

CERCLA Five-Year Reviews

The purpose of a five-year review is to determine whether the implemented remedy at a site is actually protective of human health and the environment.

Why do we perform five-year reviews? CERCLA 121(c) requires five-year reviews on remedial actions when hazardous substances, pollutants, or contaminants will remain on site above levels that allow for “unlimited use and unrestricted exposure”. At Hanford we also review remedial actions that are not yet completed, such as long-term groundwater pump and treat systems, and large removal actions, like the demolition of the 300 Area industrial complex.

Who performs the review? The lead cleanup agency coordinates the review. At Hanford this responsibility belongs to the Department of Energy (DOE). The Tri-Party Agreement allows for EPA to perform the review if they so choose. EPA performed the first five-year review in 2001, but DOE will execute the upcoming review and submit it to EPA for concurrence.

What comes out of a five-year review? The review does not reconsider remedial cleanup decisions; it is an evaluation of the implementation and performance of the current cleanup strategy to determine if the remedy is or will be protective. The reviewers may conclude that further evaluation is needed, may recommend certain actions to improve the efficiency of a remedy, or may recommend changes in the remedy. Recommendations are not legally binding, and changes in cleanup decisions need to be included in Explanation of Significant Differences (ESD) or Record of Decision (ROD) amendments.



Community Involvement and Notification – In 2001 this included notifying the Hanford Advisory Board, Natural Resource Trustee Council, and other stakeholders of the upcoming review and holding a public review and comment period for the draft review document.

Document Review – Document review includes looking at decision documents such as RODs and ESDs. The prior Five-Year Review Report will be examined to determine if recommendations were implemented.

Data Review and Analysis – Sampling plans, operation and maintenance plans, and study conclusions should be reviewed carefully. In some cases EPA would conduct independent sampling in support of the five-year review but at Hanford there is a large volume of current data to analyze.

Site Inspection – Site inspection generally is considered an ongoing occurrence at Hanford. Because both DOE and EPA are still currently active on most of the site there are few Five-Year Review inspections performed. The exception to this is the 1100 Area, which has been deleted from the National Priorities List. Some site inspection may be warranted there.

Interviews – Interviews are very important at CERCLA cleanup sites that are completed where EPA no longer has a presence. When the lead regulatory agency no longer is active, valuable information can be obtained from site personnel, State and Tribal authorities, and people who live or work near the site.

Assess Protectiveness – This is the heart of the Five-Year Review Report. Protectiveness could be determined by answering the following three questions:

- 1) Is the remedy functioning as intended by the decision documents?
- 2) Are the exposure assumptions, toxicity data and Remedial Action Objectives used at the time of remedy selection still valid?
- 3) Has any other information come to light that could call into question the protectiveness of the remedy?

DOE must seek concurrence on the protectiveness statements from EPA. Concurrence by EPA will be documented in a statement attached to the final Five-Year Review report. If concurrence is not given EPA staff will write their own protectiveness statements to be issued as a supplement to the Five-Year Review Report.