

# Hanford Advisory Board Draft Advice

**Topic:** Draft Hanford Site Third CERCLA Five Year Review Report

**Authors:** Vince Panesko

**Originating Committee:** River & Plateau

**Version #1 Color:** \_\_pink\_\_yellow\_\_green\_\_buff\_X\_purple\_\_blue\_\_goldenrod

## Background

The Hanford Advisory Board (Board) thanks the U.S. Department of Energy (DOE) for the opportunity to comment on the *Draft Hanford Site Third CERCLA Five-Year Review Report* (Third Report). The Third Report covers the five year period ending September 30, 2010. The Board found that many of the same problems in the *Hanford Site Second CERCLA Five-Year Review Report* (Second Report) published in 2006 were carried over to the Third Report.

The Board issued Advice #190 for the Second Report on June 2, 2006. The Board disagreed with the practice of basing protectiveness statements on institutional controls, and advised DOE to base protectiveness of current remedial actions on other factors (such as sampling) to see if contamination has spread. The Board also requested that the U.S. Environmental Protection Agency (EPA) determine whether cleanup remedies are, in fact, protective of human health and the environment.

In their December 19, 2006 response to Advice #190, DOE did not agree to discontinue the use of institutional controls as a basis for protectiveness statements. EPA's response to this advice on July 27, 2006 avoided discussion of verifying the protectiveness of cleanup remedies.

It is the Board's opinion that the most important aspect of the CERCLA Five-Year Review process is to assess whether the remedies that have been selected are effectively preventing the spread of radioactive and chemical contamination. The history of Hanford has shown that the vagaries of nature and errors of human implementation provide the possibility for movement of contamination. The Board believes that the only way to determine the long-term protectiveness of a remedy is through periodic physical monitoring/sampling.

In reviewing the Third Report, the Board, once again, finds the use of institutional controls to be an unacceptable indicator of protectiveness. The Board believes that protectiveness of remedies must be demonstrated using periodic measurements to ensure that residual radioactive and chemical contamination is behaving as predicted. The Board believes that the current practice of assessing protectiveness by visual surface inspection only does not provide adequate information about the movement of radioactive and chemical contamination beneath the surface.

## Advice

1. The Board incorporates by reference the values and recommendations regarding institutional controls and inclusion of new information articulated in Advice #190, and advises DOE not to rely on institutional controls to determine long term protectiveness of a performed remediation action.
2. The Board is concerned about the movement of radioactive and chemical contamination through and from the site, and advises DOE that the Third and future Five-Year Review Reports should include information on how DOE has determined that each of the

previous remediation actions continues to be protective of human health and the environment. The Board would like to see references to verification of background radiation every 5 years, in addition to a listing of groundwater wells for each operable unit with maps showing the location in reference to each waste site.

3. The Board advises DOE to complete monitoring/sampling prior to the time of each Five-Year Review. The Board supports the use of monitoring/sampling on a five-year frequency to demonstrate that cleanup goals for protectiveness of human health and the environment continue to be met.
4. The Board advises DOE that members of the public may use the Third Report as an indicator to determine whether or not cleanup is being “done right.” It is important that the Third and future Five-Year Review Reports contain information that clearly demonstrates to the public the ongoing effectiveness of selected remedial actions.