UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

JUN 2 2 2017

REPLY TO THE ATTENTION OF:

MEMORANDUM

SUBJECT: Request for Concurrence on Federal Lead Corrective Action Activities Using LUST Trust Funding in EPA Region 5 Indian Country: Tower Standard Gas Station/ Haskell Lake Petroleum Contamination Site, Lac du Flambeau Reservation, Wisconsin

FROM: Ignacio L. Arrázola
Acting Division Director
Land and Chemicals Division

THRU: Carolyn Hoskinson
Director
Office of Underground Storage Tanks

TO: Barry Breen
Acting Assistant Administrator
Office of Land and Emergency Management

Introduction

Pursuant to Delegation 8-33, the purpose of this memorandum is to request authorization[1] for an additional $247,000 of Leaking Underground Storage Tank (LUST) Trust Fund money at the Tower Standard Gas Station (Tower) site. The Tower site is a federal-lead tribal LUST Trust Fund site located near Lac du Flambeau, Wisconsin within the boundaries of the Lac du Flambeau Reservation. The Lac du Flambeau Band of Lake Superior Chippewa Indians (Band) refers to the site as the Haskell Lake Petroleum Contamination Site. Region 5 received authorization in 2014 and 2015 to perform site assessment activities (see attached memoranda). Thus, this request for additional authorized funding would increase the spending limit from $248,000 approved in 2015 to $495,000.

[1] Once approved, this memo indicates authorization to spend up to the approved funding level. However, actual funding is subject to annual appropriations.

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Region 5 plans to use the increased authorization to continue ongoing site investigation and assessment and address the source of contamination at the site. Region 5 anticipates this work will include the following activities:

- Iterative Conceptual Site Model (CSM) development to refine understanding of the extent of contamination and exposures
- Continuing data collection and analysis such as lake-bed sediment and pore-water sampling, revising the three-dimensional imaging of the contaminant plume, groundwater monitoring
- Interim measure activities to address the source area and
- Field and administrative oversight of the PECFA contractor.

After completion of the work in this request, additional funding may be required.

Maximizing Performance and Reducing Cost

As explained in previous action memos, EPA Region 5, the Wisconsin Department of Natural Resources (WDNR), Wisconsin's Petroleum Cleanup Fund Award (PECFA), and the Band have all been actively involved and expended money at this site. The region plans to continue to take advantage of state petroleum funding, filling in when necessary to perform tasks that the PECFA program cannot or will not fund and providing oversight of the PECFA contractor's work.

WDNR has contributed staff support because they are responsible for reviewing PECFA's work and approving funding. PECFA has funded about $600,000 of site work to-date. Region 5 will continue to coordinate with the other parties to make best use of the remaining money until the state fund reaches its site limit of $1,000,000. Although EPA has ultimate jurisdiction for cleanup at the site, access to the state fund allows a great deal of work to be performed with PECFA money, saving LUST trust fund money to be used for augmenting the state effort and eventually meeting federal cleanup goals. The Band has also spent money to pay for site characterization field work, and for a USGS hydrologic study of surface water/ground water flow and interaction in the site area.

Summary of Site Progress and Current Condition

Both EPA Region 5 and the PECFA contractor installed groundwater monitoring wells and collected samples. EPA and the Band collected private well samples. The region and PECFA contractor performed soil boring and sampling throughout the source soil area, and a High Resolution Site Characterization effort has been undertaken by all parties to identify the mass and volume of contaminants in the soil and groundwater at and downgradient of the site. Region 5 is working with all parties for agreement that there is sufficient information to design a source control interim measure. Only two options have been identified as potentially feasible and acceptable to the various parties: excavation with off-site disposal and air sparge/soil vapor extraction.

Data collected to-date shows an area of smear-zone contamination near and below the shallow water table east of the former tank pit location. This zone of highly contaminated soil and groundwater is the source of a plume which is moving toward Haskell Lake, just south of the site. Historical pumping of wells in the immediate area are believed to have pulled the contamination deep in the unconsolidated aquifer. Plume geometry needs to be determined near and below Haskell Lake and the source area needs to be addressed to halt the movement of contaminants into the aquifer.

Contaminants of Concern identified in soil and groundwater sampling include the petroleum VOCs benzene, ethylbenzene, toluene and xylene compounds, lead, and the lead scavengers 1,2-dichloroethane and ethylene dibromide. Levels of contaminants in groundwater and soil far exceed MCLs and applicable screening levels for multiple chemical compounds.

Remedial Strategy, Goal and Exit Plan

Region 5's near-term goal is to implement a source control measure in coordination with the Band, WDNR, and PECFA to address the highly contaminated smear zone. Region 5 plans to task its contractor with performing a feasibility evaluation of excavation and off-site disposal of source smear zone soil and water as an interim measure. The Band has stated that excavation is their preferred method due to its ability to quickly address mass removal. When the evaluation is complete, assuming that excavation is feasible the region will work with the Band, the Wisconsin Department of Natural Resources, and the PECFA contractor to determine who will fund and perform the tasks necessary to implement and evaluate the success of the excavation interim measure. If excavation is not feasible, Region 5 will work with the other parties to design and implement an air sparge/soil vapor extraction system. This is the only other method which is acceptable to the Band and is also not prohibitively expensive.

Summary of Current Funding Request

The region requests the ability to spend additional funds to continue sampling and other data collection in support of CSM development, design an interim measure for source control, revise three-dimensional imagery, provide oversight of the PECFA contractor's field and administrative work, and otherwise fill data gaps which cannot be funded through PECFA.

Using currently allocated funds, the region's contractor will complete a feasibility study for a source control measure, revise the three-dimensional imaging program as part of a complete conceptual model, and perform QA/QC oversight of the PECFA contractor. Completion of these tasks is expected by fall of 2017.

As part of further site investigation, the PECFA contractor is expected to install the next set of monitoring wells and sample the wells. However, additional wells may be needed to meet the Band and region's needs which will not be authorized for funding through PECFA. We will

work together with the Band to determine what, if any, additional wells are necessary and prioritize this work along with the other necessary investigation tasks.

Following the completion of the three-dimensional imagery for the site and review of site data, Region 5 and the tribe recommended additional well locations to the state and PECFA contractor. We are awaiting a response, but expect the state fund to pay for installation and sampling a subset of the next set of wells, with the goal of completing the well network from the site area to the lakeshore. Specific details are still being negotiated between Region 5, the Band, PECFA, and WDNR. However, Region 5 expects to sample select wells for QA/QC of the state fund work, design an interim measure for the source area with the understanding that implementation will be funded by PECFA, complete a lakebed investigation to determine if the plume is affecting lake receptors and/or resources, and revise the three-dimensional images of the plume as additional data becomes available

In addition, the information the Band has funded through the US Geological Survey to collect lake and stream data as part of a hydrologic study of surface water in the area will be combined with data collection funded by the region and the state to create a more complete site CSM.

The cost of EPA Region 5's proposed work is outlined below and estimated based upon Region 5's recent experience with similar expenditures at this site and other sites in the region.

Authorization and Expenditures to Date	**Cost**
Site Assessment, Tech Memos, and 3D Imagery to Support CSM	$196,000
Feasibility Study for a source control measure	$52,000
Subtotal	**$248,000**
New Authorization Request	
Design of the Interim Measure for Source Control (implementation assumed to be funded by PECFA)	$50,000
Sampling of monitoring wells	$45,000
Lakebed investigation	$140,000
Revision of 3D imagery	$12,000
Subtotal	**$247,000**
Total Authorized Spending Limit	**$495,000**

Mitigating Risk and Reducing Uncertainty

Region 5 believes that proper site characterization, in conjunction with an interim measure for source soil and groundwater removal and/or treatment, will speed the full cleanup and ultimate closure of the site. To-date, no human health or ecological receptor exposures have been found, but the full geometry of the plume is not known and groundwater flow is toward Haskell Lake and tribal and non-tribal homes along the lakeshore. Source control should stop the generation of the plume at the site while we and our partners complete the site investigation and CSM. Once the CSM is complete, we can assess the need for a final remedy.

LUST Trust Fund Eligibility

In previous action memos, the region used prompt action due to the levels of contamination found and the proximity to residences, private wells and surface water. Since that time, Region 5 required the owners, William and Linda Kozak, to submit information for an Ability-to-Pay determination. The Kozaks provided the necessary financial records and associated paperwork and were found to have an inability to pay and thus the site became eligible for funding under the LUST Trust Fund pursuant to the Solid Waste Disposal Act 9003(h)(2)(A).

> *(A) No person can be found, within 90 days or such period as may be necessary to protect human health and the environment, who is-*
> *(i) An owner or operator of the tank concerned*
> *(ii) Subject to such corrective action regulations, and*
> *(iii) Capable of carrying out such corrective action properly.*

High Priority

As discussed in previous funding memos, Region 5 considers this site to be a relatively high priority due to the elevated soil and groundwater contaminant levels and the potential risk to private wells and Haskell Lake from the groundwater plume. The site is also the highest priority site within reservation boundaries for the Lac du Flambeau (LDF) Band of Lake Superior Chippewa Indians because of the presence of tribal homes with private wells along the lake shore and the potential for the highly contaminated groundwater to affect ecological receptors.

Tribal Government and Affected Community Perspectives

The LDF Tribal Natural Resources Department is involved in every aspect of site work, acting as an equal partner in planning and reviewing all site activities. Region 5 has been and will continue to work closely with the Band as the project moves forward. This is especially important considering WDNR involvement and the need to coordinate review and comment on documents, sampling activities, and ultimately reaching consensus on remedial actions.

Policy Implications

There are no known policy implications regarding the approval of this action.

Request for Approval

This memorandum requests your approval for Region 5 to increase the total of LUST Trust Fund money by $247,000, from $248,000 to $495,000 for the assessment and corrective action activities at the Tower Standard Gas Station/Haskell Lake Petroleum Contamination Site, Lac du Flambeau Reservation, Wisconsin. If funding beyond this amount is required, we will request approval to expend additional funds. If you have any questions, please contact Sherry Kamke, Chief, Underground Storage Tanks Section, LCD, EPA Region 5 at (312) 353-5794, or Bob Egan, the Contract Officer Representative, at (312) 886-6212 or by e-mail at egan.robert@epa.gov.

Approve: _____ 6/29/2017

Barry Breen, Acting Assistant Administrator, OLEM — Date

Disapprove: _____ _____

Barry Breen, Acting Assistant Administrator, OLEM — Date

Concur: _____ 6/23/2017

Carolyn Hoskinson, Director, OUST — Date

Attachments:

August 8, 2014 memorandum
August 14, 2015 memorandum

cc: Will Anderson, Office of Underground Storage Tanks
Judy Barrows, Office of Underground Storage Tanks
Christine Edwards, Office of Underground Storage Tanks
Sherry Kamke, Underground Storage Tanks Section, Region 5
Thomas Kenney, Senior Attorney, Region 5