Attachment 1
September 3, 1997

AK RIDGE RESERVATION

Environmental Management

SITE SPECIFIC ADVISORY BOARD

September 3, 1997

Ms. Margaret Wilson
FFA Remediation Management Group
DOE Oak Ridge Operations
P.O. Box 2001
Oak Ridge, TN 37831

Dear Ms. Wilson:

At our September 3, 1997 meeting, the Oak Ridge Reservation Environmental Management Site Specific Advisory Board reviewed and approved the enclosed recommendations on the D1 Version of the "Feasibility Study for Bear Creek Valley at the Oak Ridge Y-12 Plant, Oak Ridge, Tennessee" dated April 1997.

We appreciate the opportunity to submit our recommendations and look forward to your written response.

Sincerely,

Bill Pardue

for Randy Gordon
Chair, ORREMSSAB

RG/sb

Enclosure

cc: Mr. John Hankinson, USEPA Region IV
Mr. Earl Leming, TDEC/DOE/ORO
Ms. Susan Gawarecki, LOC
ORREMSSAB Members

RECOMMENDATIONS ON THE BEAR CREEK VALLEY FEASIBLITY STUDY AT THE OAK RIDGE Y-12 PLANT, OAK RIDGE, TENNESSEE (APRIL 1997)

The Oak Ridge Reservation Environmental Management Site Specific Advisory Board (ORREMSSAB) appreciates the opportunity to submit our recommendations on the D1 version of the Bear Creek Valley Feasibility Study (FS). We also commend the Department of Energy (DOE) for providing ample opportunity for public input into this document through the numerous workshops that have been held over the past several weeks. This FS is the first to be conducted under the watershed Record of Decision (ROD) strategy and bears scrutiny with respect to whether the strategy is a sufficient means by which to plan remediation of Bear Creek Valley. A letter dated August 21, 1997 from Justin Wilson (Deputy to the Governor for Policy) to Jim Hall (Manager, DOE Oak Ridge Operations) indicates that DOE may need to excavate all buried uranium wastes in Bear Creek Valley in order to satisfy the State's environmental concerns. This letter also lends importance to decisions made in this FS.

Recommendations from the ORREMSSAB are listed below.

1. All reasonable potential alternatives involving excavation have not been evaluated in the FS. Currently, only small "hotspot" areas in the Burn Yard/Bone Yard area and the "road debris burial area" are being considered for excavation. No excavation is being considered for the Burial Grounds. If source areas are left in place, contaminants will be present and will require institutional controls for geologic time. Given this and the possibility that in situ treatment technologies may not perform as well as anticipated in the FS, the cost of leaving almost all wastes in place may ultimately exceed the cost of excavating some areas. **The ORREMSSAB recommends that excavation of contaminated areas that would not present unacceptable risks to workers be evaluated in the next draft of the FS.**

2. For many areas in the Burial Grounds and in the Oil Landfarm Area, the strategy for restoration is to leave existing RCRA caps in place. Some of these caps are almost 10 years old already. DOE stated at the July 21 public meeting that the caps have a design life of 25 years. They said that their cost estimates include cap replacement, but their cost estimates only extend for 30 years into the future. Contaminants present in these areas will remain in perpetuity. In a letter to DOE dated July 24, 1997, the Tennessee Department of Environment and Conservation (TDEC) cites a site-specific study that indicates that capping may not be as effective in isolating wastes as hoped. Therefore, capping may not be an adequate restoration strategy for these areas; certainly, cost estimates for using (and

replacing) existing RCRA caps in these areas are inadequate. As the caps begin to fail, DOE should consider excavating wastes from below these capped areas. **The ORREMSSAB recommends that in the next draft of the FS, excavation of wastes from below these capped areas be evaluated as an alternative to replacing the caps. The Record of Decision should also include a schedule for periodic evaluation of the integrity of the caps.**

3. DOE has stated in public meetings that their preference at this time is Alternative 5 which calls for "aggressive source control". One benefit of this alternative is that costs for contingency actions have been calculated to be much lower than for other alternatives. However, it is not apparent in the FS where contingency costs for Alternative 5 are described (pages 4-58, 5-47 and C-82) that the possibility that the proposed in situ treatment technologies may not work are included in the contingency costs. DOE proposes to use in situ vitrification (ISV) and grouting as in situ treatment technologies. ISV has not been proven to be a viable technology under the hydrogeologic conditions at the Oak Ridge Reservation. In the letter to DOE dated July 24, 1997, TDEC raised questions as to the suitability of grouting uranium wastes. **Therefore, the ORREMSSAB recommends that contingency costs include the possibility that the proposed in situ treatment technologies may prove to be unsuitable, and that funding may be needed to identify and develop other technologies or to remove the waste.**

4. In the letter to DOE dated July 24, 1997, TDEC notes that due to the complexity of the site, there are uncertainties with regard to the conceptual hydrogeologic model presented in the FS. In the current version of the FS, DOE plans to monitor contaminant concentrations at an "integrator plane" downstream of the waste management areas. It is important that there be scheduled reviews to determine if the hydrogeologic model is accurately predicting contaminant migration from the site. **The Proposed Plan should include specific review times and decision points to determine if more data are needed to adequately monitor contaminant migration.**

5. Because some wastes are likely to be left in place at Bear Creek Valley, **the ORREMSSAB recommends that DOE strive to isolate these wastes from groundwater. In addition, contaminants must be contained to prevent further harmful migration to groundwater, surface water, or air for the hazard life of the contaminants.** Direct contact with wastes by human receptors must be prevented.
