6560-50-P
ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 300

[EPA-HQ-SFUND-1987-0002; FRL-9994-04-Region 7]

National Oil and Hazardous Substances Pollution Contingency Plan; National Priorities List: Partial Deletion of the Shaw Avenue Dump Superfund Site

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule; notice of intent.

SUMMARY: The Environmental Protection Agency (EPA) Region 7 is issuing a Notice of Intent to Delete the Operable Unit 1 – Chemical Fill and Contaminated Soil (OU1) of the Shaw Avenue Dump Superfund Site (Site) located in Charles City, Floyd County, Iowa, from the National Priorities List, or NPL, and requests public comments on this proposed action. The NPL, promulgated pursuant to section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, is an appendix of the National Oil and Hazardous Substances Pollution Contingency Plan, or NCP. The EPA and the state of Iowa, through the Iowa Department of Natural Resources, have determined that all appropriate response actions at these identified parcels under CERCLA, other than operations and maintenance and five-year reviews, have been completed.
However, this deletion does not preclude future actions under Superfund.

This partial deletion pertains to the Operable Unit 1 – Chemical Fill and Contaminated Soil. The Operable Unit 2 – Groundwater will remain on the NPL and is not being considered for deletion as part of this action.

DATES: Comments must be received on or before [insert date 30 days after date of publication in the Federal Register].

ADDRESSES: You may send comments, identified by Docket ID No. EPA-HQ-SFUND-1987-0002, by one of the following methods: https://www.regulations.gov follow the online instructions for submitting comments; email hagenmaier.elizabeth@epa.gov or houston.pamela@epa.gov; or by mail to Environmental Protection Agency Region 7, 11201 Renner Boulevard, Lenexa, KS 66219 Attention: Elizabeth Hagenmaier, Superfund and Emergency Management Division (SEMD) or Pam Houston, Office of Intergovernmental Affairs/Community Section (OIG). Publicly available docket materials are available either electronically at https://www.regulations.gov or in hard copy at: EPA Region 7 Records Center at 11201 Renner Boulevard, Lenexa, Kansas 66219, between 8:00 a.m. and 4:00 p.m. Monday-Friday, excluding Federal holidays.

Instructions: All submissions received must include the Docket ID No. for this rulemaking. Comments received will be
posted without change to https://www.regulations.gov/, including any personal information provided. For detailed instructions on sending comments and additional information on the rulemaking process, see the “Written Comments” heading of the SUPPLEMENTARY INFORMATION section of this document.

FOR FURTHER INFORMATION CONTACT: Elizabeth Hagenmaier, Remedial Project Manager, U.S. Environmental Protection Agency Region 7, SEMD/LMSE, 11201 Renner Boulevard, Lenexa, KS 66219, telephone (913) 551-7939, email: hagenmaier.elizabeth@epa.gov.

SUPPLEMENTARY INFORMATION: Throughout this document “we,” “us,” or “our” refer to the EPA. This section provides additional information by addressing the following:

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I. Written Comments

Submit your comments, identified by Docket ID No. EPA-HQ-SFUND-2003-0010, at https://www.regulations.gov. Alternatively, you may submit comments by email or mail to the persons and addresses listed in the ADDRESSES section of this document. Once submitted, comments cannot be edited or removed from Regulations.gov. The EPA may publish any comment received to its public docket. Do not submit electronically any information you
consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit https://www.epa.gov/dockets/commenting-epa-dockets.

II. Introduction

The EPA Region 7 announces its intent to delete the OU1 - Chemical Fill and Contaminated Soil of the Shaw Avenue Dump Superfund Site (Site), from the National Priorities List, or NPL, and requests public comment on this proposed action. The NPL constitutes appendix B of 40 CFR part 300, which is the National Oil and Hazardous Substances Pollution Contingency Plan, or NCP, and which the EPA promulgated pursuant to section 105 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, as amended. The EPA maintains the NPL as those sites that appear to present a significant risk to public health, welfare, or the environment.
Sites on the NPL may be the subject of remedial actions financed by the Hazardous Substance Superfund (Fund). This partial deletion of the Shaw Avenue Dump Superfund Site is proposed in accordance with 40 CFR 300.425(e) and is consistent with the Notice of Policy Change: Partial Deletion of Sites Listed on the National Priorities List. 60 FR 55466 (Nov. 1, 1995). As described in 300.425(e)(3) of the NCP, a portion of a site deleted from the NPL remains eligible for Fund-financed remedial action if future conditions warrant such actions.

The EPA will accept comments on the proposal to partially delete this site for thirty (30) days after publication of this document in the Federal Register.

Section III of this document explains the criteria for deleting sites from the NPL. Section IV discusses procedures that the EPA is using for this action. Section V discusses the OU1 - Chemical Fill and Contaminated Soil of the Shaw Avenue Dump Superfund Site and demonstrates how it meets the deletion criteria.

III. NPL Deletion Criteria

The NCP establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425(e), sites may be deleted from the NPL where no further response is appropriate. In making such a determination pursuant to 40 CFR
300.425(e), the EPA will consider, in consultation with the state, whether any of the following criteria have been met:

i. Responsible parties or other persons have implemented all appropriate response actions required;

ii. All appropriate Fund-financed response under CERCLA has been implemented, and no further response action by responsible parties is appropriate; or

iii. The remedial investigation has shown that the release poses no significant threat to public health or the environment and, therefore, the taking of remedial measures is not appropriate.

Pursuant to CERCLA section 121(c) and the NCP, the EPA conducts five-year reviews to ensure the continued protectiveness of remedial actions where hazardous substances, pollutants, or contaminants remain at a site above levels that allow for unlimited use and unrestricted exposure. The EPA conducts such five-year reviews even if a site is deleted from the NPL. The EPA may initiate further action to ensure continued protectiveness at a deleted site if new information becomes available that indicates it is appropriate. Whenever there is a significant release from a site deleted from the NPL, the deleted site may be restored to the NPL without application of the hazard ranking system.

IV. Deletion Procedures
The following procedures apply to deletion of the OU1 - Chemical Fill and Contaminated Soil of the Site:

(1) The EPA consulted with the state Iowa, through the Iowa Department of Natural Resources, before developing this Notice of Intent for Partial Deletion.

(2) The EPA has provided the state thirty working days for review of this document prior to publication of it today.

(3) In accordance with the criteria discussed above, the EPA has determined that no further response is appropriate.

(4) The state of Iowa, through the Iowa Department of Natural Resources, has concurred with the deletion of the OU1 - Chemical Fill and Contaminated Soil of the Shaw Avenue Dump Superfund Site, from the NPL.

(5) Concurrently, with the publication of this Notice of Intent for Partial Deletion in the Federal Register, a notice is being published in a major local newspaper, the Charles City Press. The newspaper announces the 30-day public comment period concerning the Notice of Intent for Partial Deletion of the Site from the NPL.

(6) The EPA placed copies of documents supporting the proposed partial deletion in the deletion docket and made these items available for public inspection and copying at the Site information repositories identified above.
If comments are received within the 30-day comment period on this document, the EPA will evaluate and respond appropriately to the comments before making a final decision to delete the OU1 - Chemical Fill and Contaminated Soil of the Shaw Avenue Dump Superfund Site. If necessary, the EPA will prepare a Responsiveness Summary to address any significant public comments received. After the public comment period, if the EPA determines it is still appropriate to delete the OU1 - Chemical Fill and Contaminated Soil, the Regional Administrator will publish a final Notice of Partial Deletion in the Federal Register. Public notices, public submissions, and copies of the Responsiveness Summary, if prepared, will be made available to interested parties and included in the site information repositories listed above.

Deletion of a portion of a site from the NPL does not itself create, alter, or revoke any individual’s rights or obligations. Deletion of a portion of a site from the NPL does not in any way alter EPA’s right to take enforcement actions, as appropriate. The NPL is designed primarily for informational purposes and to assist EPA management. Section 300.425(e)(3) of the NCP states that the deletion of a site from the NPL does not preclude eligibility for future response actions, should future conditions warrant such actions.
V. Basis for Intended Partial Site Deletion

The following information provides EPA’s rationale for deleting the OU1 – Chemical Fill and Contaminated Soil of the Shaw Avenue Dump Superfund Site from the NPL.

Site Background and History

The Shaw Avenue Dump Superfund Site (Site), CERCLIS ID # IAD980630560 is located on the southeastern edge of Charles City, Floyd County, Iowa, approximately 600 feet from the Cedar River, near the intersection of Shaw Avenue and Clark Street. The Site is owned by Charles City, occupies approximately 24 acres of the Cedar River 100-year floodplain, and was operated as a municipal disposal site from prior to 1949 to 1964.

Charles City purchased the northern area of the Site in 1899 and continued to acquire adjoining property until 1964. The Site had been used for an unknown amount of time prior to 1949 as a landfill/dump and continued to be used as such through 1964.

Two areas in the northern half of the Site were used from 1949 to 1953 to dispose of an estimated 14,000 to 28,000 cubic feet of arsenic-contaminated solid waste generated by Salsbury Laboratories, Inc. (later Solvay Animal Health, Inc.) from the chemical batch processing of arsenic compounds used in the
production of animal pharmaceuticals. Salsbury Laboratories, Inc., also generated liquid waste during the period between 1949 and 1964 which it discharged to the municipal wastewater treatment plant. Charles City then disposed of the generated sludges in the Site’s northern waste cells and in an undefined area on the southern portion of the Site. An estimated 10,000 tons of this sludge was disposed between 1949 and 1964. Remedial Investigation characterization of the disposal cells containing Salsbury wastes indicate the presence of significant concentrations of arsenic, cadmium, chromium, lead and volatile and semi-volatile organic compounds, or VOCs and SVOCs.

The Site was identified as a potentially hazardous waste site by the Iowa Department of Natural Resources, or IDNR in 1977. IDNR studied the Site and documented arsenic contamination in surface water in an abandoned gravel pit near the Site, issuing several reports between 1977 and 1981. No removal actions have been implemented at the Site. A preliminary assessment was conducted in 1984.

Remedial Investigation and Feasibility Study (RI/FS)

The Site was proposed for the NPL on September 18, 1985 (50 FR 37950) and listed as final on the NPL on July 22, 1987 (52 FR 27620). A remedial investigation, or RI, addressing soil contamination was initiated in 1988 and completed in 1990. A second RI addressing groundwater was initiated in 1992 and
completed in 1999. In 1997, separate from the Record of Decision, or ROD, or consent order requirements discussed in the Selected Remedy section below, Charles City closed/abandoned two private residential wells located near the Site and provided these residences with connections to municipal water.

Forty individual compounds, in addition to a group of similar polyaromatic hydrocarbons, were identified as contaminants of potential concern in the soil, surface water, groundwater, and chemical fill at the Site. Major contaminants of concern include arsenic and cadmium. The chemical fill and the adjacent contaminated soil were considered the source of contamination for the groundwater. Using the characterization data collected during the 1990 RI, a human health baseline risk assessment was completed in 1991. Toxicity information for all chemicals of concern were evaluated and exposures were assumed based on reasonable assumptions about current and future uses of the Site. A Risk Assessment Addendum was completed in 1998 in support of the OU2 ROD. Human health risks were posed by a future residential use of the Site, including ingestion, inhalation, and dermal contact from surface water, ground water, and soil. Based on the cancer risk levels and hazard indices presented in the risk assessment addendum and the institutional controls subsequently implemented prohibiting the location of a residence or installation of a groundwater well, no unacceptable
risk to human health or the environment from exposure to contaminated groundwater exists at the Shaw Avenue Dump site, assuming no on-site well is installed for residential use.

Ecological risks were also evaluated as part of the risk assessment. In the 1991 human health baseline risk assessment, it was determined that there were no critical habitats or endangered species affected by the contamination at the Site and the impact on the Cedar River was minimal. It was identified in the 2015 Five-Year Review, or FYR, that ecological exposures to aquatic receptors in the Cedar River were not adequately characterized in the 1991 human health baseline risk assessment. Data was collected to support a 2017 FYR Addendum that provided the necessary characterization to assess the protectiveness of the remedy for the FYR.

The Site consists of two operable units, each having a separate Record of Decision, or ROD. OU1 addresses the chemical fill and contaminated soil at the Site, and OU2 addresses groundwater contamination.

Selected Remedy

The OU1 ROD was signed on September 26, 1991. Remedy selection was based on the following OU1 ROD Remedial Action Objectives:

- Eliminate or reduce to an acceptable level the risks posed by exposure to the contaminated soil and chemical fill.
• Eliminate or reduce the potential migration of contaminants into groundwater.

Major components of the selected remedy, as described by the ROD, are:

• Fixation/stabilization of chemical fill and contaminated soil;

• Installation of a low-permeability cap to protect the fixated/stabilized material, consisting of either a two-foot clay layer covered by a two-foot fill and vegetated layers, or an eight-inch thick reinforced concrete slab placed over the stabilized waste;

• Implementation of deed restrictions placed upon the landfill property, which would prohibit the construction, installation, maintenance, or use of any wells on the Site for the purposes of extracting water for human drinking, bathing, or swimming purposes, or for the irrigation of food or feed crops, as well as any construction or intrusive activities at the Site;

• Installation of a fence and markers around the capped fill;

• Removal of an underground gasoline tank associated with the Charles City maintenance facility; and

• Groundwater monitoring during and after implementation of the fixation/stabilization remedy to determine the
The ROD recognized that the full effectiveness of the fixation/stabilization technology employed by the selected remedy would not be known until treatability studies were conducted, and that the possibility existed that the selected technology might not achieve remediation objectives. For this possibility, the ROD selected excavation and off-site removal as the contingency remedy. If needed, the decision to change the remedy from fixation/stabilization to excavation/removal would be explained in an Explanation of Significant Differences, or ESD.

The EPA entered into a Consent Decree on May 26, 1992, with Solvay Animal Health, Inc., and Charles City, Iowa.

Treatability studies yielded unacceptable results, and therefore, an ESD was signed on March 24, 1992, which notified the public of the decision to implement the contingency remedy of excavation and off-site disposal. The ESD identified that “the only difference from the contingency remedy described in the ROD is that prior to disposal of the chemical fill and contaminated soil at the offsite landfill, the contaminated material will be stabilized/fixated to the best practicable level if the contaminated material were to fail the Toxicity Characteristic Leaching Procedure test.”
The major components of the contingency remedy, as described by the ESD, are:

- Excavation of chemical fill and waste materials exceeding the following levels, or performance standards: arsenic at 50 parts per million, or ppm and cadmium at 20 ppm;
- Horizontal excavation to extend a minimum of two feet beyond the limit of the chemical fill, subject to modification based upon results of soil sampling conducted in February 1992;
- Confirmation sampling conducted at 14-foot intervals along the perimeter of the excavation;
- Verification testing to assure that the performance standard is met;
- Excavation backfilled with clean fill placed in 12-inch lifts, compacted to a minimum of 90% standard Proctor density, and the upper six inches to be backfilled with clean topsoil over which a vegetated cover will be placed; and
- Excavation and removal of an underground gasoline tank pursuant to Underground Storage Tank regulations.
Requirements for establishing institutional controls, as described in the OU1 ROD remained. The ESD identifies contaminants of potential concern for the chemical fill, surface soil, and subsurface soil.

Response Actions

The OU1 remedial design was approved by the EPA in March 1992, and remedial action, or RA, fieldwork activities were completed on May 15, 1992, when demobilization from the Site occurred. The remedial design and construction of the RA were conducted in accordance with the statement of work provided by the Consent Decree. Implementation of the RA is reported by the Conestoga-Rovers & Associates-authored Remedial Action Report dated October 1993.

Excavation is reported to have extended vertically from the ground surface to the top of bedrock. Excavation depths ranged from approximately 14 feet below ground surface, or bgs, at the excavation’s northern extent to about six feet bgs at its southern extent.

A significant portion of the excavation is depicted as being approximately six to eight feet bgs. Field determinations of the extent of chemical fill are reported to have been made based upon its distinctive visual characteristics. Stockpiled topsoil was later characterized as contaminated soil and managed as such, due to having produced a yellowish leachate after
precipitation events, which yielded a result of 142 ppm arsenic. The estimated total volume of excavated chemical fill and contaminated soil, based upon excavation cross-section surveys, is 2,220 cubic yards.

Confirmation and verification sampling were conducted at approximate 14-foot intervals along the perimeter of the excavation, as specified in the RA Work Plan, except that discrete samples were used for confirmation analysis as opposed to composite samples. Three discrete samples were collected along the sidewall of the excavation from depths of one-third and two-thirds of the sidewall’s height, and at the excavation’s base. Each discrete sample was split, and if the analysis confirmed that the performance standard was met, the remains of the split sample were prepared and sent to a different lab for confirmation analysis. Additional excavation was conducted when verification samples did not meet the performance standard.

The EPA Preliminary Close Out Report, documenting construction completion for the Site, was signed on March 30, 2001. The PCOR states that all physical construction associated with the remedy has been completed in accordance with the RODs dated September 28, 2000, and September 26, 1991; the ESD dated March 20, 1992; and the Consent Decree dated May 26, 1992.
Operation and Maintenance

Operation and maintenance of the implemented remedy is occurring as intended. Inspection of the monitoring well network, and the Site in general, is conducted on an annual basis. The inspections address monitoring well access, external/internal conditions of the ground cover at the former chemical fill area, and flood damage, if any. Maintenance recommendations are also identified, as needed. The Site completed the criteria for the Sitewide Ready for Anticipated Use Government Performance and Results Act Measure and EPA Region 7 signed the Superfund Property Reuse Evaluation Checklist for Reporting on July 7, 2006.

The ROD requires implementation of institutional controls in the form of deed restrictions to be placed upon the landfill property. A restrictive covenant was recorded on February 21, 2001, with the Floyd County Recorder of Deeds that satisfies the institutional control provision of the ROD and Consent Decree. Currently, the following individual institutional controls exist at the Site:

- An existing groundwater restrictive covenant in accordance with the 1992 Consent Decree;
- Regulatory restrictions against residential construction because the Site is within the 100-year flood plain of the Cedar River;
• Restrictions on groundwater use because it is within the Charles City limits. City ordinance (City of Charles City Restriction on Groundwater Use, Article 90.03) precludes the use of groundwater for consumption, stating “all residences and business establishments within the city limits using water for human habitation or occupancy shall connect to the public water system.” The ordinance also stipulates that “No new wells shall be drilled and no repairs requiring permits shall be made to a well within an area that is contaminated or that may become contaminated due to contamination in the vicinity of the well site;”

• Regulatory restrictions against changing site use because the Site is included in the registry of hazardous waste or hazardous substance disposal sites under the Iowa Environmental Act. Any use change would require approval from the State of Iowa.

The existing Site-specific institutional controls in combination provide ample limitations of land and groundwater use at the Site. The EPA will continue to review the need for an environmental covenant during the Five-Year Review process.

Five-Year Review

Statutory five-year reviews are required at the Shaw Avenue Dump Superfund Site since hazardous substances remain at the Site above levels that allow for unlimited use and unrestricted
exposure. Five-year reviews were completed for the Site in 2005, 2010, and 2015. The 2015 Five-Year Review, or FYR, identified issues and recommendations including the change in toxicity values for polyaromatic hydrocarbons, benzene, xylene, toluene, and 2-nitroaniline and deferred protectiveness until this information could be obtained. The 2015 FYR also identified the potential change in exposure assumptions in the Cedar River and an off-site recreational pond. Required sampling and analysis was completed by the responsible parties to address issues and recommendations from the 2015 FYR, and to support the required FYR addendum.

The 2015 FYR was amended by the EPA under a FYR Addendum in 2017 and found that the remedies at OU1 and OU2 were protective of human health and the environment. The sitewide protectiveness statement is that the sitewide remedy is protective of human health and the environment. The next Five-Year Review report will be completed by August 21, 2020.

Community Involvement

Throughout the process from development of the remedy to completion of the remedial activities, all phases of the Site remediation have been an open process with input from Federal and state regulators, Charles City, and members of the public. Over the life of the project, there have been public comment periods and public meetings to ensure that the local residents
were able to contribute to the process and express their opinions.

Public involvement has been included throughout the remediation process at this Site and has been memorialized in operation documents including the Consent Decree, proposed plans, and EPA Five-Year Reviews. Public comments are also solicited during this partial deletion with a notice in the local newspaper, the Charles City Press.

**Determination that the Criteria for Deletion have been Met**

In accordance with 40 CFR 300.425(e), the EPA Region 7 finds that the OU1 – Chemical Fill and Contaminated Soil of the Shaw Avenue Dump Superfund Site (the subject of this deletion) meets the substantive criteria for deletion from the NPL. The EPA has consulted with and has the concurrence of the State of Iowa. All responsible parties or other persons have implemented all appropriate response actions required. All appropriate Fund-financed response under CERCLA was implemented, and no further response action by responsible parties is appropriate.

The implemented remedy at the OU1 – Chemical Fill and Contaminated Soil has achieved the degree of cleanup specified in the ROD for all pathways of exposure. All selected remedial action objectives and associated cleanup levels are consistent with agency policy and guidance. No further Superfund response is needed to protect human health and the environment.
List of Subjects in 40 CFR Part 300

Environmental protection, Air pollution control, Chemicals, Hazardous substances, Hazardous waste, Intergovernmental relations, Penalties, Reporting and recordkeeping requirements, Superfund, Water pollution control, Water supply.

