



AK RIDGE RESERVATION

Environmental Management

November 5, 1998

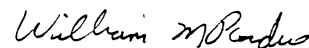
Mr. Rod Nelson
Assistant Manager for Environmental Management
DOE/ORO
P.O. Box 2001
Oak Ridge, TN 37831

Dear Mr. Nelson:

At our November 4, 1998, Board meeting the Oak Ridge Reservation Environmental Management Site Specific Advisory Board (ORREMSSAB) reviewed and approved the enclosed "Comments on the Melton Valley (D1) Proposed Plan of July 1998." The SSAB members present at the Board meeting approved the comments unanimously.

We look forward to receiving your written response to our comments. Thank you for your continued support of ORREMSSAB.

Sincerely,



William M. Pardue,
Chair

WMP/plo

cc: Marianne Heiskell, DOE/ORO
Margaret Wilson, DOE/ORO
Karol Hazard, DOE/HQ
John Hankinson, USEPA Region 4
Earl Leming, TDEC
Susan Gawarecki, LOC



Oak Ridge Reservation Environmental Management Site Specific Advisory Board Comments on the Melton Valley (D1) Proposed Plan of July 1998

The D1 Proposed Plan is generally clear and remarkably readable. The Oak Ridge Reservation Environmental Management Site Specific Advisory Board (ORREMSSAB) appreciates the opportunity to study and comment on this early draft of a document so important to stakeholders.

Since the Melton Valley "watershed" contains a complex array of contaminants, a thorough Proposed Plan is needed to enable the public to understand the provisions expected in the future Record of Decision (ROD). That ROD will be the binding document that contains the remediation plans to which the three parties (DOE, TDEC, and EPA 4) and hopefully the public agree.

The Proposed Plan of July 1998 is generally consistent with the end use recommendations developed by the End Use Working Group (EUWG) and adopted by ORREMSSAB and others. The EUWG recommendations will be met in detail if (1) workers will be protected, (2) migration of contaminants within the valley and (3) released to the Clinch River will be controlled, (4) monitoring of residual contamination will be effective, (5) the EUWG Community Guidelines will otherwise be met, and (6) stewardship arrangements will be outlined in the Proposed Plan sufficiently to allow the preferred remediation alternative to be judged.

The above six criteria are related in part to the regulatory framework administered by Tennessee Department of Environment and Conservation and the Environmental Protection Agency. Our comments are not intended to replace or negate the comments of these agencies. **We believe the Proposed Plan, and more completely the ROD, should be sufficiently specific on the planned remediation objectives for the various areas that when performance is measured, more than a decade from now, one will be able to determine whether the provisions of the ROD have been met.** Our comments are organized according to the criteria (1) through (6) above.

1. Protection of workers

The Proposed Plan should indicate what level of risk to workers from contaminants is contemplated in the preferred alternative

The plan states that access to the disposal areas will be indefinitely restricted, yet it refers to application of "recreational" exposure standards. The use of recreational standards for a restricted area should be explained if it is retained.

Personnel will need to access Melton Valley waste areas for surveillance & maintenance as well as monitoring, and the present text allows the inference that workers will be exposed to a dose rate of 2.5 mrem/hr from contaminated soil for a working life of 40 years. The resulting excess cancer risk of about 10% would be unacceptable. If the fraction of the valley exhibiting this dose rate is small and such levels do not occur in work areas, the resolution of the apparent conflict can and should be explained. Please demonstrate the consistency between the expected levels of residual contamination and worker safety standards.

The text also suggests (p. 20) that the radiation hazard will die out with a 30-yr half life. While the remaining sources of Cs-137 and Sr-90 will decay at this rate and are currently dominant, please indicate in the Proposed Plan the inventory of radioisotopes (in the WOC floodplain, for example) expected to exist by the time (200 years hence) water quality standards are achieved, and indicate the corresponding worker risks.

2. Preventing contaminant migration within the valley

Migration of contaminants within the valley will illustrate the extent to which source controls are not effective. Therefore, outline in the Proposed Plan the monitoring concepts that will be utilized to determine the extent of such migration.

The descriptions of low-permeability capping and of water collection trenches up- and down-grade of disposal areas should address the extent to which contaminant migration within the valley should be controlled.

The Proposed Plan needs to be specific about just which transuranic waste is planned to be removed or the basis for case by case decisions. We prefer that transuranic waste be removed from the valley, at least to the extent originally intended, because longer-lived materials have much more chance to migrate. Plans to apply in-situ vitrification to selected areas are among the positive plans to inhibit contaminant migration within the valley.

A related problem is the radioactive material still arriving from Bethel Valley. Contamination from Bethel Valley is possible until Bethel Valley source areas are stabilized to withstand a major flood. The Proposed Plan should state the overall expectation on the level and type of continuing contamination expected from Bethel Valley.

3. Preventing contaminant migration to the Clinch River

Water treatment seems appropriate for water found in Melton Valley collection trenches, until abatement of the sources allows the untreated collected water to meet standards. The expected water quality should be detailed for the various streams in the watershed.

The Proposed Plan should make clear what levels of contaminants are expected to enter the Clinch River from White Oak Creek as a function of time until water quality standards are finally met. A contingency plan should be suggested in case the level of contaminants such as Cs-137 and Sr-90 are observed to exceed this expectation systematically.

The Proposed Plan should recognize the likelihood that soils near the floodplain will be uprooted toward the Clinch river in one or more large rainfall events in the local watershed. These events would correspond to "1000-year floods" if the rainfall were to extend over a large area. This concern argues against leaving contaminants close to the floodplain unless they are very well stabilized. The impact of lesser flood events on valley remediation should be explicitly considered.

4. Achieving adequate monitoring

While the detailed monitoring plan should not yet be developed, the conceptual criteria for the overall monitoring should be stated so that a reader can judge sufficiency.

5. Meeting the Community Guidelines

The Community Guidelines, in their final form in the 6-28-98 End Use Working Group report, are related to many of the points already covered. Additional points not already addressed include the need for buffer zones around heavily contaminated areas and the need to obtain the explicit endorsement of the City of Oak Ridge for the end uses of the remediated area.

6. Establishing Adequate Stewardship Arrangements

The stewardship section in the Proposed Plan addresses in part the needs for this watershed, with the flaw in the second and third paragraphs that the radioisotope inventories are indicated to consist only of Cs-137 and Sr-90. The section does clarify that most or all areas of the valley will require access restrictions for more than 300 years.

The Record of Decision should include a conceptual Stewardship Plan, and the Proposed Plan should outline expected stewardship actions so the public will understand the nature of the controls anticipated. The conceptual specifications of maintenance requirements and of access controls should be indicated. For example, perhaps inspections should be designed to prevent an intruder from camping in wooded areas for more than one week, or from attempting to damage restoration "works" for as much as a day. If access control is expected to rely on warning signs, that expectation must be noted.

Plans for acquisition and maintenance of public records should also be outlined relevant to the identity, location, and strength of contaminants remaining in Melton Valley after remediation