of long-term stewardship is to ensure continued protection of human health and the environment consistent with applicable requirements. The Department recognizes the many issues and public concerns associated with the uncertainties with planning for, documenting, and funding long-term stewardship throughout the Study and acknowledges this comment by including it in a text box in Section 3.2 of the Study.

6.13 – The Department acknowledges these comments in a text box in Section 4.1 of the Final Study. The specific mechanisms available for oversight and enforcement of long-term stewardship vary according to the applicable regulatory regime(s) and state laws on a site-specific basis. The Department has not developed a policy on potential alternative regulatory regimes at specific sites. These comments will be provided to the senior management Long-term Stewardship Executive Steering Committee for their consideration.

6.14 – The Department acknowledges this comment in a text box in Section 8.2 of the Study. As noted in Section 8.2 of the Study, developing an alternative funding mechanism will require additional study and eventually Congressional action. Section 8.2 of the Study also provides a summary of the recent study of Trust Funds by Resources for the Future. The Department's Long-term Stewardship Working Group recently identified funding of long-term stewardship as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. Specific funding issues identified by the Working Group included: (1) difficulties in determining long-term stewardship costs now and in the future because there is no consistent procedure for how long-term stewardship activities are budgeted for and reported among DOE sites; (2) whether the annual appropriations process is the most effective mechanism for funding long-term stewardship activities that may be needed for decades or centuries; and (3) circumstances under which DOE should consider funding external parties (e.g., local governments) to conduct long-term stewardship activities or oversight. This comment will be forwarded to the Executive Steering Committee for their consideration.

term stewardship activities fall under their jurisdiction. Even with the best plans, we know that there will be failures. Some of these failures may require emergency medical response due to sudden events (e.g., explosion), but many may lead to negative health affects due to non-sudden events (e.g., failure to contain seeping groundwater plumes leading to contamination of the water supply). Aside from direct compensation, we believe that DOE should provide an insurance policy for each site. This insurance should be similar to Environmental Impairment Liability policies required by the Resource Conservation Recovery Act (RCRA). These policies are required by EPA regulations for privately held sites that treat, store, or dispose of hazardous waste. We suggest that the Office of Long-Term Stewardship investigate various mechanisms to fund such insurance.

14. DOE Office of Environmental Management (or its successor organization) should take responsibility for long-term stewardship at the site. We do not believe that the other line programs of DOE would put equal focus into the mission and goal of adequate long-term stewardship. We are especially concerned that sites within the new National Nuclear Security Agency would not coordinate well with non-NNSA functions. It is of particular importance that long-term stewardship planning and activities are coordinated with adequate project management oversight and authority in one office within DOE.

6.15

6.15 – As noted in Exhibit 4-2 of the Study, it is DOE's current policy that at sites where non-EM missions are expected to continue, the site landlord programs will take responsibility for long-term stewardship after EM finishes its cleanup mission.

15. DOE should integrate prior studies into its assessment of long-term stewardship needs. Assessing the sites on the "1995 List of Sites Reviewed for Possible Past Involvement in Nuclear Weapons and Nuclear Energy Related Activities" is an important and difficult task. We urge DOE to continue work on this list - specifically creating a database that will provide information about each site and long-term stewardship needs. Additionally, coordination between this study and the long-term stewardship analyses (site specific and national) currently being conducted by DOE for Congress should be improved.

6.16

6.16 – The Department acknowledges this comment in a text box in Section 7.2 of the Study. Section 7.2 of the Study also notes that on February 11, 2001, the Department made public a list of sites, including beryllium vendors, DOE sites that used radioactive materials, and facilities where atomic weapons workers may have been employed (66 FR 4003). The Department is working on a database for these sites. The Study focuses on common issues and challenges that exist across many sites rather than focusing on one particular subset of these sites. The Department also notes that long-term stewardship is not limited to DOE sites, or even sites where the federal government has some responsibility. For example, local governments are already responsible for the long-term stewardship of closed municipal landfills. Many of the issues that pertain to DOE sites are likely to pertain to closed landfills as well.

Citizens Advisory Board

Idaho National Engineering and Environmental Laboratory

00-CAB-084

November 22, 2000

Steven Livingstone, Project Manager
Office of Long-Term Stewardship (EM-51)
Office of Environmental Management
U.S. Department of Energy
P.O. Box 45079
Washington, DC 20026-5079

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Dear Mr. Livingstone:

> **Note:** The Site-Specific Advisory Board for the Idaho National Engineering and Environmental Laboratory (INEEL), also known as the INEEL Citizens Advisory Board (CAB), is a local advisory committee chartered under the Department of Energy's (DOE) Environmental Management SSAB Federal Advisory Committee Act Charter.

The INEEL CAB has reviewed the Draft Long-Term Stewardship Study. We appreciate the opportunity to provide our comments to DOE on the draft document.

INEEL CAB Recommendation #78, titled "Long-Term Stewardship" (attached), transmits our comments on the Draft Study. We were largely impressed by the Draft Study, although we offer a few suggestions for improvement. We look forward to receiving the Final Long-Term Stewardship Study when it becomes available and hope to see that our comments have been incorporated.

Additional comments on DOE's broader Long-Term Stewardship Program are also included in the recommendation. In particular, we urge DOE to take immediate steps to move beyond studying this important subject and institutionalize Long-Term Stewardship.

INEEL CAB Recommendation #78 was reached through consensus at the INEEL CAB's November 2000 meeting, held in Idaho Falls, Idaho. We await your response.

Sincerely,

Stanley Hobson, Chair
INEEL CAB

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cc: David Kipping, INEEL CAB Stewardship Committee Chair
Beverly Cook, DOE-ID
Carolyn Huntoon, DOE-HQ
Martha Crosland, DOE-HQ
Fred Butterfield, DOE-HQ
Governor Dirk Kempthorne
Larry Craig, U.S. Senate
Mike Crapo, U.S. Senate
Mike Simpson, U.S. House of Representatives
Helen Chenowith, U.S. House of Representatives
Robert Geddes, President Pro-Tem, Idaho Senate
Laird Noh, Chair, Idaho Senate Resources and Environment Committee
Bruce Newcomb, Speaker, Idaho House of Representatives
Golden C. Linford, Chair, Idaho House Resources and Conservation Committee
Jack Barraclough, Chair, Idaho House Environmental Affairs Committee
Gerald Bowman, DOE-ID
Kathleen Trever, State of Idaho INEEL Oversight
Wayne Pierre, U.S. Environmental Protection Agency Region X
John Sackett, Argonne National Laboratory - West

Citizens Advisory Board
Idaho National Engineering and Environmental Laboratory

LONG-TERM STEWARDSHIP

The Idaho National Engineering and Environmental Laboratory (INEEL) Citizens Advisory Board (CAB) recently received copies of the Draft Long-Term Stewardship Study prepared by the Department of Energy's (DOE's) Office of Long-Term Stewardship. The Draft Study was prepared in partial compliance of a December 1998 Settlement Agreement that resolved a lawsuit filed by the Natural Resources Defense Council (and other plaintiffs) against DOE regarding the Programmatic Environmental Impact Statement for the complex-wide waste management program. We appreciate the opportunity to provide our recommendations regarding the Draft Study and DOE's Long-Term Stewardship Program.

DRAFT STUDY

The INEEL CAB would like to compliment the DOE Office of Long-Term Stewardship on the Draft Study. It addresses a very complex and often confusing subject and breaks it down into a manageable set of topics and issues. We noted that the Draft Study identified more questions than answers, but it appears to have done a very thorough job of identifying the most relevant questions. In addition, the Draft Study did an excellent job of integrating the comments received from the public during the scoping period into the Draft Study. The addition of excerpts from the study conducted by the National Research Council and accounts of experiences from other government agencies lend additional perspective and balance to the document. We conclude that the Study's primary contribution at this time results from the effort to consolidate information about the subject. This document, along with the recently prepared *Report to Congress*, provides an excellent starting point to support enhancement of the public's understanding of this important topic. 7.1

The INEEL CAB understands that the Study is not being prepared to support a federal decision-making process. Nevertheless, **the INEEL CAB recommends that DOE make every effort to delineate alternative possible future courses of action as clearly as possible in the Final Study and providing objective analysis of the various pros and cons of each alternative.** Good examples of where DOE has already taken this approach are presented in Section 6.1.3 (page 60), Exhibit 5-4 (page 48) and especially Exhibit 8-3 (pages 86-87). 7.2

One criticism of the Draft Study relates to an apparent lack of commitment to conducting meaningful public participation activities during Long-Term Stewardship planning and implementation. DOE's commitment to meaningful public involvement should be reinforced through the addition of appropriate language in several sections. The following is a partial listing of suggestions for where public participation should be addressed in the Study: 7.3

7.1 – The Department appreciates this comment. Thank you.

7.2 – Where possible, the Study identifies alternatives for addressing long-term stewardship.

7.3 – The Department acknowledges this comment in a text box in Section 3.2 of the Study. Existing laws and regulations, especially the CERCLA process that is used for many site cleanups, require public involvement in the activities and decisions that lead to the selection of a remedy (ROD), including the technical and economic feasibility of cleanup to unrestricted use. However, these laws and regulations do not clearly articulate the role of public involvement in the activities and decisions that follow the ROD. At the same time, the Department recognizes that the ultimate success of long-term stewardship depends on the active involvement of the affected parties, including local governments and Tribes. It is important for all parties to develop a workable approach for meaningful public involvement in the decisions that affect and manage long-term stewardship activities. The Study identifies this as an additional key challenge associated with long-term stewardship. The Department's Long-term Stewardship Working Group recently identified public involvement as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. This issue includes how DOE should balance the need to involve the public in maintaining controls (e.g., institutional controls such as water use restrictions) with competing needs such as classified information or activities, particularly at sites with ongoing national security missions. The Department's Long-term Stewardship Working Group also has identified the issue of under what circumstances DOE should consider funding of external parties as one of the most important issues that should be addressed by the Executive Steering Committee. Although the general issue of public involvement has been identified to the Executive Steering Committee, specifics of implementation (e.g., what external organizations should be involved, what should be provided by DOE, what mechanisms for public involvement should be used) have not been discussed and may be determined on a site-specific basis. We intend the public participation process will allow the Tribes and the public to express their views on long-term stewardship activities at DOE sites. The Department notes that the public involvement issue is identified as an additional issue in the overall introduction to the Study, but not specifically in Chapter 2. In addition, the Department notes that existing laws and regulations require public involvement in the remedy selection process, which defines end states and cleanup strategies, and DOE selects remedies in compliance with these laws and regulations. The Department understands the request from the commenter for the Study to be more specific in identifying how public involvement will occur during long-term stewardship. However, the Study cannot establish policy such as altering the list of requirements for site-specific plans or change the list of activities conducted during self-assessment.

The discussion of issues related to long-term stewardship in Chapter 2 is incomplete. One issue refers to the need for public access to information (Section 2.5); another refers to the importance of continued partnerships with state, local and Tribal governments (Section 2.7). DOE should include another "issue" that reflects the need for a meaningful role for the public in long-term stewardship decision-making.

A commitment to involving the public in defining appropriate end states for each site and selection of cleanup strategies that will allow such end states would similarly strengthen the introduction to Chapter 3 (page 11). DOE should add appropriate language.

Public participation should be added to the list of requirements of site-specific long-term stewardship plans (in Section 4.2.2 on page 32).

Public participation should be added to the list of activities conducted during self-assessments conducted in preparation for the transition to long-term stewardship (in Section 4.2.2 on page 33).

There may be other places in the document that should be changed as well to more completely reflect a commitment to providing a role for stakeholders.

The INEEL CAB is puzzled by the fact that INEEL is not listed in the table on page 40. Because INEEL has many continuing non-EM missions, we do not understand why it does not appear. **The INEEL CAB recommends that DOE include INEEL in the table on page 40 or provide a very clear explanation why inclusion is not appropriate.** 7.4

LONG-TERM STEWARDSHIP

The INEEL CAB recommends DOE move beyond studying this important subject and take immediate steps to institutionalize Long-Term Stewardship by clearly identifying the Department's requirements for field offices. 7.5

Although they are perhaps beyond the scope of the Long-Term Stewardship Study, we have additional comments to help ensure DOE's success in implementing a Long-Term Stewardship Program. We urge the Office of Long-Term Stewardship to address the following on a priority basis.

Roles and Responsibilities. **The INEEL CAB recommends that DOE enhance the delineation of long-term stewardship responsibilities.** We suggest that all responsibilities that will fall within the purview of DOE-Headquarters and/or Field Offices be assigned appropriately. We additionally suggest that those tasks that will require public input and/or collaboration with others be similarly identified. The public might be provided an opportunity to help set priorities for those activities that would fall within DOE's responsibility. 7.6

Funding mechanisms. We understand that DOE awarded a grant to Resources for the Future, an independent non-profit research organization, to assess potential alternative long-term stewardship funding mechanisms. The Draft Plan included an excellent discussion of alternative funding mechanisms in Section 8.2 (pages 84-89). That discussion serves as a starting point. **The INEEL CAB recommends that DOE immediately embark on a more extensive study of funding mechanisms (based on detailed proposals for implementation). In particular, we** 7.7

7.4 – INEEL is not in Exhibit 4-2 because it is an EM landlord site, and the exhibit refers to sites where a Principal Secretarial Office other than EM is the landlord. Argonne National Laboratory - West, which is located within INEEL, is included in Exhibit 4-2 because the Office of Nuclear Energy, Science, and Technology is the landlord at that site.

7.5 – The Department acknowledges this comment in a text box in Section 4.2 of the Study. The Department's Long-term Stewardship Working Group recently identified the need for a corporate vision for long-term stewardship as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. The corporate vision includes the appropriate organizational structure for long-term stewardship within the Department. The Department also recognizes that it is important to define long-term stewardship roles and responsibilities both within DOE and between DOE and other entities, including other federal agencies, states, Tribes, and regional governments. The Executive Steering Committee is developing a Strategic Plan for long-term stewardship; part of that effort will include identifying roles and responsibilities within DOE. The Department also notes that long-term stewardship as an issue is broader than DOE sites. For example, states and local governments already have long-term stewardship responsibilities at municipal landfills, and states may have long-term stewardship responsibility for some "Superfund lead" sites on the CERCLA NPL. Implementation of long-term stewardship across this broad spectrum of sites will require states to develop their own, independent capability to provide long-term stewardship.

7.6 – The Department acknowledges this comment in a text box in Section 4.2 of the Study. The Department's Long-term Stewardship Working Group recently identified the need for a corporate vision for long-term stewardship as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. The corporate vision includes the appropriate organizational structure for long-term stewardship within the Department. The Department also recognizes that it is important to define long-term stewardship roles and responsibilities both within DOE and between DOE and other entities, including other federal agencies, states, Tribes, and regional governments. The Executive Steering Committee is developing a Strategic Plan for long-term stewardship; part of that effort will include identifying roles and responsibilities within DOE. The commenters expressed varied opinions on the appropriate balance between federal vs. non-federal leadership, and between a strong central organization vs. independent field organizations. The Department notes that a balance that may work well for one site may not work well for other

7.7 – The Department acknowledges this comment in a text box in Section 8.2 of the Study. As noted in Section 8.2 of the Study, developing an alternative funding mechanism will require additional study and eventually Congressional action. Section 8.2 of the Study also provides a summary of the recent study of Trust Funds by Resources for the Future. The Department's Long-term Stewardship Working Group recently identified funding of long-term stewardship as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. Specific funding issues identified by the Working Group included: (1) difficulties in determining long-term stewardship costs now and in the future because there is no consistent procedure for how long-term stewardship activities are budgeted for and reported among DOE sites; (2) whether the annual appropriations process is the most effective mechanism for funding long-term stewardship activities that may be needed for decades or centuries; and (3) circumstances under which DOE should consider funding external parties (e.g., local governments) to conduct long-term stewardship activities or oversight. This comment will be forwarded to the Executive Steering Committee for their consideration.

recommend thorough consideration of the statutory authority that would be required to enable each alternative funding mechanism and how such authority could be achieved.

The INEEL CAB recommends that DOE immediately pursue establishment of an adequate and reliable funding source for long-term stewardship activities. Consistent with the draft recommendations (not yet approved or adopted) developed by representatives of ten Site Specific Advisory Boards at a recent workshop in Denver, Colorado, **the INEEL CAB further recommends that DOE make guaranteed funding for stewardship a national priority, removed from the annual Congressional appropriations process, and maintained off-budget.** We agree with the workshop participants that stewardship funds must be protected from the demands of other programs. Stakeholders must be involved in the development of a fair allocation process. To meet these objectives, DOE must develop authorizing legislation for submittal to Congress. 7.8

Institutionalization of Long-Term Stewardship. Most of the details of long-term stewardship must, by their nature, be site-specific. However, it is clear that there is an urgent need for the Office of Long-Term Stewardship to continue to draft national policy and provide guidance to sites in developing long-term stewardship plans. **The INEEL CAB recommends that the Office take steps to institutionalize long-term stewardship immediately.** For example, we suggest that DOE issue DOE orders mandating specific requirements and responsibilities for Long-Term Stewardship planning at each site. Suggestions for consideration during development of requirements and responsibilities include those listed in the box titled "Remedy Monitoring Plan" (page17), the related discussion of "enhanced Remedy Monitoring Plan" further down that page, and the criteria discussed in Section 3.3 (page 18). Specific requirements must include directives regarding public involvement and information management. With the imminent change in the Federal administration, this recommendation is of particular urgency. 7.9

Expansion of Long-Term Stewardship throughout DOE. Long-Term Stewardship should not be considered just the next step after cleanup. **The INEEL CAB recommends that the principles and approaches developed by the Office of Long-Term Stewardship be incorporated into all DOE activities, including those under the auspices of other major organizations within DOE, like Nuclear Energy, Defense Programs, etc.** The Office of Long-Term Stewardship should not restrict its support to the Environmental Management Program. DOE should implement the program consistently across all national programs. Long-Term Stewardship should be considered in all life-cycle-planning endeavors. **In addition, Long-Term Stewardship should be emphasized as an essential component of all new programs and facilities as well as ongoing activities.** 7.10

7.8 – The Department acknowledges this comment in a text box in Section 8.2 of the Study. The Department currently relies on the annual appropriations process to fund long-term stewardship. This is not likely to change in the near term. As noted in Section 8.1 of the Study, a separate Project Baseline Summary (PBS) for long-term stewardship at each site will help the Department improve its estimates of annual long-term stewardship funding requirements. Developing an alternative funding mechanism will require additional study and eventually Congressional action. The Department's Long-term Stewardship Working Group recently identified funding of long-term stewardship as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. Specific funding issues identified by the Working Group included: (1) current difficulties in determining long-term stewardship costs now and in the future because there is no consistent procedure for how long-term stewardship activities are budgeted for and reported among DOE sites; (2) whether the annual appropriations process is the most effective mechanism for funding long-term stewardship activities that may be needed for decades or centuries; and (3) circumstances under which DOE should consider funding external parties (e.g., local governments) to conduct long-term stewardship activities or oversight. This comment will be forwarded to the Executive Steering Committee for their consideration.

7.9 – See response to Comment 7.5.

7.10 – This comment is acknowledged in a text box in Section 6.1.3 of the Study. The Department agrees that the language used in the Draft Study did not adequately communicate the distinction between "pollution prevention" in the traditional sense and as applied to long-term stewardship. The Department has revised Section 6.1.3 of the Study to indicate the importance of both pollution prevention principles and the concept of Environmental Management Systems to help minimize the future long-term stewardship consequences of current mission activities. The Department also has added a footnote in Section 6.1.3 to clarify use of the term "pollution prevention."

KENNETH M. REIM, P.E.
2733 Billy Casper Drive
Las Vegas, NV 89134-7814

November 28, 2000

Mr. Steven Livingstone, Project Manager
U.S. Department of Energy
P.O. Box 45079
Washington, D.C. 20026-5079

Re: October 2000 Draft Report on Long-Term Stewardship Study

Gentlemen:

Some general observations and comments on the above report, and program are as follows:

1. The draft LTS report is long, confusing, lacks simplicity and clarity; with the ordinary reader unable to understand it. A good report is short, clear and to the point. This report does not do this - is this the objective of DOE? 8.1

2. There is a lack of clarity in regard to remediation (cleanup) completion, versus when stewardship is initiated. Most government agency personnel, and the public, do no understand this distinction. Stewardship needs to be very clearly defined, so that the man-on-the-street can understand it - this is not the present case. 8.2

3. Every effort should be made to make the LTS program simple and clear. Complexity adds to confusion. 8.3

4. The LTS program organization should maximize the personnel assigned to field work (budget), and minimize the administrative staff (organization-budget). 8.4

5. If federal, state and local regulatory requirements do not significantly contribute to doing or completing the LTS mission, move to revise or eliminate such. 8.5

6. LTS programs should be subject to aggressive benefit/cost analyses, maximizing the benefit/cost ratio. 8.6

One could comment on the various sections of the report, however, that would simply add to making the document more confusing. I seriously question if anyone person will read the whole document and understand it. These documents should be readable by a significant cross section of government personnel and the public.

Thanks for the opportunity to comment.

Sincerely,

Kenneth M. Reim

8.1 – In response to public comments, DOE tried to make the Study as clear as possible.

8.2 – The Department acknowledges this comment in a text box in Section 2.1 of the Study. In the Paths to Closure documents, the Department defined completion of cleanup projects explicitly as the situation in which "deactivation or decommissioning of all facilities currently in the EM program has been completed, excluding any long-term surveillance and monitoring; all releases to the environment have been cleaned up in accordance with agreed-upon cleanup standards; groundwater contamination has been contained, or long-term treatment or monitoring is in place; nuclear material and spent fuel have been stabilized and/or placed in safe long-term storage; and "legacy" waste (i.e., waste produced by past nuclear weapons production activities and related research and development, with the exception of high-level waste) has been disposed of in an approved manner." Therefore, long-term stewardship responsibilities clearly begin when cleanup ends. The start of long-term stewardship is relatively easy to define at a relatively small site with a single cleanup project, but it is more difficult to define at large, complex sites with multiple cleanup projects that may span decades. Exhibit 5-3 of the Study also addresses this issue. The Department agrees that the distinction between completion of cleanup and start of LTS is not always clear in the site Project Baseline Summaries (PBS) and similar systems, especially at large sites with multiple areas undergoing remediation. The Department agrees with the comment that LTS planning begins before the start of cleanup; this is discussed explicitly in Section 6.1.3 of the Study. The Department's Long-term Stewardship Working Group recently identified the issue of developing a consistent, consensus definition of long-term stewardship, including when long-term stewardship begins, as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee.

8.3 – The Department acknowledges this comment in a text box in Section 4.2 of the Study.

8.4 – The Department acknowledges this comment in a text box in Section 4.2 of the Study. The Department's Long-term Stewardship Working Group recently identified the need for a corporate vision for long-term stewardship as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. The corporate vision includes the appropriate organizational structure for long-term stewardship within the Department. The Department also recognizes that it is important to define long-term stewardship roles and responsibilities both within DOE and between DOE and other entities, including other federal agencies, states, Tribes, and regional governments. The Executive Steering Committee is developing a Strategic Plan for long-term stewardship; part of that effort will include identifying roles and responsibilities within DOE.

8.5 – The Department acknowledges these comments in a text box in Section 4.1 of the Final Study. The specific mechanisms available for oversight and enforcement of long-term stewardship vary according to the applicable regulatory regime(s) and state laws on a site-specific basis. The Department has not developed a policy on potential alternative regulatory regimes at specific sites. These comments will be provided to the senior management Long-term Stewardship Executive Steering Committee for their consideration.

8.6 – The Department acknowledges this comment in a text box in Section 8.1 of the Study. The Department agrees that more information is needed on the scope of future long-term stewardship activities and better life-cycle cost estimates are needed. The Study incorporates the cost estimates from the Report to Congress on Long-term Stewardship and discusses the basis for these estimates. Accurate cost estimates are critical for long-term stewardship, particularly for ensuring accountability for the technical scope of the program. The Report to Congress on Long-term Stewardship is only the first step in developing the necessary cost figures. The Department's Long-term Stewardship Working Group recently identified funding of long-term stewardship as one of the most important issues that should be addressed by the senior management Long-term Stewardship Executive Steering Committee. Specific funding issues identified by the Working Group included difficulties in determining long-term stewardship costs now and in the future because there is no consistent procedure for how long-term stewardship activities are budgeted for and reported among DOE sites. This comment will be forwarded to the Executive Steering Committee for their consideration.

Sam and Laurie Booher

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10 December 2000

Mr. Steve Livingstone
Project Manager, Office of Long Term Stewardship
Office of Environment Management
US DOE, Box 45079
Washington, DC 20026-5079

Subject: Public Comment to Draft Long-Term Stewardship Study

Dear Mr. Livingstone,

I have two basic comments that should be and are not addressed under the topic of Long-Term Stewardship of DOE sites. However first let me say I am retired and have never been employed by DOE or any of its subordinate companies nor have I ever been anything more than a concerned member of the public. Also, I participated in the writing of the CAB (Citizen Advisory Board) By-Laws for SRS and have ever since participated in the CAB Committee work. I am currently a member of SRS, CAB Long-Term Stewardship SubCommittee.

First -- Your program barely mentions once and does not bring out sufficiently the following:

At some point in the future the United States will have a critical need for DOE to establish sites such as SRS for a new purpose that is critical to this countries survival. At that time it will be all but impossible to acquire new sites such as SRS due to expansion and growth of the public sector. DOE should not be in a mad rush to divest itself of SRS. Reading this report leads me to think you already are in a rush to make this mistake. I offer that the ecology found in the buffer zone that currently provide both safety and security on SRS is already a recognized as a National Environmental Research Park (NERP). Several federally endangered species and the work done by the Savannah River Ecology Laboratory, part of the University of Georgia, should be part of the justification for keeping SRS under some federal entities to be available to meet future national security needs. 9.1

Second -- No where in this report do you even mention the following:

Currently DOE is allowing public landfill operations on SRS and possibly other DOE sites that are daily polluting DOE sites. This pollution is taking place and will in the future cause problems that will take more than 30 years to clean up. These public landfill operations are daily bring pollution to the site that is polluting underground water and will eventually pollute surface water. However, at this time existing detection methods in place down stream from the landfill on SRS have not detect any pollution. However we all know that it is not a question of "if" it is only a question of "when" it be so bad it can not help but be noticed. Because this is a public landfill on SRS, local DOE operations are taking no responsibility. However, when it 9.2

9.1 – This comment focuses on site-specific issues. Where these issues have identified general issues for long-term stewardship, the Department has attempted to communicate these issues in both the Draft and Final Study. This comment has been forwarded to the Department's long-term stewardship representatives at the appropriate sites; however, the long-term stewardship study is not the appropriate document for addressing site-specific issues.

9.2 – See response to Comment 9.1.

comes time to eventually recognize the responsibility to clean up this polluted site, no one will tell me at SRS who will be responsible. Will the polluting party, will DOE or will the American Tax payer pay the cost for allowing this landfill on SRS? I have read the Public and DOE MOUs and other agreements. I have asked for clarification but still do not have an answer.

Additional Recommendation:
In the not two distant future, our future generations of Americans will find it very difficult to see wildlife in America outside of city zoos. Currently some DOE sites have Biological Resource Management Plans. These plans are used to manage wetland and other sensitive habitat and monitor the wildlife. All DOE sites should be mandated as part of any Long-Term Stewardship Program to establish such programs and insure these plans are incorporated into the Site Comprehensive Plans. Then if DOE does decide to transfer these sites to other federal entities or nongovernment entities then these agencies must be better equipped than DOE to take care of these public natural resources and the transfers must include legal agreements that bind this commitment to long-term stewardship to protect America's Last Wild Places.

Sam Booher

Mr. Livingstone -- I would like to be considered for a position or at least and advisory position with the DOE Advisory Group for Long-Term Stewardship (see page 27, your draft plan)

9.3

9.3 – As noted in Section 4.2.2 of the Study, site-specific long-term stewardship plans are required by law for uranium mill tailings sites and must be approved by the Nuclear Regulatory Commission. The Department also requests the development of a site-specific long-term stewardship plan before accepting long-term stewardship responsibilities for any site. As the EM mission at a site is completed, current plans call for the EM program and the site landlord (if different from EM) to develop a long-term stewardship baseline for each site. The baseline will describe the scope of applicable long-term stewardship requirements, the technical activities and the projected schedule to meet these requirements, and expected costs. The Department acknowledges these comments in a text box in Section 4.2 of the Final Study and will consider the recommendations they provide in developing the guidance that will specify the format and content for site-specific long-term stewardship plans.

9.4

9.4 -- The Department recommends that you make this request through established public involvement processes.

Campbell, Kathleen

From: Steven Livingstone [Steven.Livingstone@EM.DOE.GOV]
Sent: Monday, December 11, 2000 2:30 PM
To: Girod, Brenda
Subject: RE: Comments on Draft Long-Term Stewardship Study

Mark:

Thank you for reviewing the study. Your comments will be addressed.

Steve

-----Original Message-----
From: Mark.Plessinger@doegjpo.com [mailto:Mark.Plessinger@doegjpo.com]
Sent: Monday, December 11, 2000 1:36 PM
To: Livingstone, Steven
Subject: Comments on Draft Long-Term Stewardship Study

Steve,

I have noted a couple of picky minor errors that should be corrected in the document. I expect the GJO to submit comments formally, but just in case they are too late you will have these.

Page 12: In the shaded box under the first bullet the words "privately owned" should be replaced with the words "under active NRC License" to make the statement a little more correct. | 10.1

10.1 – The phrase "under active NRC license" has been added to the text in response to this comment.

Footnote number 9: In the second sentence the cleanup actions by DOE are not conducted under NRC license, only the stewardship activities.(Technically, any cleanup action resulting from a failure during the stewardship phase would be done under NRC license but the initial cleanup where DOE does the cleanup is not under NRC license). | 10.2

10.2 – The subject footnote has been changed to address this comment.

Also at the end of footnote 9, the Hallam, Nebraska and Piqua, Ohio sites are not under NRC license, as stated in the footnote. | 10.3

10.3 – These sites have been removed from the footnote.

Overall this document is impressive. It is extremely comprehensive and I believe it does demonstrate that DOE is seriously considering the ramifications of stewardship. The document is indicative of a tremendous amount of hard work. | 10.4

10.4 – The Department appreciates this comment. Thank you.

Mark

Committee to Minimize Toxic Waste

December 15, 2000

Steven Livingstone, Project Manager
James Werner, Director
Office of Long-Term Stewardship, EM51
Office of Environmental Management
U S Department of Energy
P. O. Box 45079
Washington D.C. 20026-5079

Re: Comments on DOE/EM/LTS "Long-Term Stewardship Study" Oct. 2000 Draft.

Dear Mr. Livingstone:

We would like to thank DOE's Office of Environmental Management for arranging the workshop on the Long-Term Stewardship Study in San Francisco on December 14, 2000 and affording our citizen organization an opportunity to comment.

The Committee to Minimize Toxic Waste is a Berkeley based citizens' group that monitors Lawrence Berkeley National Laboratory's (LBNL) use of radioactive and hazardous substances, generation of radioactive, mixed and hazardous waste, handling of legacy waste and the Lab's impacts on our local community.

We concur with the comments submitted by Tri-Valley CARE's and Western States Legal Foundation and would like to sign-on to their official statement and especially emphasize the following points:

11.0

11.0 – Please see responses to comment letter 6.

1. All cleanups for sites, that fall under the Long-Term Stewardship Program, such as LBNL, should use the CERCLA regulatory framework. CERCLA is the method that provides the most opportunity for substantive community involvement in decision [illegible] public health impacts are treated by LBNL as public relations matters.

11.1

11.1 – The Department acknowledges these comments in a text box in Section 4.1 of the Final Study. The specific mechanisms available for oversight and enforcement of long-term stewardship vary according to the applicable regulatory regime(s) and state laws on a site-specific basis. The Department has not developed a policy on potential alternative regulatory regimes at specific sites. These comments will be provided to the senior management Long-term Stewardship Executive Steering Committee for their consideration. The general issue of public involvement has been identified to the senior management Long-term Stewardship Executive Steering Committee.

Note: You should be aware that the Berkeley City Council passed a resolution in November 1999 requesting public inclusion at LBNL's Site Restoration (RCRA) quarterly meetings. To date, LBNL has adamantly refused this request for critical public participation.

2. LBNL is the oldest of the DOE's federal facilities and has a long history of environmental contamination (including uranium, curium, tritium and other radioactive soil contamination. This fact was excluded from Exhibit 9 on p. 30 of DOE's October 1999 "From Cleanup to Stewardship" document). Consequently, LBNL has a serious legacy waste/contamination problem, which has never been discussed in an open public process. (See enclosure: Radioactive Contamination Chronicle of LBNL.)

11.2

11.2 – This comment focuses on site-specific issues. Where these issues have identified general issues for long-term stewardship, the Department has attempted to communicate these issues in both the Draft and Final Study. This comment has been forwarded to the Department's long-term stewardship representatives at the appropriate sites; however, the long-term stewardship study is not the appropriate document for addressing site-specific issues.

3. DOE's LBNL operations are unique because of the lab's urban setting in the Strawberry Canyon watershed without any buffer zone to the community. Due to LBNL's long history in the community, issues of legacy waste cleanup, decontaminations and decommissioning (D&D) activities are of paramount concern to the residents in Berkeley and Oakland. We believe that leaving contamination in place is not an option for LBNL.

11.3 – See response to Comment 11.2.

4. Lack of proper characterization of LBNL's radioactive legacy waste is obviously problematic to identifying potential radioactive waste from the ongoing decommissioning activities. In Berkeley, the decommissioning activities have so far resulted in more than 40,000 tons of concrete shielding blocks and metallic equipment from decommissioned accelerators such as the Bevatron and the HILAC. Thus far, DOE has not calculated the costs associated with the potential radioactive legacy waste generated by these activities or the environmental consequences. In fact, DOE's own Tiger Team in 1991 reported that "LBL has not characterized known uranium contamination remaining underground from decontamination and decommissioning activities associated with the 184-inch Cyclotron". Very little has changed in the last decade.

11.4 – See response to Comment 11.2.

5. Lastly, we have a great concern over the continuing generation of legacy waste and environmental contamination. As an example, LBNL's National Tritium Labeling Facility generates most of the Lab's radioactive and mixed waste, most of its annual radioactive emissions and consequently most of the environmental impacts. There is also continuing and vocal political opposition to these activities and DOE should evaluate whether the benefits of retaining the activity outweigh those of terminating it in the interest of eliminating the disproportionate amount of management time and resources devoted to it.

11.5 – See response to Comment 11.2.

We recognize that if the NTLF operations ceased today, LBNL's growing tritium legacy waste/contamination would decay in 125 years. The generation of legacy waste/contamination and their associated costs from current operations should be evaluated as part of the Long-Term Stewardship Program.

11.6 – See response to Comment 11.2.

Again, we want to thank you for your efforts in this critical issue of long-term environmental management. If you would like more detailed information, please don't hesitate to contact me.

Sincerely,

Pamela Sihvola
Co-chair CMTW
P.O. Box 9646
Berkeley, CA 94709

cc: Laurence McEwen, Oakland DOE/Long-Term Stewardship
Hemant Patel, DOE Oakland Operations, EM