

U.S. EPA SIGNS RECORD OF DECISION FOR THE TAR CREEK SUPERFUND SITE, Operable Unit 4 — CHAT PILES, OTHER MINE AND MILL WASTES AND SMELTER WASTES

This Site Update Will Tell You About:

- Selected Remedy
- Community Participation

Introduction

After careful review of all public comments, the U.S. Environmental Protection Agency, Region 6, has signed a Record of Decision (ROD) for the Tar Creek Superfund Site, Operable Unit 4 (OU4), in Ottawa County, Oklahoma. Operable Unit 4 consists of chat piles, other mine and mill waste, and smelter waste in the 40-square mile former lead and zinc mining area located in Ottawa County. The ROD provides a complete explanation of EPA's final decision including a summary of site investigations and responses to public comments on the July 2007 Proposed Plan. EPA bases its decisions on extensive studies of the extent of contamination, human health risks and environmental risks caused by the Tar Creek Superfund Site.

The ROD was developed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) or Superfund), 42 U.S.C. sec sign 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. Part 300 et seq., as amended. This decision is supported and based on the Administrative Record file for this Site. The Oklahoma Department Environmental Quality (ODEQ) concurs with the selected decision for this Site. The ROD can be found on the internet at:

<http://www.epa.gov/earth1r6/6sf/6sf-decisiondocs.htm>

The Selected Remedy

The remedy will address source materials, rural residential yard contamination, transition zone soil contamination,

and contamination in water drawn from rural residential wells. "Source material" means mine and mill waste including chat, fine tailings, overburden, development rock, smelter waste and other tailings. Source material is generally found in chat piles, chat bases (the area once occupied by a chat pile), smelter wastes, and tailings ponds. These materials contain hazardous substances that are a source of OU4 contamination. The Selected Remedy is estimated to cost \$167,288,000.

Relocation

Based on State, Tribal and community concerns as well as changes in the cost effectiveness of relocation following the enactment of the 2007 Water Resources Development Act (WRDA), EPA has included relocation in its Selected Remedy. WRDA eliminated the constraints of the Uniform Relocation Act, enabling EPA to fund relocation much more efficiently.

The EPA will provide funding to Lead Impact Communities Relocation Assistance Trust (LICRAT) to relocate those residents of Picher, Cardin, and Hockerville that remain after LICRAT has exhausted other sources of funding. Relocation will be voluntary because some residents may wish to remain in their homes for a period of time. These residents will be advised of the circumstances EPA anticipates after the first 3 years of the relocation. EPA expects that municipal services such as water and sewer service will not be available.

The State of Oklahoma (State) has agreed that the ODEQ will file a recordable notice of remediation or related action, including an easement on each property acquired by LICRAT. The recordable notice will identify all engineering controls used to ensure the effectiveness of the remediation and will contain prohibitions against engaging in any activities that cause or could cause damage to the remediation or the engineering controls, or recontamination of the soil or ground water as well as restrictions on land use or other activities that are incompatible with the remedy. The State will be responsible for implementation and enforcement of this institutional control. The controls

shall be in effect until the State formally determines that the property is safe for reuse.

The following elements define the voluntary relocation component of the remedy.

- The remaining properties not addressed under the State buyout program will be addressed under the remedy. Both residential and commercial properties are included. The voluntary relocation will include properties built on restricted Indian land.
- The estimated number of properties being considered for the LICRA Trust buyout program is 744, which consists of 678 residential and 66 commercial properties. On the assumption that the State program can address the relocation of approximately 256 residential properties and 19 commercial properties, a total of 422 residential properties and 47 commercial properties remain to be relocated under the ROD. In addition, an estimated 100 residential properties that are located within the LICRAT buyout boundary, but do not meet state buyout criteria, may need to be relocated under the remedy.
- Vacant lots will not be part of EPA's remedy for the relocation program. That is, this Selected Remedy will not provide funding to help compensate owners of vacant lots.
- Structures that remain after residents have been relocated will be removed or demolished and disposed by the LICRA Trust.
- The estimated timeframe for completion of the voluntary relocation of the remaining properties is less than three years.
- EPA will not acquire property under this relocation program. The Selected Remedy will fund LICRAT, through ODEQ, and LICRAT will purchase the properties at issue and carry out the relocation effort with minimal EPA oversight.
- Final disposition of the properties will be determined by the LICRAT.

Relocation will mean fewer residents in the Site area, and, consequently, reduced risk of people being exposed to chat. Therefore, chat piles can remain in place for 30 years, allowing commercial chat sales to occur over a longer period with a greatly reduced risk of exposing people to any lead contamination from chat.

Chat Sales

Chat sales are part of the CERCLA remedy. Continued chat sales will contribute to a more cost effective CERCLA remedy because it will mean that there will be less chat remaining on-site that must be addressed with

more expensive remedial alternatives. Moreover, continued chat sales will mean that less chat will be disposed of on-site. The removal of chat through chat sales will reduce exposure risks. In addition, continued chat sales are important to the Quapaw Tribe, the State, and the community. While EPA does not own any chat and will not purchase any chat, it will assist chat sales participants as part of EPA's CERCLA remedy.

The EPA recognizes that most private chat/land owners may be able to sell their chat piles. However, due to the complicated ownership pattern, and due to the restrictions on alienation that exist at the chat piles owned by Quapaw Tribe allottees, EPA anticipates that Indian-owned chat sales will be managed pursuant to an agreement between the EPA and the Department of Interior (DOI). The agreement will define roles and responsibilities. EPA can address the release of chat in accordance with CERCLA authorities in a manner that will benefit chat/land owners and the environment.

While chat sales have occurred on- and off-site for many years, EPA recognizes that chat sales could be impeded by owners' fear of incurring CERCLA liability to the United States or others arising from unanticipated adverse consequences associated with chat sales. To help allay the concerns regarding potential future liability arising from the sale and transport of chat to off-site locations during the Chat Sale Pilot Project, EPA entered into CERCLA administrative settlements with sellers of the St. Joe Pile, providing a covenant not to sue from EPA for sales made in compliance with the terms of the agreement, and providing contribution protection pursuant to CERCLA § 113(f) (2), 42 U.S.C. § 9613(f) (2). These agreements were approved by the U.S. Department of Justice. Although the Agency wishes to make clear that these agreements provide no protection from any liability already incurred on the basis of past acts or current status, the agreements appear to have successfully facilitated chat sales during the Pilot Project, and it is EPA's intention to extend that practice as chat is sold pursuant to the ROD, subject to coordination and approval with the Department of Justice.

To ensure that Site chat sales continue and that chat is used in a manner that is protective of human health and the environment, all Site chat that is used, on-site or off-site, must be managed according to the criteria provided in the Chat Rule, 40 CFR Part 278, and its preamble. This means that EPA is including both the regulations that apply to transportation construction projects and the preamble guidance that applies to non-transportation, non-residential projects as requirements for the use of Site chat. Under the remedy, only the uses described in the preamble (including EPA's June 2007 fact sheet; EPA530-F-07-016B) and the

transportation construction project uses described in 40 CFR Part 278 will be allowed for Site chat.

Since chat sales are part of the remedy, EPA will facilitate activities to support chat sales that will include the following:

- a) The EPA will work with the DOI to facilitate sales of Indian-owned chat.
- b) EPA will present a workshop to assist chat/land owners and sellers with chat sales.
- c) EPA will provide sample chat sale agreements and site operating plans to chat/land owners and chat processors.
- d) EPA will answer questions about the Chat Rule.
- e) EPA will provide technical review to any requests for chat use other than chat mixed in asphalt for federal transportation projects.
- f) EPA will conduct a risk assessment on chat materials that exceed the Synthetic Precipitation Leaching Procedure (SPLP) and proposed for use in concrete as specified in the Chat Rule to support the ultimate sale of the chat.
- g) EPA will coordinate with DOJ, as outlined above, regarding liability protection for chat/land owners.

The Bureau of Indian Affairs (BIA), with the assistance of other agencies of the DOI, will manage and administer the following:

- a) Perform engineering ownership determinations, cadastral surveys, and appraisals, if needed;
- b) Outreach and communication with the Indian owners of restricted chat and land regarding chat sales and surface leasing;
- c) Appraisals of the fair market value of restricted chat and surface leases and provision of copies thereof to the Indian chat owners and land owners;
- d) Necessary tasks associated with the review and possible approval of chat sales contracts and business site leases,
- e) Quantitative analysis of chat removed from Indian-owned restricted chat piles for production verification purposes;
- f) Tasks associated with the accounting of funds and distribution of proceeds from the sale of restricted chat to Indian owners;
- g) Logistics associated with competitive or negotiated sales of Indian-owned restricted chat;
- h) Assistance, as required in negotiations between Indian owners of restricted chat and potential chat purchasers;
- i) Coordination of sales and other issues with the relevant offices of Federal, State, and Tribal governments; and

- j) Review and enforcement of sellers' compliance with chat sales agreements and volumetric recording of chat sales.

Based on current information, the EPA believes commercial chat sales will continue and will address the largest part of the chat. For purposes of defining the remedy, EPA has determined that approximately 95% of the chat will be removed from the site over a 30 year period through commercial sales.

All chat in chat piles and chat bases that is not sold will be excavated to the underlying native soil, transported and released to an on-site chat processor or future processing location in a previously contaminated area of the Site, injected into mine workings, or it will be disposed in an on-site repository.

In distal areas, source material including chat piles, chat bases, and historic haul roads and non-operating railroad grades will be excavated down to native soil, removed and managed. The majority of the removed source material will be released to chat processors. Chat processors who receive chat will be selected based on implementability factors and cost factors (*e.g.*, processor capacity or cost of transportation) that will be assessed in the Remedial Design. Once the chat is removed, the native soils will be rebuilt using standard land practices.

Chat located in streams will also be removed. Excavated in-stream materials will be returned to the near-stream chat pile from which it came.

Chat/land owners who do not permit EPA to remove their chat will be provided an opportunity to sell or otherwise plan for its disposition within the following limits. Chat/land owners in distal areas who do not give EPA permission to remove their chat will be given the opportunity to develop a plan under which they have up to five years to sell or otherwise dispose of their chat. Chat/land owners of chat in streams who do not give EPA permission to remove their chat will be given the opportunity to develop a plan under which they have up to one year to sell or otherwise dispose of their chat. EPA will work with chat owners to identify alternative chat disposition options.

The Selected Remedy will utilize various elements to include the following:

Phase 1

Phase 1 will address voluntary relocation of residents, chat sales, and address source materials in a manner that will reduce the overall footprint of contamination and reduce

the need for land use restrictions, institutional controls, and operation and maintenance.

- Residents located in Picher, Cardin and Hockerville will be voluntarily relocated following the procedures and priorities established by the Lead Impacted Communities Relocation Assistance Trust (LICRAT).
- Chat and chat bases from distal areas, including associated historic chat covered haul roads and non-operating railroad grades, will be excavated to the underlying native soil, transported and released to an on-site chat processor or future processing location located in a previously contaminated area of the Site, injected into mine workings, or disposed in an on-site repository.
- Transition zone soils (soils around and underneath source materials) will be addressed by excavation followed by natural soil rebuilding.
- Smelter wastes will be excavated and disposed in an on-site repository. Smelter affected soils will be managed in the same manner as transition zone soils.
- Fine tailings will be injected into mine workings or covered in place. The covered fine tailings may be consolidated to reduce the footprint of the final cover.
- Source material in Tar, Lytle, Elm or Beaver Creek or other Site waterways, will be addressed on a priority basis through either excavation and/or the installation of a flexible membrane liner, as needed as determined by EPA. As an interim measure, sheet piling, berms, constructed wetlands, or other engineering controls will be installed for near-stream source materials to help prevent contamination from migrating to surface water.
- An alternative water supply will be provided to any household where mining-related contaminants in water drawn from rural residential wells exceed 0.015 mg/L for lead for rural households. Rural households that are within the area that has been designated for relocation under the Lead Impacted Communities Relocation Assistance Trust relocation program, but which do not elect to participate in the relocation program, would be included in the households eligible for an alternative water supply (estimated two residences).
- Rural residential yards that are found to have concentrations of soil lead that exceed 500 ppm will be excavated to a maximum depth of 12 inches, and the excavated area will be backfilled with clean soil, contoured to promote drainage and revegetated. This includes residential yards that are identified for relocation. The provisions of the

preceding sentence apply to approximately 4 households, based on the Remedial Investigation sampling. That is, if those eligible for relocation decide not to relocate, their yards will be remediated.

- On-site repositories will be constructed to accept Site source materials for final disposal. On-site repositories will be closed when they reach capacity or at completion of the remedial action. Closure will be accomplished by covering the repository with a soil cover, contoured to promote drainage, and revegetated.

Phase 2

Phase 2 addresses certain source areas that remain after Phase 1 cleanup activities. These areas may include chat bases, tailings ponds, unmarketable chat piles and bases, and remaining chat from distal area consolidation. Chat sales will continue.

- The remedy will be reviewed, at a minimum, every five years since hazardous substances remain on-site with concentrations that exceed concentration levels that allow for unrestricted use and unrestricted exposure. The remedy will be reviewed to ensure protection of human health and the environment. As part of the five-year review, EPA will evaluate the progress of chat sales. Chat piles and bases remaining after 10 years will be evaluated for commercial viability. This determination will be made using input from the chat/land owners, appropriate tribal representatives, and the commercial operators.
- Unmarketable chat piles and bases will be excavated, transported and released to an on-site chat processor or future processing location in a previously contaminated area of the Site, injected into mine workings, or they will be disposed in an on-site repository.
- Abandoned chat haul roads and non-operating railroad grades that are contaminated will be managed the same as unmarketable chat piles and bases. That is, they will be excavated, transported to an on-site chat processor, and released to that processor, or they will be disposed in an on-site repository.
- Institutional controls and operation and maintenance activities will be implemented, as needed as determined by EPA, at repositories and covered, fine tailings ponds.

- Environmental monitoring will be conducted, as needed as determined by EPA, to test for contamination in ambient and near source air, surface water, ground water, and sediment during remediation activities.

Highlights of Community Participation

Throughout the history of the Tar Creek Superfund Site, EPA, in coordination with ODEQ, and the Quapaw Tribe, has kept the community, public, governmental entities, citizen advisory groups and interested parties informed of Superfund response actions, and involved these groups in planning.

The EPA issued its Proposed Plan detailing the preferred recommendations for OU4 for public review and comment on July 30, 2007. Documents and information EPA relied upon in making its recommendation in the Proposed Plan were made available to the public on July 30, 2007 in three Administrative Record File locations, including the Miami Public Library located in Miami, Oklahoma. EPA provided thirty days for public comment that commenced on July 30, 2007.

The public comment period began on July 30, 2007 and ended on August 30, 2007. The comment period was extended until October 1, 2007, to accommodate the public's request. The EPA conducted a Proposed Plan public meeting to receive comments and answer questions on August 28, 2007, at the Picher-Cardin High School Commons located in Picher, Oklahoma. Comments received from the affected community overwhelmingly supported the inclusion of voluntary relocation into the remedy for OU4. Oral comments were accepted at the public meeting, and a transcript of this meeting is included in the Administrative Record and is available on the internet at:

http://www.epa.gov/region6/6sf/pdffiles/transcript_tar_creek_public_meeting_8-28-07.pdf

For More Information:

If you have any questions or would like to obtain more information about the Tar Creek Superfund Site, please contact:

Ursula Lennox, Remedial Project Manager OU4
U.S. EPA (6SF-RL)
(214) 665-6743 or toll free 1-800-533-3508

John Meyer, Remedial Project Manager OU5
U.S. EPA (6SF-RL)
(214) 665-6742 or toll free 1-800-533-3508

Janetta Coats, Community Involvement Coordinator
U.S. EPA (6SF-TS)
(214) 665-7308 or toll free 1-800-533-3508

Oklahoma Department of Environmental Quality
707 North Robinson
Oklahoma City, OK 73102
(405) 702-5100

Donn Walters, Regional Public Liaison
U.S. EPA (6SF-TS)
(214) 665-6483 or toll free 1-800-533-3508

All news media inquiries should be directed to EPA Region 6 Press Office, at (214) 665-2208 or (214) 665-2261.

Information Repositories

The Administrative Record, including the Record of Decision, for the Tar Creek Superfund Site is available at the following locations:

Miami Public Library
200 North Main St.
Miami, OK 74354
(918) 542-3064

Oklahoma Department of Environmental Quality
707 North Robinson
Oklahoma, City, OK 73102
(405) 702-1000

U.S. Environmental Protection Agency Region 6
1445 Ross Avenue
Dallas, TX 75202
(214) 665-6427 (Please call for an appointment if you desire to review the file.)

The completed Record of Decision for the Tar Creek Superfund Site, OU4 is available on the Internet at: www.epa.gov/region6/superfund

Call U.S. EPA at 1-800-533-3508 to receive a Spanish translation of this fact sheet.

Para recibir una traducción en español de esta Hoja de Datos, comunicarse con la Agencia de Protección del Medio Ambiente de los EEUU (la EPA) al número de teléfono 1-800-533-3508.



United States
Environmental Protection
Agency

Region 6
1445 Ross Ave. (6SF-TS)
Dallas, TX 75202