



Many Voices Working for the Community

Oak Ridge Site Specific Advisory Board

February 10, 2011

John Eschenberg
Assistant Manager for Environmental Management
DOE-Oak Ridge Office
P.O. Box 2001, EM-90
Oak Ridge, TN 37831

Dear Mr. Eschenberg:

Recommendation 195: Recommendation on Mitigation of Contamination in Bear Creek Burial Grounds

At our February 9, 2011, meeting the Oak Ridge Site Specific Advisory Board approved the enclosed recommendation regarding mitigation of contamination in Bear Creek Burial Grounds.

The enclosed recommendation asks DOE Oak Ridge to compile in tabular form information on possible remedial actions to mitigate releases of contamination from Bear Creek Burial Grounds. This information will be useful at a later date to aid the board in developing a follow-up recommendation to DOE suggesting a priority of remedial actions based on cost and effect on stakeholders.

A response to these comments is requested by May 9, 2011.

Sincerely,

Ron Murphree, Chair, PE, CPE
rm/rsg

Enclosure

cc/enc:

Dave Adler, DOE-ORO
Cate Brennan, DOE-HQ
Pat Halsey, DOE-ORO
Myron Iwanski, Interim Anderson
County Mayor
Connie Jones, EPA Region 4

Melissa Nielson, DOE-HQ
Local Oversight Committee
John Owsley, TDEC
Mark Watson, Oak Ridge City Manager
Ron Woody, Roane County Executive



Oak Ridge Site Specific Advisory Board Recommendation 195: Recommendation on Mitigation of Contamination in Bear Creek Burial Grounds

Background

By way of background, and excerpting from the Dunning document entitled Remedial Action Planning for the Bear Creek Burial Grounds¹:

The Bear Creek Burial Grounds (BCBG) operated from 1955 to 1993, primarily for the disposal of depleted uranium wastes and other industrial wastes from the nuclear weapons production operation at Y-12 National Security Complex. The Focused Feasibility Study (FFS) and Proposed Plan (PP) documents develop and evaluate alternatives for remediation of buried waste and contaminated soils at the BCBG, and build upon the Remedial Investigation and Feasibility Study for the overall Bear Creek Valley, which were issued in 1997. The scope of this focused action does not include groundwater, which will be addressed in a future decision.

Further:

The Department of Energy (DOE) has submitted for Environmental Protection Agency and Tennessee Department of Environment and Conservation review initial drafts (D1) of the FFS and PP for remediation of the BCBG at the Y-12 National Security Complex. The milestone for completion of these documents and submittal of the D1 Record of Decision (ROD) for this site has been postponed from September 2009, nominally to September 2010, due to regulator concerns regarding the projected schedule for implementation of any remedial actions ultimately selected in this ROD.

Discussion

Remediation efforts in the Bear Creek Valley watershed have significantly reduced the concentration and quantity of uranium and secondary contaminants in Bear Creek. However, releases of uranium to surface waters in the watershed continue to exceed limits set by the Record of Decision for the Phase 1 Activities in Bear Creek Valley at the Oak Ridge Y-12 Plant (DOE/OR/01-1750&D4, May 2000), with most of the uranium thought to be emanating from the BCBG.

Several remedial action objectives are identified and discussed in DOE document DOE/OR/01-2382&D1, BCBG-FFS (<http://tiny.cc/hh90n>). Alternatives BCBG-1 through BCBG-6 range from “no action” to “partial excavation,” many of which are major project undertakings.

Because of budget limitations and unknown technical risks and challenges, it is not feasible at this time to contemplate any final remediation of the BCBG. Therefore, we suggest identification of more modest, actionable remediation ideas. This recommendation is a request for identification of specific tasks that can be undertaken at various levels of budgeting, and in the near term, to mitigate releases to Bear Creek.

Each near-term remedial action identified may range in cost from \$3 million to several hundred million dollars. Placing a description, cost data, and other details about the possible actions in tabular form will

¹ Remedial Action Planning for Bear Creek Burial Grounds, Don Dunning, U.S. Department of Energy, July 16, 2009

enable the Environmental Management (EM) Committee of the Oak Ridge Site Specific Advisory Board to better understand and compare their costs and cost effectiveness. After reviewing this information, and taking into consideration budget limitations and allocations, the EM Committee would make recommendations, if there are any, to DOE regarding suggested priority of these remedial actions based on cost, cost benefit and effect on stakeholders.

Recommendation

The Oak Ridge Site Specific Advisory Board recommends that DOE compile, in tabular or other similarly useful form, the following information for each possible remedial action to mitigate releases from the BCBG site with the ultimate goal of achieving compliance with release limits for the BCBG site.

1. Description of Action
2. Cost of Action (estimated)
3. Target Contaminant
 - a. Target contaminant and its environmental sensitivity and impact
 - b. Expected short/long term impact on releases
 - c. Impact of reduction on existing limits and agreements
4. Length of time it takes for the remedy to be implemented
5. General Comments
 - a. Practicality
 - b. Technical risk
 - c. Maintenance costs
 - d. Budgetary feasibility
 - e. Other information and data useful to understanding implications of the item

The board also recommends that DOE compile a similar summary of the actions already taken on the BCBG. This summary would include an assessment of the cost and impact on source reduction, compared to pre-project expectations.