



Cleanup Plan Removes Pollution From Residential Area

St. Regis Paper Co. Superfund Site

Leech Lake Reservation, Cass County, Minnesota March 2016

Share your opinion

EPA encourages you to comment on this proposed plan. The Agency will only select a final cleanup plan after reviewing comments received during the public comment period, which runs from **March 28 - May 27, 2016**.

There are several ways to submit comments:

- Orally or in writing at the public meeting (*see below*).
- Fill out and mail the enclosed comment sheet to Heriberto León.
- Send an email to Heriberto León at leon.heriberto@epa.gov.
- Fax your comments to Heriberto León at 312-697-2754.

Attend a public meeting

There will be public meeting to discuss the cleanup:

Saturday, April 9
2:00 p.m.

Cass Lake-Bena Elementary School
15 4th St. NW
Cass Lake

After a brief presentation, EPA officials will hold a public hearing to accept comments on the proposed cleanup plan. A court reporter will record all public comments.

(See EPA contact information on P. 3)

The U.S. Environmental Protection Agency is proposing a plan to clean up soil contamination in the residential areas at the St. Regis Paper Co. site on the Leech Lake Band of Ojibwe Reservation. EPA refers to the residential areas as “Operable Unit 7,” or OU7. To help keep track of the different cleanup areas at the wide-ranging site, sections were assigned operable unit numbers. The contaminants of concern include dioxin and polycyclic aromatic hydrocarbons, or PAHs. (*See Summary of site risks on Page 2.*)

The following steps are proposed as part of the cleanup plan:¹

- Removing contaminated soil from affected residential areas and replacing it with clean soil.
- Managing most of the removed soil at an on-site facility.
- Disposing a small amount of heavily contaminated soil at an off-site facility.
- Monitoring soil stored on-site.

EPA arrived at this recommendation after extensive study of the site and after considering a number of cleanup alternatives in consultation with Minnesota Pollution Control Agency and tribal officials. The LLBO, however, does not fully support EPA’s recommendation.

The cleanup steps described in this fact sheet represent Alternative S15-B (*see Page 3*), which is EPA’s recommended option. This cleanup option protects people and the environment, meets the applicable regulations, is cost-effective and will be effective in the long term.

Background

The St. Regis site is in Cass Lake within the boundaries of the Leech Lake Band’s reservation. The site is the location of a former Champion International Inc. facility now owned by International Paper Co. The property included a former operations area located on 125 acres south of the BNSF railroad tracks and east of Highway 371.

Creosote and other chemicals were used to treat wood, and wastewater was placed in ponds and occasionally used for irrigation. Sludge from the wood treatment process was disposed of on the eastern edge of the site and was also burned in a waste pit at the Cass Lake city dump.

In 1984, EPA placed the site on the National Priorities List, making it eligible for cleanup under EPA’s Superfund program. The site is divided into four primary sections:

- OU1 consists of the northern former facility operations area.
- OU2 is the former operations area southwest of OU1 and the location of an on-site contaminated soil vault.

¹Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, known as the Superfund law) requires the publication of a notice announcing the proposed plan. It also requires a public hearing and public comment period. This fact sheet summarizes the technically written proposed plan and other site-related environmental reports that can be viewed at the information repositories listed in the box on the back page and the EPA Region 5 office in Chicago.

- OU3 is the city dump area.
- OU7 is the residential neighborhood next to the former operations areas and the LLBO Department of Resource Management property. This is the area targeted in this proposed cleanup plan.

EPA early response actions

Several cleanup activities have been done since EPA became the lead agency for the site in 1995. In 2000, EPA issued a Five-Year Review report for the site in which the Agency raised concerns about remaining contaminant levels in site soil. In 2001, EPA sampled site soil, sediment (mud), surface water, fish and groundwater (underground water supplies) to look for contamination.

In 2003 and 2004, EPA required International Paper to collect additional samples and prepare a Human Health and Ecological Risk Assessment to find out what effects the contamination may have on people and the environment.

Between 2004 and 2006, more than 3,900 tons of contaminated soil were removed from the site on city-owned, BNSF Railway and commercial property. Clean soil was put in the locations where contaminated soil was removed. Other areas were covered or fenced to reduce exposure to the pollution.

In 2005, EPA found indoor dust samples collected from five homes were above EPA's safe levels for dioxin. EPA issued a cleanup plan that called for cleaning residence interiors, putting a 3-inch layer of clean soil and grass on yards and applying dust suppressant to unpaved roads. IP continues to periodically clean the inside of affected homes and apply the dust suppressant to the unpaved roads as required.

In 2011, IP completed a study that estimated the potential health risks for exposure to site contaminants. EPA issued a proposed cleanup plan to manage these potential health risks posed by the contaminated soil. A final cleanup plan was not issued because MPCA, LLBO and members of the public requested further soil sampling to better determine the extent of contamination.

EPA worked with the LLBO, MPCA, IP and other interested people to take additional soil samples to better determine the extent of contamination. IP conducted additional sampling in 2012 and 2013 and submitted its findings in November 2013. The additional soil

sampling confirmed EPA's original analysis on what pollutants were present and how they were distributed.

Summary of site risks

The main way people in and around the St. Regis site are exposed to potentially harmful pollutants is by direct contact with dioxin-contaminated soil in the residential areas.

The contaminants of concern include dioxin and polycyclic aromatic hydrocarbons, or PAHs. One of the groups of PAHs found at the site is expressed in scientific shorthand as benzo(a)pyrene equivalent, or B(a)PE. These contaminants are troublesome because they are persistent and present in soil at concentrations above what EPA considers safe.

Dioxin was a pollutant in the chemical pentachlorophenol used at the site in the wood-treatment process as a preservative and insecticide. Dioxin can cause skin problems. It has been shown to be very toxic in animal studies and probably causes cancer.

PAHs are a group of chemicals formed during the incomplete burning of coal, oil, gasoline, wood, garbage or any plant or animal material. They are also found in cigarette smoke, soot and creosote. Breathing such chemicals or having long periods of skin contact with mixtures that contain PAHs can cause cancer. Animal studies have shown some PAHs caused birth defects and decreased body weight.

EPA has established cleanup goals for the site. These are referred to as "preliminary remedial goals," or PRGs, and are separated into two levels. Level 1 goals are cleanup levels established by the LLBO for properties within the reservation, and Level 2-Residential goals are the cleanup levels established to deal with the site-specific risk from the chemicals of concern at the site.

Proposed cleanup alternatives

EPA considered six alternatives for cleaning up the residential surface soil at the St. Regis site, each of which was evaluated against seven of the nine criteria required by the Superfund law (*see box on Page 4*). The table on the next page gives a description of each alternative.

Alternative	Description of Alternative (PRG = preliminary remedial goals)	Estimated Cost Soil Disposal Method A	Estimated Cost Soil Disposal Method B
S10	No action.	\$0	\$0
S11	Excavate soil on properties exceeding Level 2-R PRGs.	\$12.1 million	\$8 million
S12	Excavate soil on properties exceeding Level 2-R PRGs; place a 12-inch clean soil cover on properties exceeding Level 1 PRGs.	\$14.3 million	\$10 million
S13	Excavate soil on properties currently in residential use exceeding Level 1 PRGs and place a 12-inch clean soil cover on other properties exceeding Level 1 PRGs.	\$13.6 million	\$10.3 million
S14	Excavate soil on properties not owned by IP exceeding Level 1 PRGs, and place 12-inch clean soil cover on properties owned by IP exceeding Level 1 PRGs.	\$22.5 million	\$15.4 million
S15	Excavate soil exceeding Level 1 PRGs throughout OU7 (EPA preferred option)	\$30 million	\$18.5 million

All the alternatives except for Alternative S10, the no action alternative, share some common features:

- Soil on some or all properties in the residential area will have to be dug up to the depth needed to reach the selected PRG. The sections dug up will have clean soil put back in. The portion would then be replanted.
- Each of the alternatives have two methods for managing the removed soil.
 1. For the “A” method, the contaminated dirt removed would be trucked to an off-site landfill. Before taken off-site, the soil would be tested to determine what type of approved disposal facility would be appropriate.
 2. For the “B” method, the contaminated dirt removed would be tested to determine if the soil could be stored on-site.
- All residential properties would be suitable for future residential use.
- Monitoring and control of air quality (dust) will be done during the cleanup.
- Soil samples will continue to be taken from the residential area until the soil is cleaned up in OU1 and OU2 to confirm that no recontamination is occurring.

- covered by a layer of uncontaminated fill and top soil, followed by replanting with vegetation.
- Activities in the covered portions of the residential area would be restricted to preserve the soil cover. For example, a deed notice might be filed on a covered property that notifies future owners of the contamination below the cover, and prohibits any digging below the cover unless precautions are taken.

EPA contact information

Heriberto León

Community Involvement Coordinator
312-886-6163
leon.heriberto@epa.gov

Leslie Patterson

Remedial Project Manager
312-886-4904
patterson.leslie@epa.gov

EPA Region 5 toll-free

800-621-8431, 8:30 a.m. – 4:30 p.m., weekdays

Alternatives S12, S13 and S14 also share the following features:

- In some areas, a clean soil cover will be used to cover contaminated soil instead of being dug up. The cover would be made of marker material,

(continued on next page)

EPA's recommended alternative

EPA recommends Alternative S15-B because the Agency believes this option is the best balance of the evaluation criteria.

Alternative S15-B protects people and the environment and it meets applicable rules and regulations by removing all contaminated soil in the residential area that is above the LLBO limits, replacing with clean dirt and managing the soil on-site. **A major plus for the S15 options: there will be no need for any property restrictions in the residential area under this plan.**

Alternative S15-B provides long-term and permanent protection against exposure to site-related contaminants

by removing the contaminated soil. On-site management of the excavated soil significantly reduces short-term impacts due to increased truck traffic that would be needed if the contaminated soil was taken off-site.

None of the alternatives reduces toxicity, mobility or volume of contamination through treatment because effective alternative treatment technologies or resource recovery technologies are not practical for large quantities of soil containing low levels of dioxin contamination. Alternative S15-B is implementable. Finally, Alternative S15-B meets the evaluation criteria at a much lower cost than alternatives that dispose of soil off-site.

Explanation of evaluation criteria

EPA compares each cleanup option or alternative with these nine criteria established by federal law:

- 1. Overall protection of human health and the environment** examines whether an option protects living things. This standard can be met by reducing or removing pollution or by reducing exposure to it.
- 2. Compliance with applicable or relevant and appropriate requirements, or ARARs**, ensures options comply with federal, tribal, state and local laws.
- 3. Long-term effectiveness and permanence** evaluates how well an option will work in the long term, including how safely remaining contamination can be managed.
- 4. Reduction of toxicity, mobility or volume through treatment** determines how well the option reduces the toxicity (the chemical makeup of a contaminant that makes it dangerous), movement and amount of pollution.
- 5. Short-term effectiveness** compares how quickly an option can help the situation and how much risk exists while cleanup is done under this option.
- 6. Implementability** evaluates how feasible the option is and whether materials and services are available in the area.
- 7. Cost** includes not only buildings, equipment, materials and labor but also the cost of maintaining the option for the life of the cleanup.
- 8. State and tribal acceptance** is whether the state environmental agency, in this case the Minnesota Pollution Control Agency, and the tribal government, the LLBO, agree or disagree with EPA's recommended alternative.
- 9. Community acceptance** considers the opinions of nearby residents and other stakeholders about the proposed cleanup plan. EPA evaluates this standard after a public comment period.

St. Regis Superfund Site – Comment Sheet

Fold on dashed lines, seal, stamp, and mail

Name _____
Address _____
City _____
State _____ Zip _____

Heriberto León
Community Involvement Coordinator
U.S. EPA Region 5
Superfund Division (SI-7J)
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Chart comparing cleanup options (Soil Disposal Method A – off-site disposal)

Evaluation Criteria	Alternative S10-A	Alternative S11-A	Alternative S12-A	Alternative S13-A	Alternative S14-A	Alternative 15-A
Overall Protection of Human Health and the Environment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Compliance with ARARs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Long-Term Effectiveness and Permanence	<input type="checkbox"/>	❖	❖	❖	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Reduction of Toxicity, Mobility, or Volume through Treatment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Short-Term Effectiveness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Implementability	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cost	\$0	\$12.1 million	\$14.3 million	\$13.6 million	\$22.5 million	\$30 million
State Acceptance	Will be evaluated after the comment period.					
Community Acceptance	Will be evaluated after the comment period.					

■ – Meets criterion □ – Does not meet criterion ❖ – Partially meets criterion N/A – Not applicable

Chart comparing cleanup options (Soil Disposal Method B – on-site disposal)

Evaluation Criteria	Alternative S10-B	Alternative S11-B	Alternative S12-B	Alternative S13-B	Alternative S14-B	Alternative S15-B**
Overall Protection of Human Health and the Environment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Compliance with ARARs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Long-Term Effectiveness and Permanence	<input type="checkbox"/>	❖	❖	❖	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Reduction of Toxicity, Mobility, or Volume through Treatment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Short-Term Effectiveness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Implementability	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Cost	\$0	\$8 million	\$10 million	\$10.3 million	\$15.4 million	\$18.5 million
State Acceptance	Will be evaluated after the comment period.					
Community Acceptance	Will be evaluated after the comment period.					

■ – Meets criterion □ – Does not meet criterion ❖ – Partially meets criterion N/A – Not applicable

** EPA’s preferred cleanup alternative

Next steps

Before it makes its decision final, EPA, in consultation with both the LLBO and MPCA, will review comments received during the public comment period and at the public meeting. Based on new information presented in the comments, EPA may modify its recommended alternative or choose another.

EPA encourages you to review and comment on the proposed cleanup plan. Much more detail on the cleanup options is available in the Proposed Plan and other official documents on file at the information repositories (*see box, right*) or EPA's website at www.epa.gov/superfund/st-regis-paper.

EPA will respond to the comments in a document called a "Responsiveness Summary." This will be part of another document called the "Record of Decision," or ROD, that describes the final cleanup plan. The Agency will announce the selected cleanup plan in a local newspaper and will place a copy in the information repositories and post it on EPA's website.

Information repositories


To find more detailed information about the site and to view technical documents, visit one of the information repositories below.

Leech Lake Band of Ojibwe
Division of Resource Management
6530 Highway 2 NW
Cass Lake

Cass Lake City Clerk
332 Second St. NW
Cass Lake

Cass Lake Library
223 Cedar Ave.
Cass Lake

ST. REGIS PAPER CO. SITE: EPA Proposes Soil Cleanup Plan

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