

**Oak Ridge Reservation
Environmental Management
Site Specific Advisory Board
3 Main Street
Oak Ridge, TN 37830
241-3665**

May 31, 1996

Mr. Rick Korynta
Program Manager
DOE Private Sector
P.O. Box 2001
Oak Ridge, TN 37831-8620

Dear Mr. Korynta:

The Oak Ridge Reservation Environmental Management Site Specific Advisory Board (ORREMSSAB) is providing the following comments, questions, and recommendations on the Draft Final Programmatic Environmental Assessment for the Proposed Privatization of Treatment and Disposal of the Department of Energy's Oak Ridge Reservation Low-Level Mixed Waste (LLMW EA). The items are categorized as follows:

- stakeholder perception,
- analysis of alternatives,
- health and safety,
- regulatory compliance,
- on-site disposal of treatment residuals,
- relationship to the Waste Management Programmatic Environmental Impact Statement (WM PEIS), and
- on-site treatment.

Based on our review, the ORREMSSAB does not believe that the LLMW EA supports a "finding of no significant impact" (FONSI) for the Department of Energy's (DOE) preferred alternative (i.e., off-site private-sector treatment and disposal.) It is apparent from the public meetings that many public stakeholders also find DOE's preferred alternative unacceptable. Thus, DOE is faced with the quandary of what to do next - continue as planned in the face of opposition; prepare an environmental impact statement with its concomitant costs, time and uncertain outcome if DOE and the public remain at odds over the preferred alternative; or revise the LLMW EA to include

realistic analyses of (1) on-site private-sector treatment of the LLMW and (2) a combination of on-site and off-site treatment of LLMW. Then, let the revised comparison of alternatives dictate the decision. We urge DOE to revise its analyses of alternatives in the LLMW EA to reflect the attached comments.

The ORREMSSAB appreciates the opportunity to comment on the LLMW EA. We will continue to assist DOE as it works toward resolution of the problems associated with treatment and disposal of ORR LLMW.

Sincerely,

Bob Peelle
Chair, ORREMSSAB

BP/sb

Enclosure

cc: Rod Nelson, Assistant Manager,
DOE/ORR Environmental Management

**Oak Ridge Reservation Environmental Management Site Specific Advisory Board
Comments on the Low-Level Mixed Waste Environmental Assessment
May 29, 1996**

The Oak Ridge Reservation Environmental Management Site Specific Advisory Board's (ORREMSSAB) comments on the Low-Level Mixed Waste Environmental Assessment¹ (LLMW EA) are arranged with the question or recommendation first, followed by applicable document titles and page numbers (in parentheses), and supporting information (in smaller type.)

Stakeholder Perception

Please factor public stakeholders' desires/concerns into the analyses in a readily discernable way.

(LLMW EA: pp. 1-5 and 6; p. C-5 lines 25 to 27)

As written, the LLMW EA describes public stakeholder input and DOE's expansion of the analyses to respond to stakeholder comments. However, we believe DOE missed the mark by expanding technical analyses while ignoring the issues of most concern (e.g., preference for on-site treatment, quality-of-life, siting issues in a hostile environment, monitoring and oversight, emergency response capabilities.) Furthermore, assuming that private-sector treatment of waste has the same potential risk regardless of whether the facility is located on the ORR or off-site (C-5, lines 25-27) is a faulty assumption as far as many public stakeholders are concerned. Ironically, it now appears that these public stakeholders have more confidence in DOE monitoring and oversight of its facilities than the State of Tennessee's monitoring and oversight of private-sector facilities.

Analyses of Alternatives

The ORREMSSAB requests that the DOE redo the LLMW EA to evaluate all reasonable alternatives including but not limited to (1) on-site private-sector treatment of LLMW at K-25, (2) on-site treatment of LLMW at a DOE operated facility at K-25, (3) off-site treatment of LLMW at a private-sector facility, (4) on-site disposal of LLMW treatment residuals, (5) off-site disposal of LLMW treatment residuals, and (6) a combination of on-site and off-site treatment and disposal depending on the waste streams. Costs associated with each alternative should be fully documented. The revised assessment must be based on the proposed reindustrialization/privatization goals for the K-25 site (Vision 2010) and the procedures/incentives available to the private sector through the Community Reuse Organization (CRO).

¹Programmatic Environmental Assessment "Proposed Privatization of Treatment and Disposal of the Department of Energy's Oak Ridge Reservation Low-Level Mixed Waste" DOE/EA-1119.

We believe that such an assessment will show that for private-sector treatment on the K-25 site there are (is):

- fewer impacts to ecological resources due to construction;
- a better buffer zone than that (if any) found at off-site locations;
- consistency with DOE, Common Ground and regional land use planning;
- freedom from zoning regulations or approvals;
- on-site lease costs below fair market value of off-site properties;
- consistency with DOE reindustrialization goals (Vision 2010);
- lower costs for infrastructure;
- less truck transport of LLMW over public roads;
- better emergency response capability (at least for the present);
- freedom from DOE orders;
- better DOE oversight of construction, operation, and decommissioning;
- better DOE control of acceptance criteria for wastes to be treated;
- increased stakeholder satisfaction because their concerns/desires would be part of decision making; and thus,
- enhanced DOE credibility.

We submit that the evidence is strongly in favor of a private-sector on-site treatment facility.

LLMW EA p. E-31, lines 22 to 24: "...consideration of siting a LLMW treatment facility on the ORR would be consistent with the overall planning strategy being developed by Energy Systems and the ORR."

WM PEIS Summary p. 25: "In six of the seven alternatives being considered in the WM PEIS, LLMW would be treated and stored (no action alternative), treated and disposed (decentralized and regionalized alternatives 1, 2, and 4), or treated (regionalized alternative 4) on site at the ORR."

Common Ground p. 32: "Strong consideration should be given to co-development of Reservation property with the private sector through partnerships, financial incentives, and mutually acceptable property use agreements."

Vision 2010: "Reindustrialization of K-25 with new private sector tenants."

Health and Safety

Please include carcinogenic effects from chemicals in the estimated occurrence of cancer for treatment workers. Explain and justify why the average risk to an individual worker of 0.0012 exceeds the regulatory risk range of 10^{-4} to 10^{-6} .

(LLMW EA p. 4-7, lines 31-35)

The LLMW EA states that "the estimated occurrence of cancer from exposure to radiation and chemicals for the treatment worker was 3.0, entirely because of exposure to radionuclides in

LLMW.” Does this mean that carcinogenic effects from chemicals are not included in this estimate? If so, carcinogenic effects from chemicals should also be included. Also, it is further explained that dividing this estimate by the total number of workers (2,530) results in an average risk to an individual worker of $1.2E-03$ and that this exceeds the regulatory risk range of 10^{-4} to 10^{-6} . Although this range has been used in the LLMW EA for purposes of comparison, it is used by EPA to make risk management decisions. If risks are estimated to be greater than 10^{-4} , at the very least, there should be justification as to why risks are above the acceptable range or an explanation of what measures will be taken to mitigate such risks.

Consideration should be given to risk associated with synergistic effects. The appropriate professionals (e.g., physicians) should be consulted.

If, as stated in the Introduction on line 22 of page 1-2 of the LLMW EA, most of the existing waste inventory has been characterized, why was the WM PEIS used to identify constituents of potential concern in the risk assessment? It is evident by reviewing Appendix H that a number of constituents detected in ORR LLMW are not included on the Tables C.1 and C.2. Although it is acknowledged in Section 5.1 of the Uncertainty Analysis that the use of the WM PEIS list of constituents of concern may both overestimate and underestimate risk, a much more accurate risk level would have been generated if the known list of constituents had been used. Uncertainty could then be discussed in terms of potential constituents of concern which may be present in wastes that have not yet been inventoried or that will be generated in the future.

(LLMW EA Appendix C, Section 1.1.1)

Regulatory Compliance

Please include a description of the “extent of DOE’s control” over a private-sector vendor operating on K-25 and include the costs associated with such control. (If possible, such information should be used to compare private sector costs of doing business on- and off-site. The DOE must know something about the cost of doing business, for example, with Scientific Ecology Group (SEG) based on SEG’s Phase I treatment of inorganic wastewater treatment sludges.)

(LLMW EA pp vii and viii, lines 1 and 2 on p. viii)

Please include in the LLMW EA the differences in provisions (e.g., environmental, safety and health regulatory requirements) for a private-sector off-site treatment facility and a private-sector on-site treatment facility constructed at K-25 under Vision 2010 conditions (e.g., lessee not subject to DOE orders.)

(LLMW EA p. 5-1)

Please summarize the differences in DOE orders for handling of nuclear material (as they relate to LLMW treatment and storage) and (1) the radioactive materials license issued by the State of Tennessee, and (2) a National Emissions Standards for Hazardous Air Pollutants (NESHAP) permit for radionuclides issued by EPA, Region IV.

(LLMW EA p. 5-1, lines 1-6)

Please include a description in the LLMW EA of the protocol for DOE compliance audits/inspections of an off-site facility.

(LLMW EA p. 5-1, lines 7 and 8)

On-Site Disposal of Treatment Residuals

Since on-site disposal of residuals appears to be a DOE goal (see below), why was it not considered an option in the LLMW EA? Please redo your assessment to include on-site disposal for the 20-year treatment period (including cost estimates) and compare it to off-site disposal. If there are reasons why on-site disposal of residuals is not a viable option at the ORR (e.g., fractured and karst geology, high water table,) they should be discussed. Such revision should also take into account all elements of transporting waste to Utah (e.g., accidents, radiation exposure to workers and public, hazardous waste risks, cost.)

WM PEIS Summary pp. 12 and 28: "The Draft Waste Management PEIS shows LLMW as treated and disposed or stored on-site at the ORR for all alternatives except the centralized alternatives (i.e., six out of seven alternatives.)

ER Program Management Action Process Document on the US DOE ORR(DOE/OR/01 - 1431 & D1) issued 4/96, pp 1-6, Part 1.3.4., third goal: "Establish on-site disposal cells for Oak Ridge low-level and mixed waste by FY 2000."

LLMW EA p. 2-7, lines 19 to 22: "In a separate action, DOE is currently evaluating construction of an on-site disposal facility for legacy low-level and mixed low-level waste under CERCLA . . . On-Site disposal capacity would be used for legacy LLMW included in this EA, if available."

Relationship to the WM PEIS

In view of the following quotes, the ORREMSSAB finds the DOE argument that an on-site LLMW treatment facility would prejudice the outcome of the WM PEIS not convincing and very short-sighted. Based on the WM PEIS, it appears that ORR is a likely candidate for treatment of DOE LLMW. Thus, decisions made now are important for the future of our community.

Stakeholders have a responsibility to understand treatment, storage, and disposal of LLMW and what it means (both pro and con) for reindustrialization of the ORR facilities. The DOE has a

responsibility to provide information and an obligation to consider and incorporate reasoned stakeholder desires into its planning.

WM PEIS Summary, pages listed below:

“The volume of ORR LLMW (current inventory plus 20-year project volume) is the largest of 37 DOE sites.” (p. 27)

“ORR is one of three sites (the other two are INEL and SRS) currently capable of treating LLMW to meet EPA’s hazardous waste land disposal restrictions.” (p. 28)

“ORR is a “major” site and a candidate to receive wastes generated offsite.” (p. 8)

“The regionalized alternatives (which include ORR) are preferred for LLMW treatment.” (p. 15)

ON-SITE TREATMENT

Has the use of the TSCA incinerator been fully factored into planning for treatment of ORR LLMW for the 20-year time frame? Are there plans to privatize the TSCA incinerator?

Please provide a table for treatment of waste at the TSCA incinerator showing over time (1) the kinds and amounts of the ORR’s LLMW that will be incinerated, (2) the kinds and amounts of DOE LLMW that will be imported for incineration, (3) the kinds and amounts of private-sector LLMW that will be imported, if any, for incineration at the TSCA incinerator. Regardless of privatization, include potential environmental, safety and health impacts.

In the LLMW EA, it is stated that 10 million kilograms of waste will be brought in by the private-sector vendor in order to maintain an economically feasible operation (p. 1-2, lines 7 and 8.) Please describe how these wastes would differ from DOE wastes, both DOE legacy waste and waste that DOE will generate from ongoing processing operations and potential future mission changes.

(LLMW EA p. ix, lines 15 to 17)