



Montana Department of  
**ENVIRONMENTAL QUALITY**

PROTECTION AGENCY  
APR 16 2007  
MONTANA OFFICE

Brian Schweitzer, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.mt.gov

April 12, 2007

Site # EH File 1.07.06.00  
 Confidential: Yes  No   
 Admin. Record: Yes  No   
 Key Words/Comments: Comments on proposed plan

John Wardell  
 U. S. Environmental Protection Agency  
 Region VIII, Montana Office  
 10 West 15<sup>th</sup> Street, Suite 3200  
 Helena, MT 59626

**SUBJECT: Department of Environmental Quality Comments on the Proposed Plan, East Helena Superfund Site, Montana.**

Dear Mr. Wardell:

Thank you for the opportunity to provide State input on the issued proposed plan received January 11, 2007. DEQ supports EPA in proposing a soil lead action level of 500 ppm for the undeveloped lands proposed for development but would also support the risk-based concentration of 610 ppm throughout the operable unit. DEQ also tentatively supports EPA's proposed recreational and commercial exposure cleanup levels although DEQ needs to review the assumptions, calculations, and risk management basis used to develop these new cleanup levels. DEQ requests that EPA address the following concerns in the Record of Decision:

- Adopt risk-based cleanup levels for lead and arsenic for current and reasonably anticipated residential soils that conform to EPA regulations and guidance.
- Implement the EPA Technical Review Workgroup's recommendations in their February 17, 2006 memo.
- Eliminate the conclusion that the preferred alternative is protective of human health based on blood lead sampling. Also, alter the conclusion that remedy alternatives are equally capable of reducing risks.
- Include interior dust removal in the remedy.
- Identify and evaluate potential institutional controls, as that is the responsibility of EPA, in consultation with the state. The remedy requires institutional controls for soil disturbance, proposed development, and the soils repository. The Record of Decision should include funding mechanisms, development, implementation, and enforcement of institutional controls.

1070600  
  
 465933

- Remove the requirement that CERCLA liability shifts from the responsible parties to the property owners and developers.

Following are DEQ's specific comments on the proposed plan that EPA should address through development of the Record of Decision.

1. DEQ supports the following components of the Preferred Alternative:

- Continuing the existing East Helena Lead Education and Abatement Program (Lead Program) for as long as necessary to help reduce children's exposure to lead.
- Completing cleanup of streets, alleys, road aprons, irrigation ditches and railroad right-of-way that are adjacent to or within residential areas.
- Establishing institutional controls to prevent disturbance of soils, prevent exposure to interior dust, and to define land use changes.

For existing residential yards, DEQ supports continuing with all the sampling and cleanup protocols developed in the past 15 years under the removal action's administrative order on consent, with the exception of the soil lead level needed for a yard to qualify for cleanup. DEQ supports cleanup of all qualifying quadrants or sections of the yard with soil lead concentrations above the risk-based concentration (RBC) of 610 parts per million (ppm). DEQ requests that EPA modify its alternative based on qualifying yard quadrants greater than 610 ppm lead (and associated cost estimate with time frame for implementation) in the Record of Decision, and identify that alternative as a component of the selected remedy.

Earlier in 2007 DEQ requested the Agency for Toxic Substances and Disease Registry (ATSDR) to evaluate the protectiveness of the proposed soil lead action level of 1,000 ppm compared to the RBC. ATSDR recently informed DEQ that they will complete their evaluation after close of the public comment period. Therefore, DEQ reserves further comment on the proposed action level pending the ATSDR evaluation.

2. DEQ agrees that the Lead Program has been strong and effective with its outreach and education in helping to reduce exposure to lead and arsenic in the past, and acknowledges that the program should continue in the future. However, reducing children's exposure to soils where lead levels remain above the RBC relies on the parent's knowledge and intervention actions. The proposed plan discussed the possibility of "lower awareness of residents, who may revert to behaviors that increase the risks from the remaining lead and arsenic." This possibility exists even with the Lead Education and Abatement Program. Remediating residential soils to the risk-based lead cleanup levels is more protective and effective and has more long-term permanence. Thus, DEQ supports the more protective alternative of removing yard soils with soil lead levels greater than the RBC, thereby

eliminating the unacceptable soil exposure pathway. DEQ proposes the remedial action objective should be to remediate residential yard soils to risk-based lead levels that reduce children's lead exposure. This will reduce the reliance on education.

3. The proposed plan asserts that Alternatives 2R and 3R are "by all known measures" equivalent in terms of overall protection. EPA bases this assertion on the recent blood lead monitoring. However, the blood lead monitoring does not document this protectiveness. Nor is EPA's basis supported by the EPA Superfund Lead-Contaminated Residential Sites Handbook (Lead Sites Handbook August 2003) that states "blood lead studies...should not be used for establishing long-term remedial...cleanup levels at lead sites." In addition, the past blood lead monitoring can not be used as a measure of future protectiveness. The recent (past 10 years) participation in the blood lead monitoring program is not representative with participation of only 25-50% of self-selected individuals. More importantly, the blood lead monitoring results may have also been influenced by awareness and the education efforts and thus blood levels are likely lower than if the current education effort was not effective.
4. The Lead Model Re-Evaluation report shows that lead from residential soils and homes still present a risk of unacceptable lead exposure with soil lead levels above 520 ppm. The Record of Decision should include the Results statement from the report, "Based on the site-specific inputs to the IEUBK model... the value of P10 reaches a value of 5% at a soil concentration of approximately 520 ppm. This value is identified as the site-specific RBC for lead in soil." DEQ accepted the site specific parameters used to calculate this RBC but agreed with EPA's Technical Review Workgroup (TRW) in their recommendation "that there should be no conversion of the model's output to a new [Geometric Mean]." Use of the arithmetic mean produces a RBC of 610 ppm lead (which DEQ has previously accepted as appropriately protective).
5. DEQ supports the Lead Program's environmental assessment approach to assess possible sources of lead exposure routes within a home and then provide education on how to reduce exposure. However, the selected remedy should proactively reduce unacceptable exposure, including unacceptable exposure to interior dust, and require removal of dust if there is a complete or potentially complete exposure pathway.
6. The Proposed Plan did not include adequate discussion of anticipated institutional controls (ICs). The Proposed Plan identified Lewis and Clark County as responsible for determining necessary institutional controls. EPA has published a guidance document entitled "Institutional Controls: A Site Manager's Guide to Identifying, Evaluating, and Selecting Institutional Controls at Superfund and RCRA Corrective Action Cleanups" (EPA 540-F-00-005, 09/2000). This guidance clearly defines the steps that EPA, not a county or other entity, uses to identify and evaluate the appropriate ICs for a site. DEQ supports the

involvement of local and state governments as well as other affected parties in the ICs decision making process; however, the responsibility of identifying and evaluating potential institutional controls is EPA's, in consultation with the state, and should not be a burden unilaterally placed on the County. ICs should be considered and included in the selected remedy for the Record of Decision. ICs are a critical part of the remedy and the success of the implemented remedy where active response measures are impracticable. Please provide details of anticipated institutional controls, including information regarding costs, enforcement, implementation, funding, etc., in the Record of Decision.

7. The proposed plan states, "Developers or landowners...will bear all associated cleanup costs." The selected remedy should not state that developers and landowners will pay for remediation. Certainly developers and landowners could work out an agreeable arrangement with the Potentially Responsible Parties (PRPs) but specifically identifying liability of developers and landowners is not a component of the remedy. Allocating liability is not part of the remedy; the liability should remain with the PRPs. The Proposed Plan also states, "Undeveloped lands are being developed, and proposed for development, in the vicinity of East Helena." The Record of Decision should address that anticipated land use. The Lead Sites Handbook states that EPA generally will not take CERCLA enforcement actions against an owner of residential property. In addition, the Handbook notes that landowners may qualify under CERCLA for protection from CERCLA liability as a contiguous property owner, bona fide prospective purchaser, or innocent landowner.
8. The proposed plan provided "total costs" in the estimates for cleanup of the railroad right-of-way and water conveying ditches but not for the undeveloped lands. The Record of Decision should include total estimated costs for the undeveloped lands.
9. One of the cleanup alternatives for undeveloped lands in the proposed plan is In-Place Treatment (or tilling). The EPA Lead Sites Handbook explains that tilling is not an acceptable cleanup method for lead soils because it is not a permanent, protective remedy. This is because no lead removal occurs, and adequate mixing of soil is difficult, if not impossible, to achieve. The handbook further states that tilling may increase the volume of soil, which ultimately requires remediation. The Record of Decision needs to be more precise in its discussion of tilling as a remedy.

DEQ agrees that in limited site-specific situations, such as non-residential surficial contamination, tilling may be appropriate. However, tilling failed in the Uttick Subdivision in East Helena. After much effort and numerous tilling passes and subsequent sampling, most soils still contained lead above the negotiated cleanup level and had to be excavated and replaced. This was due to the fluvial deposits in the flood channels which had much higher contaminant levels. The adjacent Dartman Fields would likely also not be amenable to tilling due to

similar fluvial deposits. Also, the rocky sub-soils in the undeveloped land surrounding East Helena may make deep tilling difficult to implement.

The Record of Decision needs to define the sampling protocols and the decision criteria for suitability of tilling.

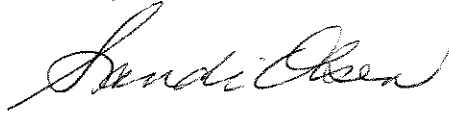
10. The Record of Decision should include a discussion on the long-term management and institutional controls for the East Fields soil repository. This may include a cap, dust control, weed control, BAMPs, inspections, deed restrictions, and/or groundwater monitoring.
11. The Record of Decision should require cleanup of the portions of the rodeo grounds with soil levels above the recreational cleanup level of 2,800 ppm lead and 1,000 ppm arsenic.
12. The Record of Decision should include a discussion of contingencies if the remedy fails to be protective. Also, it should describe the contingencies if the city or county can't / doesn't want to implement or, if it implements, but at some point can't / doesn't want to continue the institutional controls.
13. The preferred alternative in the proposed plan involves continuing with cleanup criteria established through the removal actions. The Record of Decision should include a discussion to notify the reader as to the different goals and objectives of a removal action compared to a remedial action. As set forth in the NCP, 55 Fed. Reg. 8666, 8695, "Although all removals must be protective of human health and the environment within their defined objectives, removals are distinct from remedial actions in that they may mitigate or stabilize the threat rather than comprehensively addressing all threats at a site."
14. Please provide the assumptions, risk calculations, and risk management basis used to determine the newly proposed soil cleanup levels for commercial and recreational land use. DEQ requests copies of this documentation for review and comment as soon as possible. Also, the Record of Decision should make clear that the soil cleanup levels for commercial and recreational land use apply to the entire operable unit and not just undeveloped lands.
15. The calculated cancer risk of  $1.499E-04$  exceeds EPA's "acceptable" risk level of  $1.0E-04$ , as well as DEQ's "acceptable" risk of  $1.0E-05$ . The correct application using  $1.0E-04$  in the calculation gives an arsenic PRG of 117 ppm. The Record of Decision should list the arsenic PRG of 117 ppm.
16. The remedy should require that residential soils with arsenic greater than the action level should qualify a yard for cleanup.
17. EPA's Technical Review Workgroup's (TRW) recommendation for running the lead model (IEUBK) is to use default values unless representative site-specific

data appropriate to the variable in question are available. It is inappropriate to use "regional data" if site-specific input parameters cannot be calculated. Thus, the Record of Decision should not reference or use regional data in the text or in the tables. EPA Region 8 chose the parameters, many of which DEQ and the EPA Technical Review Workgroup (February 17, 2006, memo) consider to be invalid or unrepresentative, and not equally plausible.

18. The NCP, at 40 CFR 300.430(f)(2)(iii), requires at a minimum that the proposed plan provide a summary of any formal comments received from the support agency. The proposed plan did not include that summary but stated, "After consideration of public and local government concerns and comments, MDEQ will present formal comments to EPA." DEQ would have appreciated its own input into the Proposed Plan.

DEQ is available to meet with EPA to discuss these issues and concerns. I look forward to its continued meaningful and substantial participation by the department in development of the ROD, and to working together for the best remedy. Please feel free to contact me with any questions or concerns. I can be reached at 406-841-5001.

Sincerely,



Sandi Olsen  
Division Administrator  
Remediation Division

cc: Richard Opper  
Vic Andersen  
Daryl Reed  
Mary Capdeville, DOJ  
Jill Cohenour, State Representative House District 78  
Melanie Reynolds, Lewis & Clark County